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**PROJECT #24.012**

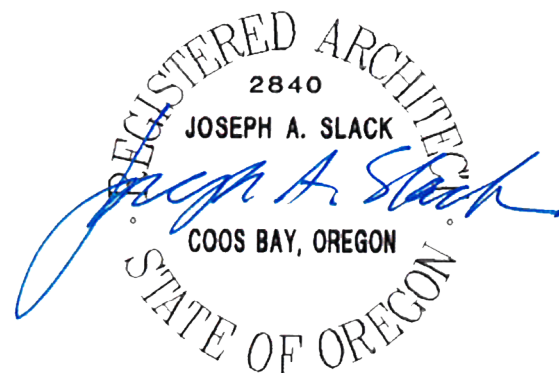
**PROJECT MANUAL**

**FOR**

**CONCOURSE CAPITAL  
IMPROVEMENT PROJECT**

**FOR**

**COOS COUNTY AIRPORT DISTRICT**



**FEBRUARY 2025**

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**SECTION 00-0101  
PROJECT TITLE PAGE**

**PROJECT MANUAL  
FOR**

**COOS COUNTY AIRPORT DISTRICT  
CONCOURSE CAPITAL IMPROVEMENT PROJECT**

**1100 AIRPORT LANE, NORTH BEND, OR 97459**

**FEBRUARY 2025**

**PROJECT 24.012**

**HGE ARCHITECTS, INC.  
333 SOUTH 4TH STREET  
COOS BAY, OREGON 97420  
(541) 269-1166**

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ADVERTISEMENT FOR BID**

Notice is hereby given that sealed bids for Coos County Airport District **Concourse Capital Improvement Project**, will be received by the Airport District until the bid closing time of 2:00 P.M. Pacific Time, Thursday, March 20, 2025. Bids shall be mailed or hand delivered to the Coos County Airport District Office, Attn: Rodger Craddock, Executive Director, 1100 Airport Lane, North Bend, Oregon 97459. Bids can also be emailed to: [rodger@flyoth.com](mailto:rodger@flyoth.com) subject: BID for Coos County Airport District - Concourse Capital Improvement Project. The bid opening shall be conducted in the Coos County Airport District Office immediately following the bid closing time, at which time the bids will be publicly opened and read aloud.

Work on this Contract consists of converting the existing Escalator Enclosure from an open-air passageway to an enclosed conditioned corridor connecting the lower level tarmac area to the Terminal Building. Wind breaks will be added at the tarmac level. Construction consists of structural steel, light gauge metal framing, metal siding panels, storefront, single ply roofing system, over metal deck. The project also includes heating and ventilation system and associated electrical.

Construction Documents for this work may be examined at the Office of the Architect, HGE Architects, Inc. 333 South 4th Street, Coos Bay, Oregon, phone: 541-269-1166, email: [general@hge1.com](mailto:general@hge1.com), and at the following locations: Coos County Airport District, various Plan Centers, and on the HGE website at <http://www.hge1.com/bidding-area/>. General Contractors are encouraged to contact HGE by phone or email and register their interest in submitting a bid and to be included on the plan holders' list.

One set of large format drawings and the project manual may be obtained by prime bidders from HGE Architects, upon refundable deposit of \$50.

**A mandatory pre-bid meeting will be held at the site on Thursday, March 6 at 11 A.M.**

Contractors shall meet at the project site at 1100 Airport Lane, North Bend, Oregon. Contractors and subcontractors are encouraged to attend. General contractors are required to attend to qualify to submit a bid.

No bid will be received or considered by the Owner unless the bid contains a statement that Bidder will comply with the provisions of ORS 279C.870 relating to Prevailing Wages.

No bids will be considered unless fully completed in the manner provided in the Instructions to Bidders upon the official bid form provided by the Architect, within the Project Manual, and accompanied by an unconditional certified check or a bid bond executed in favor of Coos County Airport District in the amount not less than ten percent (10%) of the total amount of the bid per ORS 279C.385, to be forfeited as fixed and liquidated damages should the bidder fail or neglect to enter into a contract and provide suitable bond for the faithful performance of the work in the event the contract is awarded.

Each bid will contain a statement as to whether or not the bidder is a resident bidder as defined in ORS 279A.120. No Bid will be considered unless the bidder is registered with the Construction Contractors Board as required by ORS 701.035 to 701.055.

The Owner reserves the right to reject any and all bids, and to waive any technicalities or informalities in connection therewith. No bidder may withdraw their bid after the hour set for the opening thereof until the lapse of thirty (30) days from the bid opening.

Rodger Craddock, Executive Director

Coos County Airport District

Published:

The World Newspaper

Daily Journal of Commerce

*February 25, 2025*  
Coos Bay, Oregon

*February 26, 2025*  
Portland, OR

**END OF SECTION**



**SECTION 00-2113  
INSTRUCTIONS TO BIDDERS**

**SUMMARY**

**1.01 SEE AIA DOCUMENT A701 (2018 EDITION), INSTRUCTIONS TO BIDDERS FOLLOWING THIS DOCUMENT .**

**END OF SECTION**

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 **AIA® Document A701® – 2018****Instructions to Bidders**

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

24.012 Coos County Airport District - Concourse Capital Improvement Project

Work on this project consists of converting the existing Tarmac Escalator Vestibule from an open-air passageway to an enclosed conditioned corridor, connected to the existing Terminal Building. Wind breaks will be added at the tarmac level. The existing structure is structural steel, and light gauge metal framing is to be added as part of the wall assembly. The metal siding panels are to be removed, protected and reinstalled. All storefront glazing and frames are to be replaced. A single-ply roofing system over rigid insulation is to be installed over the existing metal deck roof. The project also included a heating and ventilation system and associated electrical.

**THE OWNER:**

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

Coos County Airport District  
1100 Airport Lane  
North Bend, OR 97459  
Telephone Number: 541.756.8531

**THE ARCHITECT:**

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

HGE ARCHITECTS, Inc.  
333 South 4th Street  
Coos Bay, OR 97420  
Telephone Number: 541.269.1166  
Fax Number: 541.269.1833

**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™–2017, Owner's Instructions to the Architect, Parts A and B will be completed prior to using this document.

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## 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 Bidding Documents, as indicated below, from the issuing office designated in the advertisement or invitation to bid, 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.)*

See Section 00-1113 Advertisement for Bids.

§ 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.  
*(Indicate how, such as by email, website, host site/platform, paper copy, or other method Bidders shall submit requests for clarification and interpretation.)*

See Section 00-1113 Advertisement for Bids.

§ 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.

### § 3.3 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.

*(Indicate how, such as by email, website, host site/platform, paper copy, or other method Addenda will be transmitted.)*

Addenda will be emailed to all listed on Planholders List.

§ 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 the following bid security:

*(Insert the form and amount of bid security.)*

See Section 00-2210 Supplementary 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 AIA Document A310™, Bid Bond, unless otherwise provided in the Bidding Documents. 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. However, if no Contract has been awarded or a Bidder has not been notified of the acceptance of its Bid, a Bidder may, beginning 30 days after the opening of Bids, withdraw its Bid and request the return of its bid security.

### § 4.3 Submission of Bids

§ 4.3.1 A Bidder shall submit its Bid as indicated below:

*(Indicate how, such as by website, host site/platform, paper copy, or other method Bidders shall submit their Bid.)*

See Section 00-1113 Advertisement for Bids

§ 4.3.2 Paper copies of the Bid, the bid security, and any other documents required to be submitted with the Bid shall be enclosed in a sealed opaque envelope. The envelope shall be addressed to the party receiving the Bids and shall be identified with the Project name, the Bidder's name and address, and, if applicable, the designated portion of the Work for which the Bid is submitted. If the Bid is sent by mail, the sealed envelope shall be enclosed in a separate mailing envelope with the notation "SEALED BID ENCLOSED" on the face thereof.

§ 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 two days, 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 be attended to as follows:

*(State the terms and conditions, such as Bid rank, for returning or retaining the bid security.)*

Bid security shall be retained until the Owner has awarded the contract or rejected all Bids

## 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.

*(If Payment or Performance Bonds are to be in an amount other than 100% of the Contract Sum, indicate the dollar amount or percentage of the Contract Sum.)*

## § 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 ENUMERATION OF THE PROPOSED CONTRACT DOCUMENTS

§ 8.1 Copies of the proposed Contract Documents have been made available to the Bidder and consist of the following documents:

- .1 AIA Document A101™–2017, Standard Form of Agreement Between Owner and Contractor, unless otherwise stated below.  
*(Insert the complete AIA Document number, including year, and Document title.)*
  
- .2 AIA Document A101™–2017, Exhibit A, Insurance and Bonds, unless otherwise stated below.  
*(Insert the complete AIA Document number, including year, and Document title.)*
  
- .3 AIA Document A201™–2017, General Conditions of the Contract for Construction, unless otherwise stated below.  
*(Insert the complete AIA Document number, including year, and Document title.)*
  
- .4 Building Information Modeling Exhibit, if completed:
  
- .5 Drawings

*(Table deleted)*

Refer to Drawings dated February 2025 for complete Sheet Index.

**.6 Specifications**

Refer to Project Manual dated February 2025 Section 00-0110 for complete Table of Contents.  
*(Table deleted)*

**.7 Addenda:**

<b>Number</b>	<b>Date</b>	<b>Pages</b>
---------------	-------------	--------------

**.8 Other Exhibits:**

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

**[ N/A ]** AIA Document E204™–2017, Sustainable Projects Exhibit, dated as indicated below:  
*(Insert the date of the E204-2017.)*

N/A

**[ N/A ]** The Sustainability Plan:

<b>Title</b>	<b>Date</b>	<b>Pages</b>
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**[ ]** Supplementary and other Conditions of the Contract:

<b>Document</b>	<b>Title</b>	<b>Date</b>	<b>Pages</b>
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**.9 Other documents listed below:**

*(List here any additional documents that are intended to form part of the Proposed Contract Documents.)*

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**SECTION 00-2210  
SUPPLEMENTARY INSTRUCTIONS TO BIDDERS**

**GENERAL**

**1.01 SEE AIA DOCUMENT A701 (2018 EDITION), INSTRUCTIONS TO BIDDERS PRECEDING THIS DOCUMENT**

**1.02 RELATED DOCUMENTS**

- A. Document 00-1113 - Advertisement for Bids
- B. AIA Document A701 - 2018 INSTRUCTIONS TO BIDDERS
- C. Document 00-4100 - Bid Form

**1.03 BID SUBMISSION**

- A. Refer to Advertisement for Bids for information regarding bid closing and delivery location.
- B. Offers submitted after the above time shall be returned to the bidder unopened.
- C. Offers will be opened publicly immediately after the time for receipt of bids. Refer to Advertisement for Bids for detail regarding location.

**1.04 INQUIRIES/ADDENDA**

- A. Direct questions to Architect, telephone 1-541-269-1166, email [general@hge1.com](mailto:general@hge1.com).
- B. Addenda may be issued during the bidding period. All Addenda become part of the Contract Documents. Include resultant costs in the Bid Amount. Addendums will be prepared and distributed by the Architect.
- C. Verbal answers are not binding on any party.
- D. Clarifications requested by bidders must be in writing not less than 7 days before date set for receipt of bids. The reply will be in the form of an Addendum, a copy of which will be forwarded to known recipients.

**1.05 QUALIFICATIONS**

- A. Successful bidder must be registered with the Construction Contractor's Board as required by ORS 701.035 to 701.055.
- B. Successful bidder must demonstrate the bidder's responsibility under ORS 279C.375 (3)(b).

**1.06 SUBMISSION PROCEDURE**

- A. See Advertisement for Bids for bid submission location.
- B. Bidders shall be solely responsible for the delivery of their bids in the manner and time prescribed.
- C. Submit one copy of the executed offer on the Bid Forms provided, signed and sealed with the required security, clearly identified with bidder's name, project name and Owner's name on the outside or cover page.
  - 1. Additional submissions required:
    - a. Bid Security.
    - b. First Tier Subcontractor Disclosure Form, submitted no later than 2-hours following bid opening.
- D. An abstract summary of submitted bids will be made available to all bidders following bid opening.

## 1.07 BID FORM REQUIREMENTS

- A. This contract is for public work and is subject ORS 279C.800 to 279C.870 regarding prevailing wage rates. Bids must be fully completed in the manner provided in the Instructions to Bidders upon the official bid form provided within the Project Manual, and accompanied by a certified check or a bid bond executed in favor of the Owner in an amount not less than ten percent (10%) of the total amount of the bid per ORS 279C.385, to be forfeited as fixed and liquidated damages should the bidder fail or neglect to enter into a contract and provide suitable bond for the faithful performance of the work in the event the contract is awarded.

## MODIFICATIONS TO AIA A701

### 2.01 THE FOLLOWING SUPPLEMENTS SHALL MODIFY, CHANGE, DELETE FROM OR ADD TO THE AIA DOCUMENT A701-2018 INSTRUCTIONS TO BIDDERS. WHERE ANY ARTICLE OF THE INSTRUCTIONS TO BIDDERS IS MODIFIED OR ANY PARAGRAPH, SUBPARAGRAPH, OR CLAUSE THEREOF IS MODIFIED OR DELETED BY THESE SUPPLEMENTS, THE UNALTERED PROVISIONS OF THAT ARTICLE, PARAGRAPH, SUBPARAGRAPH, OR CLAUSE SHALL REMAIN IN EFFECT.

- A. Article 1 Definitions add to as follows:
  - 1. The word Owner is Coos County Airport District
  - 2. The word Architect is HGE Architects, Inc.
- B. Article 2 Bidders Representations Subparagraph 2.1.3, add the following: If a pre-bid walkthrough is held, contractors and sub-contractor attendees are encouraged to familiarize themselves with the bidding and contract documents prior to the walkthrough.
- C. Article 3 Bidding Documents Subparagraph 3.1.1, add the following:
  - 1. One set of drawings, specifications and contract documents may be obtained by prime bidders from HGE, INC., upon refundable deposit of amount indicated on the advertisement for bids. Deposit made will be refunded upon return of the complete documents obtained upon return thereof in good condition within seven (7) days after opening of bids. Non-bidders deposit will be refunded if documents are returned in good condition no later than bid opening date. PDF digital copies of these documents are also available to Bidders via HGE INC.'s website. General Contractors are encouraged to contact HGE INC. office by phone or email, and register their interest in submitting a bid and to be included on the architect's plan holders list. Addendums and other critical information will be forwarded to all persons on the architect's plan holders list.
- D. Article 4 Bidding Procedure Subparagraph 4.1.1, add the following:
  - 1. One copy of the Bid Form and other required bidding documents shall be submitted with all blank spaces in the form fully filled.
  - 2. PREPARATION OF FIRST-TIER SUBCONTRACTOR DISCLOSURE
    - a. Per ORS 279C.370 the Bidder shall submit First-Tier Subcontractor Disclosure Form not later than 2 hours following the Bid Closing, or the bid will be rejected.
    - b. To determine disclosure requirements, the Agency recommends that you disclose subcontract information for any subcontractor and supplier as follows:
      - 1) Determine the lowest possible contract price. That price will be the base bid amount less all alternate deductive bid amounts (exclusive of any options that can only be exercised after contract award).

- 2) Provide the required disclosure information for any first-tier subcontractor whose potential contract services (i.e., subcontractor's base bid amount plus all alternate additive bid amounts, exclusive of any options that can only be exercised after contract award) are greater than or equal to: (i) 5% of that lowest contract price, but at least \$15,000, or (ii) \$350,000 regardless of the percentage. Total all possible work for each subcontractor in making this determination (e.g., if a subcontractor will provide \$15,000 worth of services on the base bid and \$40,000 on an additive alternate, then the potential amount of subcontractor's services is \$55,000. Assuming that \$55,000 exceeds 5% of the lowest contract price, provide the disclosure for both the \$15,000 services and the \$40,000 services).
  - 3) Submission. A Bidder shall submit the disclosure form required by this rule within two (2) working hours of Bid Closing in the manner specified by the ITB.
  - 4) Responsiveness. Compliance with the disclosure and submittal requirements of ORS 279C.370 and this rule is a matter of Responsiveness. Bids which are submitted by Bid Closing, but for which the separate disclosure submittal has not been made by the specified deadline, are not Responsive and shall not be considered for Contract award.
  - 5) Substitution. Substitution of affected first-tier subcontractors shall be made only in accordance with ORS 279C.585. Agencies do not have a statutory role or duty to review, approve, or resolve disputes concerning such substitutions. However, Agencies are not precluded from making related inquiries or investigating complaints in order to enforce Contract provisions that require compliance generally with laws, rules and regulations.
  - 6) Effective Date. This rule shall apply to Public Improvement Contract first advertised on or after August 1, 2003. The above instructions have been amended to include modifications approved by the 2005 legislature.
- E. Bid security in the form of Bid Bond issued by a Bonding Company acceptable to the Owner, cashier's check or certified check in an amount equal to 10% of the total bid, made payable to the Owner shall be required.

**2.02 ARTICLE 4 BIDDING PROCEDURE SUBPARAGRAPH 4.2.3, ADD THE FOLLOWING:**

- A. All Bidders will leave their bids open for a period of thirty (30) days after the date of bid opening. No bid may be withdrawn during such period of time. Owner may accept any Bid in accordance with the Instructions to Bidders within such thirty (30) day period.

**2.03 ARTICLE 5 CONSIDERATION OF BIDS ADD SUBPARAGRAPH 5.3.3:**

- A. If the Contractor is to be awarded, Owner will provide written Notice of Intent to Award to all Bidders of the Owner's intent to award the Contract. Owner's award shall not be final until the later of the following:
  1. Five (5) days after the date of the Notice of Intent; or
  2. The Owner provides a written response to all timely-filed protests that denies the protest and affirms the award.

**2.04 ARTICLE 5 CONSIDERATION OF BIDS ADD SUBPARAGRAPH 5.3.4:**

- A. Goods or services manufactured or produced in the State of Oregon to receive preference, all factors being equal.

**2.05 ARTICLE 6 POST BID INFORMATION DELETE SUBPARAGRAPH 6.1:**

- A. Contractor's Qualification Statement.

**2.06 ARTICLE 7 PERFORMANCE BOND AND LABOR AND MATERIAL PAYMENT BOND  
SUBPARAGRAPH 7.2.2:**

- A. A Performance Bond and Labor and Material Payment Bond shall be required. Contractor shall provide separate Performance Bond and Labor and Material Payment Bond made payable to the Owner issued by a Corporation legally licensed to transact business in the State of Oregon. Corporation issuing such a bond must comply with applicable Oregon Statutes for public work and be satisfactory to the Owner. The bonds are to be in the amount of 100% of the contract sum to assure the Owner of full and prompt performance of the Contract.

**2.07 ARTICLE 8 FORM OF AGREEMENT BETWEEN OWNER AND CONTRACTOR  
SUBPARAGRAPH 8.1.1 ADD THE FOLLOWING:**

- A. The Contractor shall within ten (10) days after notification in writing of the Owner's Notice to award a Contract, execute and return to the Owner the Form of Agreement, the Bonds and all applicable Certificates of Insurance.

**END OF SECTION**





333 S. 4TH STREET  
 COOS BAY, OREGON 97420  
 P: 541.269.1166  
 www.hge1.com

# SUBSTITUTION REQUEST

(During the Bidding Phase)

Project: \_\_\_\_\_ Substitution Request Number: \_\_\_\_\_  
 \_\_\_\_\_  
 From: \_\_\_\_\_  
 To: \_\_\_\_\_ Date: \_\_\_\_\_  
 \_\_\_\_\_  
 A/E Project Number: \_\_\_\_\_  
 Re: \_\_\_\_\_ Contract For: \_\_\_\_\_

Specification Title: \_\_\_\_\_ Description: \_\_\_\_\_  
 Section: \_\_\_\_\_ Page: \_\_\_\_\_ Article/Paragraph: \_\_\_\_\_

Proposed Substitution: \_\_\_\_\_  
 Manufacturer: \_\_\_\_\_ Address: \_\_\_\_\_ Phone: \_\_\_\_\_  
 Trade Name: \_\_\_\_\_ Model No.: \_\_\_\_\_

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.

Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation.

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.

Submitted by: \_\_\_\_\_  
 Signed by: \_\_\_\_\_  
 Firm: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Telephone: \_\_\_\_\_

**A/E's REVIEW AND ACTION**

- Substitution approved - Make submittals in accordance with AIA Form 701-2018 Instructions to Bidders, Paragraph 3.3 Substitutions.
- Substitution approved as noted - Make submittals in accordance with AIA Form 701-2018 Instructions to Bidders, Paragraph 3.3 Substitutions.
- Substitution rejected - Use specified materials.
- Substitution Request received too late - Use specified materials.

Signed by: \_\_\_\_\_ Date: \_\_\_\_\_

**Supporting Data Attached:**

- Drawings     Product Data     Samples     Tests     Reports     \_\_\_\_\_

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**SECTION 00-4100  
BID FORM**

**THE PROJECT AND THE PARTIES**

**1.01 TO:**

Owner: **COOS COUNTY AIRPORT DISTRICT**

**1.02 FOR: COOS COUNTY AIRPORT DISTRICT - CONCOURSE CAPITAL IMPROVEMENT PROJECT**

**PROJECT LOCATION: SOUTHWESTERN OREGON REGIONAL AIRPORT, 1100 AIRPORT LANE, NORTH BEND, OR 97459**

**1.03 DATE: \_\_\_\_\_ (BIDDER TO ENTER DATE)**

**1.04 SUBMITTED BY:**

**NAME OF FIRM (PLEASE PRINT): \_\_\_\_\_**

**1.05 GENERAL**

- A. The Bidder declares that they have carefully examined the Contract Documents for the construction of the proposed improvements; that the Bidder has personally inspected the contemplated construction area, that the Bidder has satisfied themselves as to the quantities of materials, items of equipment, possible difficulties, and conditions of work involved.
- B. By signing this Proposal, the Bidder certifies that the provisions required by ORS 279C.800 to 279C.870 relating to prevailing wage rates shall be included in this Contract, are understood by the Bidder, and will be complied with during the Work.
- C. The bidder further declares that they are registered with the Construction Contractor's Board as required by ORS 701.35 to 701.55, and possess such additional licenses and certifications as required by law for the performance of the work proposed herein.
- D. The subcontractor(s) performing work as described in ORS 701.005(2) will be registered with the Construction Contractors Board in accordance with ORS 701.035 to 701.055 before the subcontractor(s) commence work under the Contract.
- E. Pursuant to ORS 279A.120, Bidder hereby certifies the Bidder \_\_\_\_\_ is / \_\_\_\_\_ is not (**check one**) a Resident Bidder as defined by ORS 279.029.
- F. Bidder certifies that the provisions required by ORS 279C.836, unless exempt under Sections (4), (7), (8), or (9), before starting work on this Contract, or any subcontract hereunder, Contractor and all subcontractors shall have on file with the Construction Contractor's Board a public works bond with corporate surety authorized to do business in the State of Oregon in the amount of \$30,000.
- G. The Bidder agrees that if this Proposal is accepted, the Bidder will, within ten (10) calendar days after receiving contract forms, execute the Agreement between Owner and Contractor as specified, and deliver to the Owner the Performance and Labor and Payment Bonds required herein.

**1.06 BIDS:**

- A. The undersigned bidder, in submitting his bid, authorizes the Owner to evaluate the bid and make a single award on the basis of the bid.
- B. After having examined all of the contract documents as prepared by HGE ARCHITECTS, Inc., 333 South 4th Street, Coos Bay, Oregon 97420, we do hereby propose to furnish labor and materials to complete the work required by said documents for the following fixed sum (*fill in lump sum amount for each bid unit, in written words in space provided, and in numerals within parenthesis*):

C. **BASE BID:**

\_\_\_\_\_ Dollars  
and \_\_\_\_\_ Cents (\$ \_\_\_\_\_) complete.

D. **ALTERNATE BID #1: LIGHTING AND CEILING FINISH**  
**ADD TO BASE BID:**

\_\_\_\_\_ DOLLARS  
AND \_\_\_\_\_ CENTS (\$ \_\_\_\_\_) COMPLETE.

E. **ALTERNATE BID #2: EAST WINDBREAK ADDITION**  
**ADD TO BASIC BID:**

\_\_\_\_\_ DOLLARS  
AND \_\_\_\_\_ CENTS (\$ \_\_\_\_\_) COMPLETE.

F. **ALTERNATE BID #3: FINISH FLOORING**  
**ADD TO BASIC BID:**

\_\_\_\_\_ DOLLARS  
AND \_\_\_\_\_ CENTS (\$ \_\_\_\_\_) COMPLETE.

- G. Bidder further agrees to be bound by the entire Contract Documents, including:
  - Advertisement for Bids
  - Issued Addenda
  - Instructions to Bidders - AIA A701 and Supplemental Instructions to Bidders
  - Bid Form (this document)
  - Subcontractor Disclosure Form
  - General Conditions - AIA 201 and Supplementary Conditions
  - Contract for Construction: Owner-Contractor Agreement - AIA 101
  - Performance and Payment Bonds
  - Technical Specifications
  - Plans/Drawings
  - Issued Change Orders and Architect's Supplemental Instructions
  - All Applicable State and Federal Laws

**1.07 BID SECURITY**

- A. Bid security in the form of a certified check of Bid Bond in the amount of 10% of the bid amount is enclosed per ORS 279C.385. The undersigned agrees that Bid Security will be left in escrow with the Owner and that the amount thereof is the measure of liquidated damages which Owner will sustain by failure of the undersigned to deliver and execute the Contract or provide Performance and Payment Bonds and may become the property of the Owner at Owner's option. If this bid is not accepted within thirty (30) days of the time set for the opening of bids or if the undersigned executes and timely delivers said contract and the Performance and Payment Bonds, the Bid Security will be returned.

**1.08 COMPLETION DATE AND LIQUIDATED DAMAGES**

- A. It is understood that time is of the essence in the execution of this Contract in order to avoid undue hardship upon the Owner. It is the desire of the Owner to issue a Notice to Proceed upon successful review of the lowest qualified bidder and have the project Substantially Complete within 150 calendar days.
- B. The Undersigned agrees that he will have the work Substantially Complete within \_\_\_\_\_ calendar days after Notice to Proceed (Contractor to fill in the NUMBER OF CALENDAR DAYS he/she will require to substantially complete the Work and this will be the agreed upon construction time period).
- C. The Contractor agrees that said Work shall be prosecuted regularly, diligently, at such rate of progress as will insure Substantial Completion thereof within the time specified. It is expressly understood and agreed, by the Contractor and the Owner, that the time for the completion of the Work described herein is reasonable taking into consideration the average climatic range and usual industrial conditions prevailing in this locality.
- D. If said contractor shall neglect, fail or refuse to coordinate the work within the time herein specified, or any proper extension thereof granted by the Owner, then the Contractor does hereby agree, as a part consideration for the awarding of this Contract, to pay to the Owner the sum of **SIX HUNDRED DOLLARS (\$600)**, not as a penalty but as liquidated damages for such breach of contract as hereinafter set forth, for each and every calendar day that the contractor shall be in default after the time stipulated in the contract for substantial completion of the work.

**1.09 OWNER RIGHTS**

- A. The Owner reserves the right to reject any or all bids and to waive all informalities.

**1.10 ADDENDA**

- A. The following Addenda have been received. The modifications to the Bid Documents noted below have been considered and all costs are included in the Bid Sum.

- 1. Addendum # \_\_\_\_\_ Dated \_\_\_\_\_.
- 2. Addendum # \_\_\_\_\_ Dated \_\_\_\_\_.
- 3. Addendum # \_\_\_\_\_ Dated \_\_\_\_\_.

**1.11 BIDDER DATA AND SIGNATURE(S)**

- A. Name of Firm (*please print*): \_\_\_\_\_

- B. Mailing Address: \_\_\_\_\_

C. Physical Address (if different): \_\_\_\_\_

D. Construction Contractor Board Registration Number: \_\_\_\_\_

E. Telephone Number: \_\_\_\_\_

F. Fax  
Number: \_\_\_\_\_

G. Email  
Address: \_\_\_\_\_

H. Signature (if bid is by a partnership, one of the partners must sign):  
  
\_\_\_\_\_

I. Name and Official Capacity of Signatory (please print):  
  
\_\_\_\_\_

J. If Corporation, Attest (Secretary of Corporation):  
  
\_\_\_\_\_

K. SEAL (if Corporation):

L. was hereunto affixed in the presence of:

M. \_\_\_\_\_

N. (Authorized signing officer, Title)

**END OF SECTION**

## FIRST-TIER SUBCONTRACTOR DISCLOSURE



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

BID #: \_\_\_\_\_

BID CLOSING: Date: \_\_\_\_\_ Time: \_\_\_\_\_

This form must be submitted at the location specified in the Invitation to Bid on the advertised bid closing date and within two working hours after the advertised bid closing time.

List below the name of each subcontractor that will be furnishing labor or will be furnishing labor and materials and that is required to be disclosed, the category of work that the subcontractor will be performing and the dollar value of the subcontract. Enter "NONE" if there are no subcontractors that need to be disclosed. (ATTACH ADDITIONAL SHEETS IF NEEDED.)

NAME	DOLLAR VALUE	CATEGORY OF WORK
(1)	\$	
(2)	\$	
(3)	\$	
(4)	\$	
(5)	\$	
(6)	\$	
(7)	\$	
(8)	\$	
(9)	\$	

Failure to submit this form by the disclosure deadline will result in a non-responsive bid. A non-responsive bid will not be considered for award.

Form submitted by (bidder name): \_\_\_\_\_

Contact name: \_\_\_\_\_ Phone no.: (    ) \_\_\_\_\_

**ORS 279C.370 First-tier subcontractor disclosure.** (1)(a) Within two working hours after the date and time of the deadline when bids are due to a contracting agency for a public improvement contract, a bidder shall submit to the contracting agency a disclosure of the first-tier subcontractors that:

- (A) Will be furnishing labor or will be furnishing labor and materials in connection with the public improvement contract; and
- (B) Will have a contract value that is equal to or greater than five percent of the total project bid or \$15,000, whichever is greater, or \$350,000 regardless of the percentage of the total project bid.
  - (b) For each contract to which this subsection applies, the contracting agency shall designate a deadline for submission of bids that has a date on a Tuesday, Wednesday or Thursday and a time between 2 p.m. and 5 p.m., except that this paragraph does not apply to public contracts for maintenance or construction of highways, bridges or other transportation facilities.
  - (c) This subsection applies only to public improvement contracts ("**projects**") with a value, estimated by the contracting agency, of more than **\$100,000**.
  - (d) This subsection does not apply to public improvement contracts that have been exempted from competitive bidding requirements under ORS 279C.335 (2).
- (2) The disclosure of first-tier subcontractors under subsection (1) of this section must include the name of each subcontractor, the category of work that each subcontractor will perform and the dollar value of each subcontract. The information shall be disclosed in substantially the following [above] form:
- (3) A contracting agency shall accept the subcontractor disclosure. The contracting agency shall consider the bid of any contractor that does not submit a subcontractor disclosure to the contracting agency to be a non-responsive bid and may not award the contract to the contractor. A contracting agency is not required to determine the accuracy or the completeness of the subcontractor disclosure.
- (4) After the bids are opened, the subcontractor disclosures must be made available for public inspection.
- (5) A contractor may substitute a first-tier subcontractor under the provisions of ORS 279C.585.
- (6) A subcontractor may file a complaint under ORS 279C.590 based on the disclosure requirements of subsection (1) of this section.

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**SECTION 00-5200  
AGREEMENT FORM**

**PART 1 GENERAL**

**1.01 FORM OF AGREEMENT**

**1.02 THE DRAFT OF AIA 101-2017 - AGREEMENT TO BE EXECUTED IS ATTACHED FOLLOWING THIS PAGE.**

**1.03 RELATED REQUIREMENTS**

- A. Section 00-7200 - General Conditions.
- B. Section 00-7300 - Supplementary Conditions.

**PART 2 PRODUCTS (NOT USED)**

**PART 3 EXECUTION (NOT USED)**

**END OF SECTION**

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# DRAFT AIA® Document A101® - 2017

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

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

**BETWEEN** the Owner:  
(Name, legal status, address and other information)

«Coos County Airport District»  
«1100 Airport Lane  
North Bend, OR 97459»  
«Telephone Number: 541.756.8531»  
«»

and the Contractor:  
(Name, legal status, address and other information)

« »  
« »  
« »  
« »

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

«24.012 Coos County Airport District - Concourse Capital Improvement Project»  
« »  
«Work on this project consists of converting the existing Escalator Enclosure from an open-air passageway to an enclosed conditioned corridor, connecting the lower-level tarmac area to the Terminal Building. Wind breaks will be added at the tarmac level. The existing structure is structural steel, and light gauge metal framing is to be added as part of the wall assembly. The metal siding panels are to be removed, protected and reinstalled. All storefront glazing and frames are to be replaced. A single-ply roofing system over rigid insulation is to be installed over the existing metal deck roof. The project also included a heating and ventilation system and associated electrical.»

The Architect:  
(Name, legal status, address and other information)

«HGE ARCHITECTS, Inc.»  
«333 South 4th Street  
Coos Bay, OR 97420»  
«Telephone Number: 541.269.1166»  
«Fax Number: 541.269.1833»

The Owner and Contractor agree as follows.

**ADDITIONS AND DELETIONS:**  
The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed.

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

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



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**TABLE OF ARTICLES**

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

**EXHIBIT A INSURANCE AND BONDS**

**ARTICLE 1 THE CONTRACT DOCUMENTS**

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

**ARTICLE 2 THE WORK OF THIS CONTRACT**

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

**ARTICLE 3 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION**

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

*(Check one of the following boxes.)*

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

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

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

**§ 3.3 Substantial Completion**

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

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

[ « » ] Not later than « » ( « » ) calendar days from the date of commencement of the Work.

[ « » ] By the following date: « »

§ 3.3.2 Subject to adjustments of the Contract Time as provided in the Contract Documents, if portions of the Work are to be completed prior to Substantial Completion of the entire Work, the Contractor shall achieve Substantial Completion of such portions by the following dates:

Portion of Work	Substantial Completion Date

§ 3.3.3 If the Contractor fails to achieve Substantial Completion as provided in this Section 3.3, liquidated damages, if any, shall be assessed as set forth in Section 4.5.

#### ARTICLE 4 CONTRACT SUM

§ 4.1 The Owner shall pay the Contractor the Contract Sum in current funds for the Contractor's performance of the Contract. The Contract Sum shall be « » (\$ « » ), subject to additions and deductions as provided in the Contract Documents.

#### § 4.2 Alternates

§ 4.2.1 Alternates, if any, included in the Contract Sum:

Item	Price

§ 4.2.2 Subject to the conditions noted below, the following alternates may be accepted by the Owner following execution of this Agreement. Upon acceptance, the Owner shall issue a Modification to this Agreement. *(Insert below each alternate and the conditions that must be met for the Owner to accept the alternate.)*

Item	Price	Conditions for Acceptance

§ 4.3 Allowances, if any, included in the Contract Sum: *(Identify each allowance.)*

Item	Price

§ 4.4 Unit prices, if any:

*(Identify the item and state the unit price and quantity limitations, if any, to which the unit price will be applicable.)*

Item	Units and Limitations	Price per Unit (\$0.00)

§ 4.5 Liquidated damages, if any:

*(Insert terms and conditions for liquidated damages, if any.)*

« »

§ 4.6 Other:

*(Insert provisions for bonus or other incentives, if any, that might result in a change to the Contract Sum.)*

« »

## ARTICLE 5 PAYMENTS

### § 5.1 Progress Payments

§ 5.1.1 Based upon Applications for Payment submitted to the Architect by the Contractor and Certificates for Payment issued by the Architect, the Owner shall make progress payments on account of the Contract Sum to the Contractor as provided below and elsewhere in the Contract Documents.

§ 5.1.2 The period covered by each Application for Payment shall be one calendar month ending on the last day of the month, or as follows:

« »

§ 5.1.3 Provided that an Application for Payment is received by the Architect not later than the « » day of a month, the Owner shall make payment of the amount certified to the Contractor not later than the « » day of the « » month. If an Application for Payment is received by the Architect after the application date fixed above, payment of the amount certified shall be made by the Owner not later than « » ( « » ) days after the Architect receives the Application for Payment.

*(Federal, state or local laws may require payment within a certain period of time.)*

§ 5.1.4 Each Application for Payment shall be based on the most recent schedule of values submitted by the Contractor in accordance with the Contract Documents. The schedule of values shall allocate the entire Contract Sum among the various portions of the Work. The schedule of values shall be prepared in such form, and supported by such data to substantiate its accuracy, as the Architect may require. This schedule of values shall be used as a basis for reviewing the Contractor's Applications for Payment.

§ 5.1.5 Applications for Payment shall show the percentage of completion of each portion of the Work as of the end of the period covered by the Application for Payment.

§ 5.1.6 In accordance with AIA Document A201™–2017, General Conditions of the Contract for Construction, and subject to other provisions of the Contract Documents, the amount of each progress payment shall be computed as follows:

§ 5.1.6.1 The amount of each progress payment shall first include:

- .1 That portion of the Contract Sum properly allocable to completed Work;
- .2 That portion of the Contract Sum properly allocable to materials and equipment delivered and suitably stored at the site for subsequent incorporation in the completed construction, or, if approved in advance by the Owner, suitably stored off the site at a location agreed upon in writing; and
- .3 That portion of Construction Change Directives that the Architect determines, in the Architect's professional judgment, to be reasonably justified.

§ 5.1.6.2 The amount of each progress payment shall then be reduced by:

- .1 The aggregate of any amounts previously paid by the Owner;
- .2 The amount, if any, for Work that remains uncorrected and for which the Architect has previously withheld a Certificate for Payment as provided in Article 9 of AIA Document A201–2017;
- .3 Any amount for which the Contractor does not intend to pay a Subcontractor or material supplier, unless the Work has been performed by others the Contractor intends to pay;
- .4 For Work performed or defects discovered since the last payment application, any amount for which the Architect may withhold payment, or nullify a Certificate of Payment in whole or in part, as provided in Article 9 of AIA Document A201–2017; and
- .5 Retainage withheld pursuant to Section 5.1.7.

### § 5.1.7 Retainage

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

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

« »

§ 5.1.7.1.1 The following items are not subject to retainage:  
(Insert any items not subject to the withholding of retainage, such as general conditions, insurance, etc.)

<< >>

§ 5.1.7.2 Reduction or limitation of retainage, if any, shall be as follows:  
(If the retainage established in Section 5.1.7.1 is to be modified prior to Substantial Completion of the entire Work, including modifications for Substantial Completion of portions of the Work as provided in Section 3.3.2, insert provisions for such modifications.)

<< >>

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

<< >>

§ 5.1.8 If final completion of the Work is materially delayed through no fault of the Contractor, the Owner shall pay the Contractor any additional amounts in accordance with Article 9 of AIA Document A201–2017.

§ 5.1.9 Except with the Owner’s prior approval, the Contractor shall not make advance payments to suppliers for materials or equipment which have not been delivered and stored at the site.

## § 5.2 Final Payment

§ 5.2.1 Final payment, constituting the entire unpaid balance of the Contract Sum, shall be made by the Owner to the Contractor when

- .1 the Contractor has fully performed the Contract except for the Contractor’s responsibility to correct Work as provided in Article 12 of AIA Document A201–2017, and to satisfy other requirements, if any, which extend beyond final payment; and
- .2 a final Certificate for Payment has been issued by the Architect.

§ 5.2.2 The Owner’s final payment to the Contractor shall be made no later than 30 days after the issuance of the Architect’s final Certificate for Payment, or as follows:

<< >>

## § 5.3 Interest

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

(Insert rate of interest agreed upon, if any.)

<< >> % << >>

## ARTICLE 6 DISPUTE RESOLUTION

### § 6.1 Initial Decision Maker

The Architect will serve as the Initial Decision Maker pursuant to Article 15 of AIA Document A201–2017, unless the parties appoint below another individual, not a party to this Agreement, to serve as the Initial Decision Maker.

(If the parties mutually agree, insert the name, address and other contact information of the Initial Decision Maker, if other than the Architect.)

<< >>

<< >>

<< >>  
<< >>

## § 6.2 Binding Dispute Resolution

For any Claim subject to, but not resolved by, mediation pursuant to Article 15 of AIA Document A201–2017, the method of binding dispute resolution shall be as follows:

*(Check the appropriate box.)*

[  ] Arbitration pursuant to Section 15.4 of AIA Document A201–2017

[  ] Litigation in a court of competent jurisdiction

[  ] Other *(Specify)*

<< >>

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

## ARTICLE 7 TERMINATION OR SUSPENSION

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

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

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

<< >>

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

## ARTICLE 8 MISCELLANEOUS PROVISIONS

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

§ 8.2 The Owner’s representative:

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

«Rodger Craddock»  
«110 Airport Lane  
North Bend, OR 97459»  
«Telephone Number: 541.756.8531»  
«»  
«»  
«Email Address: rodger@flyoth.com»

§ 8.3 The Contractor’s representative:

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

<< >>  
<< >>  
<< >>  
<< >>  
<< >>



<< >>

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

§ 8.5 Insurance and Bonds

§ 8.5.1 The Owner and the Contractor shall purchase and maintain insurance as set forth in AIA Document A101™–2017, Standard Form of Agreement Between Owner and Contractor where the basis of payment is a Stipulated Sum, Exhibit A, Insurance and Bonds, and elsewhere in the Contract Documents.

§ 8.5.2 The Contractor shall provide bonds as set forth in AIA Document A101™–2017 Exhibit A, and elsewhere in the Contract Documents.

§ 8.6 Notice in electronic format, pursuant to Article 1 of AIA Document A201–2017, may be given in accordance with a building information modeling exhibit, if completed, or as otherwise set forth below:

*(If other than in accordance with a building information modeling exhibit, insert requirements for delivering notice in electronic format such as name, title, and email address of the recipient and whether and how the system will be required to generate a read receipt for the transmission.)*

<< >>

§ 8.7 Other provisions:

<< >>

ARTICLE 9 ENUMERATION OF CONTRACT DOCUMENTS

§ 9.1 This Agreement is comprised of the following documents:

- .1 AIA Document A101™–2017, Standard Form of Agreement Between Owner and Contractor
- .2 AIA Document A101™–2017, Exhibit A, Insurance and Bonds
- .3 AIA Document A201™–2017, General Conditions of the Contract for Construction
- .4 Building information modeling exhibit, dated as indicated below:  
*(Insert the date of the building information modeling exhibit incorporated into this Agreement.)*

<< >>

.5 Drawings

Number	Title	Date

.6 Specifications

Section	Title	Date	Pages

.7 Addenda, if any:

Number	Date	Pages

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

.8 Other Exhibits:

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

[ « » ] AIA Document E204™-2017, Sustainable Projects Exhibit, dated as indicated below:  
(Insert the date of the E204-2017 incorporated into this Agreement.)

« »

[ « » ] The Sustainability Plan:

Title	Date	Pages

[ « » ] Supplementary and other Conditions of the Contract:

Document	Title	Date	Pages

- 9 Other documents, if any, listed below:  
(List here any additional documents that are intended to form part of the Contract Documents. AIA Document A201™-2017 provides that the advertisement or invitation to bid, Instructions to Bidders, sample forms, the Contractor's bid or proposal, portions of Addenda relating to bidding or proposal requirements, and other information furnished by the Owner in anticipation of receiving bids or proposals, are not part of the Contract Documents unless enumerated in this Agreement. Any such documents should be listed here only if intended to be part of the Contract Documents.)

« »

This Agreement entered into as of the day and year first written above.

\_\_\_\_\_  
**OWNER** (Signature)

«Rodger Craddock», Executive Director  
(Printed name and title)

\_\_\_\_\_  
**CONTRACTOR** (Signature)

« »  
(Printed name and title)

**SECTION 00-7200  
GENERAL CONDITIONS**

**FORM OF GENERAL CONDITIONS**

**1.01 THE GENERAL CONDITIONS APPLICABLE TO THIS CONTRACT IS ATTACHED FOLLOWING THIS PAGE.**

A. AIA Document A201-2017, General Conditions of the Contract for Construction.

**RELATED REQUIREMENTS**

**2.01 SECTION 00-7300 - SUPPLEMENTARY CONDITIONS.**

**SUPPLEMENTARY CONDITIONS**

**3.01 REFER TO DOCUMENT 00-7300 - SUPPLEMENTARY CONDITIONS FOR AMENDMENTS TO THESE GENERAL CONDITIONS.**

**END OF SECTION**

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## General Conditions of the Contract for Construction

**for the following PROJECT:**

*(Name and location or address)*

24.012 Coos County Airport District - Concourse Capital Improvement Project

**THE OWNER:**

*(Name, legal status and address)*

Coos County Airport District  
1100 Airport Lane  
North Bend, OR 97459

**THE ARCHITECT:**

*(Name, legal status and address)*

HGE ARCHITECTS, Inc.  
333 South 4th Street  
Coos Bay, OR 97420

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13	MISCELLANEOUS PROVISIONS

**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™, Guide for Supplementary Conditions.

14 TERMINATION OR SUSPENSION OF THE CONTRACT

15 CLAIMS AND DISPUTES

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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 written protocols governing the transmission and use of, and reliance on, Instruments of Service or any other information or documentation in digital form.

**§ 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 written protocols governing the use of, and reliance on, the information contained in the model 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

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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,

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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;
- .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

- .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.

**SECTION 00-7300  
SUPPLEMENTARY CONDITIONS**

**PART 1 GENERAL**

**1.01 SUMMARY**

- A. These Supplementary Conditions amend and supplement the General Conditions, AIA Document A201-2017 General Conditions of the Contract for Construction defined in Document 00 7200 and other provisions of the Contract Documents as indicated below. All provisions that are not so amended or supplemented remain in full force and effect.
- B. The terms used in these Supplementary Conditions that are defined in the General Conditions have the meanings assigned to them in the General Conditions.

**1.02 MODIFICATIONS TO GENERAL CONDITIONS**

A. ARTICLE 1. GENERAL PROVISIONS

- 1. 1.1.1: Revise the first sentence as set forth below:
  - a. The Contract Documents consist of the Conditions of the Contract (General, Supplementary and other Conditions), Contract Forms as bound or referenced, the Drawings, the Specifications, the Details, all Addenda issued prior to execution of the contract and all modifications issued after execution of the Contract. A draft Agreement is found following this section for Contractor reference (attaches as part of this addendum).
- 2. 1.2 CORRELATIONS AND INTENT OF THE CONTRACT DOCUMENTS
  - a. 1.2.1 Add the following:
    - 1) If work is required in a manner to make it impossible to produce first class work, or should discrepancies appear among contract documents, request interpretation before proceeding with work. If Contractor fails to make such request, no excuse will thereafter be entertained for failure to carry out work in satisfactory manner.
  - b. 1.2.3: Add the following:
    - 1) Reference to technical society, organization, or body is made in specifications in accordance with the following abbreviations:
      - (a) ACI American Concrete Institute
      - (b) AIA American Institute of Architects
      - (c) AIEE American Institute of Electrical Engineers
      - (d) AISC American Institute of Steel Construction
      - (e) ASA American Standard Association
      - (f) APA American Plywood Association
      - (g) ASTM American Society of Testing Materials
      - (h) ASME American Society of Mechanical Engineers
      - (i) AWI Architectural Woodwork Institute
      - (j) AWSA American Welding Society Code
      - (k) CS Commercial Standard
      - (l) FS Federal Specifications
      - (m) IBC International Building Code
      - (n) MILMilitary Specifications
      - (o) NBFU National Board of Fire Underwriters
      - (p) NBS National Board of Standards
      - (q) NEC National Electric Code
      - (r) NEMA National Electrical Manufacturer's Assn.
      - (s) NFPA National Fire Protection Association
      - (t) OSHA Occupational Safety and Health Act
      - (u) UBC Uniform Building Code
      - (v) UL Underwriters Laboratory

B. ARTICLE 2 OWNER

1. 2.1.1 Add the following:
  - a. The Owner is defined as Coos County Airport District.
2. 2.3.6 Substitute the following:
  - a. The Owner through the Architect will furnish to the Contractor Four (4) complete sets of drawings and specifications without charge for use on project. These include sets submitted to Agency having jurisdiction for plans review and building permit. Additional copies may be purchased by Contractor at cost of reproduction.

C. ARTICLE 3 CONTRACTOR

1. 3.3 SUPERVISION AND CONSTRUCTION PROCEDURES
  - a. 3.3.1 Add the following:
    - 1) The Contractor will supervise and direct the work and will review with all subcontractors methods and materials to be used to verify their compliance with all safety standards and laws and be responsible for compliance with same, to insure safe, hazard free conditions for all persons visiting or working on the entire project.
2. 3.7 PERMITS, FEES, NOTICES, AND COMPLIANCE WITH LAWS
  - a. 3.7.1 Add:
    - 1) The Owner shall pay for the Building Permit Plan Review and Building Permit fees only. The Contractor shall pay all other permit and plan review fees related to his work and his subcontractors, i.e., plumbing, mechanical and electrical. Owner shall pay any system development fees required.
3. 3.11 DOCUMENTS AND SAMPLES AT THE SITE, Add the following:
  - a. Upon completion of the project transfer all information from the record set of drawings to a clean set of prints and deliver to the Architect. Drawing additions are to be added in contrasting ink and are to be accurate, neat and finished in appearance and show accurate horizontal and vertical dimensions for location of underground work. Drawings must be acceptable to Architect before certification of final payment will be made.
4. 3.12 SHOP DRAWINGS, PRODUCT DATA AND SAMPLES
  - a. 3.12.5 Add the following:
    - 1) See Section 01-3000 - Administrative Requirements for submittal information, requirements, and procedures.
5. 3.15 CLEANING UP
  - a. 3.15.1 Add the following:
    - 1) Upon completion of any portion of the work, promptly remove temporary facilities generated by that portion of the work, including surplus materials, equipment, and machinery if so directed by the Architect or the Owner. Upon completion of the Work, completely remove temporary facilities. Remove stains, spots and smears from all surfaces. Remove all labels. Leave the premises in a "broom clean" condition.

D. ARTICLE 4 ARCHITECT

1. 4.1.1 Add the following:
  - a. The Architect is defined as HGE ARCHITECTS, Inc.

E. ARTICLE 5 SUBCONTRACTORS

1. 5.2 AWARD OF SUBCONTRACTS AND OTHER CONTRACTS FOR PORTIONS OF THE WORK
  - a. 5.2.1 Add the following:
    - 1) The list of subcontractors shall be submitted no later than five (5) days after the bid opening.

F. ARTICLE 7 CHANGES IN THE WORK

1. 7.2 CHANGE ORDERS

a. 7.2.2 Add the following:

- 1) The cost to the Owner resulting from extra work shall be determined by an agreed price which shall include a percentage for overhead and profit as listed below; or shall be the actual cost of the additional direct labor, materials, and subcontract work involved, plus a percentage for overhead and profit as listed below.
  - (a) The percentage shall not exceed 10% to cover both profit and overhead.
- 2) The credit to the Owner resulting from a deduction of work shall be determined by an agreed price, or the actual cost of direct labor, materials, and subcontract work involved.
- 3) Cost and credits shall be submitted by the Contractor to the Architect in a complete breakdown form, showing cost, overhead and profit.
- 4) Cost shall be limited to the following: Cost of products, including taxes and cost of delivery; cost of labor, including social security, old age, and unemployment insurance, and fringe benefits under collective bargaining agreements; Workmen's Compensation Insurance; bond premiums; and rental value of power tools and equipment. Overhead shall include the following: Supervision, superintendence, wages of time keepers, watchmen, and clerks, hand tools, incidentals, general office expense, and all other proven expenses not included in "cost".

G. ARTICLE 8 TIME

1. 8.2 PROGRESS AND COMPLETION

a. 8.2.4 Add the following:

- 1) The Contractor agrees:
- 2) To proceed upon receipt of the executed Contract and the Notice to Proceed.
- 3) It is hereby understood and mutually agreed, by and between the contractor and the Owner, that the date of beginning and the time for completion of each phase of the work to be done are ESSENTIAL CONDITIONS of this contract.
- 4) The Contractor agrees that said work shall be prosecuted regularly, diligently, at such rate of progress as will insure substantial completion thereof within the time specified. It is expressly understood and agree, by and between the Contractor and the Owner that the time for the completion of the work described herein is reasonable taking into consideration the average climatic range and usual industrial conditions prevailing in this locality.
- 5) If said Contractor shall neglect, fail or refuse to complete the work within the time herein specified, or any proper extension thereof granted by the Owner, then the Contractor does hereby agree, as a part consideration for the awarding of this Contract, to pay to the Owner, the sum of SIX HUNDRED DOLLARS (\$600), not as a penalty but as liquidated damages for such breach of contract as hereinafter set forth, for each and every calendar day that the contractor shall be in default after the time stipulated in the contract for substantial completion of the work.
- 6) The said amount is fixed and agreed upon by; and between the Contractor and the Owner because of the impracticability and extreme difficulty of fixing and ascertaining the actual damages the Owner would in such event sustain, and said amount is agreed to be the amount of damages which the Owner would sustain.

H. ARTICLE 9 PAYMENTS AND COMPLETION

1. APPLICATIONS FOR PAYMENT

a. 9.3.1 Add the following:

- 1) Payment request form shall be submitted on AIA G702 Application for Payment supplemented with AIA G703 Continuation Sheet. Forms will be furnished by Architect if requested by Contractor. Contractor may use their own spreadsheet type format, however line items must exactly match AIA line items.
2. PROGRESS PAYMENTS
- a. 9.6.1 Amend as follows:
    - 1) After the Architect has issued a certificate for payment the Owner will pay the Contractor ninety-five (95%) percent of the value of material and labor worked into the building or stored on the site before the first day of the month less the aggregate of previous payments.
    - 2) Payment will be made on or before the fifteenth (15th) day of the month following the date of the application for payment.
    - 3) Upon Substantial Completion of the contract the sum sufficient to increase total payment to ninety-five (95%) percent of the contract amount is due. Thirty (30) days thereafter, provided the work then be fully completed and accepted by the Architect, balance under the contract is due.

I. ARTICLE 11 INSURANCE AND BONDS

1. 11.1 CONTRACTOR'S INSURANCE AND BONDS

a. 11.1.1 Add the following:

- 1) The Contractor's comprehensive general liability insurance and automobile liability insurance shall not be less than the amount shown below:
- 2) Worker's Compensation as required by law.
- 3) Bodily Injury Liability - Automobile:
 

(a) Each person	\$ 500,000
(b) Each occurrence	\$1,000,000
- 4) Bodily Injury Liability - Except Automobile
 

(a) Each person	\$1,000,000
(b) Each occurrence	\$1,000,000
- 5) Property Damage Liability - Automobile:
 

(a) Each occurrence	\$ 500,000
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- 6) Property Damage Liability - Except Automobile:
 

(a) Each occurrence	\$ 500,000
(b) Aggregate occurrence	\$1,000,000
- 7) The Contractor will either (1) require each of his subcontractors to procure and maintain during the life of his subcontract, subcontractor's comprehensive general liability, automobile liability, and property damage liability insurance of the type and in the same amounts as specified in this subparagraph; or (2) insure the activity of his subcontractors.
- 8) The Contractor, its subcontractors, if any, and all employers working under this Agreement are subject employers under the Oregon Worker's Compensation Law and shall comply with ORS 656.017, which requires them to provide workers' compensation coverage for all their subject workers.

2. 11.1.2 Substitute the following:

- a. The Contractor shall furnish a Performance Bond in an amount equal to one hundred (100%) percent of the contract sum as security for the faithful performance of this contract and also a Labor and Material Payment Bond in an amount not less than one hundred (100%) percent of the contract sum as security for the payment of all persons performing labor on the project under this contract. Bond shall be written by a company licensed in the State of Oregon and satisfactory to the Owner.

3. 11.1.5 Add the following:

- a. The Contractor is advised that the Owner does not carry "Builder's Risk" Insurance and the Contractor is required to obtain this insurance.



J. ARTICLE 13 MISCELLANEOUS PROVISIONS

1. 13.1 GOVERNING LAW, Add the following:
  - a. General Contractor and each subcontractor to comply with all Federal, State laws pertaining to Social Security, Unemployment Insurance, Tax Regulations. Make prompt payment to designated agencies.
  - b. Contractor agrees to abide by all Federal and State regulations pertaining to the employment of minority and ethnic groups including all required affirmative action, and further agrees to hold owner harmless on account of all duties and responsibilities imposed on Contractor by the terms of any State or Federal Statute, regulation, or other governmental directive.
2. 13.6 Add the following:
  - a. All labor subject to the provisions of ORS 279C.520 and 279C.830 which is performed under this contract shall be paid not less than the prevailing rate of wage for an hour's work in the same trade or occupation in the locality where such labor is performed.

K. ADD ARTICLE 16 SUPPLEMENTAL PUBLIC CONTRACTING STATUTES

1. Refer to attached ORS 279C Requirements for Public Works.
2. Contractor, subcontractor(s) and all persons doing or contracting to do any work shall comply with all provisions of Oregon Public Contracting Laws and regulations, as further specified below.
3. Contractor shall pay promptly, as due, all persons supplying labor or materials for the prosecution of the work provided for in the contract, and shall be responsible for such payment of all persons supplying such labor or material to any Subcontractor.
  - a. ORS 279C.580(3)(a) requires the prime contractor to include a clause in each subcontract requiring contractor to pay the first-tier subcontractor for satisfactory performance under its subcontract within ten (10) days out of such amounts as are paid to the prime contractor by the public contracting agency; and
  - b. ORS 279C.580(3)(b) requires the prime contractor to include a clause in each subcontract requiring contractor to pay an interest penalty to the first-tier subcontractor if payment is not made within thirty (30) days after receipt of payment from the public contracting agency.
  - c. ORS 279C.580(4) requires the prime contractor to include in every subcontract a requirement that the payment and interest penalty clauses required by ORS 279C.580(3)(a) and (b) be included in every contract between a subcontractor and a lower-tier subcontractor or supplier.
4. Contractor shall promptly pay all contributions or amounts due the Industrial Accident Fund from such Contractor or Subcontractor incurred in the performance of the contract, and shall be responsible that all sums due the State Unemployment Compensation Fund from Contractor or any Subcontractor in connection with the performance of the contract shall promptly be paid.
5. Contractor shall not permit any lien or claim to be filed or prosecuted against the public contracting agency on account of any labor or material furnished and agrees to assume responsibility for satisfaction of any such lien so filed or prosecuted.
6. A notice of claim on contractor's payment bond shall be submitted only in accordance with ORS 279C.600 and 279C.605.
7. Contractor and any Subcontractor shall pay to the Department of Revenue all sums withheld from employees pursuant to ORS 316.167.
8. Contractor shall demonstrate to the Public Contracting Agency that an employee drug-testing program is in place within ten (10) days of receiving a Notice of Award.

9. If Contractor fails, neglects or refuses to make prompt payment of any claim for labor or materials furnished to the Contractor or a Subcontractor by any person in connection with the contract as such claim becomes due, the public contracting agency may pay such claim to the persons furnishing the labor or material and charge the amount of payment against funds due or to become due Contractor by reason of the contract. The payment of a claim in the manner authorized hereby shall not relieve the Contractor or his surety from his or its obligation with respect to any unpaid claim. If the public contracting agency is unable to determine the validity of any claim for labor or material furnished, the public contracting agency may withhold from any current payment due Contractor an amount equal to said claim until its validity is determined and the claim, if valid, is paid.
10. If the Contractor or a first-tier Subcontractor fails, neglects, or refuses to make payment to a person furnishing labor or materials in connection with the public contract for a public improvement within thirty (30) days after receipt of payment from the public contracting agency or contractor, the contractor or first-tier subcontractor shall owe the person the amount due plus interest charges commencing at the end of the ten (10) day period that payment is due under ORS 279C.580(4) and ending upon final payment, unless payment is subject to a good faith dispute as defined in ORS 279C.580. The rate of interest charged to Contractor or first-tier Subcontractor on the amount due shall equal three times the discount rate on ninety (90) day commercial paper in effect at the Federal Reserve Bank in the Federal Reserve District that includes Oregon on the date that is thirty (30) days after the date when payment was received from the public contracting agency or from the Contractor, but the rate of interest shall not exceed thirty (30) percent. The amount of interest may not be waived.
11. If the Contractor or a Subcontractor fails, neglects, or refuses to make payment to a person furnishing labor or materials in connection with the public contract, the person may file a complaint with the Construction Contractor's Board, unless payment is subject to a good faith dispute as defined in ORS 279C.580.
12. Contractor shall promptly, as due, make payment to any person, co-partnership, association, or corporation, furnishing medical, surgical and hospital care or other needed care and attention, incident to sickness or injury, to employees of such Contractor, or all sums which the Contractor agrees to pay for such services and all monies and sums which the Contractor collected or deducted from the wages of employees pursuant to any law, contract or agreement for the purpose of providing or paying for such service.
13. Contractor shall employ no person for more than ten (10) hours in any one day, or forty (40) hours in any one week, except in cases of necessity, emergency, or where public policy absolutely requires it, and in such cases, except in cases of contracts for personal services designated under ORS 279A.055. Contractor shall pay the employee at least time and one-half pay for all overtime in excess of eight (8) hours a day or forty (40) hours in any one week when the work is five (5) consecutive days, Monday through Friday; or for all overtime in excess of ten (10) hours a day or forty (40) hours in any one week when the work week is four (4) consecutive days, Monday through Friday, and for all work performed on Saturday and on any legal holidays as specified in ORS 279C.540.
14. The Contractor must give notice to employees who work on this contract in writing, either at the time of hire or before commence of work on the contract, or by posting a notice in a location frequented by employees, of the number of hours per day and the days per week that the employees be required to work.
15. The provisions of ORS 279C. 800 to ORS 279C.870 relating to the prevailing wage rates will be complied with.

16. Unless exempt under ORS 279C.836(4), (7), (8) or (9), before starting work on this contract, or any subcontract hereunder, contractor and all subcontractors must have on file with the Construction Contractors Board a public works bond with a corporate surety authorized to do business in the state of Oregon in the amount of \$30,000. The bond must provide that the contractor or subcontractor will pay claims ordered by the Bureau of Labor and Industries to workers performing labor upon public works projects. The bond must be a continuing obligation, and the surety's liability for the aggregate of claims that may be payable from the bond may not exceed the penal sum of the bond. The bond must remain in effect continuously until depleted by claims paid under any applicable prevailing wage rate laws, unless the surety sooner cancels the bond. Contractor further certifies that contractor will include in every subcontract or provision requiring a subcontractor to have a public works bond filed with the Construction Contractors Board before starting work on the project, unless exempt under ORS 279C.836(4), (7), (8) or (9).
  - a. Unless exempt under ORS 279C.836(4), (7), (8) or (9), before permitting a subcontractor to start work on this public works project, the contractor shall verify that the subcontractor has filed a public works bond as required under this section or has elected not to file a public works bond under an exemption.
  - b. Unless public contracting agency has been notified of any applicable exemptions under ORS 279C.836(4), (7), (8) or (9), the public works bond requirement above is in addition to any other bond contractors or subcontractors may be required to obtain under this contract.
17. Unless exempt, Contractor or contractor's surety and every subcontractor or subcontractor's surety shall file certified payroll statements with the public contracting agency in writing, pursuant to ORS 279C.845.
  - a. If a contractor is required to file certified statements under ORS 279C.845, the public contracting agency shall retain twenty-five percent (25%) of any amount earned by the contractor on the public works project until the contractor has filed with the public agency certified statement as required by ORS.279C.845. The public contracting agency shall pay the contractor the amount retained within fourteen (14) days after the contractor files the required certified statements, regardless of whether a subcontractor has failed to file certified statements required by statute. The public contracting agency is not required to verify the truth of the contents of certified statements filed by the contractor under this section and ORS 279C.845.
  - b. The contractor shall retain twenty-five percent (25%) of any amount earned by a first-tier subcontractor on this public works contract until the subcontractor has filed with the public agency certified statements as required by ORS 279C.845. The contractor shall verify that the first-tier subcontractor has filed the certified statements before the contractor may pay the subcontractor any amount retained. The contractor shall pay the first-tier subcontractor the amount retained within fourteen (14) days after the subcontractor files the certified statements as required by ORS 279C.845. Neither the public agency nor the contractor is required to verify the truth of the contents of certified statements filed by a first-tier subcontractor.
18. All employers, including Contractor, that employ subject workers who work under this contract shall comply with ORS 656.017 and provide the required Workers' Compensation coverage, unless such employers are exempt under ORS 656.126. Contractor shall ensure that each of its subcontractors complies with these requirements.
19. All sums due the State Unemployment Compensation Fund from the Contractor or any Subcontractor in connection with the performance of the contract shall be promptly so paid.
20. The contract may be canceled at the election of public contracting agency for any willful failure on the part of Contractor to faithfully perform the contract according to its terms.
21. Contractor certifies that it has not discriminated against minorities, women or emerging small business enterprises in obtaining any required subcontractors.

22. Contractor certifies its compliance with the Oregon tax laws, in accordance with ORS 305.385.
23. In the performance of this contract, the Contractor shall use, to the maximum extent economically feasible, recycled paper, materials, and supplies.
24. Contractor certifies that all subcontractors performing construction work under this contract will be licensed with the Construction Contractors Board or licensed by the state Landscaper Contractors Board in accordance with 701.035 to 701.055 before the subcontractors commence work under this contract.
25. In compliance with the provisions of ORS 279C.525, the following is a list of federal, state and local agencies, of which the Owner has knowledge, that have enacted ordinances or regulations dealing with the prevention of environmental pollution and the preservation of natural resources that may affect the performance of the contract:
  - a. FEDERAL AGENCIES
    - 1) Agriculture, Department of
    - 2) Forest Service
    - 3) Soil Conservation Service
    - 4) Defense, Department of
    - 5) Army Corps of Engineers
    - 6) Environmental Protection Agency
    - 7) Interior, Department of
    - 8) Bureau of Sport Fisheries and Wildlife
    - 9) Bureau of Outdoor Recreation
    - 10) Bureau of Land Management
    - 11) Bureau of Indian Affairs
    - 12) Bureau of Reclamation
    - 13) Labor, Department of
    - 14) Occupational Safety and Health Administration
    - 15) Transportation, Department of
    - 16) Coast Guard
    - 17) Federal Highway Administration
  - b. STATE AGENCIES:
    - 1) Agriculture, Department of
    - 2) Environmental quality, Department of
    - 3) Fish and Wildlife, Department of
    - 4) Forestry, Department of
    - 5) Geology and Mineral Industries, Department of
    - 6) Human Resources, Department of
    - 7) Land Conservation and Development Commission
    - 8) Soil and Water Conservation Commission
    - 9) State Engineer
    - 10) State Land Board
    - 11) Water Resources Board
  - c. LOCAL AGENCIES:
    - 1) City Council
    - 2) County Court
    - 3) County Commissioners, Board of
    - 4) Port Districts
    - 5) Metropolitan Service Districts
    - 6) County Service Districts
    - 7) Sanitary Districts
    - 8) Water Districts
    - 9) Fire Protection Districts

**PART 2 PRODUCTS - NOT USED**  
**PART 3 EXECUTION - NOT USED**

**END OF SECTION**

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**SECTION 00-7346  
PREVAILING WAGE RATES**

**PART 1 GENERAL**

**1.01 REQUIREMENTS:**

- A. The "Prevailing Wage Rates for Public Works Contracts in Oregon" dated January 5, 2025 including any issued corrections or amendments that follow are herein added to the Contract Documents by reference.
- B. BOLI Prevailing Wage Rate information is available upon request, or electronically at [www.oregon.gov/boli](http://www.oregon.gov/boli).
- C. Work under this Contract will be subject to the provisions of ORS 279C.800 to 279C.870, relating to BOLI Prevailing Wage Rates in effect at the time the project was advertised for bids.
- D. Provisions described in this Section or in Exhibit A of the Public Contracting Code Requirement for Public Improvements Contracts over \$50,000, located at the end of the Supplemental General Conditions, will apply regardless of the price of any individual Contract, so long as the combined price of all Contracts award on the project is \$50,000 or more.
- E. If total Contract amount does not exceed \$50,000, Contractor is not required to pay prevailing wage rates.

**PART 2 PRODUCTS - NOT USED**

**PART 3 EXECUTION - NOT USED**

**END OF SECTION**

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**SECTION 01-1000  
SUMMARY**

**PART 1 GENERAL**

**1.01 PROJECT**

- A. Project Name: 24.012 Coos County Airport District - Concourse Capital Improvement Project
  - 1. Owner's Name: Coos County Airport District.
  - 2. Architect's Name: HGE Architects, Inc..
  - 3. Work on this Contract consists of converting the existing Escalator Enclosure from an open-air passageway to an enclosed conditioned corridor connecting the lower level tarmac area to the Terminal Building. Wind breaks will be added at the tarmac level. The existing structure is structural steel, and light gauge metal framing is to be added as part of the wall assembly. The metal siding panels are to be removed, protected and reinstalled. All storefront glazing and frames are to be replaced. A single ply roofing system, over rigid insulation, is to be installed over the existing metal deck roof. The project also includes a heating and ventilation system and associated electrical.

**1.02 CONTRACT DESCRIPTION**

- A. Contract Type: A single prime contract based on a Stipulated Price.

**1.03 WORK BY OWNER.**

- A. Owner Furnished Contractor Installed items: (OFCI)
  - 1. Carpet tiles.
  - 2. Airport security fencing, gates and site access during flights.

**1.04 OWNER OCCUPANCY**

- A. Owner intends to use the Site throughout construction. See Drawings for additional information.. No work shall be done in the Project Area 30 minutes before Boarding and after Departure. The flight schedule last year, which may change, was:
  - 1. Oct 29 – April 13: (1) flight a day: Sunday, Monday, Wednesday and Friday. Scheduled arrival 12:00pm - Scheduled departure 2 pm
  - 2. April 14 – May 14: (1) flight a day every day. Scheduled arrival 12:00pm - Scheduled departure 2 pm
  - 3. May 15 - Oct 28: (1) flight a day: Monday, Tuesday, Thursday, Saturday. Scheduled arrival 12:00pm - Scheduled departure 2 pm
  - 4. May 15 - Oct 28 (2) flights a day: Sunday, Wednesday, Friday. Scheduled arrival 12:00pm -Scheduled departure 3 pm
- B. Peak season occurs between April 1 and October 31. No work will be permitted during this time between 11:30 am and 2:30 pm.
- C. Cooperate with Owner to minimize conflict and to facilitate necessary Owner's operations.

**1.05 CONTRACTOR USE OF SITE AND PREMISES**

- A. Construction Operations: Limited to areas noted on Drawings.
  - 1. Clean Project Area of all project materials, tools and debris before every plane Arrival.
- B. Arrange use of site and premises to allow:
  - 1. Owner occupancy.
  - 2. Use of site by the public.
- C. Provide access to and from site as required by law and by Owner:
  - 1. Emergency Building Exits During Construction: Keep all exits required by code open during construction period; provide temporary exit signs if exit routes are temporarily altered.
  - 2. Do not obstruct roadways, sidewalks, or other public ways without permit.
- D. Time Restrictions:

1. See above for the only times work is not allowed.

E. Utility Outages and Shutdown:

1. Limit disruption of utility services to the Terminal Building to hours of 3 pm to 5 pm\_\_\_\_

2. Prevent accidental disruption of utility services to other facilities.

**PART 2 PRODUCTS - NOT USED**

**PART 3 EXECUTION - NOT USED**

**END OF SECTION**

**SECTION 01-2300  
ALTERNATES**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Description of Alternates.

**1.02 RELATED REQUIREMENTS**

- A. Document 00-2113 - Instructions to Bidders: Instructions for preparation of pricing for Alternates.

**1.03 ACCEPTANCE OF ALTERNATES**

- A. Alternates quoted on Bid Forms will be reviewed and accepted or rejected at Owner's option. Accepted Alternates will be identified in the Owner-Contractor Agreement.

**1.04 SCHEDULE OF ALTERNATES**

- A. Alternate No. 1 - Lighting and Ceiling Finish:
  - 1. Base Bid: Existing lights to remain. Paint underside of existing exposed metal roof decking.
  - 2. Alternate Item: Furred gypsum board ceiling throughout the 1st Floor Vestibule and Tarmac Vestibule. Replace all lights and add additional fixtures per the Reflected Ceiling Plan.
- B. Alternate No. 2 - East Windbreak Addition:
  - 1. Base Bid: Provide double storefront doors at the East Elevation on the Tarmac Vestibule Level, only.
  - 2. Alternate Item: Provide East Wind Break enclosure, slab, walls and roof as shown.
- C. Alternate No. 3 - Finish Flooring:
  - 1. Base Bid: Power wash, clean and seal the existing concrete slab, both landings.
  - 2. Alternate Item: Provide flooring finishes per the Finish Schedule. Level and prep the existing concrete slab per Specifications.

**PART 2 PRODUCTS - NOT USED**

**PART 3 EXECUTION - NOT USED**

**END OF SECTION**

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**SECTION 01-3000  
ADMINISTRATIVE REQUIREMENTS**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. General administrative requirements.
- B. Preconstruction meeting.
- C. Progress meetings.
- D. Construction progress schedule.
- E. Submittals for review, information, and project closeout.
- F. Number of copies of submittals.
- G. Requests for Information (RFI) procedures.
- H. Submittal procedures.

**1.02 RELATED REQUIREMENTS**

- A. Section 01-6000 - Product Requirements: General product requirements.
- B. Section 01-7000 - Execution and Closeout Requirements: Additional coordination requirements.
- C. Section 01-7800 - Closeout Submittals: Project record documents.

**1.03 GENERAL ADMINISTRATIVE REQUIREMENTS**

- A. Comply with requirements of Section 01-7000 - Execution and Closeout Requirements for coordination of execution of administrative tasks with timing of construction activities.

**PART 2 PRODUCTS - NOT USED**

**PART 3 EXECUTION**

**3.01 PRECONSTRUCTION MEETING**

- A. Architect will schedule a meeting after Notice of Award.
- B. Attendance Required:
  - 1. Owner.
  - 2. Architect.
  - 3. General Contractor, contractor's superintendent(s) and major subcontractors.
- C. Agenda:
  - 1. Execution of Owner-Contractor Agreement.
  - 2. Submission of executed bonds and insurance certificates.
  - 3. Distribution of Contract Documents.
  - 4. Submission of list of subcontractors, list of products, schedule of values, and progress schedule.
  - 5. Submission of initial Submittal schedule.
  - 6. Designation of personnel representing the parties to Contract, Owner, Contractor, and Architect .
  - 7. Designation of personnel representing the parties to Contract, Owner and Architect.
  - 8. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders, and Contract closeout procedures.
  - 9. Scheduling. Contractor to present and review schedule.
  - 10. Submittals. Contractor shall present and review submittal log and schedule.
- D. Record minutes and distribute copies within three days after meeting to participants, with emailed electronic copies to Architect, Owner, participants, and those affected by decisions made.

### **3.02 PROGRESS MEETINGS**

- A. Schedule and administer meetings throughout progress of the Work at maximum two-week intervals.
- B. Attendance Required:
  - 1. Contractor.
  - 2. Owner.
  - 3. Architect.
  - 4. Contractor's superintendent.
  - 5. Major subcontractors.
- C. Agenda:
  - 1. Review minutes of previous meetings.
  - 2. Review of work progress.
  - 3. Field observations, problems, and decisions.
  - 4. Identification of problems that impede, or will impede, planned progress.
  - 5. Review of submittals schedule and status of submittals.
  - 6. Review of RFIs log and status of responses.
  - 7. Maintenance of progress schedule.
  - 8. Corrective measures to regain projected schedules.
  - 9. Planned progress during succeeding work period.
  - 10. Maintenance of quality and work standards.
  - 11. Effect of proposed changes on progress schedule and coordination.
  - 12. Other business relating to work.
- D. Record minutes and distribute copies within three days after meeting to participants, with emailed electronic copies to Architect, Owner, participants, and those affected by decisions made.

### **3.03 CONSTRUCTION PROGRESS SCHEDULE**

- A. Within 10 days after date of the Agreement, submit preliminary schedule defining planned operations for the first 60 days of Work, with a general outline for remainder of Work.
- B. Submit updated schedule at each construction progress meeting.

### **3.04 REQUESTS FOR INFORMATION (RFI)**

- A. Definition: A request seeking one of the following:
  - 1. An interpretation, amplification, or clarification of some requirement of Contract Documents arising from inability to determine from them the exact material, process, or system to be installed; or when the elements of construction are required to occupy the same space (interference); or when an item of work is described differently at more than one place in the Contract Documents.
  - 2. A resolution to an issue which has arisen due to field conditions and affects design intent.
- B. Whenever possible, request clarifications at the next appropriate project progress meeting, with response entered into meeting minutes, rendering unnecessary the issuance of a formal RFI.
- C. Preparation: Prepare an RFI immediately upon discovery of a need for interpretation of the Contract Documents. Failure to submit a RFI in a timely manner is not a legitimate cause for claiming additional costs or delays in execution of the work.
  - 1. Prepare a separate RFI for each specific item.
    - a. Review, coordinate, and comment on requests originating with subcontractors and/or materials suppliers.
    - b. Do not forward requests which solely require internal coordination between subcontractors.
- D. Reason for the RFI: Prior to initiation of an RFI, carefully study all Contract Documents to confirm that information sufficient for their interpretation is definitely not included.

1. Include in each request Contractor's signature attesting to good faith effort to determine from the Contract Documents information requiring interpretation.
  2. Unacceptable Uses for RFIs: Do not use RFIs to request the following:
    - a. Approval of submittals (use procedures specified elsewhere in this section).
    - b. Approval of substitutions (see Section - 01-6000 - Product Requirements)
    - c. Changes that entail change in Contract Time and Contract Sum (comply with provisions of the Conditions of the Contract).
    - d. Different methods of performing work than those indicated in the Contract Drawings and Specifications (comply with provisions of the Conditions of the Contract).
  3. Improper RFIs: Requests not prepared in compliance with requirements of this section, and/or missing key information required to render an actionable response. They will be returned without a response, with an explanatory notation.
  4. Frivolous RFIs: Requests regarding information that is clearly indicated on, or reasonably inferable from, the Contract Documents, with no additional input required to clarify the question. They will be returned without a response, with an explanatory notation.
- E. Attachments: Include sketches, coordination drawings, descriptions, photos, submittals, and other information necessary to substantiate the reason for the request.
- F. RFI Log: Prepare and maintain a tabular log of RFIs for the duration of the project.
- G. Review Time: Architect will respond and return RFIs to Contractor within ten working days of receipt. For the purpose of establishing the start of the mandated response period, RFIs received after 12:00 noon will be considered as having been received on the following regular working day.
1. Response period may be shortened or lengthened for specific items, subject to mutual agreement, and recorded in a timely manner in progress meeting minutes.
- H. Responses: Content of answered RFIs will not constitute in any manner a directive or authorization to perform extra work or delay the project. If in Contractor's belief it is likely to lead to a change to Contract Sum or Contract Time, promptly issue a notice to this effect, and follow up with an appropriate Change Order request to Owner.
1. Response may include a request for additional information, in which case the original RFI will be deemed as having been answered, and an amended one is to be issued forthwith. Identify the amended RFI with an R suffix to the original number.

### **3.05 SUBMITTAL SCHEDULE**

- A. Submit to Architect for review a schedule for submittals in tabular format.
1. Submit at the same time as the preliminary schedule.
  2. Coordinate with Contractor's construction schedule and schedule of values.
  3. Format schedule to allow tracking of status of submittals throughout duration of construction.
  4. Arrange information to include scheduled date for initial submittal, specification number and title, submittal category (for review or for information), description of item of work covered, and role and name of subcontractor.
  5. Account for time required for preparation, review, manufacturing, fabrication and delivery when establishing submittal delivery and review deadline dates.
    - a. For assemblies, equipment, systems comprised of multiple components and/or requiring detailed coordination with other work, allow for additional time to make corrections or revisions to initial submittals, and time for their review.

### **3.06 SUBMITTALS FOR REVIEW**

- A. When the following are specified in individual sections, submit them for review:
1. Product data.
  2. Shop drawings.
  3. Samples for selection.
  4. Samples for verification.

- B. Submit to Architect for review for the limited purpose of checking for compliance with information given and the design concept expressed in the contract documents.
- C. Samples will be reviewed for aesthetic, color, or finish selection.
- D. After review, provide copies and distribute in accordance with SUBMITTAL PROCEDURES article below and for record documents purposes described in Section 01-7800 - Closeout Submittals.

### **3.07 SUBMITTALS FOR PROJECT CLOSEOUT**

- A. Submit Correction Punch List for Substantial Completion.
- B. Submit Final Correction Punch List for Substantial Completion.
- C. When the following are specified in individual sections, submit them at project closeout in compliance with requirements of Section 01-7800 - Closeout Submittals:
  - 1. Project record documents.
  - 2. Operation and maintenance data.
  - 3. Warranties.
  - 4. Bonds.
  - 5. Other types as indicated.
- D. Submit for Owner's benefit during and after project completion.

### **3.08 SUBMITTAL PROCEDURES**

- A. General Requirements:
- B. Shop Drawing Procedures:
  - 1. Prepare accurate, drawn-to-scale, original shop drawing documentation by interpreting the Contract Documents and coordinating related Work.
  - 2. Generic, non-project specific information submitted as shop drawings do not meet the requirements for shop drawings.
- C. Transmit each submittal with a copy of approved submittal form.
- D. Sequentially number the transmittal form. Revise submittals with original number and a sequential alphabetic suffix.
- E. Identify Project, Contractor, Subcontractor or supplier; pertinent drawing and detail number, and specification section number, as appropriate on each copy.
- F. Apply Contractor's stamp, signed or initialed certifying that review, approval, verification of Products required, field dimensions, adjacent construction Work, and coordination of information is in accordance with the requirements of the Work and Contract Documents.
- G. Schedule submittals to expedite the Project, and coordinate submission of related items.
- H. For each submittal for review, allow 15 days excluding delivery time to and from the Contractor.
- I. Identify variations from Contract Documents and Product or system limitations that may be detrimental to successful performance of the completed Work.
- J. Provide space for Contractor and Architect review stamps.
- K. When revised for resubmission, identify all changes made since previous submission.
- L. Distribute reviewed submittals as appropriate. Instruct parties to promptly report any inability to comply with requirements.
- M. Submittals not requested will not be recognized or processed.

**END OF SECTION**



**SECTION 01-3553  
SECURITY PROCEDURES**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Security measures including formal security program, entry control, personnel identification, and miscellaneous restrictions.

**1.02 RELATED REQUIREMENTS**

- A. Section 01-1000 - Summary: use of premises and occupancy.

**1.03 SECURITY PROGRAM**

- A. Initiate program in coordination with Owner's existing security system at project mobilization.
- B. Everyone on site will either undergo a background check or be supervised by badged escort at all times.

**1.04 ENTRY CONTROL**

- A. Allow entrance only to authorized persons.
- B. Contractor will control travel and entrance to approved Staging Area.
  - 1. Only the designated access path(s) will be used to access the Staging Area.
- C. Owner may arrange for travel/delivery along an alternate path to Staging Area on designed days and times.

**1.05 PERSONNEL IDENTIFICATION**

- A. Provide identification badge to each person authorized to enter premises.
- B. Badge To Include: Personal photograph, name, assigned number , expiration date and employer.
- C. Require return of badges at expiration of their employment on the Work.

**1.06 RESTRICTIONS**

**PART 2 PRODUCTS - NOT USED**

**PART 3 EXECUTION - NOT USED**

**END OF SECTION**

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**SECTION 01-4000  
QUALITY REQUIREMENTS**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Quality assurance.
- B. Testing and inspection agencies and services.
- C. Contractor's construction-related professional design services.
- D. Control of installation.
- E. Defect Assessment.

**1.02 REFERENCE STANDARDS**

- A. ASTM C1077 - Standard Practice for Agencies Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Testing Agency Evaluation; 2024.
- B. ASTM C1093 - Standard Practice for Accreditation of Testing Agencies for Masonry; 2023.
- C. ASTM E329 - Standard Specification for Agencies Engaged in Construction Inspection, Testing, or Special Inspection; 2023.

**1.03 CONTRACTOR'S CONSTRUCTION-RELATED PROFESSIONAL DESIGN SERVICES**

- A. Coordination: Contractor's professional design services are subject to requirements of project's Conditions for Construction Contract.
- B. Provide such engineering design services as may be necessary to plan and safely conduct certain construction operations, pertaining to, but not limited to the following:
  - 1. Temporary sheeting, shoring, or supports.
  - 2. Temporary bracing.

**1.04 TESTING AND INSPECTION AGENCIES AND SERVICES**

- A. Owner will employ and pay for services of an independent testing agency to perform other specified testing.
- B. Employment of agency in no way relieves Contractor of obligation to perform Work in accordance with requirements of Contract Documents.

**PART 3 EXECUTION**

**2.01 CONTROL OF INSTALLATION**

- A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce work of specified quality.
- B. Comply with manufacturers' instructions, including each step in sequence.
- C. Should manufacturers' instructions conflict with Contract Documents, request clarification from Architect before proceeding.
- D. Comply with specified standards as minimum quality for the work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E. Have work performed by persons qualified to produce required and specified quality.
- F. Verify that field measurements are as indicated on shop drawings or as instructed by the manufacturer.
- G. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, and disfigurement.

**2.02 TESTING AND INSPECTION**

- A. Testing Agency Duties:

1. Provide qualified personnel at site. Cooperate with Architect and Contractor in performance of services.
  2. Perform specified sampling and testing of products in accordance with specified standards.
  3. Ascertain compliance of materials and mixes with requirements of Contract Documents.
  4. Promptly notify Architect and Contractor of observed irregularities or non-compliance of Work or products.
  5. Perform additional tests and inspections required by Architect.
  6. Submit reports of all tests/inspections specified.
- B. Limits on Testing/Inspection Agency Authority:
1. Agency may not release, revoke, alter, or enlarge on requirements of Contract Documents.
  2. Agency may not approve or accept any portion of the Work.
  3. Agency may not assume any duties of Contractor.
  4. Agency has no authority to stop the Work.
- C. Contractor Responsibilities:
1. Deliver to agency at designated location, adequate samples of materials proposed to be used that require testing, along with proposed mix designs.
  2. Cooperate with laboratory personnel, and provide access to the Work and to manufacturers' facilities.
  3. Provide incidental labor and facilities:
    - a. To provide access to Work to be tested/inspected.
    - b. To obtain and handle samples at the site or at source of Products to be tested/inspected.
    - c. To facilitate tests/inspections.
    - d. To provide storage and curing of test samples.
  4. Notify Architect and laboratory 24 hours prior to expected time for operations requiring testing/inspection services.
  5. Employ services of an independent qualified testing laboratory and pay for additional samples, tests, and inspections required by Contractor beyond specified requirements.
  6. Arrange with Owner's agency and pay for additional samples, tests, and inspections required by Contractor beyond specified requirements.
- D. Re-testing required because of non-compliance with specified requirements shall be performed by the same agency on instructions by Architect.
- E. Re-testing required because of non-compliance with specified requirements shall be paid for by Contractor.

**2.03 DEFECT ASSESSMENT**

- A. Replace Work or portions of the Work not complying with specified requirements.

**END OF SECTION**

**SECTION 01-6000  
PRODUCT REQUIREMENTS**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Re-use of existing products.
- B. Transportation, handling, storage and protection.
- C. Product option requirements.
- D. Substitution limitations.
- E. Maintenance materials, including extra materials, spare parts, tools, and software.

**1.02 RELATED REQUIREMENTS**

- A. Document 00-2113 - Instructions to Bidders: Product options and substitution procedures prior to bid date.
- B. Section 01-4000 - Quality Requirements: Product quality monitoring.

**1.03 SUBMITTALS**

- A. Product Data Submittals: Submit manufacturer's standard published data. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this Project.
- B. Shop Drawing Submittals: Prepared specifically for this Project; indicate utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.
- C. Sample Submittals: Illustrate functional and aesthetic characteristics of the product, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.
  - 1. For selection from standard finishes, submit samples of the full range of the manufacturer's standard colors, textures, and patterns.

**PART 2 PRODUCTS**

**2.01 EXISTING PRODUCTS**

- A. Do not use materials and equipment removed from existing premises unless specifically required or permitted by Contract Documents.
- B. Existing materials and equipment indicated to be removed, but not to be re-used, relocated, reinstalled, delivered to the Owner, or otherwise indicated as to remain the property of the Owner, become the property of the Contractor; remove from site.
- C. Owner encourages Contractor to provide salvage opportunities for all unused building materials.

**2.02 NEW PRODUCTS**

- A. Provide new products unless specifically required or permitted by Contract Documents.

**2.03 PRODUCT OPTIONS**

- A. Products Specified by Reference Standards or by Description Only: Use any product meeting those standards or description.
- B. Products Specified by Naming One or More Manufacturers with a Provision for Substitutions: Submit a request for substitution for any manufacturer not named.

**2.04 MAINTENANCE MATERIALS**

- A. Furnish extra materials, spare parts, tools, and software of types and in quantities specified in individual specification sections.
- B. Deliver to Project site; obtain receipt prior to final payment.

## **PART 3 EXECUTION**

### **3.01 SUBSTITUTION LIMITATIONS**

- A. Document each request with complete data substantiating compliance of proposed substitution with Contract Documents.
- B. A request for substitution constitutes a representation that the submitter:
  - 1. Has investigated proposed product and determined that it meets or exceeds the quality level of the specified product.
  - 2. Agrees to provide the same warranty for the substitution as for the specified product.
  - 3. Agrees to coordinate installation and make changes to other Work that may be required for the Work to be complete with no additional cost to Owner.
  - 4. Waives claims for additional costs or time extension that may subsequently become apparent.

### **3.02 TRANSPORTATION AND HANDLING**

- A. Coordinate schedule of product delivery to designated prepared areas in order to minimize site storage time and potential damage to stored materials.
- B. Transport and handle products in accordance with manufacturer's instructions.
- C. Transport materials in covered trucks to prevent contamination of product and littering of surrounding areas.
- D. Promptly inspect shipments to ensure that products comply with requirements, quantities are correct, and products are undamaged.
- E. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage, and to minimize handling.
- F. Arrange for the return of packing materials, such as wood pallets, where economically feasible.

### **3.03 STORAGE AND PROTECTION**

- A. Designate receiving/storage areas for incoming products so that they are delivered according to installation schedule and placed convenient to work area in order to minimize waste due to excessive materials handling and misapplication
- B. Store and protect products in accordance with manufacturers' instructions.
- C. Store with seals and labels intact and legible.
- D. Store sensitive products in weathertight, climate-controlled enclosures in an environment favorable to product.
- E. For exterior storage of fabricated products, place on sloped supports above ground.
- F. Protect products from damage or deterioration due to construction operations, weather, precipitation, humidity, temperature, sunlight and ultraviolet light, dirt, dust, and other contaminants.
- G. Comply with manufacturer's warranty conditions, if any.
- H. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.
- I. Prevent contact with material that may cause corrosion, discoloration, or staining.
- J. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
- K. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

**END OF SECTION**

**SECTION 01-7000  
EXECUTION AND CLOSEOUT REQUIREMENTS**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Examination, preparation, and general installation procedures.
- B. Cutting and patching.
- C. Cleaning and protection.
- D. Closeout procedures, including Contractor's Correction Punch List, except payment procedures.
- E. General requirements for maintenance service.

**1.02 RELATED REQUIREMENTS**

- A. Section 01-1000 - Summary: Limitations on working in existing building; continued occupancy; work sequence; identification of salvaged and relocated materials.
- B. Section 01-3000 - Administrative Requirements: Submittals procedures, Electronic document submittal service.
- C. Section 01-7800 - Closeout Submittals: Project record documents, operation and maintenance data, warranties, and bonds.

**1.03 QUALIFICATIONS**

- A. For surveying work, employ a land surveyor registered in the State in which the Project is located and acceptable to Architect. Submit evidence of surveyor's Errors and Omissions insurance coverage in the form of an Insurance Certificate. Employ only individual(s) trained and experienced in collecting and recording accurate data relevant to ongoing construction activities,

**1.04 COORDINATION**

- A. Coordinate scheduling, submittals, and work of the various sections of the Project Manual to ensure efficient and orderly sequence of installation of interdependent construction elements.
- B. Notify affected utility companies and comply with their requirements.
- C. Verify that utility requirements and characteristics of new operating equipment are compatible with building utilities. Coordinate work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.
- D. Coordinate space requirements, supports, and installation of mechanical and electrical work that are indicated diagrammatically on drawings. Follow routing indicated for pipes, ducts, and conduit, as closely as practicable; place runs parallel with lines of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.
- E. In finished areas except as otherwise indicated, conceal pipes, ducts, and wiring within the construction. Coordinate locations of fixtures and outlets with finish elements.
- F. Coordinate completion and clean-up of work of separate sections.
- G. After Owner occupancy of premises, coordinate access to site for correction of defective work and work not in accordance with Contract Documents, to minimize disruption of Owner's activities.

**PART 2 PRODUCTS - NOT USED**

**PART 3 EXECUTION**

**3.01 EXAMINATION**

- A. Verify that existing site conditions and substrate surfaces are acceptable for subsequent work. Start of work means acceptance of existing conditions.

- B. Verify that existing substrate is capable of structural support or attachment of new work being applied or attached.
- C. Examine and verify specific conditions described in individual specification sections.
- D. Take field measurements before confirming product orders or beginning fabrication, to minimize waste due to over-ordering or mis-fabrication.
- E. Verify that utility services are available, of the correct characteristics, and in the correct locations.
- F. Prior to Cutting: Examine existing conditions prior to commencing work, including elements subject to damage or movement during cutting and patching. After uncovering existing work, assess conditions affecting performance of work. Beginning of cutting or patching means acceptance of existing conditions.

### **3.02 GENERAL INSTALLATION REQUIREMENTS**

- A. Install products as specified in individual sections, in accordance with manufacturer's instructions and recommendations, and so as to avoid waste due to necessity for replacement.
- B. Make vertical elements plumb and horizontal elements level, unless otherwise indicated.
- C. Install equipment and fittings plumb and level, neatly aligned with adjacent vertical and horizontal lines, unless otherwise indicated.
- D. Make consistent texture on surfaces, with seamless transitions, unless otherwise indicated.
- E. Make neat transitions between different surfaces, maintaining texture and appearance.

### **3.03 CUTTING AND PATCHING**

- A. Whenever possible, execute the work by methods that avoid cutting or patching.
- B. Perform whatever cutting and patching is necessary to:
  - 1. Complete the work.
  - 2. Fit products together to integrate with other work.
  - 3. Provide openings for penetration of mechanical, electrical, and other services.
  - 4. Match work that has been cut to adjacent work.
  - 5. Repair areas adjacent to cuts to required condition.
  - 6. Repair new work damaged by subsequent work.
  - 7. Remove samples of installed work for testing when requested.
  - 8. Remove and replace defective and non-complying work.
- C. Execute work by methods that avoid damage to other work and that will provide appropriate surfaces to receive patching and finishing.
- D. Employ skilled and experienced installer to perform cutting for weather exposed and moisture resistant elements, and sight exposed surfaces.
- E. Cut rigid materials using masonry saw or core drill. Pneumatic tools not allowed without prior approval.
- F. Restore work with new products in accordance with requirements of Contract Documents.
- G. Fit work air tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
- H. At penetrations of fire rated walls, partitions, ceiling, or floor construction, completely seal voids with fire rated material , to full thickness of the penetrated element.
- I. Patching:
  - 1. Finish patched surfaces to match finish that existed prior to patching. On continuous surfaces, refinish to nearest intersection or natural break. For an assembly, refinish entire unit.
  - 2. Match color, texture, and appearance.



3. Repair patched surfaces that are damaged, lifted, discolored, or showing other imperfections due to patching work. If defects are due to condition of substrate, repair substrate prior to repairing finish.

#### **3.04 PROGRESS CLEANING**

- A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.
- B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to enclosing the space.
- C. Broom and vacuum clean interior areas prior to start of surface finishing, and continue cleaning to eliminate dust.
- D. Collect and remove waste materials, debris, and trash/rubbish from site periodically and dispose off-site; do not burn or bury.

#### **3.05 PROTECTION OF INSTALLED WORK**

- A. Protect installed work from damage by construction operations.
- B. Provide special protection where specified in individual specification sections.
- C. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.
- D. Prohibit traffic or storage upon waterproofed or roofed surfaces. If traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
- E. Prohibit traffic from landscaped areas.
- F. Remove protective coverings when no longer needed; reuse or recycle coverings if possible.

#### **3.06 FINAL CLEANING**

- A. Clean debris from downspouts, scuppers, overflow drains, area drains, and drainage systems.
- B. Clean site; sweep paved areas, rake clean landscaped surfaces.
- C. Remove waste, surplus materials, trash/rubbish, and construction facilities from the site; dispose of in legal manner; do not burn or bury.

#### **3.07 CLOSEOUT PROCEDURES**

- A. Make submittals that are required by governing or other authorities.
- B. Accompany Project Coordinator on preliminary inspection to determine items to be listed for completion or correction in the Contractor's Correction Punch List for Contractor's Notice of Substantial Completion.
- C. Notify Architect when work is considered ready for Architect's Substantial Completion inspection.
- D. Submit written certification containing Contractor's Correction Punch List, that Contract Documents have been reviewed, work has been inspected, and that work is complete in accordance with Contract Documents and ready for Architect's Substantial Completion inspection.
- E. Conduct Substantial Completion inspection and create Final Correction Punch List containing Architect's and Contractor's comprehensive list of items identified to be completed or corrected and submit to Architect.
- F. Correct items of work listed in Final Correction Punch List and comply with requirements for access to Owner-occupied areas.
- G. Notify Architect when work is considered finally complete and ready for Architect's Substantial Completion final inspection.

H. Complete items of work determined by Architect listed in executed Certificate of Substantial Completion.

**END OF SECTION**

**SECTION 01-7800  
CLOSEOUT SUBMITTALS**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Project Record Documents.
- B. Operation and Maintenance Data.
- C. Warranties and bonds.
- D. Evidence of Payments and Release of Liens.

**1.02 RELATED REQUIREMENTS**

- A. Section 00-7200 - General Conditions: Performance bond and labor and material payment bonds, warranty, and correction of work.
- B. Section 01-3000 - Administrative Requirements: Submittals procedures, shop drawings, product data, and samples.
- C. Section 01-7000 - Execution and Closeout Requirements: Contract closeout procedures.
- D. Individual Product Sections and Drawings: Specific requirements for operation and maintenance data.
- E. Individual Product Sections and Drawings: Warranties required for specific products or Work.

**1.03 SUBMITTALS**

- A. Project Record Documents: Submit documents to Architect with claim for final Application for Payment.
- B. Operation and Maintenance Data:
  - 1. Submit two copies of preliminary draft or proposed formats and outlines of contents before start of Work. Architect will review draft and return one copy with comments.
  - 2. For equipment, or component parts of equipment put into service during construction and operated by Owner, submit completed documents within ten days after acceptance.
  - 3. Submit one copy of completed documents 15 days prior to final inspection. This copy will be reviewed and returned after final inspection, with Architect comments. Revise content of all document sets as required prior to final submission.
  - 4. Submit two sets of revised final documents in final form within 10 days after final inspection.
- C. Warranties and Bonds:
  - 1. For equipment or component parts of equipment put into service during construction with Owner's permission, submit documents within 10 days after acceptance.
  - 2. Make other submittals within 10 days after Date of Substantial Completion, prior to final Application for Payment.
  - 3. For items of Work for which acceptance is delayed beyond Date of Substantial Completion, submit within 10 days after acceptance, listing the date of acceptance as the beginning of the warranty period.

**PART 2 PRODUCTS - NOT USED**

**PART 3 EXECUTION**

**3.01 PROJECT RECORD DOCUMENTS**

- A. Maintain on site one set of the following record documents; record actual revisions to the Work:
  - 1. Drawings.
  - 2. Specifications.
  - 3. Addenda.
  - 4. Change Orders and other modifications to the Contract.

5. Reviewed shop drawings, product data, and samples.
  6. Manufacturer's instruction for assembly, installation, and adjusting.
- B. Ensure entries are complete and accurate, enabling future reference by Owner.
  - C. Store record documents separate from documents used for construction.
  - D. Record information concurrent with construction progress.
  - E. Specifications: Legibly mark and record at each product section description of actual products installed, including the following:
    1. Manufacturer's name and product model and number.
    2. Product substitutions or alternates utilized.
    3. Changes made by Addenda and modifications.
  - F. Record Drawings and Shop Drawings: Legibly mark each item to record actual construction including:
    1. Field changes of dimension and detail.
    2. Details not on original Contract drawings.

### **3.02 OPERATION AND MAINTENANCE DATA**

- A. Source Data: For each product or system, list names, addresses and telephone numbers of Subcontractors and suppliers, including local source of supplies and replacement parts.
- B. Product Data: Mark each sheet to clearly identify specific products and component parts, and data applicable to installation. Delete inapplicable information.
- C. Drawings: Supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams. Do not use Project Record Documents as maintenance drawings.
- D. Typed Text: As required to supplement product data. Provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions.

### **3.03 OPERATION AND MAINTENANCE DATA FOR MATERIALS AND FINISHES**

- A. For Each Product, Applied Material, and Finish:
  1. Product data, with catalog number, size, composition, and color and texture designations.
- B. Instructions for Care and Maintenance: Manufacturer's recommendations for cleaning agents and methods, precautions against detrimental cleaning agents and methods, and recommended schedule for cleaning and maintenance.
- C. Moisture protection and weather-exposed products: Include product data listing applicable reference standards, chemical composition, and details of installation. Provide recommendations for inspections, maintenance, and repair.
- D. Additional information as specified in individual product specification sections.
- E. Where additional instructions are required, beyond the manufacturer's standard printed instructions, have instructions prepared by personnel experienced in the operation and maintenance of the specific products.

### **3.04 ASSEMBLY OF OPERATION AND MAINTENANCE MANUALS**

- A. Assemble operation and maintenance data into durable manuals for Owner's personnel use, with data arranged in the same sequence as, and identified by, the specification sections.
- B. Where systems involve more than one specification section, provide separate tabbed divider for each system.
- C. Prepare instructions and data by personnel experienced in maintenance and operation of described products.
- D. Binders: Commercial quality, 8-1/2 by 11 inch three D side ring binders with durable plastic covers; 2 inch maximum ring size. When multiple binders are used, correlate data into related consistent groupings.

- E. Cover: Identify each binder with typed or printed title OPERATION AND MAINTENANCE INSTRUCTIONS; identify title of Project; identify subject matter of contents.
- F. Project Directory: Title and address of Project; names, addresses, and telephone numbers of Architect, Consultants, Contractor and subcontractors, with names of responsible parties.
- G. Tables of Contents: List every item separated by a divider, using the same identification as on the divider tab; where multiple volumes are required, include all volumes Tables of Contents in each volume, with the current volume clearly identified.
- H. Dividers: Provide tabbed dividers for each separate product and system; identify the contents on the divider tab; immediately following the divider tab include a description of product and major component parts of equipment.
- I. Text: Manufacturer's printed data, or typewritten data on 20 pound paper.
- J. Drawings: Provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages.

### 3.05 WARRANTIES AND BONDS

- A. Obtain warranties and bonds, executed in duplicate by responsible Subcontractors, suppliers, and manufacturers, within 10 days after completion of the applicable item of work. Except for items put into use with Owner's permission, leave date of beginning of time of warranty until Date of Substantial completion is determined.
  - 1. General Warranties:
    - a. Provide one-year warranty as described in the General Conditions, Article 3.5. Warranty period shall commence on the date of the fully executed Certificate of Substantial Completion.
    - b. Weather-tight warranty: The Contractor shall, and hereby does, warranty flashings, roofing, and all other work which is a component part of the roofing to be weather-tight under ordinary wear and usage for a period of two years from and after Substantial Completion of the building. This is an extension of the general one year warranty described above.
  - 2. Additional Warranties: See individual technical specifications or drawings for required written warranties for specific items of work.
  - 3. Warranty Period shall begin upon Substantial Completion, or if a Certificate of Substantial Completion is not issued or if Work which is to be covered by warranty is not then complete, Warranty Period shall begin upon the date of Final Acceptance or on the date appearing on the final Certificate for Payment to the Contractor, whichever is earlier.
- B. Verify that documents are in proper form, contain full information, and are notarized.
- C. Co-execute submittals when required.
- D. Retain warranties and bonds until time specified for submittal.
- E. Manual: Bind in commercial quality 8-1/2 by 11 inch three D side ring binders with durable plastic covers.
- F. Cover: Identify each binder with typed or printed title WARRANTIES AND BONDS, with title of Project; name, address and telephone number of Contractor and equipment supplier; and name of responsible company principal.
- G. Table of Contents: Neatly typed, in the sequence of the Table of Contents of the Project Manual, with each item identified with the number and title of the specification section in which specified, and the name of product or work item.
- H. Separate each warranty or bond with index tab sheets keyed to the Table of Contents listing. Provide full information, using separate typed sheets as necessary. List Subcontractor, supplier, and manufacturer, with name, address, and telephone number of responsible principal.

### **3.06 EVIDENCE OF PAYMENTS AND RELEASE OF LIENS**

- A. Submit with Final Application for Payment the following:
  - 1. Contractor's Affidavit of Payment of Debts and Claims: AIA G706.
  - 2. Contractor's Affidavit of Release of Liens: AIA G706A, with
    - a. Consent of Surety to Final Payment: AIA G707.
    - b. Contractor's release or waiver of liens.
    - c. Separate releases or waivers of liens for subcontractors, suppliers, and others with lien rights against property of Owner.

**END OF SECTION**

**SECTION 02-4100  
DEMOLITION**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Selective demolition of site elements. See Plans.

**1.02 RELATED REQUIREMENTS**

- A. Section 01-1000 - Summary: Limitations on Contractor's use of site and premises.
- B. Section 31-2323 - Fill: Filling holes, pits, and excavations generated as a result of removal operations.

**1.03 SUBMITTALS**

- A. See Section 01-3000 - Administrative Requirements, for submittal procedures.
- B. Project Record Documents: Accurately record actual locations of capped and active utilities and subsurface construction.

**PART 2 PRODUCTS -- NOT USED**

**PART 3 EXECUTION**

**3.01 SCOPE**

- A. Remove fences and gates.

**3.02 GENERAL PROCEDURES AND PROJECT CONDITIONS**

- A. Comply with applicable codes and regulations for demolition operations and safety of adjacent structures and the public.
  - 1. Obtain required permits.
  - 2. Take precautions to prevent catastrophic or uncontrolled collapse of structures to be removed; do not allow worker or public access within range of potential collapse of unstable structures.
  - 3. Provide, erect, and maintain temporary barriers and security devices.
  - 4. Conduct operations to minimize effects on and interference with adjacent roads, structures and occupants.
  - 5. Do not close or obstruct roadways or sidewalks without permit.
  - 6. Conduct operations to minimize obstruction of public and private entrances and exits; do not obstruct required exits at any time; protect persons using entrances and exits from removal operations.
  - 7. Obtain written permission from owners of adjacent properties when demolition equipment will traverse, infringe upon or limit access to their property.
- B. Do not begin removal until receipt of notification to proceed from Owner.
- C. Protect existing structures and other elements that are not to be removed.
  - 1. Provide bracing and shoring.
  - 2. Prevent movement or settlement of adjacent structures.
  - 3. Stop work immediately if adjacent structures appear to be in danger.

**3.03 EXISTING UTILITIES**

- A. Coordinate work with utility companies; notify before starting work and comply with their requirements; obtain required permits.
- B. Protect existing utilities to remain from damage.
- C. Do not disrupt public utilities without permit from authority having jurisdiction.
- D. Do not close, shut off, or disrupt existing life safety systems that are in use without at least 7 days prior written notification to Owner.

- E. Do not close, shut off, or disrupt existing utility that are in use without at least 3 days prior written notification to Owner.
- F. Locate and mark utilities to remain; mark using highly visible tags or flags, with identification of utility type; protect from damage due to subsequent construction, using substantial barricades if necessary.
- G. Remove exposed piping, valves, meters, equipment, supports, and foundations of disconnected and abandoned utilities.

**3.04 DEBRIS AND WASTE REMOVAL**

- A. Remove debris, junk, and trash from site.
- B. Leave site in clean condition, ready for subsequent work.
- C. Clean up spillage and wind-blown debris from public and private lands.

**END OF SECTION**



**SECTION 03-3000  
CAST-IN-PLACE CONCRETE**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Concrete formwork.
- B. Concrete footings.
- C. Concrete reinforcement.
- D. Concrete Sealer.

**1.02 REFERENCE STANDARDS**

- A. ACI 117 - Specification for Tolerances for Concrete Construction and Materials; 2010 (Reapproved 2015).
- B. ACI 301 - Specifications for Structural Concrete; 2016.
- C. ACI 304R - Guide for Measuring, Mixing, Transporting, and Placing Concrete; 2000 (Reapproved 2009).
- D. ACI 318 - Building Code Requirements for Structural Concrete; 2019 (Reapproved 2022).
- E. ASTM A767/A767M - Standard Specification for Zinc-Coated (Galvanized) Steel Bars for Concrete Reinforcement; 2019.
- F. ASTM A1064/A1064M - Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete; 2018a.
- G. ASTM C33/C33M - Standard Specification for Concrete Aggregates; 2018.
- H. ASTM C39/C39M - Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens; 2021.
- I. ASTM C94/C94M - Standard Specification for Ready-Mixed Concrete; 2020.
- J. ASTM C143/C143M - Standard Test Method for Slump of Hydraulic-Cement Concrete; 2020.
- K. ASTM C150/C150M - Standard Specification for Portland Cement; 2020.
- L. ASTM C173/C173M - Standard Test Method for Air Content of Freshly Mixed Concrete by the Volumetric Method; 2016.
- M. ASTM C260/C260M - Standard Specification for Air-Entraining Admixtures for Concrete; 2010a (Reapproved 2016).
- N. ASTM C618 - Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete; 2019.
- O. ASTM C881/C881M - Standard Specification for Epoxy-Resin-Base Bonding Systems for Concrete; 2020a.
- P. ASTM C1107/C1107M - Standard Specification for Packaged Dry, Hydraulic-Cement Grout (Nonshrink); 2020.
- Q. ASTM C1708/C1708M - Standard Test Methods for Self-Leveling Mortars Containing Hydraulic Cements; 2023.
- R. ASTM D1751 - Standard Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (Nonextruding and Resilient Bituminous Types); 2018.

**1.03 SUBMITTALS**

- A. See Section 01-3000 - Administrative Requirements for submittal procedures.
- B. Product Data: Submit manufacturers' data on manufactured products showing compliance with specified requirements and installation instructions.

1. For curing compounds, provide data on method of removal in the event of incompatibility with floor covering adhesives.
- C. Mix Design: Submit proposed concrete mix design.
- D. Test Reports: Submit report for each test or series of tests specified.
- E. Sustainable Design Submittal: If any fly ash, ground granulated blast furnace slag, silica fume, rice hull ash, or other waste material is used in mix designs to replace Portland cement, submit the total volume of concrete cast in place, mix design(s) used showing the quantity of portland cement replaced, reports showing successful cylinder testing, and temperature on day of pour if cold weather mix is used.

#### **1.04 QUALITY ASSURANCE**

- A. Perform work of this section in accordance with ACI 301 and ACI 318.
- B. Follow recommendations of ACI 305R when concreting during hot weather.
- C. Follow recommendations of ACI 306R when concreting during cold weather.

### **PART 2 PRODUCTS**

#### **2.01 FORMWORK**

- A. Formwork Design and Construction: Comply with guidelines of ACI 347R to provide formwork that will produce concrete complying with tolerances of ACI 117.
- B. Form Materials: Contractor's choice of standard products with sufficient strength to withstand hydrostatic head without distortion in excess of permitted tolerances.
  1. Form Facing for Exposed Finish Concrete: Contractor's choice of materials that will provide smooth, stain-free final appearance.
  2. Form Coating: Release agent that will not adversely affect concrete or interfere with application of coatings.
  3. Form Ties: Cone snap type that will leave no metal within 1-1/2 inches of concrete surface.

#### **2.02 REINFORCEMENT MATERIALS**

- A. Reinforcing Steel: ASTM A615/A615M, Grade 60 (60,000 psi).
  1. Type: Deformed billet-steel bars.
  2. Finish: Galvanized in accordance with ASTM A767/A767M, Class I, unless otherwise indicated.
- B. Steel Welded Wire Reinforcement (WWR): Galvanized, plain type, ASTM A1064/A1064M.
- C. Reinforcement Accessories:
  1. Provide stainless steel, galvanized, plastic, or plastic coated steel components for placement within 1-1/2 inches of weathering surfaces.

#### **2.03 CONCRETE MATERIALS**

- A. Cement. See notes on drawings for additional requirements regarding cement and additives.
  1. Cement: ASTM C150/C150M, Type I - Normal Portland type. [<>]
- B. Acquire cement for entire project from same source.
- C. Fine and Coarse Aggregates: ASTM C33/C33M.
  1. Acquire aggregates for entire project from same source.
- D. Fly Ash: ASTM C618, Class C or F.
- E. Calcined Pozzolan: ASTM C618, Class N.
- F. Silica Fume: ASTM C1240, proportioned in accordance with ACI 211.1.
- G. Water: ASTM C1602/C1602M; clean, potable, and not detrimental to concrete.

## 2.04 ADMIXTURES

- A. Do not use chemicals that will result in soluble chloride ions in excess of 0.1 percent by weight of cement.
- B. Air Entrainment Admixture: ASTM C260/C260M.

## 2.05 ACCESSORY MATERIALS

- A. Non-Shrink Cementitious Grout: Premixed compound consisting of non-metallic aggregate, cement, water reducing and plasticizing agents.
  - 1. Grout: Comply with ASTM C1107/C1107M.
  - 2. Minimum Compressive Strength at 28 Days, ASTM C109/C109M: 7,000 pounds per square inch.
- B. Non-Shrink Epoxy Grout: Moisture-insensitive, two-part; consisting of epoxy resin, non-metallic aggregate, and activator, for rebar embedment, ect.
  - 1. Manufacturers:
    - a. Dayton Superior Corporation: [www.daytonsuperior.com/#sle](http://www.daytonsuperior.com/#sle).
    - b. Five Star Products, Inc; Five Star HP Epoxy Grout: [www.fivestarprouducts.com/#sle](http://www.fivestarprouducts.com/#sle).
    - c. W. R. Meadows, Inc; REZI-WELD 3/2: [www.wrmeadows.com/#sle](http://www.wrmeadows.com/#sle).
    - d. Substitutions: See Section 01-6000 - Product Requirements.
- C. Self-Leveling Cementitious Concrete Floor Topping - For concrete repair in Base Bid and flooring prep in Alternate Bid.
  - 1. Minimum Compressive Strength at 28 Days, ASTM C1708/C1708M: 7,000 pounds per square inch.
  - 2. Manufacturers:
    - a. LATICRETE International, Inc; LATICRETE SUPERCAP SC650-MC: [www.laticrete.com/#sle](http://www.laticrete.com/#sle).
    - b. Substitutions: See Section 01-6000 - Product Requirements.

## 2.06 BONDING AND JOINTING PRODUCTS

- A. Epoxy Bonding System:
  - 1. Complying with ASTM C881/C881M and of Type required for specific application.
- B. Slab Isolation Joint Filler: 1/2 inch thick, height equal to slab thickness, with removable top section that will form 1/2 inch deep sealant pocket after removal.
  - 1. Material: ASTM D1751, cellulose fiber.
  - 2. Manufacturers:
    - a. Nomaco, Inc; Nomaflex Expansion Joint Filler with Void Cap Option: [www.nomaco.com/#sle](http://www.nomaco.com/#sle).
    - b. W. R. Meadows, Inc; Fiber Expansion Joint Filler with Snap-Cap: [www.wrmeadows.com/#sle](http://www.wrmeadows.com/#sle).
    - c. Substitutions: See Section 01-6000 - Product Requirements.
- C. Dowel Sleeves: Plastic sleeve for smooth, round, steel load-transfer dowels.
  - 1. Manufacturers:
    - a. BoMetals, Inc: [www.bometals.com/#sle](http://www.bometals.com/#sle).
    - b. Substitutions: See Section 01-6000 - Product Requirements.

## 2.07 CURING MATERIALS

- A. Curing and Sealing Compound: Liquid, membrane-forming, clear, non-yellowing acrylic; complying with ASTM C1315 Type 1 Class A.
  - 1. Application: Use at existing and new concrete. Follow Manufactures instruction for new and existing concrete, including but not limited to prep, application and coverage.
  - 2. Two Coats
  - 3. Vehicle: Solvent-based.
  - 4. Medium gloss or satin finish

5. Solids by Mass: 25 percent, minimum.
6. Manufacturers:
  - a. Eucd; Everclear Curing and Sealing.
  - b. Substitutions: See Section 01-6000 - Product Requirements.

## **2.08 CONCRETE MIX DESIGN**

- A. Proportioning Normal Weight Concrete: Comply with ACI 211.1 recommendations.
  1. Replace as much Portland cement as possible with fly ash, ground granulated blast furnace slag, silica fume, or rice hull ash as is consistent with ACI recommendations.
- B. Admixtures: Add acceptable admixtures as recommended in ACI 211.1 and at rates recommended or required by manufacturer.
- C. Normal Weight Concrete:
  1. Compressive Strength, when tested in accordance with ASTM C39/C39M at 28 days: 3,500 pounds per square inch.
  2. Fly Ash Content: Maximum 25 percent of cementitious materials by weight.
  3. Water-Cement Ratio: Maximum 40 percent by weight.
  4. Total Air Content: 4 percent, determined in accordance with ASTM C173/C173M.
  5. Maximum Slump: 4 inches.
  6. Maximum Aggregate Size: 3/4 inch.

## **2.09 MIXING**

- A. Transit Mixers: Comply with ASTM C94/C94M.
- B. Adding Water: If concrete arrives on-site with slump less than suitable for placement, do not add water that exceeds the maximum water-cement ratio or exceeds the maximum permissible slump.

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Verify lines, levels, and dimensions before proceeding with work of this section.

### **3.02 PREPARATION**

- A. Formwork: Comply with requirements of ACI 301. Design and fabricate forms to support all applied loads until concrete is cured, and for easy removal without damage to concrete.
- B. Coordinate placement of embedded items with erection of concrete formwork and placement of form accessories.
- C. Where new concrete is to be bonded to previously placed concrete, prepare existing surface by cleaning and applying bonding agent in according to bonding agent manufacturer's instructions.
  1. Use epoxy bonding system for bonding to damp surfaces, for structural load-bearing applications, and where curing under humid conditions is required.
- D. In locations where new concrete is doweled to existing work, drill holes in existing concrete, insert steel dowels and pack solid with non-shrink grout.
- E. Interior Slabs on Grade: Install vapor retarder under interior slabs on grade. Comply with ASTM E1643. Lap joints minimum 6 inches. Seal joints, seams and penetrations watertight with manufacturer's recommended products and follow manufacturer's written instructions. Repair damaged vapor retarder before covering. Match existing Assembly.

### **3.03 INSTALLING REINFORCEMENT AND OTHER EMBEDDED ITEMS**

- A. Comply with requirements of ACI 301. Clean reinforcement of loose rust and mill scale, and accurately position, support, and secure in place to achieve not less than minimum concrete coverage required for protection.
- B. Install welded wire reinforcement in maximum possible lengths, and offset end laps in both directions. Splice laps with tie wire.

- C. Verify that anchors, seats, plates, reinforcement and other items to be cast into concrete are accurately placed, positioned securely, and will not interfere with concrete placement.

### **3.04 PLACING CONCRETE**

- A. Place concrete in accordance with ACI 304R.
- B. Notify Architect and testing agency not less than 24 hours prior to commencement of placement operations.
- C. Maintain records of concrete placement. Record date, location, quantity, air temperature, and test samples taken.
- D. Ensure reinforcement, inserts, embedded parts, and formed construction joint devices will not be disturbed during concrete placement.

### **3.05 SLAB JOINTING**

- A. Locate joints as indicated on drawings.
- B. Isolation Joints: Use preformed joint filler with removable top section for joint sealant, total height equal to thickness of slab, set flush with top of slab.
  - 1. Install wherever necessary to separate slab from other building members, including columns, walls, equipment foundations, footings, stairs, manholes, sumps, and drains.

### **3.06 FLOOR FLATNESS AND LEVELNESS TOLERANCES**

- A. An independent testing agency, as specified in Section 01-4000, will inspect finished slabs for compliance with specified tolerances.
- B. Maximum Variation of Surface Flatness:
  - 1. Exposed Concrete Floors: 1/4 inch in 10 feet.
  - 2. Under Carpeting: 1/4 inch in 10 feet.

### **3.07 CONCRETE FINISHING**

- A. Repair surface defects, including tie holes, immediately after removing formwork.
- B. Concrete Slabs: Finish to requirements of ACI 302.1R, and as follows:
  - 1. Surfaces to Receive Thin Floor Coverings: "Steel trowel" as described in ACI 302.1R; thin floor coverings include carpeting, resilient flooring, seamless flooring, resinous matrix terrazzo, thin set quarry tile, and thin set ceramic tile.
  - 2. Other Surfaces to Be Left Exposed: Trowel as described in ACI 302.1R, minimizing burnish marks and other appearance defects.

### **3.08 CURING AND PROTECTION**

- A. Comply with requirements of ACI 308R. Immediately after placement, protect concrete from premature drying, excessively hot or cold temperatures, and mechanical injury.
- B. Maintain concrete with minimal moisture loss at relatively constant temperature for period necessary for hydration of cement and hardening of concrete.
- C. Formed Surfaces: Cure by moist curing with forms in place for full curing period.
- D. Surfaces Not in Contact with Forms:
  - 1. Slabs and Floors To Receive Adhesive-Applied Flooring: Curing compounds and other surface coatings are usually considered unacceptable by flooring and adhesive manufacturers. If such materials must be used, either obtain the approval of the flooring and adhesive manufacturers prior to use or remove the surface coating after curing to flooring manufacturer's satisfaction.
  - 2. Initial Curing: Start as soon as free water has disappeared and before surface is dry. Keep continuously moist for not less than three days by water ponding, water-saturated sand, water-fog spray, or saturated burlap.
    - a. Ponding: Maintain 100 percent coverage of water over floor slab areas, continuously for 4 days.

- b. Spraying: Spray water over floor slab areas and maintain wet.
- c. Saturated Burlap: Saturate burlap-polyethylene and place burlap-side down over floor slab areas, lapping ends and sides; maintain in place.
- 3. Final Curing: Begin after initial curing but before surface is dry.
  - a. Moisture-Retaining Sheet: Lap strips not less than 3 inches and seal with waterproof tape or adhesive; secure at edges.
- 4. Seal from water staining.

### **3.09 FIELD QUALITY CONTROL**

- A. An independent testing agency will perform field quality control tests, as specified in Section 01-4000 - Quality Requirements.
- B. Provide free access to concrete operations at project site and cooperate with appointed firm.
- C. Submit proposed mix design of each class of concrete to inspection and testing firm for review prior to commencement of concrete operations.
- D. Tests of concrete and concrete materials may be performed at any time to ensure compliance with specified requirements.

### **3.10 DEFECTIVE CONCRETE**

- A. Test Results: The testing agency shall report test results in writing to Architect and Contractor within 24 hours of test.
- B. Defective Concrete: Concrete not complying with required lines, details, dimensions, tolerances or specified requirements.
- C. Repair or replacement of defective concrete will be determined by the Architect. The cost of additional testing shall be borne by Contractor when defective concrete is identified.
- D. Do not patch, fill, touch-up, repair, or replace exposed concrete except upon express direction of Architect for each individual area.

### **3.11 PROTECTION**

- A. Do not permit traffic over unprotected concrete floor surface until fully cured and sealed.

**END OF SECTION**

**SECTION 03-3511  
CONCRETE FLOOR FINISHES**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Surface treatments for concrete floors and slabs.
- B. Joint filler.
- C. Clear coatings.
- D. Clear penetrating sealers.

**1.02 RELATED REQUIREMENTS**

- A. Section 03-3000 - Cast-in-Place Concrete: Finishing of concrete surface to tolerance; floating, troweling, and similar operations; curing.

**1.03 SUBMITTALS**

- A. See Section 01-3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Manufacturer's published data on each finishing product, including information on compatibility of different products and limitations.

**1.04 MOCK-UP**

- A. For coatings, construct mock-up area under conditions similar to those that will exist during application, with coatings applied.
- B. Mock-Up Size: 10 feet square.
- C. Locate where directed.
- D. Mock-up may remain as part of the work.

**1.05 DELIVERY, STORAGE, AND HANDLING**

- A. Deliver materials in manufacturer's sealed packaging, including application instructions.

**1.06 FIELD CONDITIONS**

- A. Maintain light level equivalent to a minimum 200 W light source at 8 feet above the floor surface over each 20 foot square area of floor being finished.
- B. Do not finish floors until interior heating system is operational.
- C. Maintain ambient temperature of 50 degrees F minimum.

**1.07 WARRANTY**

- A. See Section 01-7800 - Closeout Submittals for additional warranty requirements.
- B. Correct defective work within a two-year period commencing on the Date of Substantial Completion.

**PART 2 PRODUCTS**

**2.01 CONCRETE FLOOR FINISH APPLICATIONS**

- A. Unless otherwise indicated, all concrete floors are to be finished using high gloss sealer.
- B. Joint Filler:
  - 1. Use at following locations: At all joints..
  - 2. Product: SPAL-PRO Heavy Duty Semi-Rigid Plyurea Joint Filler, by Metzger/McGuire, [www.metzgermcguire.com](http://www.metzgermcguire.com), 1-800-223-MM80.
    - a. Rapid setting plyurea polymer liquid of 100% solids. Hardness Shore A86-90.
    - b. Suitable for Industrial Concrete Floors.
    - c. Tensile Strength: 970 psi.
    - d. Tensile Elongation: 180%.

- e. Adhesion to Concrete: 350-400 psi.
- 3. Or equivalent.
- C. Color Coatings:
  - 1. Use at following locations: All exposed concrete floors, U.O.N. Verify with Architect.. Refer to below.
- D. Penetrating Clear Sealer:
  - 1. Use at following locations: All exposed concrete floors, U.O.N.. Refer to below.

## **2.02 COATINGS**

- A. High Gloss Clear Coating: Transparent, non-yellowing, water- or solvent-based coating.
  - 1. Composition: Acrylic polymer-based.
  - 2. Nonvolatile Content: 15 percent, minimum, when measured by volume.
  - 3. Products:
    - a. Proclaim Concrete Floor Coating, Buckeye International, Inc.
      - 1) Cirene Concrete Sealer - spray applied or mop application. Add Buckeye "Sparkle" cleaner as needed: 1 quart/10 gallons of Cirene.
      - 2) Proclaim Concrete Floor Coating - 4 coats.
      - 3) Install rubber base after coating work is complete.
    - b. PROSOCO equivalent system.
    - c. Substitutions: See Section 01-6000 - Product Requirements.

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Verify that floor surfaces are acceptable to receive the work of this section.
- B. Verify that flaws in concrete have been patched and joints filled with methods and materials suitable for further finishes.

### **3.02 GENERAL**

- A. Apply materials in accordance with manufacturer's instructions.

### **3.03 COATING APPLICATION**

- A. Verify that surface is free of previous coatings, sealers, curing compounds, water repellents, laitance, efflorescence, fats, oils, grease, wax, soluble salts, residues from cleaning agents, and other impediments to adhesion.
- B. Verify that water vapor emission from concrete and relative humidity in concrete are within limits established by coating manufacturer.
- C. Protect adjacent non-coated areas from drips, overflow, and overspray; immediately remove excess material.
- D. Fill all joints, crack control joints and cracks with heavy duty semi-rigid polyurea joint filler, in strict accordance with manufacturer recommendations.
- E. Rubber wall base to be installed AFTER coating work is complete.

**END OF SECTION**



**SECTION 05-1200  
STRUCTURAL STEEL FRAMING**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Structural steel framing members
- B. Welded plates.

**1.02 RELATED REQUIREMENTS**

- A. Section 03-3000 - Cast - in - Place Concrete
- B. Section 07-4213 Metal Wall Panels

**1.03 REFERENCE STANDARDS**

- A. AISC (MAN) - Steel Construction Manual; 2023.
- B. AISC 303 - Code of Standard Practice for Steel Buildings and Bridges; 2022.
- C. ASTM A36/A36M - Standard Specification for Carbon Structural Steel; 2014.
- D. ASTM A123/A123M - Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products; 2017.
- E. ASTM A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware; 2009.
- F. ASTM A501/A501M - Standard Specification for Hot-Formed Welded and Seamless Carbon Steel Structural Tubing; 2014.
- G. ASTM A992/A992M - Standard Specification for Structural Steel Shapes; 2022.
- H. AWS A2.4 - Standard Symbols for Welding, Brazing, and Nondestructive Examination; 2020.
- I. AWS D1.1/D1.1M - Structural Welding Code - Steel; 2020, with Errata (2023).
- J. RCSC (HSBOLT) - Specification for Structural Joints Using High-Strength Bolts; Research Council on Structural Connections; 2020.

**1.04 SUBMITTALS**

- A. See Section 01-3000 - Administrative Requirements, for submittal procedures.
- B. Shop Drawings:
  - 1. Indicate profiles, sizes, spacing, locations of structural members, openings, attachments, and fasteners.
  - 2. Connections not detailed.
  - 3. Indicate welded connections with AWS A2.4 welding symbols. Indicate net weld lengths.

**1.05 QUALITY ASSURANCE**

- A. Fabricate structural steel members in accordance with AISC (MAN) "Steel Construction Manual."
- B. Fabricator: Company specializing in performing the work of this section with minimum 10 years of documented experience.

**PART 2 PRODUCTS**

**2.01 MATERIALS**

- A. Steel Angles and Plates: ASTM A36/A36M.
- B. Rolled Steel Structural Shapes: ASTM A992/A992M.
- C. Steel Shapes, Plates, and Bars: ASTM A242/A242M high-strength, corrosion-resistant structural steel.
- D. Hot-Formed Structural Tubing: ASTM A501/A501M, seamless or welded.

- E. Structural Bolts and Nuts: Carbon steel, ASTM A307, Grade A and galvanized in compliance with ASTM A153/A153M Class C.
- F. Welding Materials: AWS D1.1/D1.1M; type required for materials being welded.

## **2.02 FABRICATION**

- A. Shop fabricate to greatest extent possible.
- B. Continuously seal joined members by continuous welds. Grind exposed welds smooth.

## **2.03 FINISH**

- A. Prepare structural component surfaces in accordance with SSPC-SP 3.
- B. All exposed metal to be Hot-Dipped Galvanize structural steel coated with high-zinc coating. Comply with ASTM A123/A123M. Provide minimum 1.7 oz/sq ft galvanized coating.
  - 1. Clean and Paint all areas that are welded or scratched, with 3 coats of a high-zinc cold galvanizing paint, and two coats of a high-zinc cold galvanizing spray.

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Verify that conditions are appropriate for erection of structural steel and that the work may properly proceed.

### **3.02 ERECTION**

- A. Erect structural steel in compliance with AISC 303.
- B. Allow for erection loads and provide sufficient temporary bracing to maintain structure in safe condition, plumb, and in true alignment until completion of erection and installation of permanent bracing.

### **3.03 TOLERANCES**

- A. Maximum Variation From Plumb: 1/4 inch per story, non-cumulative.

### **3.04 FIELD QUALITY CONTROL**

- A. An independent testing agency will perform field quality control tests, as specified in Section 01-4000 - Quality Requirements.
- B. High-Strength Bolts: Provide testing and verification of field-bolted connections in accordance with RCSC (HSBOLT) "Specification for Structural Joints Using High-Strength Bolts," testing at least 10% percent of bolts at each connection.
- C. Welded Connections: Visually inspect all field-welded connections and test at least 10% percent of welds.

**END OF SECTION**

**SECTION 05-3100  
STEEL DECKING**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Roof deck.
- B. Bearing plates and angles.

**1.02 RELATED REQUIREMENTS**

- A. Section 05-1200 - Structural Steel Framing: Placement of embedded steel anchors for bearing plates in cast-in-place concrete.

**1.03 REFERENCE STANDARDS**

- A. ASTM A36/A36M - Standard Specification for Carbon Structural Steel; 2014.
- B. ASTM A108 - Standard Specification for Steel Bar, Carbon and Alloy, Cold-Finished; 2018.
- C. ASTM A123/A123M - Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products; 2017.
- D. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2020.
- E. AWS B2.1/B2.1M - Specification for Welding Procedure and Performance Qualification; 2021.
- F. AWS D1.1/D1.1M - Structural Welding Code - Steel; 2020, with Errata (2023).
- G. FM DS 1-28 - Wind Design; 2015, with Editorial Revision (2024).
- H. FM DS 1-29 - Roof Deck Securement and Above-Deck Roof Components; 2016, with Editorial Revision (2022).
- I. ICC-ES AC43 - Acceptance Criteria for Steel Deck Roof and Floor Systems; 2022.
- J. SDI (DM) - Publication No.30, Design Manual for Composite Decks, Form Decks, and Roof Decks; 2007.
- K. SSPC-Paint 20 - Zinc-Rich Primers (Type I, "Inorganic," and Type II, "Organic"); 2002 (Ed. 2004).

**1.04 SUBMITTALS**

- A. See Section 01-3000 - Administrative Requirements, for submittals procedures.
- B. Product Data: Provide deck profile characteristics, dimensions, structural properties, and finishes.
- C. Shop Drawings: Indicate deck plan, support locations, openings, reinforcement, pertinent details, and connections.
- D. Welders' Qualification Statement: Welders' certificates in accordance with AWS B2.1/B2.1M and dated no more than 12 months before start of scheduled welding work.

**1.05 QUALITY ASSURANCE**

- A. Design deck layout, spans, fastening, and joints under direct supervision of a Professional Structural Engineer experienced in design of this work and licensed in the State in which the Project is located.

**1.06 DELIVERY, STORAGE, AND HANDLING**

- A. Cut plastic wrap to encourage ventilation.
- B. Separate sheets and store deck on dry wood sleepers; slope for positive drainage.

## **PART 2 PRODUCTS**

### **2.01 MANUFACTURERS**

- A. Steel Deck:
  - 1. Canam Steel Corporation: [www.canam-steeljoists.ws](http://www.canam-steeljoists.ws).
  - 2. Cordeck, Inc: [www.cordeck.com/#sle](http://www.cordeck.com/#sle).
  - 3. New Millennium Building Systems: [www.newmill.com/#sle](http://www.newmill.com/#sle).
  - 4. Nucor-Vulcraft Group: [www.vulcraft.com/#sle](http://www.vulcraft.com/#sle).
  - 5. Substitutions: See Section 01-6000 - Product Requirements.

### **2.02 STEEL DECK**

- A. All Deck Types: Select and design metal deck in accordance with SDI Design Manual.
  - 1. Calculate to structural working stress design and structural properties specified.
  - 2. Maximum Vertical Deflection of Roof Deck: 1/240 of span
- B. Roof Deck: Non-composite type, fluted steel sheet: Match existing.
  - 1. Galvanized Steel Sheet: ASTM A653/A653M, Structural Steel (SS) Grade 33/230, with G90/Z275 galvanized coating.
  - 2. Type B.
  - 3. Minimum Base Metal Thickness: 18 gauge, 0.0478 inch.
  - 4. Nominal Height: match 1 1/2" inch.
  - 5. Profile: Fluted. Match existing.
  - 6. Formed Sheet Width: Match existing.
  - 7. Side Joints: Lapped, welded. Match existing.
  - 8. End Joints: Lapped, welded. Match existing.

### **2.03 ACCESSORY MATERIALS**

- A. Bearing Plates and Angles: ASTM A36/A36M steel, galvanized per ASTM A123/A123M.
- B. Stud Shear Connectors: Made from ASTM A108 Grade 1015 bars.
- C. Welding Materials: AWS D1.1/D1.1M.
- D. Mechanical Fasteners: Steel; hex washer head, self-drilling, self-tapping.
  - 1. Fasteners that are Exposed: Manufacturer's standard stainless steel with bonded neoprene washer.

### **2.04 FABRICATED DECK ACCESSORIES**

- A. Sheet Metal Deck Accessories: Metal closure strips, wet concrete stops, and cover plates, 22 gauge, 0.0299 inch thick sheet steel; of profile and size as indicated; finished same as deck.

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Verify existing conditions prior to beginning work.
- B. Treat rust on panels prior to beginning work.

### **3.02 INSTALLATION**

- A. Erect metal deck in accordance with SDI Design Manual and manufacturer's instructions. Align and level.
- B. Fasten deck to steel support members at ends and intermediate supports at 12 inches on center maximum, parallel with the deck flute and at each transverse flute using methods specified.
  - 1. Welding: Use fusion welds through weld washers.
- C. Drive mechanical sidelap connectors completely through adjacent lapped sheets; positively engage adjacent sheets with minimum three-thread penetration.
- D. At welded male/female side laps weld at 18 inches on center maximum.

- E. Weld stud shear connectors through steel deck to structural members below.
- F. Immediately after welding deck and other metal components in position, coat welds, burned areas, and damaged surface coating, with galvanized touch-up primer.

**END OF SECTION**

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**SECTION 05-4000  
COLD-FORMED METAL FRAMING**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Formed steel stud exterior wall infill framing.
- B. Steel Furring

**1.02 RELATED REQUIREMENTS**

- A. Section 05-3100 - Steel Decking.
- B. Section 07-6200 - Sheet Metal Flashing and Trim: Head and sill flashings.
- C. Section 09-2116 - Gypsum Board Assemblies: Lightweight, non-load bearing metal stud framing.

**1.03 REFERENCE STANDARDS**

- A. AISI S100 - North American Specification for the Design of Cold-Formed Steel Structural Members; 2016, with Supplement (2018).
- B. SSPC-Paint 20 - Zinc-Rich Primers (Type I, "Inorganic," and Type II, "Organic"); 2002 (Ed. 2004).

**1.04 ADMINISTRATIVE REQUIREMENTS**

- A. Coordinate with work of other sections that is to be installed in or adjacent to the metal framing system, including but not limited to storefront installation, cladding anchors, utilities and insulation.

**1.05 SUBMITTALS**

- A. See Section 01-3000 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide data on standard framing members; describe materials and finish, product criteria, limitations and dimensions.
- C. Product Data: Provide manufacturer's data on factory-made framing connectors, showing compliance with requirements.
- D. Manufacturer's Installation Instructions: Indicate special procedures and conditions requiring special attention.

**PART 2 PRODUCTS**

**2.01 MANUFACTURERS**

- A. Metal Framing:
  - 1. CEMCO: [www.cemcosteel.com/#sle](http://www.cemcosteel.com/#sle).
  - 2. ClarkDietrich: [www.clarkdietrich.com/#sle](http://www.clarkdietrich.com/#sle).
  - 3. Jaimes Industries: [www.jaimesind.com/#sle](http://www.jaimesind.com/#sle).
  - 4. Substitutions: See Section 01-6000 - Product Requirements.
- B. Framing Connectors and Accessories:
  - 1. Same manufacturer as metal framing.

**2.02 FRAMING MATERIALS**

- A. Studs and Track: ASTM C955; studs formed to channel, C- or Sigma-shaped with punched web; U-shaped track in matching nominal width and compatible height.
  - 1. Gauge and Depth: As required to meet specified performance levels.
  - 2. Galvanized in accordance with ASTM A653/A653M, G90/Z275 coating.

**2.03 FASTENERS**

- A. Self-Drilling, Self-Tapping Screws, Bolts, Nuts and Washers: Hot dip galvanized per ASTM A153/A153M.

## **2.04 ACCESSORIES**

- A. Bracing, Furring, Bridging: Formed sheet steel, thickness determined for conditions encountered; finish to match framing components.
- B. Touch-Up Primer for Galvanized Surfaces: SSPC-Paint 20 Type I - Inorganic, complying with VOC limitations of authorities having jurisdiction.

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Verify that building framing components are ready to receive work.
- B. Verify field measurements and adjust installation as required.

### **3.02 INSTALLATION OF STUDS**

- A. Install components in accordance with manufacturers' instructions and ASTM C1007 requirements.
- B. Secure ceiling tracks with fasteners at maximum 24 inches on center.
- C. Place studs at 16 inches on center; not more than 2 inches from abutting walls and at each side of openings. Connect studs to tracks using clip and tie method.
- D. Construct corners using minimum of three studs. Construct end of wall with minimum of two studs. Install double studs or channels at wall openings, door and window jambs, U.O.N.
- E. Install load-bearing studs full length in one piece. Splicing of studs is not permitted.
- F. Coordinate placement of insulation in multiple stud spaces made inaccessible after erection.
- G. Install intermediate studs above and below openings to align with wall stud spacing.
- H. Provide deflection allowance in stud track, directly below horizontal building framing at non-load bearing framing.
- I. Install framing between studs for attachment of mechanical and electrical items, and to prevent stud rotation.
- J. Touch-up field welds and damaged galvanized surfaces with primer.

### **3.03 TOLERANCES**

- A. Maximum Variation from True Position: 1/4" inch.
- B. Maximum Variation of any Member from Plane: 1/4" inch.

**END OF SECTION**



**SECTION 06-1000  
ROUGH CARPENTRY**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Structural dimension lumber framing, fire rated.
- B. Sheathing, fire rated.
- C. Preservative treated wood materials.
- D. Miscellaneous framing and sheathing, fire rated.
- E. Concealed wood blocking, nailers, and supports.
- F. Miscellaneous wood nailers, furring, and grounds.

**1.02 RELATED REQUIREMENTS**

- A. Section 07-2500 - Weather Barriers: Water-resistive barrier over sheathing.
- B. Section 07-6200 - Sheet Metal Flashing and Trim: Sill flashings.

**1.03 REFERENCE STANDARDS**

- A. AFPA (WFCM) - Wood Frame Construction Manual for One- and Two-Family Dwellings; American Forest and Paper Association; 2012.
- B. AWC (WFCM) - Wood Frame Construction Manual for One- and Two-Family Dwellings; 2015.
- C. AWPA U1 - Use Category System: User Specification for Treated Wood; 2018.
- D. PS 20 - American Softwood Lumber Standard; 2020.
- E. WCLIB (GR) - Standard Grading Rules for West Coast Lumber No. 17; 2018.

**PART 2 PRODUCTS**

**2.01 GENERAL REQUIREMENTS**

- A. Dimension Lumber: Comply with PS 20 and requirements of specified grading agencies.
  - 1. Species: Douglas Fir-Larch, unless otherwise indicated.
  - 2. If no species is specified, provide any species graded by the agency specified; if no grading agency is specified, provide lumber graded by any grading agency meeting the specified requirements.
  - 3. Grading Agency: Any grading agency whose rules are approved by the Board of Review, American Lumber Standard Committee ([www.alsc.org](http://www.alsc.org)) and who provides grading service for the species and grade specified; provide lumber stamped with grade mark unless otherwise indicated.

**2.02 DIMENSION LUMBER FOR CONCEALED APPLICATIONS**

- A. Grading Agency: West Coast Lumber Inspection Bureau; WCLIB (GR).
- B. Sizes: Nominal sizes as indicated on drawings, S4S.
- C. Moisture Content: S-dry or MC19.
- D. Stud Framing (2 by 2 through 2 by 6 ):
  - 1. Species: Douglas Fir-Larch.
  - 2. Grade: No. 2.
- E. Joist, Rafter, and Small Beam Framing (2 by 6 through 4 by 16 ):
  - 1. Species: Douglas Fir-Larch.
  - 2. Grade: No. 2 & Btr.
- F. Miscellaneous Framing, Blocking, Nailers, Grounds, and Furring:
  - 1. Lumber: S4S, No. 2 or Standard Grade.
  - 2. Boards: Standard or No. 3.

### **2.03 EXPOSED DIMENSION LUMBER**

- A. Sizes: Nominal sizes as indicated on drawings.
- B. Surfacing: S4S.
- C. Sizes: Nominal sizes as indicated on drawings, Rough (unsurfaced).
- D. Moisture Content: S-dry or MC19.
- E. Rafter, Purlin, Small Beam, Purlin, and Purlin Framing (2 by 6 through 4 by 16 ):
  - 1. Species: Western Cedar.
  - 2. Grade: Select.
- F. Location: North side covered walkway, heavy timber framing and brackets. West side awning framing, brackets.

### **2.04 CONSTRUCTION PANELS**

- A. Roof Sheathing : APA PRP-108/APA PRPR-108, Form B455, Structural I Rated Sheathing, Exterior Exposure Class, and as follows:
  - 1. Span Rating: 24/16.
  - 2. Thickness: 5/8 inch, nominal.
  - 3. Edges: square.
- B. Wall Sheathing: APA PRP-108/APA PRP-108, Form B455 Structural I Rated Sheathing, Exterior Exposure Class, and as follows:
  - 1. Span Rating: 24/16.
  - 2. Thickness: 1/2 inch, nominal.

### **2.05 FACTORY WOOD TREATMENT**

- A. Treated Lumber and Plywood: Comply with requirements of AWPA U1 - Use Category System for wood treatments determined by use categories, expected service conditions, and specific applications.
  - 1. Preservative-Treated Wood: Provide lumber and plywood marked or stamped by an ALSC-accredited testing agency, certifying level and type of treatment in accordance with AWPA standards.
  - 2. Manufacturers:
    - a. Lonza Group: [www.wolmanizedwood.com/#sle](http://www.wolmanizedwood.com/#sle).
    - b. Viance, LLC: [www.treatedwood.com](http://www.treatedwood.com).
    - c. Osmose, Inc: [www.osmose.com](http://www.osmose.com).
    - d. Substitutions: See Section 01-6000 - Product Requirements.
  - 3. Preservative Pressure Treatment of Lumber Above Grade: AWPA U1, Use Category UC4A, Commodity Specification A using waterborne preservative to 0.40 lb/cu ft retention.
    - a. Treat lumber exposed to weather.
    - b. Treat lumber in contact with roofing, flashing, or waterproofing.
    - c. Treat lumber in contact with masonry or concrete.

## **PART 3 EXECUTION**

### **3.01 PREPARATION**

- A. Install sill gasket under sill plate of framed walls bearing on foundations; puncture gasket cleanly to fit tightly around protruding anchor bolts.

### **3.02 INSTALLATION - GENERAL**

- A. Select material sizes to minimize waste.
- B. Reuse scrap to the greatest extent possible; clearly separate scrap for use on site as accessory components, including: shims, bracing, and blocking.
- C. Where treated wood is used on interior, provide temporary ventilation during and immediately after installation sufficient to remove indoor air contaminants.

### **3.03 FRAMING INSTALLATION**

- A. Set structural members level, plumb, and true to line. Discard pieces with defects that would lower required strength or result in unacceptable appearance of exposed members.
- B. Make provisions for temporary construction loads, and provide temporary bracing sufficient to maintain structure in true alignment and safe condition until completion of erection and installation of permanent bracing.
- C. Install structural members full length without splices unless otherwise specifically detailed.
- D. Comply with member sizes, spacing, and configurations indicated, and fastener size and spacing indicated, but not less than required by applicable codes and AWC (WFCM) Wood Frame Construction Manual.
- E. Construct double joist headers at floor and ceiling openings and under wall stud partitions that are parallel to floor joists; use metal joist hangers unless otherwise detailed.
- F. Frame wall openings with two or more studs at each jamb; support headers on cripple studs.

### **3.04 BLOCKING, NAILERS, AND SUPPORTS**

- A. Provide framing and blocking members as indicated or as required to support finishes, fixtures, specialty items, and trim.
- B. In framed assemblies that have concealed spaces, provide solid wood fireblocking as required by applicable local code, to close concealed draft openings between floors and between top story and roof/attic space; other material acceptable to code authorities may be used in lieu of solid wood blocking.
- C. In metal stud walls, provide continuous blocking around door and window openings for anchorage of frames, securely attached to stud framing.
- D. In walls, provide blocking attached to studs as backing and support for wall-mounted items, unless item can be securely fastened to two or more studs or other method of support is explicitly indicated.
- E. Where ceiling-mounting is indicated, provide blocking and supplementary supports above ceiling, unless other method of support is explicitly indicated.

### **3.05 SITE APPLIED WOOD TREATMENT**

- A. Apply preservative treatment compatible with factory applied treatment at site-sawn cuts, complying with manufacturer's instructions.
- B. Allow preservative to dry prior to erecting members.

### **3.06 TOLERANCES**

- A. Framing Members: 1/4 inch from true position, maximum.
- B. Variation from Plane (Other than Floors): 1/4 inch in 10 feet maximum, and 1/4 inch in 30 feet maximum.

### **3.07 CLEANING**

- A. Waste Disposal: Comply with the requirements of Section 01-7419 - Construction Waste Management and Disposal.
  - 1. Comply with applicable regulations.
  - 2. Do not burn scrap on project site.
  - 3. Do not burn scraps that have been pressure treated.

**END OF SECTION**

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**SECTION 07-1900  
WATER REPELLENTS**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Water repellents applied to exterior, masonry and concrete surfaces.

**1.02 REFERENCE STANDARDS**

- A. ASTM D3960 - Standard Practice for Determining Volatile Organic Compound (VOC) Content of Paints and Related Coatings; 2005 (Reapproved 2018).
- B. ASTM D5095 - Standard Test Method for Determination of the Nonvolatile Content in Silanes, Siloxanes and Silane-Siloxane Blends Used in Masonry Water Repellent Treatments; 1991 (Reapproved 2022).
- C. MPI (APSM) - Master Painters Institute Architectural Painting Specification Manual; Current Edition.

**1.03 SUBMITTALS**

- A. See Section 01-3000 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide product description, details of tests performed, limitations, and chemical composition
- C. Manufacturer's Installation Instructions: Indicate special procedures and conditions requiring special attention; cautionary procedures required during application.
- D. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
  - 1. See Section 01-6000 - Product Requirements for additional provisions.

**1.04 FIELD CONDITIONS**

- A. Protect liquid materials from freezing.
- B. Do not apply water repellent when ambient temperature is lower than 50 degrees F or higher than 100 degrees F.
- C. Do not apply water repellents when wind velocity is higher than 8 mph.

**1.05 WARRANTY**

- A. See Section 01-7800 - Closeout Submittals for additional warranty requirements.
- B. Provide five year manufacturer warranty for performance.
  - 1. Include coverage for degradation of waterproofing ability and staining.

**PART 2 PRODUCTS**

**2.01 MANUFACTURERS**

- A. Silane, Siloxane, Silane-Siloxane Blend, and Siliconate Water Repellents:
  - 1. Fabrishield by Fabrikem Manufacturing Ltd.; Product Fabrishield 760 Silane/Sioxane Water Repellant.
  - 2. Block-Guard by Sure Klean; Product Block-Guard & Graffiti Control II Weather Seal.
  - 3. Substitutions: See Section 01-6000 - Product Requirements.

**2.02 MATERIALS**

- A. Water Repellent: Non-glossy, colorless, penetrating, water-vapor-permeable, non-yellowing sealer, that dries invisibly leaving appearance of substrate unchanged.
  - 1. Applications: pedestrian horizontal surfaces.
  - 2. Number of Coats: Two.
  - 3. VOC Content: Less than 600 g/L, when tested in accordance with ASTM D3960 or ASTM D5095.
  - 4. Maintains dry appearance when wetted.

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Verify existing conditions before starting work.
- B. Verify joint sealants are installed and cured.
- C. Verify surfaces to be coated are dry, clean, and free of efflorescence, oil, or other matter detrimental to application of water repellent.

### **3.02 PREPARATION**

- A. Protection of Adjacent Work:
  - 1. Protect adjacent landscaping, property, and vehicles from drips and overspray.
  - 2. Protect adjacent surfaces not intended to receive water repellent.
- B. Prepare surfaces to be coated as recommended by water repellent manufacturer for best results.
- C. Do not start work until concrete substrate is cured a minimum of 28 days.
- D. Remove loose particles and foreign matter.
- E. Remove oil and foreign substances with a chemical solvent that will not affect water repellent.
- F. Allow surfaces to dry completely to degree recommended by water repellent manufacturer before starting coating work.

### **3.03 APPLICATION**

- A. Apply water repellent in accordance with manufacturer's instructions, using procedures and application methods recommended as producing the best results.
- B. Apply at rate of 75 oz per sq ft by roller, continuously over entire surface.
- C. Apply two coats, minimum.
- D. Remove water repellent from unintended surfaces immediately by a method instructed by water repellent manufacturer.

**END OF SECTION**

**SECTION 07-2100  
THERMAL INSULATION**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Board insulation and integral vapor retarder at over roof deck and over roof sheathing.
- B. Batt insulation for filling exterior wall and and crevices in wall..

**1.02 RELATED REQUIREMENTS**

- A. Section 07-2500 - Weather Barriers: Separate air barrier and vapor retarder materials.
- B. Section 07-5400 - Thermoplastic Membrane Roofing: Installation requirements for board insulation over low slope roof deck specified in this section.

**1.03 REFERENCE STANDARDS**

- A. ASTM C553 - Standard Specification for Mineral Fiber Blanket Thermal Insulation for Commercial and Industrial Applications; 2013 (Reapproved 2019).
- B. ASTM C1289 - Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board; 2020.
- C. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2021.
- D. ASTM E136 - Standard Test Method for Assessing Combustibility of Materials Using a Vertical Tube Furnace at 750°C; 2019a.

**1.04 SUBMITTALS**

- A. Product Data: Provide data on product characteristics, performance criteria, and product limitations.
- B. Manufacturer's Installation Instructions: Include information on special environmental conditions required for installation and installation techniques.

**1.05 QUALITY ASSURANCE**

**1.06 FIELD CONDITIONS**

- A. Do not install insulation adhesives when temperature or weather conditions are detrimental to successful installation.

**PART 2 PRODUCTS**

**2.01 APPLICATIONS**

- A. Insulation in Metal Framed Walls: Batt insulation with integral vapor retarder.
- B. Insulation Over Roof Deck: Extruded polystyrene (XPS) board.

**2.02 BATT INSULATION MATERIALS**

- A. Where batt insulation is indicated, either glass fiber or mineral fiber batt insulation may be used, at Contractor's option.
- B. Glass Fiber Batt Insulation: Flexible preformed batt or blanket, complying with ASTM C665; friction fit.
  - 1. Flame Spread Index: 75 or less, when tested in accordance with ASTM E84.
  - 2. Smoke Developed Index: 450 or less, when tested in accordance with ASTM E84.
  - 3. Combustibility: Non-combustible, when tested in accordance with ASTM E136, except for facing, if any.
  - 4. Formaldehyde Content: Zero.
  - 5. Thermal Resistance: R-value of 19.
  - 6. Thickness: 6 inch, typical.
  - 7. Facing: Asphalt treated Kraft paper, one side.

8. Products:
  - a. CertainTeed Corporation: [www.certainteed.com/#sle](http://www.certainteed.com/#sle).
  - b. Johns Manville: [www.jm.com/#sle](http://www.jm.com/#sle).
  - c. Owens Corning Corporation; EcoTouch PINK FIBERGLAS Insulation: [www.ocbuildingspec.com/#sle](http://www.ocbuildingspec.com/#sle).
  - d. Substitutions: See Section 01-6000 - Product Requirements.
- C. Mineral Fiber Batt Insulation: Flexible or semi-rigid preformed batt or blanket, complying with ASTM C665; friction fit; unfaced flame spread index of 0 (zero) when tested in accordance with ASTM E84.
  1. Flame Spread Index: 25 or less, when tested in accordance with ASTM E84.
  2. Smoke Developed Index: 0 (zero), when tested in accordance with ASTM E84.
  3. Provide asphalt treated craft paper on one side.
  4. Thermal Resistance: R-value of 19.
  5. Thickness: 6 inch.
  6. Products:
    - a. Johns Manville; MinWool Sound Attenuation Fire Batts: [www.jm.com/#sle](http://www.jm.com/#sle).
    - b. Knauf Insulation; EcoBatt Insulation: [www.knaufinsulation.com/#sle](http://www.knaufinsulation.com/#sle).
    - c. ROCKWOOL (ROXUL, Inc): [www.rockwool.com/#sle](http://www.rockwool.com/#sle).
    - d. Thermafiber, Inc: [www.thermafiber.com/#sle](http://www.thermafiber.com/#sle).
    - e. Substitutions: See Section 01-6000 - Product Requirements.

### **2.03 ACCESSORIES**

- A. Tape: Reinforced polyethylene film with acrylic pressure sensitive adhesive.
  1. Application: Sealing of interior circular penetrations, such as pipes or cables.
    - a. Craft paper seams
  2. Width: Are required for application.
  3. Temperature Resistance: Minus 40 degrees F to 212 degrees F

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Verify that substrate, adjacent materials, and insulation materials are dry and that substrates are ready to receive insulation.
- B. Verify substrate surfaces are flat, free of irregularities or materials or substances that may impede adhesive bond.

### **3.02 BATT INSTALLATION**

- A. Install insulation and vapor retarder in accordance with manufacturer's instructions.
- B. Do not compress insulation.
- C. Trim insulation neatly to fit spaces. Insulate miscellaneous gaps and voids.
- D. Fit insulation tightly in cavities and tightly to exterior side of mechanical and electrical services within the plane of the insulation.
- E. Install with factory-applied vapor retarder membrane facing warm side of building spaces. Lap ends and side flanges of membrane over framing members.
- F. Tape seal butt ends, lapped flanges, and tears or cuts in membrane.
- G. At metal framing, place vapor retarder on warm side of insulation; lap and seal sheet retarder joints over face of member
- H. Tape seal tears or cuts in vapor retarder.

### **3.03 PROTECTION**

- A. Do not permit installed insulation to be damaged prior to its concealment.

### **END OF SECTION**



**SECTION 07-2500  
WEATHER BARRIERS**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Water-Resistive Barrier: Under exterior wall cladding, over sheathing or other substrate; not air tight or vapor retardant.
- B. Vapor Retarders: Materials to make exterior walls, joints between exterior walls and roof, and joints around frames of openings in exterior walls water vapor resistant and air tight.

**1.02 RELATED REQUIREMENTS**

- A. Section 06-1000 - Rough Carpentry: Water-resistive barrier under exterior cladding.
- B. Section 07-2100 - Thermal Insulation: Vapor retarder installed in conjunction with batt insulation.
- C. Section 07-4270 - Aluminum Composition Material Wall Panels: Weather barrier.
- D. Section 07-5400 - Thermoplastic Membrane Roofing: Vapor retarder installed as part of roofing system.
- E. Section 07-9005 - Joint Sealers: Sealant materials and installation techniques.

**1.03 DEFINITIONS**

- A. Weather Barrier: Assemblies that form either water-resistive barriers, air barriers, or vapor retarders.
- B. Air Barrier: Air tight barrier made of material that is relatively air impermeable but water vapor permeable, both to the degree specified, with sealed seams and with sealed joints to adjacent surfaces. Note: For the purposes of this specification, vapor impermeable air barriers are classified as vapor retarders.
- C. Vapor Retarder: Air tight barrier made of material that is relatively water vapor impermeable, to the degree specified, with sealed seams and with sealed joints to adjacent surfaces.
  - 1. Water Vapor Permeance: For purposes of conversion,  $57.2 \text{ ng}/(\text{Pa s sq m}) = 1 \text{ perm}$ .

**1.04 REFERENCE STANDARDS**

- A. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2021.
- B. ASTM E96/E96M - Standard Test Methods for Water Vapor Transmission of Materials; 2016.
- C. ICC-ES AC308 - Acceptance Criteria for Water-Resistive Barriers; 2016, with Editorial Revision (2019).

**1.05 SUBMITTALS**

- A. See Section 01-3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide data on material characteristics.
- C. Manufacturer's Installation Instructions: Indicate preparation, installation methods, and storage and handling criteria.

**1.06 FIELD CONDITIONS**

- A. Maintain temperature and humidity recommended by the materials manufacturers before, during and after installation.

**PART 2 PRODUCTS**

**2.01 AIR BARRIER MATERIALS (WATER VAPOR PERMEABLE AND WATER-RESISTIVE)**

- A. Self-Adhered Water Resistant Air Barrier Membrane:

1. Water Vapor Permeance: 29 perms, minimum, when tested in accordance with ASTM E96/E96M Procedure A (desiccant method).
2. Dry Film Thickness: 28 mils (0.028 inch), minimum.
3. Criteria for Water Resistance Barriers: Pass, when tested in accordance with ICC - ES AC38.
4. Water Penetration around Nails: Pass, when tested in accordance with AAMA 711-05 and modified ASTM D 1970.
5. Surface Burning Characteristics: Flame spread index of 25 or less, and smoke developed index of 50 or less, when tested in accordance with ASTM E84.
6. Manufacturers:
  - a. Henry Company Blueskin VP 160..
  - b. Substitutions: See Section 01-6000 - Product Requirements.

## **2.02 SELF-ADHERING FLASHING**

- A. Manufacturer and Product:
  1. W.R. Grace Construction Products "Perm-A-Barrier".
  2. Henry Company, Blueskin SA.
  3. Substitutions: See Section 01-6000 - Product Requirements.
- B. Materials: Rubberized asphalt and polyethylene. 40 mils thickness.
- C. Location: Around all wall openings and where noted on drawings.

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Verify that surfaces and conditions are ready to accept the work of this section.

### **3.02 PREPARATION**

- A. Remove projections, protruding fasteners, and loose or foreign matter that might interfere with proper installation.

### **3.03 INSTALLATION**

- A. Install materials in accordance with manufacturer's instructions.
- B. Air Barriers: Install continuous air tight barrier over surfaces indicated, with sealed seams and with sealed joints to adjacent surfaces.
- C. Vapor Retarders: Install continuous air tight barrier over surfaces indicated, with sealed seams and with sealed joints to adjacent surfaces.
- D. Self-Adhered Sheets:
  1. All surfaces to receive membrane must be dry and clean of oil, dust, dirt, water and other contaminants that would be detrimental to adhesion of membrane. Approved adhesive -primer to be applied as recommended by Membrane manufacturer. Primer required for applications below 40 degrees, not required above 40 degrees temperature.
  2. Prepare substrate in manner recommended by sheet manufacturer; fill and tape joints in substrate and between dissimilar materials.
  3. Lap sheets shingle-fashion to shed water and seal laps air tight.
  4. Once sheets are in place, press firmly into substrate with resilient hand roller; ensure that laps are firmly adhered with no gaps or fishmouths.
  5. Use same material, or other material approved by sheet manufacturer for the purpose, to seal to adjacent construction and as flashing.
  6. At wide joints, provide extra flexible membrane allowing joint movement.
  7. Install flashing over sills, covering entire sill frame member, extending at least 5 inches onto weather barrier and at least 6 inches up jambs; mechanically fasten stretched edges.

8. At openings to be filled with frames having nailing flanges, seal head and jamb flanges using a continuous bead of sealant compressed by flange and cover flanges with sealing tape at least 4 inches wide; do not seal sill flange.
9. At openings to be filled with non-flanged frames, seal weather barrier to each side of opening framing, using flashing at least 9 inches wide, covering entire depth of framing.
10. At interior face of openings, seal gap between window/door frame and rough framing, using joint sealant over backer rod.
11. Service and Other Penetrations: Form flashing around penetrating item and seal to weather barrier surface.
12. Refer to Drawings for additional placement requirements, and coordination placement with metal flashings.

#### **3.04 FIELD QUALITY CONTROL**

- A. See Section 01-4000 - Quality Requirements, for additional requirements.
- B. Coordination of ABAA Tests and Inspections:
  1. Provide testing and inspection required by ABAA QAP.
  2. Notify ABAA in writing of schedule for air barrier work, and allow adequate time for testing and inspection.
  3. Cooperate with ABAA testing agency.
  4. Allow access to air barrier work areas and staging.
  5. Do not cover air barrier work until tested, inspected, and accepted.
- C. Do not cover installed weather barriers or vapor retarders until inspections have been completed.

#### **3.05 PROTECTION**

- A. Do not leave materials exposed to weather longer than recommended by manufacturer.

**END OF SECTION**

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**SECTION 07-4213  
METAL WALL PANELS**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES - ALTERNATE BID**

- A. Manufactured metal panels for exterior wall panels and subgirt framing assembly, with related flashings and accessory components.

**1.02 RELATED REQUIREMENTS**

- A. Section 05-1200 - Structural Steel Framing
- B. Section 07-6200 - Sheet Metal Flashing and Trim.

**1.03 REFERENCE STANDARDS**

- A. AAMA 2605 - Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels (with Coil Coating Appendix); 2022.
- B. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2020.
- C. ASTM A792/A792M - Standard Specification for Steel Sheet, 55% Aluminum-Zinc Alloy-Coated by the Hot-Dip Process; 2021a.

**1.04 SUBMITTALS**

- A. See Section 01-3000 - Administrative Requirements, for submittal procedures.
- B. Product Data - Wall System: Manufacturer's data sheets on each product to be used, including:
  - 1. Physical characteristics of components shown on shop drawings.
  - 2. Storage and handling requirements and recommendations.
  - 3. Installation instructions and recommendations.
- C. Shop Drawings: Indicate dimensions, layout, joints, construction details, support clips, and methods of anchorage.
- D. Samples: Submit two samples of standard color options.

**1.05 DELIVERY, STORAGE, AND HANDLING**

- A. Protect panels from accelerated weathering by removing or venting sheet plastic shipping wrap.
- B. Store prefinished material off the ground and protected from weather; prevent twisting, bending, or abrasion; provide ventilation; slope metal sheets to ensure proper drainage.
- C. Prevent contact with materials that may cause discoloration or staining of products.

**1.06 WARRANTY**

- A. See Section 01-7800 - Closeout Submittals, for additional warranty requirements.
- B. Limited Manufacturers Commercial Warranty of 30 years.

**PART 2 PRODUCTS**

**2.01 MANUFACTURERS**

- A. Basis of Design: G-90 Galvanized Metal Wall Panels - Exposed Fasteners: Reversed PBR or Marion R with Kynar 500 finish manufactured by Taylor Metal.
  - 1. See Drawings for additional information.
  - 2. 24 gauge
  - 3. 36 inch width
  - 4. Color to be selected from Manufactures Standard selection. Color is to face "out".
- B. Other Acceptable Manufacturers - Metal Wall Panels - ExposedFasteners:

1. Petersen Aluminum Corporation; Precision Series HWP Wall Panels: [www.pac-clad.com/#sle](http://www.pac-clad.com/#sle).
2. AEP Span.
3. Western States Metal Roofing.
4. Pacific Building Systems.
5. The Purlin Mill
6. Substitutions: See Section 01-6000 - Product Requirements.

## **2.02 MANUFACTURED METAL PANELS**

- A. Wall Panel System: Factory fabricated prefinished metal panel system, site assembled.
  1. Design and size components to support assembly to withstand live loads caused by positive and negative wind pressure acting normal to plane of wall.
  2. Design Pressure: In accordance with applicable codes.
  3. Maximum Allowable Deflection of Panel:  $L/180$  for length(L) of span.
  4. Movement: Accommodate movement within system without damage to components or deterioration of seals, movement between system and perimeter components when subject to seasonal temperature cycling; dynamic loading and release of loads; and deflection of structural support framing.
  5. Fabrication: Formed true to shape, accurate in size, square, and free from distortion or defects; pieces of longest practical lengths.
  6. Corners: Factory-fabricated in one continuous piece with minimum 2 inch min. returns.
- B. Subgirt Framing Assembly:
  1. See Section 05-1200 Structural Steel
  2. 16 gage, 0.0598 inch thick formed Precoated galvanized steel sheet. See drawings for dimensions.
- C. Trim, Closure Pieces, Caps, Flashings, and Infills and Corners: Same material, thickness and finish as exterior sheets. See drawings for required profiles.
- D. Fasteners: ZAP (Zinc Alloy Cap) screws.

## **2.03 MATERIALS**

- A. Precoated Steel Sheet: Hot-dipped galvanized steel sheet, ASTM A653/A653M, with G90/Z275 Kynar coating are equal; continuous coil-coated on exposed surfaces with specified finish coating and on panel back with specified panel back coating.

## **2.04 FINISHES**

- A. Fluoropolymer Coil Coating System: Manufacturer's standard multi-coat aluminum coil coating system complying with AAMA 2605, including at least 70 percent polyvinylidene fluoride (PVDF) resin, and at least 80 percent of coil coated aluminum surfaces having minimum total dry film thickness (DFT) of 0.9 mil, 0.0009 inch; color and gloss as selected from manufacturer's standards.

## **2.05 ACCESSORIES**

- A. Cladding Support Clips: Thermally-broken, galvanized steel clips for support of cladding z-girts, angles, channels and other framing.
  1. Galvanized Steel Sheet: ASTM A653/A653M, with G90/Z275 galvanized coating.
- B. Clips: Provide clip designed to allow panels to thermally expand and contract, and/or allow air movement (standoff) between the substrate and metal panel.
- C. Panel Penetration Flashings: As recommended by panel manufacturer; designed to provide sufficient movement to prevent creation of points of fixity at penetrations.
- D. Gaskets: Manufacturer's standard type suitable for use with system, permanently resilient; ultraviolet and ozone resistant.
- E. Concealed Sealants: Non-curing butyl sealant or tape sealant.

- F. Exposed Sealant: Elastomeric; silicone, polyurethane, or silyl-terminated polyether/polyurethane.
- G. Fasteners: Manufacturer's standard type to suit application; with soft neoprene washers, ZAP (Zinc Alloy Cap) Screws. Fastener cap same color as exterior panel.
- H. Field Touch-up Paint.
- I. Bituminous Paint: Asphalt base, as recommended by manufacture.

## **PART 3 EXECUTION**

### **3.01 PREPARATION**

- A. Install subgirts perpendicular to panel length, securely fastened to substrates and shimmed and leveled to uniform plane. Space at 24 inches on center, maximum.

### **3.02 INSTALLATION**

- A. Install panels on walls and soffits in accordance with manufacturer's instructions.
- B. Protect surfaces in contact with cementitious materials and dissimilar metals with bituminous paint. Allow to dry prior to installation.
- C. Fasten panels to structural supports; aligned, level, and plumb.
- D. Locate joints over supports, when possible.
- E. Lap panel ends minimum 2 inches.
- F. Provide expansion joints where indicated and per manufacture recommendation.
- G. Seal and place gaskets to prevent weather penetration. Maintain neat appearance.
- H. Dissimilar Metals or Materials:
  - 1. Where panel or trim may come in contact with dissimilar metals or treated lumber, fabricate transition to facilitate drainage and minimize possibility of galvanic action. Galvanic action can cause panels and trim to fail prematurely.
  - 2. At points of contact with dissimilar metal or treated lumber, coat panel and trim with protective paint or separate materials with a weatherproof underlayment, per manufacture.

### **3.03 TOLERANCES**

- A. Maximum Offset From True Alignment Between Adjacent Members Butting or In Line: 1/16 inch.
- B. Maximum Variation from Plane or Location Indicated on Drawings: 1/4 inch.

### **3.04 CLEANING**

- A. Remove site cuttings from finish surfaces.
- B. Remove protective material from wall panel surfaces.
- C. Clean and wash prefinished surfaces with mild soap and water; rinse with clean water.

**END OF SECTION**

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**SECTION 07-5400  
THERMOPLASTIC MEMBRANE ROOFING**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Adhered system with thermoplastic roofing membrane.
- B. Insulation, flat.
- C. Vapor retarder.
- D. Cover boards.
- E. Flashings.
- F. Roofing expansion joints and walkway pads.

**1.02 RELATED REQUIREMENTS**

- A. Section 05-3100 - Steel Decking: Placement of acoustical insulation for deck flutes.
- B. Section 07-7200 - Roof Accessories

**1.03 REFERENCE STANDARDS**

- A. ASTM C578 - Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation; 2019.
- B. ASTM C1177/C1177M - Standard Specification for Glass Mat Gypsum Substrate for Use as Sheathing; 2017.
- C. ASTM C1289 - Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board; 2020.
- D. ASTM D4434/D4434M - Standard Specification for Poly(Vinyl Chloride) Sheet Roofing; 2021.
- E. FM (AG) - FM Approval Guide; Current Edition.
- F. NRCA (RM) - The NRCA Roofing Manual; 2024.
- G. NRCA (WM) - The NRCA Waterproofing Manual; 2021.

**1.04 ADMINISTRATIVE REQUIREMENTS**

- A. Preinstallation Meeting: Convene one week before starting work of this section.
  - 1. Review preparation and installation procedures and coordinating and scheduling required with related work.

**1.05 SUBMITTALS**

- A. See Section 01-3000 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide data indicating membrane materials, flashing materials, insulation, vapor retarder, surfacing, and fasteners.
- C. Shop Drawings: Submit drawings that indicate joint or termination detail conditions and conditions of interface with other materials.
- D. Samples for Verification: Submit two samples illustrating colored coating.
- E. Manufacturer's Installation Instructions: Indicate membrane seaming precautions and perimeter conditions requiring special attention.
- F. Installer's qualification statement.
- G. Warranty Documentation:
  - 1. Submit manufacturer warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.
  - 2. Submit installer's written verification that installation complies with warranty conditions for waterproof membrane.

## **1.06 QUALITY ASSURANCE**

- A. Installer Qualifications: Company specializing in performing work of this section with at least three years of documented experience.

## **1.07 DELIVERY, STORAGE, AND HANDLING**

- A. Deliver materials in manufacturer's original containers, dry and undamaged, with seals and labels intact, unless otherwise indicated.
- B. Store materials in weather protected environment, clear of ground and moisture.
- C. Ensure storage and staging of materials does not exceed static and dynamic load-bearing capacities of roof decking.
- D. Protect foam insulation from direct exposure to sunlight.

## **1.08 FIELD CONDITIONS**

- A. Do not apply roofing membrane during unsuitable weather or temperature limits, set by manufacture.
- B. Do not apply roofing membrane to damp or frozen deck surface or when precipitation is expected or occurring.
- C. Schedule applications so that no partially completed sections of roof are left exposed at end of workday.

## **1.09 WARRANTY**

- A. See Section 01-7800 - Closeout Submittals for additional warranty requirements.
- B. Material Warranty: Provide membrane manufacturer's warranty agreeing to replace material that shows manufacturing defects within 20 years after installation.
- C. System Warranty: Provide manufacturer's system warranty agreeing to repair or replace roofing that leaks or is damaged due to wind or other natural causes.
  - 1. Warranty Term: 20 years.
  - 2. For repair and replacement include costs of both material and labor in warranty.

## **PART 2 PRODUCTS**

### **2.01 MANUFACTURERS**

- A. Thermoplastic Polyvinyl Chloride (PVC) Membrane Roofing Materials:
  - 1. Carlisle SynTec Systems; Sure-Flex PVC KEE: [www.carlisle-syntec.com/#sle](http://www.carlisle-syntec.com/#sle).
  - 2. Duro-Last Roofing, Inc; Duro-Last Custom Fabricated PVC Roof Membrane: [www.duro-last.com/#sle](http://www.duro-last.com/#sle).
  - 3. Johns Manville; JM PVC SD Plus - 50 mil: [www.jm.com/#sle](http://www.jm.com/#sle).
  - 4. Mule-Hide Products Co, Inc; Standard PVC: [www.mulehide.com/#sle](http://www.mulehide.com/#sle).
  - 5. Sika Corporation Roofing; Sarnafil PVC: [usa.sika.com/sarnafil/#sle](http://usa.sika.com/sarnafil/#sle).
  - 6. Substitutions: See Section 01-6000 - Product Requirements.

### **2.02 MEMBRANE ROOFING AND ASSOCIATED MATERIALS REQUIREMENTS**

- A. Membrane Roofing Materials:
  - 1. PVC: Polyvinyl chloride (PVC) complying with ASTM D4434/D4434M, Type II, sheet contains reinforcing fibers or reinforcing fabrics. Roofing Assembly: Single ply, fully adhered, over roof board, over fully adhered rigid insulation, over vapor retarder.
    - a. Class I and windstorm resistance of I-90, in accordance with FM DS 1-28.
    - b. Thickness: 60 mil, 0.060 inch, minimum.
  - 2. Sheet Width: Factory fabricated into widest possible sheets.
- B. Seaming Materials: As recommended by membrane manufacturer.
- C. Vapor Retarder: Material approved by roof manufacturer; compatible with roofing and insulation materials.

1. Fire-retardant adhesive.
- D. Flexible Flashing Material: Same material as membrane.
- E. Color: dark grey, from manufacturers standard selection.

### **2.03 COVER BOARDS**

- A. Cover Boards: Glass-mat faced gypsum panels complying with ASTM C1177/C1177M.
  1. Thickness: 1/2 inch.
  2. Products:
    - a. Georgia-Pacific; DensDeck: [www.densdeck.com/#sle](http://www.densdeck.com/#sle).

### **2.04 INSULATION**

- A. Polyisocyanurate (ISO) Board Insulation: Rigid cellular foam, complying with ASTM C1289.
  1. Classifications:
    - a. Type I: Faced with aluminum foil on both major surfaces of the core foam.
      - 1) Class 1 - Non-reinforced core foam.
      - 2) Grade 2.
      - 3) Compressive Strength: 20 psi, minimum.
      - 4) Thermal Resistance, R-value: At 1 inch thick; 6, minimum, at 75 degrees F. See drawings for total R-value required.
  2. Board Size: 48 by 96 inches.
  3. Board Thickness: 1.0 inch min.

### **2.05 ACCESSORIES**

- A. Membrane Adhesive: As recommended by membrane manufacturer.
- B. Surface Conditioner for Adhesives: Compatible with membrane and adhesives.
- C. Thinners and Cleaners: As recommended by adhesive manufacturer, compatible with membrane.
- D. Insulation Adhesive: As recommended by insulation manufacturer.
- E. Sealants: As recommended by membrane manufacturer.
- F. Walkway Pads: Suitable for maintenance traffic, contrasting color or otherwise visually distinctive from roof membrane.
  1. Composition: Roofing membrane manufacturer's standard.
  2. Surface Color: Match Membrane Color.

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Verify that surfaces and site conditions are ready to receive work.
- B. Verify deck is supported and secure.
- C. Verify deck is clean and smooth, flat, free of depressions, waves, or projections, properly sloped and suitable for installation of roof system.
- D. Verify deck surfaces are dry and free of snow or ice.
- E. Verify that roof openings, curbs, and penetrations through roof are solidly set, and as required, cant strips, nailing strips, and reglets are in place.

### **3.02 INSTALLATION, GENERAL**

- A. Perform work in accordance with manufacturer's instructions, NRCA (RM), and NRCA (WM) applicable requirements.
- B. Do not apply roofing membrane during wet weather conditions.
- C. Do not apply roofing membrane when ambient temperature is outside the temperature range recommended by manufacturer.

- D. Do not apply roofing membrane to damp or frozen deck surface or when precipitation is expected or occurring.
- E. Do not expose materials vulnerable to water or sun damage in quantities greater than can be weatherproofed the same day.

### **3.03 INSTALLATION - VAPOR RETARDER AND INSULATION, UNDER MEMBRANE - GENERAL**

- A. Install vapor retarder to deck surface with adhesive in accordance with manufacturer's instructions.
  - 1. Extend vapor retarder under cant strips and blocking to deck edge.
  - 2. Install flexible flashing from vapor retarder to air seal material of wall construction, lap and seal to provide continuity of the air barrier plane.
  - 3. Ensure vapor retarder is clean and dry, continuous, and ready for application of insulation.
- B. Attachment of Insulation: Embed insulation in adhesive in full contact, in accordance with roofing and insulation manufacturers' instructions.
- C.
  - 1. Lay subsequent layers of insulation with joints staggered minimum 6 inches from joints of preceding layer.
  - 2. Lay boards with edges in moderate contact without forcing. Cut insulation to fit neatly to perimeter blocking and around penetrations through roof.
- D. Do not install more insulation than can be covered with membrane in same day.
- E. Cover Boards: Mechanically fasten cover boards in accordance with roofing manufacturer's instructions and FM (AG) Factory Mutual requirements.

### **3.04 INSTALLATION - MEMBRANE**

- A. Roll out membrane, free from wrinkles or tears. Place sheet into place without stretching.
- B. Shingle joints on sloped substrate in direction of drainage.
- C. Fully Adhered Application: Apply adhesive to substrate at rate recommended by manufacture. Fully embed membrane in adhesive except in areas directly over or within 3 inches of expansion joints. Fully adhere one roll before proceeding to adjacent rolls.
- D. Overlap edges and ends and seal seams by contact adhesive, minimum 3 inches. Seal permanently waterproof. Apply uniform bead of sealant to joint edge.
- E. At intersections with vertical surfaces:
  - 1. Extend membrane up a minimum of 8 inches onto vertical surfaces.
  - 2. Fully adhere flexible flashing over membrane and up to nailing strips.
- F. Around roof penetrations, seal flanges and flashings with flexible flashing.
- G. Coordinate installation of roof drains and sumps and related flashings.

### **3.05 CLEANING**

- A. See Section 01-7000 - Execution and Closeout Requirements for additional requirements.
- B. Remove bituminous markings from finished surfaces.
- C. In areas where finished surfaces are soiled by work of this section, consult manufacturer of surfaces for cleaning advice and comply with their documented instructions.
- D. Repair or replace defaced or damaged finishes caused by work of this section.

### **3.06 PROTECTION**

- A. Protect installed roofing and flashings from construction operations.
- B. Where traffic must continue over finished roof membrane, protect surfaces using durable materials.

**END OF SECTION**

**SECTION 07-6200  
SHEET METAL FLASHING AND TRIM**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Fabricated sheet metal items, including flashings, counterflashings, gutters, downspouts, and other items indicated in the Drawings.
- B. Sealants for joints within sheet metal fabrications.

**1.02 RELATED REQUIREMENTS**

- A. Section 07-4213 - Metal Wall Panel Siding
- B. Section 07-5400-Thermoplastic Membrane Roofing: Roofing system.
- C. Section 07-7200 - Roof Accessories: Manufactured metal roof curbs.

**1.03 REFERENCE STANDARDS**

- A. AAMA 2603 - Voluntary Specification, Performance Requirements and Test Procedures for Pigmented Organic Coatings on Aluminum Extrusions and Panels (with Coil Coating Appendix); 2022.
- B. AAMA 2605 - Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels (with Coil Coating Appendix); 2022.
- C. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2020.
- D. ASTM A666 - Standard Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar; 2015.
- E. ASTM B209 - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate; 2014.
- F. ASTM B209M - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate (Metric); 2014.
- G. ASTM C920 - Standard Specification for Elastomeric Joint Sealants; 2018.

**1.04 SUBMITTALS**

- A. See Section 01-3000 - Administrative Requirements, for submittal procedures.
- B. Shop Drawings: Indicate material profile, dimensions, jointing details, fastening methods, flashings, terminations, and installation details.
- C. Samples: Submit two samples illustrating metal finish color.

**1.05 QUALITY ASSURANCE**

- A. Perform work in accordance with SMACNA (ASMM) and CDA A4050 requirements and standard details, except as otherwise indicated.

**1.06 DELIVERY, STORAGE, AND HANDLING**

- A. Stack material to prevent twisting, bending, and abrasion, and to provide ventilation. Slope metal sheets to ensure drainage.
- B. Prevent contact with materials that could cause discoloration or staining.

**PART 2 PRODUCTS**

**2.01 MANUFACTURERS**

**2.02 SHEET MATERIALS**

- A. Pre-Finished Galvanized Steel: ASTM A 653/A 653M, with G90/Z275 zinc coating; minimum 0.02 inch (24 gauge) thick base metal, shop pre-coated with modified silicone coating. Protective Backing Paint per manufacture.

1. Color: Match existing siding.
2. PVDF (Polyvinylidene Fluoride) Coating: Superior Performance Organic Finish, AAMA 2605; multiple coat, thermally cured fluoropolymer finish system; color as scheduled.

### **2.03 ACCESSORIES**

- A. Fasteners: Stainless steel , with soft neoprene washers as recommended by manufacture.
- B. Primer: Zinc chromate type.
- C. Sealant to be Concealed in Completed Work: Non-curing butyl sealant.
- D. Sealant to be Exposed in Completed Work: elastomeric sealant, 100 percent silicone with minimum movement capability of plus/minus 25 percent and recommended by manufacturer for substrates to be sealed; clear.
  1. Provide smooth and clean joints.

### **2.04 FABRICATION**

- A. Form sections true to shape, accurate in size, square, and free from distortion or defects.
- B. Form pieces in longest possible lengths.
- C. At exposed edges provide 1/2 inch hemmed drip. Miter and seam corners.
- D. See Drawings for dimensions and relationships.
- E. Contact Architect regarding questions and missing information.

### **2.05 GUTTER AND DOWNSPOUT FABRICATION**

- A. Gutter and Downspouts: match existing size and profile. See Drawings for dimensions and other details.
  1. Match existing metal panel finish material and color.
- B. Seal metal joints.

### **2.06 ACCESSORIES**

- A. Fasteners: Stainless Steel or Galvanized Steel, depending on fastened materials, with soft neoprene washers.
- B. Concealed Sealants: Non-curing butyl sealant.
- C. Exposed Sealants: ASTM C920; elastomeric sealant, with minimum movement capability as recommended by manufacturer for substrates to be sealed; color to match adjacent material.

## **PART 3 EXECUTION**

### **3.01 PREPARATION**

- A. Install starter and edge strips, and cleats before starting installation.

### **3.02 INSTALLATION**

- A. Comply with drawing details.
- B. Comply with Manufacture's instructions.
- C. Secure flashings in place using concealed fasteners, and use exposed fasteners only where permitted.
- D. Fit flashings tight in place; make corners square, surfaces true and straight in planes, and lines accurate to profiles.
- E. Connect downspouts to downspout boots, and grout connection watertight.

**END OF SECTION**

**SECTION 07-7200  
ROOF ACCESSORIES**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Curbs.
- B. Equipment rails.

**1.02 RELATED REQUIREMENTS**

- A. Section 05-3100 - Steel Decking.

**1.03 REFERENCE STANDARDS**

- A. ASTM A123/A123M - Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products; 2017.
- B. ASTM A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware; 2009.
- C. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2020.

**1.04 SUBMITTALS**

- A. See Section 01-3000 - Administrative Requirements for submittal procedures.
- B. Product Data: Manufacturer's data sheets on each product to be used.
  - 1. Preparation instructions and recommendations.
  - 2. Storage and handling requirements and recommendations.
  - 3. Installation methods.
  - 4. Maintenance requirements.
- C. Shop Drawings: Submit detailed and dimensioned drawings for each curb.
- D. Warranty Documentation:
  - 1. Submit manufacturer warranty.
  - 2. Ensure that forms have been completed in Owner's name and registered with manufacturer.

**1.05 DELIVERY, STORAGE, AND HANDLING**

- A. Store products in manufacturer's unopened packaging until ready for installation.
- B. Store products under cover and elevated above grade.

**PART 2 PRODUCTS**

**2.01 ROOF CURBS**

- A. Roof Curbs Mounting Assemblies: Factory fabricated hollow sheet metal construction, internally reinforced, and capable of supporting superimposed live and dead loads and designated equipment load with fully mitered and sealed corner joints welded or mechanically fastened, and integral counterflashing with top and edges formed to shed water.
  - 1. Applications: Roof curbs used for roof penetrations/openings as indicated on drawings.
  - 2. Roof Curb Mounting Substrate: Curb substrate consists of roofing membrane, over insulation and decking.
  - 3. Sheet Metal Material:
    - a. Galvanized Steel: Hot-dip zinc coated steel sheet complying with ASTM A653/A653M, SS Grade 33; G60 coating designation; outer cover 14 gauge, liner 22 gage.
  - 4. Insulation: Minimum 1" rigid insulation.
  - 5. Placement and height: As indicated on drawings.

## **2.02 NON-PENETRATING ROOFTOP SUPPORTS/ASSEMBLIES**

- A. Non-Penetrating Rooftop Support/Assemblies: Manufacturer-engineered and factory-fabricated, with pedestal bases that rest on top of roofing membrane, and not requiring any attachment to roof structure and not penetrating roofing assembly.
  - 1. Design Loadings and Configurations: As required by applicable codes.
  - 2. Height: Provide minimum clearance of 8 inches under supported items to top of roofing.
  - 3. Support Spacing and Base Sizes: As required to distribute load sufficiently to prevent indentation of roofing assembly.
  - 4. Steel Components: Stainless steel, or carbon steel hot-dip galvanized after fabrication in accordance with ASTM A123/A123M.
  - 5. Hardware, Bolts, Nuts, and Washers: Stainless steel, or carbon steel hot-dip galvanized after fabrication in accordance with ASTM A153/A153M.

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Do not begin installation until substrates have been properly prepared.
- B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

### **3.02 INSTALLATION**

- A. Install in accordance with manufacturer's instructions, in manner that maintains roofing system weather-tight integrity.



**SECTION 07-9513  
EXPANSION JOINT**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Expansion joint assemblies for wall and soffit surfaces.

**1.02 RELATED REQUIREMENTS**

**1.03 SUBMITTALS**

- A. See Section 01-3000 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide joint assembly profiles, profile dimensions, anchorage devices and available colors and finish.
- C. Shop Drawings: Indicate joint and splice locations, miters, layout of the work, affected adjacent construction and anchorage locations.
- D. Samples: Submit two samples, illustrating profile, dimension, color, and finish selected.
- E. Manufacturer's Installation Instructions: Indicate rough-in sizes and required tolerances for item placement.
- F. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
  - 1. See Section 01-6000 for additional provisions.

**PART 2 PRODUCTS**

**2.01 MANUFACTURERS**

- A. Expansion Joint Cover Assemblies:
  - 1. Construction Specialties
  - 2. Substitutions: See Section 01-6000 - Product Requirements.

**2.02 EXPANSION JOINT COVER ASSEMBLY APPLICATIONS**

- A. Exterior Wall Joints Subject to Thermal Movement:

**2.03 EXPANSION JOINT ASSEMBLIES**

- A. Expansion Joint Assemblies - General: Factory-fabricated and assembled; designed to completely fill joint openings, sealed to prevent passage of air, dust, water, smoke; suitable for traffic expected.
  - 1. Joint Dimensions and Configurations: As indicated on drawings.
  - 2. Joint Assembly Size: Selected to suit joint width and configuration, based on manufacturer's published recommendations and limitations.
  - 3. Joint Basis of Design: VF Series: VF-100
    - a. Color: Light Gray
    - b. Materials: Pre-compressed impregnated foam, with factory applied silicon face. At the exterior provide, clean, cont. field applied silicone bead at edges of expansion joint, seal to storefront & break metal. Refer to Detail Drawings.
  - 4. Lengths: locate required splicing per manufacture.

**PART 3 EXECUTION**

**3.01 EXAMINATION**

- A. Verify that joint preparation and dimensions are acceptable and in accordance with manufacturer's requirements.
- B. Verify that frames and anchors installed by others are in correct locations and suitable for installation of remainder of assembly.

**3.02 INSTALLATION**

- A. Install components and accessories in accordance with manufacturer's instructions.

- B. Align work plumb and level, flush with adjacent surfaces.
- C. Rigidly anchor to substrate to prevent misalignment.

**END OF SECTION**

**SECTION 08-4313  
ALUMINUM-FRAMED STOREFRONTS**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Aluminum-framed storefront, with vision glass.
- B. Aluminum doors and frames.
- C. Weatherstripping.

**1.02 RELATED REQUIREMENTS**

- A. Section 07-2500 - Weather Barriers: Sealing framing to water-resistive barrier installed on adjacent construction.
- B. Section 08-7100 - Door Hardware: Hardware items other than specified in this section.
- C. Section 08-8000 - Glazing: Glass and glazing accessories.

**1.03 REFERENCE STANDARDS**

- A. AAMA CW-10 - Care and Handling of Architectural Aluminum from Shop to Site; 2015.
- B. AAMA 609 & 610 - Cleaning and Maintenance Guide for Architecturally Finished Aluminum (Combined Document); 2015.
- C. AAMA 611 - Voluntary Specification for Anodized Architectural Aluminum; 2020.
- D. AAMA 1503 - Voluntary Test Method for Thermal Transmittance and Condensation Resistance of Windows, Doors and Glazed Wall Sections; 2009.
- E. ASTM B221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes; 2021.
- F. ASTM B221M - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes (Metric); 2021.
- G. ASTM E283/E283M - Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Skylights, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen; 2019.
- H. ASTM E330/E330M - Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference; 2014 (Reapproved 2021).
- I. ASTM E331 - Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference; 2000 (Reapproved 2023).
- J. FLA (PAD) - Florida Building Code Online - Product Approval Directory; Current Edition.

**1.04 ADMINISTRATIVE REQUIREMENTS**

- A. Coordinate with installation of other components that comprise the exterior enclosure.
- B. Preinstallation Meeting: Conduct a preinstallation meeting one week before starting work of this section; require attendance by all affected installers.

**1.05 SUBMITTALS**

- A. See Section 01-3000 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide component dimensions, describe components within assembly, anchorage and fasteners, glass and infill, door hardware, and internal drainage details.
- C. Shop Drawings: Indicate system dimensions, framed opening requirements and tolerances, affected related work, expansion and contraction joint location and details, and field welding required.

- D. Hardware Schedule: Complete itemization of each item of hardware to be provided for each door, cross-referenced to door identification numbers in Contract Documents.
- E. Manufacturer's Maintenance Data: Include manufactures' parts list and maintenance instruction for each type of hardware ad operating component.
- F. Manufacturer's Warranty: Submit manufacturer warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.

#### **1.06 QUALITY ASSURANCE**

- A. Installer Qualifications: Company specializing in performing work of type specified and with at least three years of documented experience.

#### **1.07 DELIVERY, STORAGE, AND HANDLING**

- A. Handle products of this section in accordance with AAMA CW-10.
- B. Protect finished aluminum surfaces with wrapping. Do not use adhesive papers or sprayed coatings that bond to aluminum when exposed to sunlight or weather.

#### **1.08 FIELD CONDITIONS**

- A. Do not install sealants when ambient temperature is less than 40 degrees F. Maintain this minimum temperature during and 48 hours after installation.

### **PART 2 PRODUCTS**

#### **2.01 MANUFACTURERS**

- A. Aluminum-Framed Storefronts:
  1. Kawneer North America: [www.kawneer.com](http://www.kawneer.com).
  2. Substitutions: See Section 01-6000 - Product Requirements.

#### **2.02 BASIS OF DESIGN -- FRAMING FOR INSULATING GLAZING**

- A. Front-Set Style, Thermally- Broken, Wind-Borne-Debris Resistance Tested:
  1. Basis of Design: TriFab 451T.
  2. Vertical Mullion Dimensions: 2 inches wide by 4-1/2 inches deep.

#### **2.03 BASIS OF DESIGN -- SWINGING DOORS**

- A. Wind-Borne-Debris Resistance Tested:
  1. Basis of Design: TriFab 451T.
  2. Thickness: Match Existing Doors.
- B. Substitutions: See Section 01-6000 - Product Requirements.

#### **2.04 ALUMINUM-FRAMED STOREFRONT**

- A. Aluminum-Framed Storefront: Factory fabricated, factory finished aluminum framing members with infill, and related flashings, anchorage and attachment devices.
  1. Finish: Class I natural anodized. Not less than 0.7 mils thck.
    - a. Factory finish all surfaces that will be exposed in completed assemblies.
    - b. Touch-up surfaces cut during fabrication so that no natural aluminum is visible in completed assemblies, including joint edges.
    - c. Coat concealed metal surfaces that will be in contact with cementitious materials or dissimilar metals with bituminous paint.
  2. Fabrication: Joints and corners flush, hairline, and weatherproof, accurately fitted and secured; prepared to receive anchors and hardware; fasteners and attachments concealed from view; reinforced as required for imposed loads.
  3. Construction: Eliminate noises caused by wind and thermal movement, prevent vibration harmonics, and prevent "stack effect" in internal spaces.
  4. System Internal Drainage: Drain to the exterior by means of a weep drainage network any water entering joints, condensation occurring in glazing channel, and migrating moisture occurring within system.

5. Expansion/Contraction: Provide for expansion and contraction within system components caused by cycling temperature range of 170 degrees F over a 12 hour period without causing detrimental effect to system components, anchorages, and other building elements.
  6. Movement: Allow for movement between storefront and adjacent construction, without damage to components or deterioration of seals.
  7. Perimeter Clearance: Minimize space between framing members and adjacent construction while allowing expected movement.
  8. Maintain continuous air barrier and/or vapor retarder seal throughout assembly, primarily in line with inside pane of glazing and inner sheet of infill panel, and heel bead of glazing compound.
- B. Performance Requirements
1. Wind Loads: Design and size components to withstand the specified load requirements without damage or permanent set, when tested in accordance with ASTM E330/E330M, using loads 1.5 times the design wind loads and 10 second duration of maximum load.
    - a. Member Deflection: Limit member deflection to flexure limit of glass in any direction, with full recovery of glazing materials.
  2. Wind-Borne-Debris Resistance: Identical full-size glazed assembly without auxiliary protection, having Florida Building Code FLA (PAD) approval for Large and Small Missile impact and pressure cycling at design wind pressure.
  3. Water Penetration Resistance on Manufactured Assembly: No uncontrolled water on interior face, when tested in accordance with ASTM E331 at pressure differential of 8 psf.
  4. Air Leakage: 0.06 cfm/sq ft maximum leakage of storefront wall area when tested in accordance with ASTM E283/E283M at 1.57 psf pressure difference.
  5. Condensation Resistance Factor of Framing: 50, minimum, measured in accordance with AAMA 1503.
  6. Overall U-value Including Glazing: [.60] maximum.

## 2.05 COMPONENTS

- A. Aluminum Framing Members: Tubular aluminum sections, thermally broken with interior section insulated from exterior, drainage holes and internal weep drainage system.
- B. Glazing: See Section 08-8000.
- C. Swing Doors: Glazed aluminum. - Match Existing door 1C dimensions.
  1. Thickness: 1-3/4 inches.
  2. Finish: Same as storefront.

## 2.06 MATERIALS

- A. Extruded Aluminum: ASTM B221 (ASTM B221M).
- B. Fasteners: Stainless steel.
- C. Glazing Gaskets: Type to suit application to achieve weather, moisture, and air infiltration requirements.

## 2.07 FINISHES

- A. Class I Natural Anodized Finish: AAMA 611 AA-M12C22A41 Clear anodic coating not less than 0.7 mils thick.

## 2.08 HARDWARE

- A. Other Door Hardware: See Section 08-7100
- B. Other Door Hardware: Storefront manufacturer's standard type to suit application.
  1. Finish on Hand-Contacted Items: Polished chrome. Match existing handle type.

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Verify dimensions, tolerances, and method of attachment with other work.
- B. Verify that storefront wall openings and adjoining water-resistive and/or air barrier seal materials are ready to receive work of this section.

### **3.02 INSTALLATION**

- A. Install wall system in accordance with manufacturer's instructions.
- B. Attach to structure to permit sufficient adjustment to accommodate construction tolerances and other irregularities.
- C. Provide alignment attachments and shims to permanently fasten system to building structure.
- D. Align assembly plumb and level, free of warp or twist. Maintain assembly dimensional tolerances, aligning with adjacent work.
- E. Provide thermal insulation where components penetrate or disrupt building insulation.
- F. Install sill flashings. Turn up ends and edges; seal to adjacent work to form water tight dam.
- G. Where fasteners penetrate sill flashings, make watertight by seating and sealing fastener heads to sill flashing.
- H. Pack fibrous insulation in shim spaces at perimeter of assembly to maintain continuity of thermal barrier.
- I. Set thresholds in bed of sealant and secure.
- J. Touch-up minor damage to factory applied finish; replace components that cannot be satisfactorily repaired.

### **3.03 TOLERANCES**

- A. Maximum Variation from Plumb: 0.06 inch per 3 feet non-cumulative or 0.06 inch per 10 feet, whichever is less.
- B. Maximum Misalignment of Two Adjoining Members Abutting in Plane: 1/32 inch.

### **3.04 ADJUSTING**

- A. Adjust operating hardware for smooth operation.

### **3.05 CLEANING**

- A. Remove protective material from pre-finished aluminum surfaces.
- B. Wash down surfaces with a solution of mild detergent in warm water, applied with soft, clean wiping cloths, and take care to remove dirt from corners and to wipe surfaces clean.
- C. Upon completion of installation, thoroughly clean aluminum surfaces in accordance with AAMA 609 & 610.

### **3.06 PROTECTION**

- A. Protect installed products from damage until Date of Substantial Completion.

**END OF SECTION**

**SECTION 08-7100  
DOOR HARDWARE**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Hardware for wood and hollow metal doors.
- B. Hardware for fire-rated doors.
- C. Electrically operated and controlled hardware.
- D. Lock cylinders for doors that hardware is specified in other sections.
- E. Thresholds.
- F. Weatherstripping, seals and door gaskets.

**1.02 RELATED REQUIREMENTS**

- A. Section 08-1416 - Flush Wood Doors.
- B. Section 08-4313 - Aluminum-Framed Storefronts: Hardware for doors in storefront.

**1.03 REFERENCE STANDARDS**

- A. ANSI/ICC A117.1 - American National Standard for Accessible and Usable Buildings and Facilities; International Code Council; 2009.
- B. BHMA A156.1 - Standard for Butts and Hinges; 2021.
- C. BHMA A156.2 - Bored and Preamsembled Locks and Latches; 2022.
- D. BHMA A156.3 - Exit Devices; 2020.
- E. BHMA A156.4 - Door Closers and Pivots; 2024.
- F. BHMA A156.6 - Standard for Architectural Door Trim; 2021.
- G. BHMA A156.7 - Template Hinge Dimensions; 2022.
- H. BHMA A156.8 - Door Controls - Overhead Stops and Holders; 2021.
- I. BHMA A156.13 - Mortise Locks & Latches Series 1000; 2022.
- J. BHMA A156.18 - Standard for Materials and Finishes; 2020.
- K. BHMA A156.21 - Thresholds; 2019.
- L. BHMA A156.31 - Electric Strikes and Frame Mounted Actuators; 2024.
- M. BHMA A156.115 - Hardware Preparation in Steel Doors and Frames; 2016.
- N. BHMA A156.115W - Hardware Preparation in Wood Doors with Wood or Steel Frames; 2006.
- O. DHI (LOCS) - Recommended Locations for Architectural Hardware for Standard Steel Doors and Frames; 2004.
- P. DHI WDHS.3 - Recommended Locations for Architectural Hardware for Flush Wood Doors; 1993; also in WDHS-1/WDHS-5 Series, 1996.
- Q. NFPA 80 - Standard for Fire Doors and Other Opening Protectives; 2025.
- R. NFPA 101 - Life Safety Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
- S. UL (DIR) - Online Certifications Directory; Current Edition.

**1.04 ADMINISTRATIVE REQUIREMENTS**

- A. Coordinate the manufacture, fabrication, and installation of products that door hardware will be installed upon.

## 1.05 SUBMITTALS

- A. See Section 01-3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Manufacturer's catalog literature for each type of hardware, marked to clearly show products to be furnished for this project.
- C. Shop Drawings:
  - 1. Indicate locations and mounting heights of each type of hardware, schedules, catalog cuts, electrical characteristics and connection requirements .
  - 2. Submit manufacturer's parts lists and templates.
- D. Hardware Schedule: Detailed listing of each item of hardware to be installed on each door. Use door numbering scheme as included in the Contract Documents. Identify electrically operated items and include power requirements.
- E. Keying Schedule: Submit for approval of Owner.

## 1.06 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years of documented experience.

## 1.07 DELIVERY, STORAGE, AND HANDLING

- A. Package hardware items individually; label and identify each package with door opening code to match hardware schedule.

## PART 2 PRODUCTS

### 2.01 MANUFACTURERS

- A. Allegion Brands, Ives: [www.allegion.com/us](http://www.allegion.com/us).
- B. Assa Abloy Brands, Corbin Russwin: [www.assaabloydss.com](http://www.assaabloydss.com).

### 2.02 DOOR HARDWARE - GENERAL

- A. Provide hardware specified or required to make doors fully functional, compliant with applicable codes, and secure to the extent indicated.
- B. Provide items of a single type of the same model by the same manufacturer.
- C. Provide products that comply with the following:
  - 1. Applicable provisions of federal, state, and local codes.
  - 2. Fire-Rated Doors: NFPA 80.
  - 3. Hardware on Fire-Rated Doors, Except Hinges: Listed and classified by UL (DIR) as suitable for the purpose specified and indicated.
  - 4. Hardware for Smoke and Draft Control Doors (Indicated as "S" on Drawings): Provide hardware that enables door assembly to comply with air leakage requirements of the applicable code.
  - 5. Products Requiring Electrical Connection: Listed and classified by UL (DIR) as suitable for the purpose specified and indicated.
- D. Function: Lock and latch function numbers and descriptions of manufactures series as listed in hardware schedule.
- E. Electrically Operated and/or Controlled Hardware: Provide all power supplies, power transfer hinges, relays, and interfaces required for proper operation; provide wiring between hardware and control components and to building power connection.
- F. Finishes: Provide door hardware of the same finish unless otherwise indicated.
  - 1. Primary Interior Finish: Satin chrome plated over nickel on brass or bronze, 626 (approx US26D).
    - a. Location: Interior doors.
  - 2. Primary Exterior Finish: Stainless steel, satin, 630.



- a. Location: Exterior doors.
- 3. Finish Definitions: BHMA A156.18.
- 4. Exceptions:
  - a. Where base metal is specified to be different, provide finish that is an appearance equivalent according to BHMA A156.18.
  - b. Hinges for Fire-Rated Doors: Steel base metal with painted finish.

### **2.03 LOCKS AND LATCHES**

- A. Locks: Provide a lock for every door, unless specifically indicated as not requiring locking.
  - 1. If no hardware set is indicated for a swinging door provide an office lockset.
  - 2. Trim: Provide lever handle or pull trim on outside of all locks unless specifically stated to have no outside trim.
  - 3. Lock Cylinders: Provide key access on outside of all locks unless specifically stated to have no locking or no outside trim.
- B. Lock Cylinders: Manufacturer's standard tumbler type, six-pin standard core.
  - 1. Provide cams and/or tailpieces as required for locking devices required.
- C. Keying: Keyed in like-groups.
  - 1. Key to existing keying system.
  - 2. When providing keying information, comply with DHI Handbook "Keying systems and nomenclature".
- D. Latches: Provide a latch for every door that is not required to lock, unless specifically indicated "push/pull" or "not required to latch".
- E. Privacy Latchset - Mortise Style;
  - 1. Basis of Design: L9496 Px17A by Schlage.
  - 2. Privacy lock with ADA thumbturn and "vacant/occupied" indicator.

### **2.04 LOCKS AND LATCHES**

- A. Locks: Provide a lock for every door, unless specifically indicated as not requiring locking.
  - 1. Hardware Sets indicate locking functions required for each door.
  - 2. If no hardware set is indicated for a swinging door provide an office lockset.
  - 3. Trim: Provide lever handle or pull trim on outside of all locks unless specifically stated to have no outside trim.
  - 4. Lock Cylinders: Provide key access on outside of all locks unless specifically stated to have no locking or no outside trim.
- B. Lock Cylinders: Manufacturer's standard tumbler type, six-pin standard core.
  - 1. Provide cams and/or tailpieces as required for locking devices required.
- C. Keying: Grand master keyed.
- D. Latches: Provide a latch for every door that is not required to lock, unless specifically indicated "push/pull" or "not required to latch".

### **2.05 CYLINDRICAL LOCKSETS**

- A. Cylindrical Locksets - Basis of Design: Schlage ND Series.
- B. Locking Functions: As defined in BHMA A156.2, and as follows.
  - 1. Privacy: F76, emergency tool unlocks.
  - 2. Office: F81, key not required to lock, remains locked upon exit.
  - 3. Classroom: F84, key required to lock.
  - 4. Intruder Classroom: F110, keyed both sides.
  - 5. Communicating: F80 or F113.
  - 6. Hotel: F93.
  - 7. Store Room Function: F86, key required to lock, may not be left unlocked.
- C. Manufacturers - Cylindrical Locksets:

1. Schlage, an Allegion brand: [www.allegion.com/us](http://www.allegion.com/us).
2. Substitutions: See Section 01-6000 - Product Requirements.

## **2.06 ELECTRIC STRIKES**

- A. Electric Strikes: Complying with BHMA A156.31 and UL (DIR) listed as a Burglary-Resistant Electric Door Strike; style to suit locks.
- B. Manufacturers - Electric Strikes:
  1. Assa Abloy Brands, HES; 5200: [www.assaabloydss.com](http://www.assaabloydss.com).
  2. Substitutions: See Section 01-6000 - Product Requirements.

## **2.07 EXIT DEVICES**

- A. Exit Devices - Basis of Design: Von Duprin 98/99 Series Exit Devices.
- B. Locking Functions: Functions as defined in BHMA A156.3, and as follows:
  1. Entry/Exit, Always-Unlocked: Outside lever unlocked, no outside key access, no latch holdback.
  2. Entry/Exit, Free Swing: Key outside retracts latch, latch holdback (dogging) for free swing during occupied hours, not fire-rated; outside trim must be specified as lever or pull.
  3. Entry/Exit, Always-Latched: Key outside locks and unlocks lever, no latch holdback (dogging).
  4. Entry/Exit, Always-Locked: Key outside retracts latchbolt but does not unlock lever, no latch holdback.
  5. Exit Only, Secure: No outside trim, no key entry, no latch holdback, deadlocking latchbolt.
- C. Manufacturers - Exit Devices:
  1. Von Duprin, an Allegion brand: [www.allegion.com/us](http://www.allegion.com/us).
  2. Substitutions: See Section 01-6000 - Product Requirements.

## **2.08 STOPS AND HOLDERS**

- A. Stops: Complying with BHMA A156.8; provide a stop for every swinging door, unless otherwise indicated.
  1. Provide wall stops, unless otherwise indicated.
  2. If wall stops are not practical, due to configuration of room or furnishings, provide overhead stop.
  3. Stop is not required if positive stop feature is specified for door closer; positive stop feature of door closer is not an acceptable substitute for a stop unless specifically so stated.
- B. Kick Down Holder: Ives FS 452.
- C. Wall Stops: Ives WS406/407CCV, concave wall bumper.
- D. Door Guard: Ives 481 Change Door Guard.
- E. Manufacturers - Wall and Floor Stops/holders:
  1. Assa Abloy Brands, McKinney: [www.assaabloydss.com](http://www.assaabloydss.com).
  2. Ives.
    - a. 407-1/2 Wall Stops.
    - b. FS 452 Holdopen.
  3. Substitutions: See Section 01-6000 - Product Requirements.

## **2.09 GENERAL REQUIREMENTS FOR DOOR HARDWARE PRODUCTS**

- A. Provide products that comply with the following:
  1. Applicable provisions of Federal, State, and local codes.

## **2.10 KEYING**

- A. Door Locks: Master keyed.
- B. Supply keys in the following quantities:

1. 2 master keys.
2. 5 grand master keys.
3. 3 change keys for each lock.

### **PART 3 EXECUTION**

#### **3.01 EXAMINATION**

- A. Verify that doors and frames are ready to receive work; labeled, fire-rated doors and frames are present and properly installed, and dimensions are as indicated on shop drawings.
- B. Verify that electric power is available to power operated devices and of the correct characteristics.

#### **3.02 INSTALLATION**

- A. Install hardware in accordance with manufacturer's instructions and applicable codes.
- B. Use templates provided by hardware item manufacturer.
- C. Install hardware on fire-rated doors and frames in accordance with code and NFPA 80.
- D. Mounting heights for hardware from finished floor to center line of hardware item. As indicated in following list; unless noted otherwise in Door Hardware Sets Schedule or on drawings.
  1. For steel doors: Comply with DHI (LOCS) "Recommended Locations for Architectural Hardware for Standard Steel Doors and Frames".
  2. For Wood Doors: Comply with DHI WDHS.3 "Recommended Locations for Architectural Hardware for Flush Wood Doors".
  3. Locksets: 38 inch.
  4. Push/Pulls: 42 inch.
  5. Dead Locks: 42 inch.

#### **3.03 ADJUSTING**

- A. Adjust work under provisions of Section 01-7000 - Execution and Closeout Requirements.

#### **3.04 CLEANING**

- A. Clean adjacent surfaces soiled by hardware installation. Clean finished hardware per manufacturer's instructions after final adjustments has been made. Replace items that cannot be cleaned to manufacturer's level of finish quality at no additional cost.

#### **3.05 PROTECTION**

- A. Protect finished Work under provisions of Section 01-7000 - Execution and Closeout Requirements.
- B. Do not permit adjacent work to damage hardware or finish.

### **HARDWARE SETS**

#### **4.01 HARDWARE SETS - GENERAL**

- A. These Hardware Sets indicate requirements for single doors of that type, with conditional requirements for pairs and other situations.
- B. Pairs of Swinging Doors: Provide one of each specified item on each leaf unless specifically stated otherwise. Treat pairs as two active leaves unless otherwise indicated.
- C. HW-CYL: Doors whose hardware is specified in other sections but which must be keyed to building system:
  1. Lock Cylinder, Mortise, keyed to building system.

#### **4.02 SWING DOORS -- ELECTRICAL ACCESS CONTROL**

- A. HW-45: Storeroom function, with keypad access, Non-Fire-Rated:
  1. Hinges.
  2. Electric Strike
  3. Threshold.

4. Request to Exit
  5. Card Reader
  6. Door Position Switch
- B. HW-50 : Entry Control, Fail-Secure, Outswing, Fire-Rated and non-Fire-Rated:
1. Lockset.
  2. Motorized Panic Device with vertical rods, both leaves.
  3. Holdopen.
  4. Card Reader.
  5. Door Position Switch.
  6. Request to Exit.
  7. Power Transfer.
  8. Balance of Hardware per 08-4313.

*NOTE:* Door to provide hardware for Staff/authorized personnel to gain access with card reader when locked. Staff may "dog-down" panic devices if desired.

**END OF SECTION**

**SECTION 09-2116  
GYPSUM BOARD ASSEMBLIES**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Performance criteria for gypsum board assemblies.
- B. Metal stud wall framing.
- C. Metal channel ceiling framing.
- D. Gypsum wallboard.
- E. Joint treatment and accessories.
- F. Textured finish system.

**1.02 RELATED REQUIREMENTS**

- A. Section 05-4000 - Cold-Formed Metal Framing: Structural steel stud framing.
- B. Section 07-2100 - Thermal Insulation: Acoustic insulation.
- C. Section 07-2500 - Weather Barriers: Water-resistive barrier over sheathing.
- D. Section 09-2216 - Non-Structural Metal Framing.

**1.03 REFERENCE STANDARDS**

- A. ASTM C645 - Standard Specification for Nonstructural Steel Framing Members; 2018.
- B. ASTM C754 - Standard Specification for Installation of Steel Framing Members to Receive Screw-Attached Gypsum Panel Products; 2020.
- C. ASTM C840 - Standard Specification for Application and Finishing of Gypsum Board; 2020.
- D. ASTM C1047 - Standard Specification for Accessories For Gypsum Wallboard and Gypsum Veneer Base; 2019.
- E. ASTM C1396/C1396M - Standard Specification for Gypsum Board; 2017.
- F. GA-216 - Application and Finishing of Gypsum Panel Products; 2016.

**1.04 SUBMITTALS**

- A. See Section 01-3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide data on gypsum board and accessories.

**1.05 DELIVERY, STORAGE AND HANDLING**

- A. See Section 01-7419 - Construction Waste Management and Disposal for packaging waste.

**PART 2 PRODUCTS**

**2.01 GYPSUM BOARD ASSEMBLIES**

- A. Provide completed assemblies complying with ASTM C840 and GA-216.

**2.02 METAL FRAMING MATERIALS**

- A. Non-structural Steel Framing for Application of Gypsum Board: As specified in Section 09-2216.
- B. Structural Steel Framing for Application of Gypsum Board: As specified in Section 05-4000.
- C. Non-structural Framing System Components: ASTM C645; galvanized sheet steel, of size and properties necessary to comply with ASTM C754 for the spacing indicated, with maximum deflection of wall framing of L/120 at 5 psf.
  - 1. Studs: C-shaped with knurled or embossed faces.
  - 2. Runners: U shaped, sized to match studs.

## 2.03 BOARD MATERIALS

- A. Manufacturers - Gypsum-Based Board:
  - 1. American Gypsum: [www.americangypsum.com](http://www.americangypsum.com).
  - 2. CertainTeed Corporation: [www.certainteed.com/#sle](http://www.certainteed.com/#sle).
  - 3. Georgia-Pacific Gypsum: [www.gpgypsum.com/#sle](http://www.gpgypsum.com/#sle).
  - 4. National Gypsum Company: [www.nationalgypsum.com/#sle](http://www.nationalgypsum.com/#sle).
  - 5. USG Corporation: [www.usg.com/#sle](http://www.usg.com/#sle).
  - 6. Substitutions: See Section 01-6000 - Product Requirements.
- B. Gypsum Wallboard: Paper-faced gypsum panels as defined in ASTM C1396/C1396M; sizes to minimize joints in place; ends square cut.
  - 1. Application: Use for vertical surfaces and ceilings, unless otherwise indicated.
  - 2. At Assemblies Indicated with Fire-Rating: Use type required by indicated tested assembly; if no tested assembly is indicated, use Type X board, UL or WH listed.
  - 3. Thickness:
    - a. Vertical Surfaces: 5/8 inch.
    - b. Ceilings: 5/8 inch.
- C. Ceiling Board: Special sag resistant gypsum ceiling board as defined in ASTM C1396/C1396M; sizes to minimize joints in place; ends square cut.
  - 1. Application: Ceilings, unless otherwise indicated.
  - 2. Thickness: 5/8 inch.
  - 3. Edges: Tapered.

## 2.04 GYPSUM BOARD ACCESSORIES

- A. Beads, Joint Accessories, and Other Trim: ASTM C1047, rigid plastic, galvanized steel, or rolled zinc, unless noted otherwise.
  - 1. Corner Beads: Low profile, for 90 degree outside corners.
    - a. Manufactures, for all items in this section:
      - 1) CertainTeed Corporation; No-Coat Drywall Corner: [www.certainteed.com/#sle](http://www.certainteed.com/#sle).
      - 2) ClarkDietrich; Strait-Flex Big-Stick: [www.clarkdietrich.com/#sle](http://www.clarkdietrich.com/#sle).
      - 3) Phillips Manufacturing Co; Everlast Corner Bead: [www.phillipsmfg.com/#sle](http://www.phillipsmfg.com/#sle).
      - 4) Trim-Tex, Inc: [www.trim-tex.com/#sle](http://www.trim-tex.com/#sle).
      - 5) Substitutions: See Section 01-6000 - Product Requirements.
  - 2. L-Trim with Tear-Away Strip: Sized to fit 5/8 inch thick gypsum wallboard.
  - 3. Expansion Joints:
    - a. Type: V-shaped PVC with tear away fins.
- B. Joint Materials: ASTM C475/C475M and as recommended by gypsum board manufacturer for project conditions.
- C. High Build Drywall Surfer: Vinyl acrylic latex-based coating for spray application, designed to take the place of skim coating and separate paint primer in achieving Level 5 finish.
- D. Textured Finish Materials: Latex-based compound; plain.
- E. Screws for Fastening of Gypsum Panel Products to Cold-Formed Steel Studs Less than 0.033 inch in Thickness and Wood Members: ASTM C1002; self-piercing tapping screws, corrosion resistant.

## PART 3 EXECUTION

### 3.01 EXAMINATION

- A. Verify that project conditions are appropriate for work of this section to commence.

### 3.02 FRAMING INSTALLATION

- A. Studs: Space studs at 16 inches on center.
  - 1. Extend partition framing to structure where indicated and to ceiling in other locations.

2. Partitions Terminating at Ceiling: Attach ceiling runner securely to ceiling track in accordance with manufacturer's instructions.
- B. Blocking: Install mechanically fastened steel channel blocking for support of:
1. Framed openings.
  2. Wall mounted door hardware.
  3. Fire Extinguisher Cabinet
  4. Wall or ceiling mounted Mechanical and Electrical Items

### **3.03 BOARD INSTALLATION**

- A. Comply with ASTM C840, GA-216, and manufacturer's instructions. Install to minimize butt end joints, especially in highly visible locations.
- B. Single-Layer Non-Rated: Install gypsum board in most economical direction, with ends and edges occurring over firm bearing.
1. Exception: Tapered edges to receive joint treatment at right angles to framing.

### **3.04 INSTALLATION OF TRIM AND ACCESSORIES**

- A. Control Joints: Place control joints consistent with lines of building spaces and as indicated.
1. Not more than 30 feet apart on walls and ceilings over 50 feet long.
- B. Corner Beads: Install at external corners, using longest practical lengths.
- C. Edge (L) Trim: Install at locations where gypsum board abuts dissimilar materials.

### **3.05 JOINT TREATMENT**

1. Level 5: Walls and ceilings to receive semi-gloss or gloss paint finish and other areas specifically indicated.
  2. Level 1: Fire rated wall areas above finished ceilings, whether or not accessible in the completed construction.
  3. Taping, filling, and sanding is not required at surfaces behind adhesive applied ceramic tile and fixed cabinetry.
- B. Where Level 5 finish is indicated, spray apply high build drywall surfacer over entire surface after joints have been properly treated; achieve a flat and tool mark-free finish.

### **3.06 TOLERANCES**

- A. Maximum Variation of Finished Gypsum Board Surface from True Flatness: 1/8 inch in 10 feet in any direction.

**END OF SECTION**

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**SECTION 09-6500  
RESILIENT FLOORING**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Resilient base.

**1.02 REFERENCE STANDARDS**

- A. ASTM F1861 - Standard Specification for Resilient Wall Base; 2021.

**1.03 SUBMITTALS**

- A. See Section 01-3000 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide data on specified products, describing physical and performance characteristics; including sizes, patterns and colors available; and installation instructions.
- C. Verification Samples: Submit two samples illustrating color and style for each resilient flooring product specified.
- D. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
  - 1. See Section 01-6000 - Product Requirements, for additional provisions.

**1.04 DELIVERY, STORAGE, AND HANDLING**

- A. Store all materials off of the floor in an acclimatized, weather-tight space.
- B. Protect rubber base from damage by storing rolls laying down, right side up.

**PART 2 PRODUCTS**

**2.01 RESILIENT BASE**

- A. Resilient Base: ASTM F1861, Type TS, rubber, vulcanized thermoset; style as scheduled.
  - 1. Manufacturers:
    - a. Flexco Corporation; Base Sculptures: [www.flexcofloors.com/#sle](http://www.flexcofloors.com/#sle).
    - b. Roppe Corporation; Contours Profiled Wall Base System: [www.roppe.com/#sle](http://www.roppe.com/#sle).
    - c. Substitutions: See Section 01-6000 - Product Requirements.
  - 2. Height: 6 inches.
  - 3. Thickness: 0.125 inch.
  - 4. Finish: Satin.
  - 5. Length: 6 foot section min.
  - 6. Color: As indicated on drawings.

**PART 3 EXECUTION**

**3.01 EXAMINATION**

- A. Verify that wall surfaces are smooth and flat within the tolerances specified for that type of product / work, are dust-free, and are ready to receive resilient base.

**3.02 INSTALLATION - GENERAL**

- A. Starting installation constitutes acceptance of subfloor conditions.
- B. Install in accordance with manufacturer's written instructions.
- C. Adhesive-Applied Installation:
  - 1. Spread only enough adhesive to permit installation of materials before initial set.
  - 2. Fit joints and butt seams tightly.

**3.03 INSTALLATION - RESILIENT BASE**

- A. Fit joints tightly and make vertical. Maintain minimum dimension of 60 inches between joints.
- B. Install base on solid backing. Bond tightly to wall and floor surfaces.

**3.04 CLEANING**

- A. Remove excess adhesive from floor, base, and wall surfaces without damage.
- B. Clean in accordance with manufacturer's written instructions.

**END OF SECTION**

**SECTION 09-6813  
TILE CARPETING**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Carpet tile, fully adhered.

**1.02 RELATED REQUIREMENTS**

- A. Section 09-0561 - Common Work Results for Flooring Preparation: Removal of existing floor coverings, cleaning, and preparation.

**1.03 REFERENCE STANDARDS**

- A. CRI 104 - Standard for Installation of Commercial Carpet; 2015.

**1.04 SUBMITTALS**

- A. See Section 01-3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide data on specified products, describing physical and performance characteristics; sizes, patterns, colors available, and method of installation.
- C. Samples: Submit two carpet tiles illustrating color and pattern design for each carpet color selected.
- D. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
  - 1. See Section 01-6000 - Product Requirements, for additional provisions.

**1.05 FIELD CONDITIONS**

- A. Store materials in area of installation for minimum period of 24 hours prior to installation.
- B. Project Area must be at projects temperature set point for 24 hours prior to installation.
- C. Project Area's lights must be on during installation.

**PART 2 PRODUCTS**

**2.01 MANUFACTURERS**

- A. Tile Carpeting:
  - 1. Milliken & Company: [www.milliken.com/#sle](http://www.milliken.com/#sle).
  - 2. Substitutions: See Section 01-6000 - Product Requirements.

**2.02 MATERIALS**

- A. Tile Carpeting : Owner Supplied Contractor Installed
- B. Walk Off Tile - WOT-1: See Finish List and Finish Schedule

**PART 3 EXECUTION**

**3.01 EXAMINATION**

- A. Verify that subfloor surfaces are clean, dust free, smooth, flat within tolerances specified for that type of work and are ready to receive carpet tile.

**3.02 PREPARATION**

- A. Prepare floor substrates as recommended by flooring and adhesive manufacturers.
- B. Remove subfloor ridges and bumps. Fill minor or local low spots, cracks, joints, holes, and other defects with subfloor filler.

**3.03 INSTALLATION**

- A. Starting installation constitutes acceptance of subfloor conditions.
- B. Install carpet tile in accordance with manufacturer's instructions.
- C. Blend carpet from different cartons to ensure minimal variation in color match.

- D. Cut carpet tile clean. Fit carpet tight to intersection with vertical surfaces without gaps.
- E. Lay carpet tile in square pattern, with pile direction parallel to next unit, set parallel to building lines.
- F. Trim carpet tile neatly at walls and around interruptions.
- G. Complete installation of edge strips, concealing exposed edges.

**3.04 CLEANING**

- A. Remove excess adhesive without damage, from floor, base, and wall surfaces.
- B. Clean and vacuum carpet surfaces.

**END OF SECTION**

**SECTION 09-9000  
PAINTING AND COATING**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Surface preparation.
- B. Field application of paints and other coatings.
- C. Scope: Finish all interior surfaces exposed to view, unless fully factory-finished and unless otherwise indicated, including the following:
  - 1. Mechanical and Electrical:
    - a. In finished areas, paint all conduit, unless otherwise indicated.
    - b. In finished areas, paint shop-primed items.
    - c. Paint dampers exposed behind louvers, grilles, and convector and baseboard cabinets to match face panels.
- D. Do Not Paint or Finish the Following Items:
  - 1. Items fully factory-finished unless specifically so indicated; materials and products having factory-applied primers are not considered factory finished.
  - 2. Items indicated to receive other finishes.
  - 3. Items indicated to remain unfinished.
  - 4. Fire rating labels, equipment serial number and capacity labels, and operating parts of equipment.
  - 5. Floors, unless specifically so indicated.
  - 6. Glass.
  - 7. Concealed pipes, ducts, and conduits.

**1.02 RELATED REQUIREMENTS**

**1.03 DEFINITIONS**

- A. Conform to ASTM D16 for interpretation of terms used in this section.

**1.04 REFERENCE STANDARDS**

- A. 40 CFR 59, Subpart D - National Volatile Organic Compound Emission Standards for Architectural Coatings; U.S. Environmental Protection Agency; current edition.
- B. ASTM D16 - Standard Terminology for Paint, Related Coatings, Materials, and Applications; 2016.

**1.05 SUBMITTALS**

- A. See Section 01-3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide data on all finishing products, including VOC content.
- C. Samples: Submit two "draw down" samples, 8x8 inch in size illustrating range of colors and textures available for each surface finishing product scheduled.
- D. Certification: By manufacturer that all paints and coatings comply with VOC limits specified.
- E. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
  - 1. See Section 01-6000 - Product Requirements, for additional provisions.
  - 2. Extra Paint and Coatings: 1 gallon of each color; store where directed.
  - 3. Label each container with color in addition to the manufacturer's label.

**1.06 QUALITY ASSURANCE**

- A. Applicator Qualifications: Company specializing in performing the type of work specified with minimum 3 years experience.

### **1.07 DELIVERY, STORAGE, AND HANDLING**

- A. Deliver products to site in sealed and labeled containers; inspect to verify acceptability.
- B. Container Label: Include manufacturer's name, type of paint, brand name, lot number, brand code, coverage, surface preparation, drying time, cleanup requirements, color designation, and instructions for mixing and reducing.
- C. Paint Materials: Store at minimum ambient temperature of 45 degrees F and a maximum of 90 degrees F, in ventilated area, and as required by manufacturer's instructions.

### **1.08 FIELD CONDITIONS**

- A. Do not apply materials when surface and ambient temperatures are outside the temperature ranges required by the paint product manufacturer.
- B. Follow manufacturer's recommended procedures for producing best results, including testing of substrates, moisture in substrates, and humidity and temperature limitations.
- C. Provide lighting level of 80 ft candles measured mid-height at substrate surface.

## **PART 2 PRODUCTS**

### **2.01 MANUFACTURERS**

- A. Provide all paint and coating products used in any individual system from the same manufacturer; no exceptions.
- B. Paints:
  - 1. Benjamin Moore & Co: [www.benjaminmoore.com/#sle](http://www.benjaminmoore.com/#sle).
  - 2. Sherwin-Williams.
- C. Primer Sealers: Same manufacturer as top coats.
  - 1. Same as above.
- D. Substitutions: See Section 01-6000 - Product Requirements.

### **2.02 PAINTS AND COATINGS - GENERAL**

- A. Paints and Coatings: Ready mixed, unless intended to be a field-catalyzed coating.
  - 1. Provide paints and coatings of a soft paste consistency, capable of being readily and uniformly dispersed to a homogeneous coating, with good flow and brushing properties, and capable of drying or curing free of streaks or sags.
  - 2. Supply each coating material in quantity required to complete entire project's work from a single production run.
  - 3. Do not reduce, thin, or dilute coatings or add materials to coatings unless such procedure is specifically described in manufacturer's product instructions.
  - 4. Paint coating required on all sides of exposed surfaces and trim
- B. Primers: As follows unless other primer is required or recommended by manufacturer of top coats; where the manufacturer offers options on primers for a particular substrate, use primer categorized as "best" by the manufacturer.
  - 1. Steel, Uncoated: Anti-Corrosive Alkyd Primer for Metal; MPI #79.
- C. Volatile Organic Compound (VOC) Content:
  - 1. Provide coatings that comply with the most stringent requirements specified in the following:
    - a. 40 CFR 59, Subpart D--National Volatile Organic Compound Emission Standards for Architectural Coatings.
  - 2. Determination of VOC Content: Testing and calculation in accordance with 40 CFR 59, Subpart D (EPA Method 24), exclusive of colorants added to a tint base and water added at project site; or other method acceptable to authorities having jurisdiction.
- D. Colors: As indicated on drawings.

1. In finished areas, finish pipes, ducts, conduit, and equipment the same color as the wall/ceiling they are mounted on/under.
- E. Sheens: Provide the sheens specified; where sheen is not specified, sheen will be selected later by Architect from the manufacturer's full line.

### **2.03 PAINT SYSTEMS - INTERIOR**

- A. Paint MI-OP-3L - Ferrous Metals, Unprimed, Primed or Painted, Latex, 3 Coat:
1. One coat of latex primer.
  2. Semi-Gloss: Two coats of latex enamel.
- B. Paint Mgl-OP-3L - Galvanized Metals, Unprimed, Primed or Painted, Latex, 3 Coat:
1. One coat galvanize primer.
  2. Semi-gloss: Two coats of latex enamel.
- C. Paint GI-OP-3L - Gypsum Board/Plaster, Latex, 3 Coat:
1. One coat of Latex Enamel Undercoater & Primer Sealer. Applied at a dry film thickness of not less than 1.2 mils.
  2. Flat: Two coats of latex, gloss level 1; use this sheen for ceilings and other overhead surfaces.
  3. Eggshell: Two coats of latex enamel, gloss level 3. Use this sheen at walls.

### **2.04 ACCESSORY MATERIALS**

- A. Accessory Materials: Provide all primers, sealers, cleaning agents, cleaning cloths, sanding materials, and clean-up materials required to achieve the finishes specified whether specifically indicated or not; commercial quality.
- B. Patching Material: Latex filler.
- C. Fastener Head Cover Material: Latex filler.

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Verify that surfaces are ready to receive work as instructed by the product manufacturer.
- B. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially affect proper application.
- C. Test shop-applied primer for compatibility with subsequent cover materials.
- D. Measure moisture content of surfaces using an electronic moisture meter. Do not apply finishes unless moisture content of surfaces are below the following maximums:
1. Gypsum Wallboard: 12 percent.
  2. Masonry, Concrete, and Concrete Unit Masonry: 12 percent.

### **3.02 PREPARATION**

- A. Clean surfaces thoroughly and correct defects prior to coating application.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- C. Remove or mask surface appurtenances, including electrical plates, hardware, light fixture trim, escutcheons, and fittings, prior to preparing surfaces or finishing.
- D. Seal surfaces that might cause bleed through or staining of topcoat.
- E. Concrete and Unit Masonry Surfaces to be Painted: Remove dirt, loose mortar, scale, salt or alkali powder, and other foreign matter. Remove oil and grease with a solution of tri-sodium phosphate; rinse well and allow to dry. Remove stains caused by weathering of corroding metals with a solution of sodium metasilicate after thoroughly wetting with water. Allow to dry.
- F. Gypsum Board Surfaces to be Painted: Fill minor defects with filler compound. Spot prime defects after repair.

- G. Galvanized Surfaces to be Painted: Remove surface contamination and oils and wash with solvent. Apply coat of etching primer.
- H. Corroded Steel and Iron Surfaces to be Painted: Prepare using at least SSPC-SP 2 (hand tool cleaning) or SSPC-SP 3 (power tool cleaning) followed by SSPC-SP 1 (solvent cleaning).
- I. Uncorroded Uncoated Steel and Iron Surfaces to be Painted: Remove grease, mill scale, weld splatter, dirt, and rust. Where heavy coatings of scale are evident, remove by hand wire brushing or sandblasting; clean by washing with solvent. Apply a treatment of phosphoric acid solution, ensuring weld joints, bolts, and nuts are similarly cleaned. Prime paint entire surface; spot prime after repairs.
- J. Shop-Primed Steel Surfaces to be Finish Painted: Sand and scrape to remove loose primer and rust. Feather edges to make touch-up patches inconspicuous. Clean surfaces with solvent. Prime bare steel surfaces. Re-prime entire shop-primed item.

### **3.03 APPLICATION**

- A. Remove unfinished louvers, grilles, covers, and access panels on mechanical and electrical components and paint separately.
- B. Apply products in accordance with manufacturer's instructions.
- C. Do not apply finishes to surfaces that are not dry. Allow applied coats to dry before next coat is applied.
- D. Apply each coat to uniform appearance.
- E. Sand wood and metal surfaces lightly between coats to achieve required finish.
- F. Vacuum clean surfaces of loose particles. Use tack cloth to remove dust and particles just prior to applying next coat.
- G. Reinstall electrical cover plates, hardware, light fixture trim, escutcheons, and fittings removed prior to finishing.

### **3.04 CLEANING**

- A. Collect waste material that could constitute a fire hazard, place in closed metal containers, and remove daily from site.

### **3.05 PROTECTION**

- A. Protect finished coatings until completion of project.
- B. Touch-up damaged coatings after Substantial Completion.

### **3.06 SCHEDULE - PAINT SYSTEMS**

- A. Steel Doors and Frames: Finish all surfaces exposed to view; MI-OP-3A, gloss.

### **END OF SECTION**



**SECTION 10-2600  
WALL AND DOOR PROTECTION**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Protective wall covering.

**1.02 RELATED REQUIREMENTS**

- A. Section 09-2116 - Gypsum Board Assemblies: Placement of supports in stud wall construction.

**1.03 SUBMITTALS**

- A. See Section 01-3000 - Administrative Requirements for submittal procedures.
- B. Product Data: Indicate physical dimensions, features, and installation information.
- C. Shop Drawings: Include plans, elevation, sections, and attachment details. Show design and spacing of supports for protective corridor handrails, required to withstand structural loads.
- D. Samples: Submit (2) samples illustrating color and finish.
- E. Manufacturer's Instructions: Indicate special procedures, perimeter conditions requiring special attention.
- F. Warranty Documentation: Submit manufacturer warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.
- G. Maintenance Data: Manufacturer's instructions for care and cleaning of each type of product. Include information about both recommended and potentially detrimental cleaning materials and methods.

**1.04 DELIVERY, STORAGE, AND HANDLING**

- A. Deliver wall and door protection items in original, undamaged protective packaging. Label items to designate installation locations.
- B. Do not deliver products to project site until areas for storage and installation are fully enclosed, and interior temperature and humidity are in compliance with manufacturer's recommendations for each type of item.
- C. Store products in either horizontal or vertical position, in compliance with manufacturer's instructions.

**PART 2 PRODUCTS**

**2.01 MANUFACTURERS**

- A. Protective Wall Covering:
  - 1. Construction Specialties, Inc; Acrovyn High-Impact Wall Covering: [www.c-sgroup.com/#sle](http://www.c-sgroup.com/#sle).
  - 2. Inpro: [www.inprocorp.com/#sle](http://www.inprocorp.com/#sle).
  - 3. Substitutions: See Section 01-6000 - Product Requirements.

**2.02 PRODUCT TYPES**

- A. Protective Wall Covering (WP): See Finish List and Schedule
  - 1. Thickness: 0.040 inch.
  - 2. WP-1: Custom image, created from multiple locally sourced images, provided by Architect. Production design and layout on Wall Protection provided by manufacture.
    - a. Texture: Suede.
  - 3. WP-2: Color: As selected from manufacturer's standard colors.
    - a. Texture: Suede
  - 4. Accessories: Provide manufacturer's standard color-matched trim and moldings, . See drawings for locations.
  - 5. Mounting: Adhesive.

### **2.03 FABRICATION**

- A. Install panels with tight, straight, joints, corners and seams.

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Verify that rough openings, concealed blocking, and anchors are correctly sized and located.
- B. Verify that field measurements are as indicated on drawings.
- C. Verify that substrate surfaces for adhered items are clean and smooth.
- D. Start of installation constitutes acceptance of project conditions.

### **3.02 INSTALLATION**

- A. Install components in accordance with manufacturer's instructions, level and plumb, secured rigidly in position to supporting construction.

### **3.03 TOLERANCES**

- A. Maximum Variation From Level or Plane For Visible Length: 1/8" inch.

### **3.04 CLEANING**

- A. Clean wall and door protection items of excess adhesive, dust, dirt, and other contaminants.

**END OF SECTION**

**SECTION 10-4400  
FIRE PROTECTION SPECIALTIES**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Fire extinguisher cabinets.
- B. Accessories.

**1.02 SUBMITTALS**

- A. See Section 01-3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide extinguisher operational features.
- C. Manufacturer's Installation Instructions: Indicate special criteria and wall opening coordination requirements.

**PART 2 PRODUCTS**

**2.01 MANUFACTURERS**

- A. Fire Extinguisher Cabinets and Accessories:
  - 1. Activar Construction Products Group, Inc. - JL Industries; Ambassador Series: [www.activarcpg.com/#sle](http://www.activarcpg.com/#sle).
  - 2. Kidde, a unit of United Technologies Corp: [www.kidde.com/#sle](http://www.kidde.com/#sle).
  - 3. Substitutions: See Section 01-6000 - Product Requirements.

**2.02 FIRE EXTINGUISHER CABINETS**

- A. Cabinet Construction: Non-fire rated.
- B. Cabinet Configuration: Recessed type, with rolled radius edges.
  - 1. Size to accommodate fire extinguisher.
- C. Door Glazing: Acrylic plastic, clear, 1/8 inch thick, flat shape and set in resilient channel glazing gasket.
- D. Fabrication: Weld, fill, and grind components smooth.
- E. Finish of Cabinet Exterior Trim and Door: No.4 - Brushed stainless steel.
- F. Finish of Cabinet Interior: White colored enamel.

**2.03 ACCESSORIES**

- A. Lettering: "FIRE EXTINGUISHER" decal, or vinyl self-adhering, prespaced black lettering in accordance with authorities having jurisdiction (AHJ).

**PART 3 EXECUTION**

**3.01 EXAMINATION**

- A. Verify rough openings for cabinet are correctly sized and located.

**3.02 INSTALLATION**

- A. Install in accordance with manufacturer's instructions.

**3.03 MAINTENANCE**

- A. See Section 01-7000 - Execution and Closeout Requirements, for additional requirements relating to maintenance service.

**END OF SECTION**

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**SECTION 23-0000**  
**HVAC MATERIALS AND METHODS**

**PART 1 GENERAL**

**1.01 DESCRIPTION**

- A. Requirements Included:
  - 1. The provisions of the General Requirements, Supplementary Requirements, and Division 1 apply to the HVAC work specified in this Division.
  - 2. All materials, labor and equipment required to install complete heating, ventilating, and air conditioning work as shown on the drawings and specified herein.
  - 3. Cooperate with other trades.

**1.02 QUALITY ASSURANCE**

- A. Codes and Standards: Comply with the provisions of the following codes, standards and specifications, except where more stringent requirements are shown or specified.
  - 1. State of Oregon Structural Specialty Code.
  - 2. State of Oregon Mechanical Specialty Code.
  - 3. State of Oregon Plumbing Specialty Code.
  - 4. State of Oregon Energy Efficiency Code.
- B. Field Measurements: Take prior to preparation of shop drawings and fabrication, where possible.
- C. Permits, Licenses, Fees, and Taxes: Obtain and pay for all permits, licenses, fees and taxes applicable to this project as required by law.
- D. Field Wiring: It is the intent of these specifications that all systems shall be complete and operable. Refer to all drawings and specifications, especially the electrical drawings, to determine voltage, phase, circuit ampacity and number of connections provided. Provide all necessary field wiring and devices from the point of connection indicated on the electrical drawings. Bring to the attention of the Architect in writing all conflicts, incompatibilities, and/or discrepancies prior to bid. Provide all field wiring diagrams with each equipment submittal requiring same.
- E. Drawings: Drawings are diagrammatic and show the general design, arrangement, and extent of the systems. Do not scale drawings for roughing-in measurements, nor use as shop drawings. Make field measurements and prepare shop drawings as required. Coordinate work with shop drawings of other specification divisions.
- F. Insulation Thickness and Thermal Performance: Comply provisions of the State of Oregon Energy Efficiency Code. Composite (insulation, jacket or facing and adhesives) fire and smoke hazard ratings shall not exceed a flame spread of 25 or smoke development of 50. Component ratings of accessories (adhesives, mastics, cements, tapes, finishing cloth for fittings) shall be same as requirements above and permanently treated. No water soluble treatments.

**1.03 SUBMITTALS**

- A. Installation Submittals: Submit all equipment submittals bound together in groups.
- B. Wiring Diagrams: Submit complete diagrams showing field installed wiring and devices.
- C. Submittal Review: Comply with the contract documents where deviations, discrepancies, and conflicts between the submittals and the contract documents are discovered prior to or after the review process.
- D. Project Record (As-Installed) Drawings:
  - 1. Obtain and pay for reproducible drawings from Architect.
  - 2. Keep Drawings clean, undamaged and up to date.

3. Accurately depict locations and changes of piping and ductwork and eradicate extraneous information.
4. Make Drawings available when requested by Architect for his review.
5. Submit as part of project close-out documents.

E. Maintenance Manuals: Submit five (5) sets of Operating and Maintenance Instructions.

#### **1.04 STORAGE AND HANDLING**

- A. Delivery: Deliver to project site with manufacturer's labels intact and legible.
- B. Handling: Avoid damage.
- C. Storage: Inside protected from weather, dirt and construction dust. Where necessary to store outside, elevate well above grade and enclose with durable, waterproof wrapping.

#### **1.05 PROJECT CONDITIONS**

- A. General: Provide products which are compatible with other portions of the work and provide products with the proper or correct power and fuel-burning characteristics, and similar adaptations for the project.
- B. Arrangement: Arrange ductwork and piping parallel with primary lines of the building construction, and with a minimum of 7' overhead clearance in unfinished equipment rooms where possible. Conceal all piping and ductwork where possible unless indicated otherwise. Locate operating and control equipment properly to provide easy access, and arrange entire mechanical work with adequate access for operation and maintenance. Give right-of-way to piping which must slope for drainage. Set all equipment level or as recommended by manufacturer.
- C. Coordination: Where several elements of the work must be sequenced and positioned with precision in order to fit into the available space, prepare shop drawings showing the actual physical dimensions (at accurate scale) required for the installation and submit prior to purchase/fabrication/installation of any of the elements involved in the coordination.

#### **1.06 STANDARDS**

- A. General: Provide all new materials and equipment, identical to apparatus or equipment in successful operation for a minimum of two years. Provide materials of comparable quality omitted here but necessary to complete the work. Maximum allowable variation from stated capacities, minus 5% to plus 10% as approved in each case.
- B. Governing Standards: The following are typical standards generally referenced in these specifications and identified by their acronym. Federal Specifications (FS), American Society for Testing Materials (ASTM), American National Standards Institute (ANSI), Manufacturers Standardization Society of the Valve and Fitting Industry, Standard Practice (MSS SP-69), Cast Iron Soil Pipe Institute (CISPI) numbers are given.

### **PART 2 PRODUCTS**

#### **2.01 MISCELLANEOUS PIPING MATERIALS/PRODUCTS**

- A. Supports and Anchors: Provide pipe and equipment hanger, support, anchors and related items for complete anchor, hanger and support systems. Install hangers, supports, clamps, and attachments to support piping and equipment properly from the building structure. Use no wire or perforated metal to support piping, and no supports from other piping or equipment. For exposed continuous pipe runs, install hangers and supports of the same type and style as installed for adjacent similar piping.

## 2.02 EQUIPMENT

- A. Roof Mounted Exhaust Fan (Direct Drive): Curb mounted on roof; vertical shaft, direct driven, open BI wheel as shown on Drawings with permanently lubricated sealed ball bearings; fan duty motor; bird screen; weatherproof hinged aluminum housing for mounting on square base; capacity as indicated on Drawings. Motor located outside the air stream. Casing to be easily removed for service. Motor and fan assembly to be mounted on rubber vibration isolators. Where indicated on the Drawings, provide motorized Class 1 damper in curb. Provide switch with pilot light for each fan so indicated. Provide factory mounted disconnect. Motor to be ECM with 0-10V input . Fan shall be controlled by a thermostat to vary speed to maintain space temperature. Greenheck G, equal Cook, Twin City or approved.
- B. Wall mounted electric fan forced heaters: UL listed recessed heater with primary and secondary thermal safeties with secondary manual reset, nichrome heating element, recessed wall can, and powder coat metal grille with integral thermostat. Cadet, Qmark, Markel, King approved.
- C. Gravity Outside Air Intake Housing: Rectangular, glass fiber cap with automatic damper, curb connection, curb, flashing, aluminum bird screen and hinged access. Cap color as selected by Architect.
- D. Flexible Connections: Neoprene impregnated fiberglass connection. Ventglass, Duro-Dyne, or accepted substitute.
- E. Control Dampers: Construct of aluminum frame and aluminum airfoil blades with axle shafts and/or operating "jackshafts" with interconnecting blade linkages in the side channels of the frame to provide coordinate tracking of all blades. Interlocking multi-blade type, except where either dimension is less than 6", a single blade may be used. Opposed blade type on all modulating dampers and parallel blades on all two position dampers. Provide with stainless steel, silicone, or vinyl jamb seal and vinyl or silicone blade seals. Damper assembly rated for maximum air leakage of 3 CFM per square foot at 1" wg pressure or less. Performance rating for the damper shall be tested under the AMCA Certified Ratings Program. Greenheck VCD-40, Ruskin CD 50, CESCO AAA or AAB, or TAMCO Series 1000. **Control dampers shall be constructed with stainless steel linkage and anodized aluminum blades and frame, when installed in outside air duct.**

## 2.03 SHEET METAL

- A. Sheet Metal Materials:
  - 1. General Material Requirements: Comply with the Mechanical Code and SMACNA'S "HVAC Duct Construction. Standards – Metal and Flexible, Third Edition" for acceptable materials, material thicknesses, and duct construction methods unless otherwise indicated. Sheet metal materials shall be free of pitting, seam marks, roller marks, stains, discolorations, and other imperfections.
  - 2. All interior ducts shall be constructed with G-60 or better galvanized steel conforming to ASTM A653/A653M and A924/A924M Standards, LFQ, chem treat. Exterior ductwork or duct exposed to high humidity conditions (that is: kitchen exhausts, etc.) shall be G-90 or better galvanized steel, conforming to ASTM A653/A653M and A924/A924M Standards, LFQ, chem. treat.
  - 3. Stainless-Steel Sheets: Comply with ASTM A480/A480M, Type 304 or 316, and having a No. 2D finish for concealed ducts and No. 2B, No. 2D, No. 3 or No. 4 for exposed surfaces. **Stainless steel shall be used for outside air ductwork.**
  - 4. Aluminum Sheets: Comply with ASTM B209/B209M, Alloy 3003, H14 temper; with mill finish for concealed ducts and standard, 1-side bright finish for exposed ducts.
  - 5. Reinforcement Shapes and Plates: ASTM A36/A36M, steel plates, shapes, and bars; black and galvanized.
  - 6. Tie Rods: Galvanized steel, ¼ inch (6 mm) minimum diameter for lengths 36 inches (900 mm) or less; 3/8 inch (10 mm) minimum diameter for lengths longer than 36 inches (900 mm).
- B. Duct Fabrication requirements: Metal gauges, joints and reinforcement in accordance with Mechanical Code, ASHRAE and SMACNA standards. Ductwork shall be fabricated to the following pressure classifications:
  - 1. Return and exhaust ducts: 2 "negative.

2. Supply ducts from fan discharge to diffuser: 2" positive.
- C. Acoustical Duct Lining: Line ducts with 1" thick lining (unless noted otherwise) for installation inside the building insulation envelope, and 1-1/2" for installation outside the building insulation envelope. Density shall be 3 lb / ft<sup>3</sup> minimum. Owens Corning, QuietR, or equal Schueller, or Certain Teed. Meeting NFPA 90A and B requirements for maximum flame spread and smoke developed. Duct liner adhesive shall conform to ASTM C916. Mechanically attach lining to sheet metal duct with fasteners conforming to SMACNA Standard MF-1-1971, Schuller Grip Nails or Gramweld welding pins. Apply fire-retardant type adhesive similar to Schuller No. 44 adhesive, Benjamin Foster 81-99, Insul-Coustic 22 or 3M equivalent on all leading edges, joints and seams.
- D. Duct Tapes, Sealants, Adhesives & Gaskets:
1. Aluminum bonded to aluminized mylar reinforced with fiberglass mesh backing an elastomeric pressure sensitive adhesive specifically formulated for adhesion to galvanized metal. Hardcast AFG-1402 or accepted substitute.
  2. Two-part sealing system with woven fiber, mineral gypsum impregnated tape and non-flammable adhesive. Hardcast "DT" tape and "FTA-20" adhesive, United "Uni-Cast" system, or accepted substitute.
  3. For joints and seams exposed to the weather in lieu of soldering, United "Uni-Cast" system or approved.
  4. Joint & Seam Sealants (Water Based): Flexible, adhesive sealant, resistant to UV light when cured, UL 723 listed, and complying with NFPA requirements for Class 1 ducts.
  5. Joint & Seam Sealants (Solvent Based): Flexible. Non sag, solvent-release-curing, for use in low temperature applications. Shall be resistant to UV light and shall be UL 723 Listed and meet NFPA requirements for Class 1 ductwork.
  6. Flange Gasket: Butyl rubber or EPDM polymer which complies with UL standard 181 and 723 testing. The gasket shall not contain vegetable oils, fish oils, or any other type of material that will support fungal and/or bacterial growth.
  7. Liner Adhesive: Water based, fire and moisture resistant, used to adhere insulation to metal duct. It shall comply with NFPA 90A and UL 723 requirements.
  8. Duct Liner Sealant: Water based sealant, fire and moisture resistant, used to encapsulate fiberglass duct insulation to eliminate airborne fibers. Must comply with UL requirements.
- E. Optional Duct Joints for Sheet Metal Ducts: Prefabricated slide-on transverse duct connectors will be accepted. Duct constructed using prefabricated connection systems will refer to the manufacturer guidelines for sheet gage, intermediate reinforcement size and spacing, and proper joint reinforcements. "Ductmate System" by Ductmate Industries, Inc., Ward Duct Connectors, Inc., Mez Industries, Elgen, or acceptable substitute. Spiramir self-sealing round duct connector system meeting Class 3 leakage standards with EPDM o-ring seal.
- F. Concealed Round Duct: Round and flat oval spiral seam duct shall be manufactured of galvanized sheet metal with spiral lock seam. Construction, gauges, and reinforcement in accordance with SMACNA standards. Fittings shall be manufactured of galvanized steel with spot welded or riveted and sealed seams or continuously welded seams. Snap lock longitudinal seam duct shall fully comply with SMACNA standards for duct gauge and seam type for appropriate pressure class. Adjustable elbows are prohibited.
- G. Flexible Ductwork-Low Pressure: Insulated low pressure flexible duct, factory fabricated assembly consisting of a zinc-coated spring steel helix seamless inner liner, wrapped with a nominal 1" thick insulation for installation inside the building insulation envelope, and 1-1/2" for installation outside the building insulation envelope, 1 pound/cubic foot density fiberglass insulation. The assembly shall be sheathed in a vapor barrier jacket, factory vapor resistance sealed at both ends of each section. The composite assembly, including insulation and vapor barrier, shall meet the Class 1 requirements of NFPA Bulletin No. 90-A and be labeled by Underwriters Laboratories, Inc., with a flame spread rating of 25 or less and a smoke developed rating of 50 or under. The duct shall have factory sealed double air seal (interior and exterior) to assure an airtight installation. Genflex, ATCO, Wiremold, Thermaflex, Glassflex, Clevepak, Schuller, or accepted substitute.

#### 2.04 GRILLES, REGISTERS AND DIFFUSERS

- A. Description: Provide grilles, registers and diffusers as shown on the Drawings.



- B. Finishes:
  - 1. Flat white enamel prime coat, factory applied on ceiling diffusers
- C. Manufacturers: Air Devices, Carnes, Krueger, Titus, Price Metalaire. Titus model numbers are listed. Where other manufacturer's products are listed, only that product or an approved substitute for that item shall be provided.
- D. Supply Diffusers: High Capacity rectangular ceiling diffuser in extruded aluminum frame and margin to suit the ceiling construction. Panel size shall be 30"x30". Titus TDV-AA.
- E. Exhaust Register: Perforated return grille, steel hinged face plate. Titus PAR.

## **2.05 DUCTWORK INSULATION**

- A. Interior Above Grade Ductwork: Glass fiber formaldehyde-free blanket with "FSK" facing, k value = 0.31 at 75 deg. F, 0.2 perms, and UL 25/50 surface burning rating. Johns Manville "Microlite."

## **PART 3 EXECUTION**

### **3.01 LAYOUT AND COORDINATION**

- A. Site Examination: Before starting work, carefully examine site and all contract Drawings. Become thoroughly familiar with conditions governing work on this project.
- B. Discrepancies: Any error, conflict or discrepancy in Plans, Specifications and/or existing conditions shall be reported immediately. Do not proceed with any questionable items of work until clarification of same has been made. Should rearrangement or re-routing of ducts or piping be necessary, provide for approval the simplest layout possible for that particular portion of the work.

### **3.02 MECHANICAL EQUIPMENT WIRING**

- A. Provide all mechanical equipment motors, automatic temperature, limit, float and similar control devices required, with wiring complete from power source indicated on Electrical Drawings.
- B. Provide properly rated motor overload and undervoltage protection and all manual or automatic motor operating devices for all mechanical equipment.
- C. Equipment and systems shown on the Drawings and/or specified, are based upon requirements of specific manufacturers which are intended as somewhat typical of several makes which may be accepted. Provide all field wiring and/or devices necessary for a complete and operable system including controls for the actual selected equipment/system.
- D. Provide all starters for mechanical motors.

### **3.03 INSTALLATION**

- A. Locating and Positioning Equipment: Observe all Codes and Regulations and good common practice in locating and installing mechanical equipment and material so that completed installation presents the least possible hazard. Maintain adequate clearances for repair and service to all equipment. Installation of any equipment with less than minimum clearances shall not be accepted.
- B. Anchorage: Anchor and/or brace all mechanical equipment, piping and ductwork to resist displacement due to seismic action, include snubbers on equipment mounted on spring isolators.
- C. Adjusting: Adjust and calibrate all automatic mechanical equipment, mixing valves, flush valves, float devices, etc. Adjust flow rates at each piece of equipment or fixture.

- D. Mechanical System Identification:
  - 1. Equipment: Provide engraved plastic-laminate signs at locations of major equipment units, primary control devices, emergency equipment dangerous elements of the mechanical work and similar places. Comply with recognized industry standards for color and design.

### **3.04 PROTECTION**

- A. Protect all work and materials against loss or damage. Close all pipe openings with caps or plugs. At final completion, thoroughly clean and deliver all work and equipment in an unblemished new condition. Keep all motors and bearings in watertight and dust proof covers during entire course of installation.

### **3.05 CUTTING AND PATCHING**

- A. Comply with the requirements of Division 1 for the cutting and patching of other work to accommodate the installation of mechanical work. Do all necessary cutting and patching of existing building and yard surfaces required for completion of the mechanical work. Patch to match finish and color of adjacent surfaces. Coordinate work in remodel and new areas to avoid cutting of new finished surfaces.

### **3.06 AIR HANDLING EQUIPMENT INSTALLATION**

- A. General: Install and arrange as shown on Drawings. Comply with the manufacturer's recommendations for installation connection and start-up.
- B. Equipment Access Panels: Locate free of all obstructions such as ceiling bars, electrical conduit, lights, ductwork, etc.

### **3.07 INSTALLATION OF GRILLES, REGISTERS AND DIFFUSERS**

- A. Size and air handling characteristics shall be as shown on the Drawings.
- B. Locate, arrange, and install grilles, registers and diffusers as shown on the Drawings. Locate registers in tee-bar ceilings with diffusers centered on the tile unless indicated otherwise.

### **3.08 DUCTWORK INSTALLATION**

- A. Support: Install ductwork with 1" wide cradle hangers not more than 8' c/c; attach to available building construction as per good practices for materials involved.
- B. Fan and Air Handling Unit Flexible Connections: Install neoprene impregnated fiberglass connections in ductwork at all rotating equipment. Ventglass, Duro-Dyne or approved.
- C. Elbows and Fittings: Construct elbows with throat radius equal to duct width in plane of turn or make them square and provide double wall, air foil turning vanes.
- D. Fittings: Make transitions and take-offs as shown on Drawings. Provide volume dampers and splitter dampers as indicated on Drawings and as specified.
- E. Acoustical Duct Lining: Acoustically line all outside air ducts and plenums, all fan unit intake and discharge plenums, all ductwork indicated as lined on the Drawings, all sheet metal ductwork specified as insulated, where exposed to view or subject to damage in areas such as mechanical rooms, and at the Contractor's option, all insulated ductwork specified
- F. Manual Volume Dampers: Location of all volume dampers are not necessarily shown on the Drawings. Provide a minimum of one volume damper in each supply, return or exhaust branch. Install dampers in fiberglass ductwork (where fiberglass ductwork is allowed) with galvanized sheet metal sleeves of sheet metal gauges required for metal duct systems of the same dimensions.

### **3.09 DUCTWORK INSULATION**

- A. Ductwork: Insulate the following:
  - 1. All supply and return ductwork in systems routed in unconditioned spaces or exposed to the outside conditions.
  - 2. All outside air intake ducts.
  - 3. All ductwork required to be insulated by code.
  - 4. All relief ducts.
- B. Insulation Thickness: Select board and blanket insulation of thickness required to provide the following installed R-value.
  - 1. All heating or cooling system supply and return ducts located on the exterior of the insulated building envelope and all outside air intake ducts.
    - a. R-8
  - 2. All heating and cooling system supply ducts located inside of building envelope or in unconditioned spaces, R-5.
  - 3. All heating and cooling system return ducts located in vented spaces, R-8.
- C. Fittings: Wire and duct adhesive as required. To prevent sagging on all rectangular or square ducts over 24" wide, install Gramweld or equal welding pins on the bottom. Maximum spacing 18" on center in both directions.
- D. Installation: Applied with butt joints, all seams sealed with vapor seal mastic or taped with 2" wide vapor-proof, pressure-sensitive tape. Seal all penetrations with vapor barrier adhesive.
- E. Internally Lined Ductwork: Where internally lined ductwork is indicated on the Drawings and/or specified, no exterior insulation is required. Select duct lining to provide the required R-value. Carefully lap the ends of the exterior insulation a minimum of 6" past the interior insulation unless otherwise shown. Seal the end of vapor barrier jacket to the duct with mastic where the vapor barrier is required.

### **3.10 BALANCING**

- A. Balancing of the Heating, Ventilating and Air Conditioning systems shall be done by a firm established in the State of Oregon providing this service and shall have the Architect's approval.
- B. Provide the following minimum data:
  - 1. HVAC unit nameplate data, CFM, entering and leaving air on both heating and cooling, electrical power consumption data, etc.
  - 2. Grille, register and diffuser CFM.

### **3.11 CLEANING**

- A. Remove construction protection, tags and labels and thoroughly clean all equipment just prior to building acceptance.
- B. General: Clean all dirt and construction dust and debris from all mechanical piping systems and leave in a new condition. Touch up paint where necessary.
- C. Gas Piping: Blow clear of debris with nitrogen or oil free air. Clean all low point strainers and pockets.

### **3.12 MECHANICAL WORK CLOSEOUT**

- A. Refer to the Division 1 sections for general closeout requirements. Calibrate all equipment requiring same.

**END OF SECTION**

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**SECTION 26 0500**  
**BASIC ELECTRICAL MATERIALS & METHODS**

**PART 1 - GENERAL**

**1.01 Description**

- A. Furnish labor, supervision, permits, materials and equipment to complete the work required in Division 26 and by the contract documents.
- B. It is the intention of this Section of the Specifications and the accompanying drawings to describe and provide for the furnishing, installing, testing and placing in satisfactory and successful operation all equipment, materials, devices and necessary appurtenances to provide a complete electrical system, together with such other miscellaneous installations and equipment hereinafter specified and/or shown on the Plans.

**1.02 Contract Documents**

- A. The Contract Documents are complimentary, and what one affecting this Division requires shall be binding as if repeated herein.
- B. Separation of this Division from other Contract Documents shall not be construed as complete segregation of the work.
- C. Electrical work shall include both this Division as well as other Divisions as applicable, such as:
  - 1. Division 27, Communications
  - 2. Division 28, Safety & Security
  - 3. Division 33, Utilities.

**1.03 Codes**

- A. Meet requirements of State of Oregon Electrical Specialty Code, Oregon Administrative Rules Chapter 437, American Society of Testing and Materials (ASTM) Federal Specifications, American National Standards Institute (ANSI), National Electrical Manufacturers Association (NEMA), National Fire Protection Association (NFPA), Underwriters Laboratory (UL), National Electrical Code, National Electrical Safety Code, all rules and regulations of the local serving utility, National Board of Fire Underwriters and Oregon Structural Specialty Code. All Codes, rules, and regulations shall be the current or latest edition adopted by authorities having jurisdiction at time of permit.
- B. Code requirements shall be considered a minimum guide for the work. Where contract documents require work materials in excess of Code minimum, install work as called for in contract documents.

**1.04 Permits, Licenses and Taxes**

- A. The Contractor shall obtain and pay for all licenses, permits and inspections required by laws, ordinances and rules governing work specified herein. The Contractor shall arrange for inspection of work by the inspectors and shall give the inspectors all necessary assistance in their work of inspection. Division 26 Contractor shall make all necessary arrangements for installation of electrical services indicated on plans.
- B. Utility installation fees will be paid by the Owner.

## 1.05 Layout And Coordination

- A. See General Conditions.
- B. Before starting work, carefully examine Architectural, Civil, Landscape, Structural, Plumbing, Heating, Ventilating and Air Conditioning Drawings to become thoroughly familiar with conditions governing work on this project. Verify elevations, measurements, rough-in requirements of equipment and its installation location before proceeding with the work. Install equipment with access as required by NEC.
- C. Composite Interference Drawings. Before any sleeves or inserts are set or any electrical equipment or foundations are installed, prepare and submit for approval, by the Engineer, in accordance with the General Provisions, composite coordination drawings for all equipment rooms, spaces and other areas in which the probability of interference exists. Drawings shall show the work of all trades covered, shall be drawn to a scale not smaller than  $1/2" = 1'-0"$ , and shall show clearly in both plan and elevation that all work can be installed without interference.
- D. Prior Installation. Any electrical work installed prior to approval of coordination drawings shall be at the Contractor's risk. Subsequent relocations required to avoid interferences shall be made without additional expense to the Owner. In case interference develops, the Engineer will decide which work shall be relocated, regardless of which was installed first.
- E. The existence of any wires, conduits, pipes, ducts or other service facilities is shown in a general way only. The Contractor is responsible for making the exact determination of the location and condition of these facilities.
- F. The Drawings indicate outlet and equipment locations, directions and locations of branch circuit wiring and homeruns. Verify all locations with actual field conditions.
- G. The horsepower of motors and apparatus wattages indicated on the plans and in the panel schedules are estimated requirements of equipment furnished under other Divisions of this contract and bid shall be based on these sizes. Overload elements, contactors, circuit breakers, fuses, conductors, etc., shall be furnished to suit actual equipment installed. Advise Engineer of any equipment changes affecting electrical circuits.
- H. The location of utilities indicated on the plans is taken from existing public records. The Contractor must determine the exact location and elevation of public utilities. The Contractor shall ascertain whether any additional facilities other than those shown on the Drawings may be present.
- I. The general directions and location of homeruns are indicated on Drawings and are to be extended to panels as though routes were completely shown. No homeruns or branch circuits are to be combined. Items which are installed other than as shown on Drawings and without receiving prior written approval will be ordered removed and installed as shown without additional cost to Owner.
- J. Owner shall not be responsible for any loss of unanticipated costs that may be suffered by the successful bidder as a result of such bidder's failure to fully inform himself in advance in regard to all conditions pertaining to the work and character of the work.
- K. Coordinate work with other crafts employed on the project. Should rearrangement or relocation of equipment be necessary, provide for approval the simplest layout possible for that particular portion of the work. Under no condition are beams, girders, footing or columns to be cut for electrical items unless so shown on Plans or written approval is obtained from the Architect or Engineer.

- L. Special attention shall be given for the following items and all conflicts shall be reported to the Engineer before installation for decision and correction:
  - 1. Door swings; switches shall be located on the "strike" side of the door.
  - 2. Location of radiators, grilles, pipes, ducts and other mechanical equipment so that all electrical outlets, lighting fixtures and other electrical outlets and equipment are clear from and in proper relation to these items.
  - 3. Within the limits indicated on the drawings, the maximum practicable space for operation, repair, removal and testing of equipment shall be provided.
  - 4. Contractor shall coordinate with HVAC installer (if separate from the Contractor) to wire the HVAC system when the installer is ready for power.
- M. Contractor shall consult the Architectural drawings for the exact height and/or location of all outlets, switches, lights, etc. specified herein or on the drawings.
- N. Outlet locations shown on the drawings are approximate. Contractor shall study the building drawings in relation to spaces and equipment surrounding each outlet so that the lighting fixtures are symmetrically located according to ceiling tile and room layout. When necessary, with the Engineer's approval, outlet shall be relocated to avoid interference with structural features of the building.
- O. Call to the attention of the Architect any error, conflict or discrepancy in Plans and/or Specifications. Do not proceed with any questionable items of work until clarification of same has been made.
- P. Supplementary Details and Plans may be supplied as required and they will become a part of the Contract Documents. The Architect or Engineer reserves the right to make minor changes prior to installation of specific electrical systems in the location of the conduits, outlets, etc., from those shown on the plans without extra charge to the Owner.
- Q. Arrange work to reduce interruption of any existing service to minimum. When interruptions are unavoidable, consult Owner or Utility involved and agree in writing, with copy to the Architect, upon a mutually satisfactory time and duration.

#### 1.06 Substitution Requests

- A. Substitution of Equipment. (Prior To Bid).
  - 1. Bids shall be based only upon the materials, construction and equipment specifically identified in the bidding documents, except as hereinafter provided.
  - 2. If Contractors wish to use items of equipment other than those named in their base bid, Contractor shall apply in writing to the Engineer for approval of substitution at least 10 days prior to opening of bids, submitting with his request for approval complete descriptive and technical data on the items he proposes to furnish.
  - 3. Equipment and materials proposed for substitution shall be similar in design and equal in quality and function to those specified.
  - 4. Submittal shall be in triplicate with identification of the item to be substituted and clearly marked with all pertinent data depicting proper characteristics of proposed item.
  - 5. Contractor's description of his proposed substitution shall specifically note all differences between the item specified and the proposed substitution.

6. If the Engineer approves any proposed substitution, such approval will be set forth in an Addendum or in writing to the person submitting equipment for approval.
  7. Where a substitution alters the design or space requirements indicated, Contractor shall include all items of cost for the revised design and construction including cost of all allied trades.
  8. Unless requests for changes in base bid specifications are received and approved prior to the opening of bids, as defined above, the successful Contractor will be held to furnish specified items under his base bid. After Contract is awarded, changes in specifications will be made only as defined under Substitution of Equipment. (After bid).
- B. Substitution of Equipment or Materials. (After Bid).
1. After execution of the Contract, substitution of equipment or makes other than those specifically named in the Contract Documents will be approved by the Engineer for the following reasons only:
  2. That the equipment proposed for substitution is equal to and/or superior to equipment named, in construction, efficiency and utility, and further that the equipment named in the specifications cannot be delivered to the job in time to complete the work in proper sequence to work of other Contractors, due to conditions beyond the control of the Contractor.
  3. To receive consideration, requests for substitutions must be accompanied by documentary proof of equality or difference in price and delivery, if any, in the form of certified quotations from suppliers of both specified and proposed equipment.
  4. In case of a difference in price, the Owner shall receive all benefit of the difference in cost involved in any substitution and the Contract altered by Change Order to credit Owner with any savings so obtained.

#### 1.07 Submittals: Shop Drawings And Material Lists

- A. In addition to the requirements of General Conditions of Division 01, submit manufacturers data and Shop Drawings and Material Lists as required by individual sections of Division 26 (and otherwise associated Divisions).
- B. Before commencing work and within 30 days after award of contract, furnish six (6) copies of complete Shop Drawings and Material Lists to the Architect or Engineer.
- C. Include only information on exact equipment installed; not complete "line" of manufacturer. Where sheets show proposed equipment as well as other equipment, identify proposed equipment with black arrow, underlining or circling. Contractor is not to use red. Diagrams for systems to be complete Drawings for specific system installed. "Typical" line diagrams not acceptable unless properly marked to indicate exact system for this project.
- D. Single Submission. Data and shop drawings shall be supported and included in a single submission. Multiple submissions are not acceptable except where prior approval has been obtained from the Engineer. In such cases, a list of data to be submitted later shall be included with the first submission.
- E. Shop Drawings. Shop drawings shall include complete construction details, dimensions, material descriptions, diagrams or pictures showing physical characteristics, performance and test data, description of operation, installation methods, wiring diagrams and any other data or information necessary for a complete evaluation. (Note: do not re-draw the



contract drawings. The drawings to be submitted under this subsection are all the supplemental drawings and manufacturers' specification drawings which are not included in the contract drawings.) Shop drawings are in addition and supplemental to the contract drawings.

- F. Identification. In addition to the requirements of Special Provisions, submittals shall be identified by the name of the system and applicable specification paragraph number.
- G. Delivery Prior to Approval. No item of material or equipment shall be delivered to the site or installed, until approved. After the proposed materials have been approved, no substitution will be permitted except where approved by the Engineer.
- H. Compliance. Should the Contractor fail to comply with the requirements of these provisions, the Engineer reserves the right to select any or all items of materials and systems. Selection shall be final and binding upon the Contractor. Materials so selected or approved shall be used in the work at no additional cost to the Owner.
- I. Departures. If departures from the contract drawings are deemed necessary by the Contractor, details of such departures, including changes in related portions of the project and the reasons therefore, shall be submitted with the drawings. Where such departures require raceways or equipment to be supported otherwise than as shown, the details submitted shall include loadings and type and kind of frames, brackets, stanchions, or other supports necessary. Approved departures shall be made at no additional cost to the Owner.
- J. Electrical Diagrams. A complete electrical connection diagram for each item of equipment furnished under Division 26, which has electrically controlled components having more than one automatic or manual control device, shall be submitted for approval. Wiring diagrams shall identify each component, and one diagram shall show all interconnected or interlocked components. It is understood that the contract electrical drawings do not have to be submitted or copied for inclusion in this submittal.
- K. Contractor agrees that submittals processed by the Engineer are not change orders; that the purpose of submittals by the Contractor is to demonstrate to the Engineer that the Contractor understands the design concept, that he demonstrates his understanding by indicating which equipment and material he intends to furnish and install and by detailing the fabrication and installation methods he intends to use.
- L. Late submittals will not be considered an excuse for time extension for the project.
- M. Data not in conformity with these requirements will be returned for resubmittal.
- N. Organization:
  - 1. Assemble Shop Drawings and submittal data in hard cover loose-leaf ring binder. Provide cover with permanently attached typewritten or printed label with name of project, job number and heading reading "ELECTRICAL SUBMITTAL DATA".
  - 2. Organize data in each set in basic categories listed in index for Division 26 (and otherwise associated Divisions). Provide submittal data with typewritten index having same sequence, numbering and wording as index for Division 26 (and otherwise associated Divisions). In addition, provide divider sheets between each section with identifying tabs having same designations as index. Organize material in each section in same order and identify with same number and wording as paragraphs of specification section.
  - 3. Submit neat, clean copies of data, 8-1/2 inch by 11-inch size. Accordion fold required drawings to 8-1/2 inch by 11-inch size and include in submittal binder.

## 1.08 Electrical Equipment Operation and Maintenance Manuals

- A. In addition to the requirements of the General Conditions of Division 01, submit manuals as required by individual Sections of Division 26 (and otherwise associated Divisions).
- B. Provide all electrical equipment and control information. The purpose of this manual is to provide one comprehensive document that illustrates and describes all the electrical equipment and instrumentation installed in the plant.
- C. For final acceptance of Division 26 work, provide to the Architect or Engineer six (6) copies of complete electrical operating and maintenance manuals for servicing of all equipment installed.
- D. Information included must be exact equipment installed, not complete "line" of manufacturer. Where sheets show equipment installed as well as other equipment, identify installed equipment with black arrow, underlining or circling. Contractor is not to use red. Diagrams for each system to be complete Drawings for specific system installed. "Typical" line diagrams not acceptable unless properly marked to indicate exact system for this project.
- E. Information shall include all revisions noted in shop drawings. Copies of stamped drawings are not acceptable.
- F. Provide General Contractor's name, contact person, telephone/fax numbers, include similar information for the sub-contractors.
- G. Include all electrical devices provided under all Divisions. Coordinate with other Division Contractors. The Contractor shall coordinate with the Division 17 contractor and the Software Integrator to include pertinent documentation from their responsibilities in this submittal.
- H. Manuals and documentation shall include calibration curves of every sensing device and a programming documentation sheet for every programmable device. The programming documentation sheet shall show the final operational value of every programmable parameter of every device. The purpose of this sheet is to provide maintenance personnel with a convenient source of information for programming the parameters of a replacement device should the old device fail.
- I. Organization:
  - 1. Assemble Shop Drawings and submittal data in hard cover loose-leaf ring binder. Contractor shall insert printed spine and cover title sheets to match font style and size of the rest of the plant O&M manual set. Coordinate with the General Contractor.
  - 2. Organize data in each set in basic categories listed in index for Division 26. Provide submittal data with typewritten index having same sequence, numbering and wording as index for Division 26. In addition, provide divider sheets between each section with identifying tabs having same designations as index. Organize material in each section in same order and identify with same number and wording as paragraphs of specification section.
  - 3. Submit neat, clean copies of data, 8-1/2 inch by 11-inch size. Accordion fold required drawings to 8-1/2 inch by 11-inch size and include in submittal binder.

## 1.09 Project Record Drawings

- A. Maintain at the site one complete set of full-sized original prints for recording installed conditions (As-Builts). Keep record Drawings clean, undamaged and up to date as work progresses. Accurately indicate electrical work as actually installed with indications of all deviations, additions and omissions in red ink. Locate all buried exterior raceways or cables by actual dimensions from walls, center-lines or fixed points of reference.
- B. The purpose of these Record drawings is to provide the Engineer with an easy to read, complete record of the installation so that at the end of the project the Engineer can revise the original contract drawings to represent the actual installation. Color-coded and highlighted notes shall be used if these would make the Record Drawings easier to read.
- C. At the completion of the work, Contractor shall furnish the Engineer this original set of marked-up drawings. Final payment to the Contractor will not be authorized until these drawings have been submitted to and accepted by the Engineer.

#### 1.10 Certificates

- A. For final acceptance of Division 26 work (and that of otherwise associated Divisions), provide certificate of approval from the applicable regulatory and permitting agencies certifying that the electrical work has been inspected and that the work conforms with the minimum requirements of the State Electrical Codes.

#### 1.11 Warranty

- A. See Division 01.

### PART 2 - PRODUCTS

#### 2.01 Materials

- A. Unless otherwise specified, all material to be new of recent manufacture, carrying full factory warranty, UL approved or approved by local inspection authority.
- B. All like materials shall be by the same manufacturer throughout the project.
- C. All material shall be new and bear manufacturer's name, model number, electrical characteristics and other identification and shall be the standard product of manufacturer regularly engaged in production of similar material.
- D. Access Panels:
  - 1. Provide access panels of adequate size for equipment requiring service and installed above plaster or gypsum board ceilings, behind walls or in furring.
  - 2. Furnish complete with correct frame for type of building construction involved. Size, number and location of access panels is not necessarily shown on Drawings.
  - 3. Use no panel smaller than 12 inches by 12 inches for simple manual access, nor smaller than 16 inches by 20 inches where personal must pass through.
  - 4. Access panels shall maintain ceiling fire rating.
  - 5. Acceptable Manufacturers: Milcor A, K, L, or M panels or equivalent Bilco or Potter - Roemer as required by construction.

## PART 3 - EXECUTION

### 3.01 Excavation/Trenching

- A. Provide trenching, backfilling, compaction, repaving or other site restoration as required by the work done in this Division.
- B. Determine location of all existing underground gas, water, sewer, telephone and electric lines. Locate accurately on ground surface and for depth of same before excavation. Uncover by hand digging. Contractor shall be responsible for any damage or interruptions to these utilities, caused by himself, and other costs incurred by these interruptions.
- C. Do not undermine footings or bearing walls.
- D. Use power-digging equipment only in direction away from existing facilities.
- E. Exercise standard safety precautions in excavation near power cables by using insulated handles, rubber gloves and footwear, etc.
- F. Do not place backfill until installation to be covered has been tested, inspected and approved.
- G. Minimum conduit burial depth shall be 24 inches, unless otherwise noted.
- H. Install a detectable six inch wide yellow vinyl tape with letter "Caution: Buried Electrical Line Below" 18 inches above all buried services conduit and wire not under structures.
- I. Backfill:
  - 1. Backfill material for all trenches under paved areas shall be coarse sand or crushed rock, installed in layers not to exceed six inches and compacted to 95% of maximum density at optimum moisture content to preclude subsequent settlement.
  - 2. The top 18 inches of trenches in landscaped or grassed areas shall be backfilled with native soil and tamped.
- J. Conduits piercing a building waterproof membrane shall be provided with flanges, using two neoprene washers, one washer on each side of membrane, between each flange and membrane.
- K. All underground conduits which enter the building penetrating poured-in-place slabs:
  - 1. Shall be sloped to drain away from the building and shall be water sealed to prevent moisture from passing through the conduit into the building. All joints to be threaded and taped or glued to prevent entry of water into the conduits.
  - 2. Shall be poured-in-place, or provide with watertight conduit sleeves and rubber seals, Link-seal system by Thunderline Corporation or equivalent.
  - 3. Shall be rigid galvanized steel a minimum of 12-inches under the slab and 6-inches above the slab.

### 3.02 Cutting

- A. Perform or arrange and pay for required cutting of concrete, masonry, wood, structural framing, etc.

- B. Cutting or channeling of underpinning or structural members is not permitted without prior permission of the Engineer.
- C. No weakening of structural parts is permitted and the Contractor will correct any work impaired.

### 3.03 Patching

- A. Where trenching is done through existing paving, walks, curbs, etc., the Contractor is responsible to patch and repair these structures to original condition.
- B. Patch all openings in and through concrete and masonry with dry pack.
- C. In new work, patch and refinish all finished surfaces damaged by this contractor to match adjacent surface.
- D. Where new electrical work is installed in the existing building, patch and refinish surfaces damaged to match existing. Refinishing to be as directed by the Architect or Engineer.

### 3.04 Framing And Blocking

- A. Structural framing will be done by the Contractor.
- B. Blocking required for sole use of electrical work such as fastening and support of outlet boxes, fixtures, panels, conduit, etc., will be by the Electrical Contractor.

### 3.05 Protection

- A. Cap or plug all raceway openings during construction.
- B. Protect all completed work against dirt, water or chemical damage, mechanical accident or injury.
- C. Equipment found damaged or in other than new condition will be rejected as defective.

### 3.06 Sleeves

- A. Where conduit passes through masonry or concrete, install sleeves during construction of same.
- B. Where conduit must by necessity pass through beams or columns, install sleeves located as directed by Engineer.

### 3.07 Identification

- A. Label complete electrical system to indicated use of each item of equipment or load served.
- B. Identification of Disconnecting Means: Provide identification of disconnects in accordance with Section 110-22 and Section 240-83 of the National Electrical Code.
- C. Identification of Conductors and Components for Distribution Systems Operating at Two or More Different Voltages: Identify components in accordance with Section 210-4(d) of the National Electrical Code. Required labeling shall be by Micarta plate.
- D. Emergency System: Identify all enclosures (including transfer switches, generators, and power panels) for emergency circuits by marking with red engraved permanently at-

tached nameplates reading "Emergency Circuits" in accordance with Section 700 -9(a) of the National Electrical Code. All boxes for emergency circuits may be identified by painting red.

- E. Provide black laminated white core engraved nameplates with lettering not less than 3/16 inch high attached to the outside of junction boxes larger than 4-11/16 inch; surface mounted cabinets, panelboards, time switches; disconnect switches, starters, contactor, relays; subdistribution and branch circuit panelboards, dry transformers and other items indicating equipment or load served. At flush mounted cabinets, panelboards, time switches and similar items mount nameplate on inside of door at finished areas and on outside of door at mechanical, storage rooms and other non-public spaces. Attach nameplates with epoxy glue.
- F. Flush mounted devices with stainless steel or plastic finish plates requiring identification to be engraved with lettering not less than 1/8 inch high with black color filling.
- G. Provide typewritten circuit schedules for panelboards, cross-connect panels and terminal cabinets. Schedules shall be covered with minimum of 0.018 inch thick clear rigid plastic installed in permanently attached metal frame holder located on inside face of door. Schedules to use final assigned room names/numbers, loads not plan designations.
- H. When making modifications to existing equipment or panelboards, provide labels as indicated in this section. Provide new typewritten circuit schedules for all modified panelboards.
- I. At Main Distribution Panels provide black laminated white core engrave nameplates attached to panel exterior with epoxy glue. Size of nameplate and lettering as directed. Label distribution breakers, main breakers, sub-breakers and panel sections to identify all components and voltage and phase of system. In addition, provide master nameplate indicating project name, date, Architect (when applicable), Electrical Engineer, and Electrical Contractor. Lettering minimum of 1/4 inch high. Provide half-sized electrical one-line diagram (s) framed and mounted on wall near main distribution panel (s).
- J. At buildings having multiple services provide additional engraved nameplate at each service indicating location of additional services.

### 3.08 Installation

- A. Wiring Requirements: Install wiring complete to every outlet with all devices shown and/or required. All wiring to be in raceways and concealed throughout finished areas unless specifically noted otherwise. For the purpose of electrical specifications, all areas, with the exception of boiler rooms, mechanical rooms and mechanical spaces, are to be considered as finished areas.
- B. Provide raceway connections between outlets, outlets and panels and equipment and panels as shown on Drawings. Size raceways according to governing codes unless otherwise noted.
- C. Locations:
  - 1. Verify all locations with actual field conditions, and plans to avert possible installation conflicts.
  - 2. Coordinate work with that of other trades to assure symmetrical placing of fixtures in respect to ceiling tile, grilles, etc.
  - 3. Cabinets: Where electrical outlets occur in face, decks or base of cabinets or in walls above counters, carefully coordinate with details and arrangements of same.

4. Any work, which is incorrectly installed without prior verification with General Contractor, Architect, Engineer and Drawings, will be ordered removed and relocated and any damage to other work shall be repaired at no cost to the Owner.
  5. In general, locate outlets as indicated in symbol schedule on Drawings.
- D. All mounting heights shown on drawings are from finish floor to centerline unless otherwise shown. Mounting heights at non-typical locations shown with (+) sign and height required noted adjacent to outlet. Outlets located in concrete block, brick or tile walls are to be adjusted in height to coordinate with modular joints of the materials.

### 3.09 Painting

- A. Painting in general will be covered under another Division of this specification, except items furnished under this Division that are scratched or marred in shipment or installation and/or require custom painting.
- B. Install equipment with manufacturer's standard finish and color unless otherwise specified. Refinish any marred or oxidized items restored to manufacturer's factory finish.
- C. Required surfaces or equipment with no standard finish; clean off grease and scale. Restore to smooth finish. Give one coat of primer, two coats finish.
- D. Paint and color as selected by Architect or Engineer.
- E. All exposed conduits on painted walls shall be painted to match wall and trim colors. Conduit labels shall be neatly affixed and shall not be painted over.
- F. All electrical equipment and conduit exposed in finished areas and on exterior walls shall be painted to match surrounding surfaces.
- G. Contractor shall coordinate the timing of painting requirements.
- H. Refer to architectural specifications for methods and materials.

### 3.10 Fire-Stopping

- A. Where raceways penetrate floors, ceilings, ducts, chases and fire walls, provide fire stopping to maintain integrity of the fire assembly. The code authority having jurisdiction shall approve fire-stopping method.
- B. Where electrical boxes exceeding 16 square inches are located in fire resistive walls, fire stopping shall be provided to maintain integrity of the fire assembly.

### 3.11 Continuity Of Service

- A. Keep outages to occupied areas to a minimum and prearrange all outages with Owner, Engineer and utilities involved. Requests for outages shall state the specific dates and hours and the maximum durations, with the outages kept to these specified times. When power interruptions will last longer than 5 minutes and cover more than 10% of the building, or affect public areas, they shall be performed on the weekend between 1 and 5 AM.
- B. Contractor shall coordinate with Owner or Engineer so that work can be scheduled not to interrupt operations, normal activities, building access, etc. Coordinate work with other crafts for proper scheduling.

- C. No circuits shall be turned off without prior approval from Owner or Engineer. Coordinate with the operations, normal activities, building access, etc. Coordinate work with other crafts for proper scheduling.
- D. This contractor shall be liable for any damages resulting from unscheduled outages or for those not confined to the preapproved times. Include all costs for overtime labor as necessary to maintain electrical services in the initial bid proposal. Temporary wiring and facilities, if used, shall be removed and the site left clean before final acceptance. Requests for outages must be submitted at least (5) days prior to intended shutdown time.
- E. When applicable, include in bid cost of minimum temporary power to Fire Alarm System, Security, Telephone/Data equipment and any other equipment designated by Owner, during time when primary building power has been interrupted.

### 3.12 Demolition And Salvage at Existing Structures

- A. Contractor shall make all necessary adjustments to the electrical system required to meet code, accommodate installation of the new work, and for demolition and removal at existing structures.
- B. Remove all existing fixtures, controls, clocks, switches, receptacles, and other electrical equipment and devices and associated wiring from walls, ceilings, floors, and other surfaces scheduled for remodeling, relocation, or demolition unless specifically shown as retained or relocated on the drawings. If existing walls, ceiling, floors, etc. are moved, extend existing devices, fixtures, and circuiting to the new location.
- C. Disconnect all existing mechanical equipment scheduled for removal or relocation as described in specifications and shown on the Plans. Remove abandoned raceways and cables. Re-label panels and motor controls centers to reflect changes.
- D. If existing junctions boxes will be made inaccessible, or it abandoned outlets serve as feed through boxes for other existing electrical equipment that is being retained, new conduit and wire shall be provided to bypass the abandoned outlets. If existing conduits pass through partitions or ceilings which are being removed or remodeled, new conduit and wire shall be provided to route around the ceiling or wall and maintain service to the existing load.
- E. Extend circuiting and devices in all existing walls to be furred out.
- F. Locations of items shown on the drawings as existing are partially based on as-built and other drawings which may contain errors. The Contractor shall verify the correctness of the information shown prior to bidding and provide such labor and material as is necessary to accomplish the intent of the contract documents. The plans may shown some demolition conditions, but are not intended to shown all of them.
- G. All materials accumulated during the demolition process are the Owners property and shall be removed from the job site as directed by the Owner.

### 3.13 Work At Existing Structure

- A. Connect to and extend all existing electrical systems as required. Verify location of existing raceways stubbed out. If raceways indicated are not of proper size or in proper location, provide new as required for completion of project.
- B. At areas where new ceilings are being installed, remove existing light fixtures and provide box extensions and reinstall existing fixtures. See Architectural Drawings for areas involved.



### 3.14 Safety

- A. The Drawings and the specifications do not include design or construction details or instructions relating to the Contractor's safety precautions or to means, methods, techniques, sequences or procedures required for the Contractor to perform his work.
- B. The Contractor shall provide necessary shoring, railing, barricades, protective devices, safety instructions and procedures to perform the work safely and to comply with State Safety Requirements and OSHA requirements.

### 3.15 Cleanup

- A. Contractor shall continually remove debris, cuttings, crates, cartons, etc., created by his work. Such clean up shall be done at sufficient frequency to eliminate hazard to the public, other workmen, the building or the Owner's employees. Before acceptance of the installation, Contractor shall carefully clean cabinets, panels, wiring devices, cover plates, light fixtures, etc., to remove dirt, cuttings, paint, plaster, mortar, concrete, etc. Blemishes to finished surfaces of apparatus shall be removed and new finish equal to the original applied.

### 3.16 Asbestos Bearing Materials

- A. If during the course of his work, the Contractor observes the existence of asbestos or asbestos bearing materials, the Contractor shall immediately terminate further work on the project and notify the Owner of the condition. The Owner will, after consultation with the Architect, determine a further course of action.

### 3.17 Polychlorinated Biphenyls (PCB's)

- A. If during the course of his work, the Contractor observes the existence of polychlorinated biphenyls (PCB's), the Contractor shall immediately terminate further work on the project and notify the Owner of the condition. The Owner will, after consultation with the Architect, determine a further course of action.

### 3.18 Testing.

- A. Test the entire electrical installation to assure compliance with code and proper system operation.
  - 1. Circuit Tests. The Contractor shall test all wiring and connections for continuity and ground before any fixtures or other loads are connected. Tests shall be made with a 500 volt DC "Megger" type tester. If tests indicate faulty insulation (less than 2 megohms) such defects shall be corrected and tested again. Contractor shall provide all apparatus and material required to make tests and shall bear all expense of required testing.
  - 2. Ground Testing. Measure the OHMIC value of the Electric Service Entrance metallic "System Ground" with references to "Earth Ground" using the "Multiple Ground Rod" method and suitable instruments. Maximum resistance to ground shall be less than 10 ohms. If this resistance cannot be obtained with the ground system shown, notify the Engineer immediately for further instruction. Certify in writing to the Engineer that the grounding test has been made and that the requirements of this portion have been met for the "System Ground".
  - 3. Motor Tests. Check all motors for proper rotation and for actual load current. Submit tabulation of motor circuits.
- B. Materials and instrumentation shall be provided by the Contractor.

- C. The Contractor shall notify the Engineer ten (10) working days prior to performance of any test.
- D. The Contractor shall certify in writing that the above tests have been completed and shall provide documentation of test data.

### 3.19 Instruction Of Owner Employees

- A. Instruct operation and maintenance personnel selected by Owner's representative at a single designated time in operation and maintenance of the entire electrical system and its components.
- B. Electrical Contractor shall provide one 8-hour working day of instruction to Owner designated personnel. Software Integrator shall provide one 8-hour working day of instruction to Owner designated personnel after all equipment is fully operational and functional. The time for this instruction shall be scheduled shortly after start-up and at mutually agreed times. Contact Engineer for coordination.
- C. Specific sections elsewhere in this Division may require additional training.
- D. On completion of instructions, obtain from Owner certification in writing that demonstration had been given and instructions had been understood.

### 3.20 Demonstration Of Completed Electrical System And Controls

- A. At the point of substantial completion of the project, the Electrical Contractor shall provide necessary personnel to demonstrate the essential features of the following electrical systems:
  - 1. Lighting system.
  - 2. Heating system.
  - 3. Ventilation.
- B. Demonstrate each system once after all malfunctions have been corrected.
- C. Time. Demonstration shall be held upon completion of all systems at a date agreed upon in writing by the Owner or his representative. This time shall be in addition to the instruction allowances provided.
- D. Attending Parties. The demonstration shall be held by the Contractor and Electrical Subcontractor in the presence of the Owner or his designated representative, Electrical Engineer, Project Engineer, and the Equipment Manufacturer's representative.
- E. Demonstration.
  - 1. Demonstrate the functions and locations of each system, and indicate its relationship to the Riser Diagram in the Drawings.
  - 2. Demonstrate by "start-stop operation" and "automatic operation", how to work the controls, how to reset protective devices or replace fuses, and what to do in case of emergency.
  - 3. All systems shall be exercised through operational tests in order to demonstrate achievement of the specified performance. Operational tests depend upon completion of work specified elsewhere in these Contract Documents. The scheduling of tests shall be coordinated by the Contractor among all parties involved so that the tests may proceed without delays or disruption by uncompleted work.

F. Certificate of Complete Demonstration. Submit a Job Completion Form found at the end of this Section. Provide documentation of all test data.

3.21 Payment for Work.

A. Payment for work under this Division shall be covered and included as part of the Basic Bid on the project, or as outlined under any schedules.

END OF SECTION

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**SECTION 26 2400  
ENTRANCE & DISTRIBUTION**

**PART 1 GENERAL**

**1.01 Description**

- A. This section shall include the furnishing and installing of all necessary equipment for a new electrical panel complete as indicated on the Plans and specified. The work in this section includes cable plowing and installation of conduit (i.e. trenching, laying pipe, backfilling, pulling of service line, and making the necessary connections).
- B. Provide branch circuit panelboard with components as indicated. Incorporate switching and protective devices of the number, ratings and type shown and noted herein.
- C. All panelboards and breakers to be fully-rated, Series rated panel boards and breakers are not acceptable.

**1.02 Grounding and Bonding**

- A. Provide a complete grounding system for all electrical equipment in accordance with NEC Article 250 and established safety practices.

**1.03 Related work in other sections includes:**

- A. Providing identification, Section 26 500, Basic Electrical Materials and Methods.

**1.04 Quality Assurance**

- A. American National Standards Institute (ANSI).
  - 1. 67 Panelboards (ANSI/UL 67).
  - 2. ANSI Z55.12 gray finishes for industrial apparatus and equipment.
- B. Institute of Electrical and Electronics Engineers (IEEE).
  - 1. Std. 241-74 Electric Systems for Commercial Buildings.
- C. National Fire Protection Agency (NFPA).
  - 1. NFPA 70 National Electrical Code.
- D. Underwriters' Laboratory (UL).
  - 1. UL 50: Cabinets and Boxes.
  - 2. UL 67 Panelboards.
  - 3. UL 869: Service Disconnects.
- E. National Electrical Manufacturers Association (NEMA)
  - 1. NEMA AB-1: Molded Case Circuit Breakers.
  - 2. NEMA KS-1: Enclosed Switches.
  - 3. Standards for Panelboards.

**1.05 Submittals**

- A. Shop Drawings

1. Submit complete shop drawings with dimensions, components and internal connections in accordance with Division 01 or Section 26 0500, Basic Electrical Materials and Methods (when included).
- B. Submit operation and maintenance data in accordance with Division 01 or Section 26 0500, Basic Electrical Materials and Methods (when included).

#### 1.06 Product Delivery, Storage And Handling

- A. Deliver with UL label and bearing manufacturer's name. Provide all equipment and each section with appropriate UL labels located in conspicuous places. Provide readily accessible nameplates.
- B. Provide starters in manufacturers original cartons with labels intact.
- C. Panelboard exterior trim separately packed to prevent damage during delivery and storage on site.
- D. Store and handle panelboards so as not to subject panels to corrosion or mechanical damage and in a manner to prevent damage from environment and construction operation.

### PART 2 PRODUCTS

#### 2.01 Branch Circuit Panelboards:

- A. Type:
  1. NQOB for 120/208-volt panelboards with bolted breakers having minimum interrupting capacity of 22,000 amperes RMS symmetrical, unless noted otherwise at the bottom of the panel schedules. Breaker trip sizes and number of poles as indicated on the Drawings.
- B. Bussing:
  1. Copper or aluminum.
  2. Tap Arrangement: Phase sequence type, permitting a two (2) or three (3) pole breaker to be installed at any location.
  3. All bolts used to connect current-carrying parts together shall be accessible for tightening from the front of the panel.
  4. Wiring terminals: Compression or set screw type for copper conductors; bolted to bus.
- C. Construction: Flush or surface mounted as indicated with following:
  1. Door with lock to match existing branch circuit panel locks. Verify on site.
  2. Surface mounted panels: Completely metal enclosed. Exposed trim fastenings and hardware permitted. Surface mounted panels located side by side to be same height and depth.
  3. Gutters minimum of five inch with six inch required at feeder end of panel or where feeder runs inside of gutters. Separate feeder lugs and terminals for each feeder connection with lugs as specified in Section 26 0519 Conductors and Cables. Split door split bus panels provided with two-inch separation of sections.

#### 2.02 Circuit Breakers

- A. See additional specific requirements under Switchboard Section.
- B. Multiple breakers common trip.
- C. Combination breaker and ground fault interrupter: 10,000 amps or 20,000 IC rated, bolted connection.
- D. Breakers for panel switched lighting to be labeled "SWD" for multiple operations.
- E. Location of circuit breakers in panels: Install circuit breakers in panels at locations as indicated in the panel schedules.
- F. Main breaker, when so equipped, shall be individually mounted separate from branch breakers. Where used as service disconnect, breaker and panelboard shall be listed for use as service entrance equipment.
- G. Branch circuit breakers shall be bolt-on.
- H. Provide circuit breaker handle guards to prevent accidental shut-off of equipment for breakers supplying obviously constant circuits for clocks, time switches, refrigeration, freezers, sound systems, fire alarm and other like systems as directed.

2.03 Identification:

- A. Panelboards: In accordance with Section 26 0500. Locate nameplates attached to top center of interior trim. Nameplate to indicate panel, voltage and phase characteristics such as Panel 2AA, 120/208 volt, three phase. Panel labeling to correspond to distribution system labeling.
- B. Circuit breakers: Number circuit breakers as indicated in panel schedules. Numbers engraved and filled in interior trim or permanently attached metal numbers equal to Wilson Heard markers or plastic numbers. Adhesive backed printed numbers not approved. Other methods of numbering as approved by Engineer.
- C. Provide typewritten circuit schedules for panelboards, cross-connect panels and terminal cabinets. Schedules shall be covered with minimum of 0.018-inch thick clear rigid plastic installed in permanently attached metal frame holder located on inside face of door. Schedules to use final assigned room names/numbers, loads not plan designations.
- D. When making modifications to existing equipment or panelboards, provide labels as indicated in this section. Provide new typewritten circuit schedules for all modified panelboards.

2.04 Panel finish:

- A. All panels shall be provided with a rust-inhibiting phosphatized primer coating approved by the paint manufacturer.
- B. At all finished areas factory finish to match adjacent surfaces. Rodda Baking Enamel.
- C. In unfinished or utility areas standard factory industrial gray.
- D. Paint sides, top and front of surface mounted panels.

2.05 Lugs:

- A. In accordance with Section 26 0519, Conductors and Cables.

- B. Compression or set-screw type, bolted to bus or CB output.
- C. Provide double or feed thru lugs at panels where feeders are extended to additional panels.
- D. Provide double capacity neutral lugs for all panelboards having an isolated bus.
- E. Provide oversized lugs as required for aluminum panel feeders to accommodate sizes shown in feeder schedule on drawings.

#### 2.06 Grounding and Bonding

- A. Ground connectors: Bronze clamp type. All clamp accessories such as bolts, nuts and washers shall also be bronze to assure a permanent corrosion resistant assembly. Bolts used to fasten lugs to enclosures must be case hardened and sized for lug hole and hole drilled into enclosure. O-Z Gedney, Burndy, IlSCO or approved.
- B. Ground rod clamps: Exothermic welding type or one piece cast bronze with safety set screw. Cadweld "G" series, Copperweld 6500 series, or approved.
- C. Ground rods: Copper or steel core copper covered, minimum 5/8 inch by 10'-0". Copperweld 9400 series, or approved.
- D. All ground cable splices and joints to be made with an exothermic welding process that shall provide a weld with current-carrying capacity not less than that of the conductors welded. Soldered connections not to be used.

2.07 Acceptable Manufacturers: Square-D, GE, Cutler-Hammer, or approved. For electronic grade panelboard suppression/filter system: GE, Current Technologies, Liebert, or approved.

### PART 3 EXECUTION

#### 3.01 Inspection

- A. Coordinate NEC clearance requirements space provided to assure adequate clearances are maintained. Notify Engineer if space provided is inadequate for specified equipment and/or for maintaining required code clearances. Do not order equipment until any space inadequacies are resolved.

#### 3.02 Installation

- A. Install panelboard in accordance with manufacturer's written instructions.
- B. Conduit shall be securely fastened to all panelboards and sheet metal outlet, junction, and pull boxes with galvanized locknuts, and one bushing installed in accordance with standard practice. The full number of threads shall project through to permit the bushing to be drawn tight against the end of the conduit, after which the locknut shall be made up sufficiently tight to draw each into firm electrical contact with the box.
- C. Do not install exterior trims until finish painting is completed. Clean interior of panel (construction dust, paint over-spray, etc...) prior to installation of exterior trim.
- D. Keys: Collect all panel keys. Combine all keys on one key ring and submit at time of substantial completion.
- E. No low voltage wiring (less than 120 volt) to be installed in panel enclosures.



- F. Breaker handle guards shall be provided on each circuit supplying obviously constant loads to prevent accidental shutting off. Such loads are refrigeration, contactor controlled circuits, freeze protection, etc.
- G. Care shall be taken to terminate ground conductors from isolated ground receptacles only on the isolated ground bus in a panel. Do not terminate bonding conductors on an isolated ground bus.
- H. Bolt panelboards to wall structure as required for appropriate seismic zone. Provide adequate backing as required.
- I. All nameplates, labels, screws, bolts, or other hardware shall be in place prior to acceptance.
- J. Install floor-mounted equipment on a three-inch high concrete pad extending three inches beyond front and sides of said equipment. Level and securely fasten equipment to concrete pad.
- K. Provide four-foot wide rubber insulation mats on floor in front of switchboard for its entire length.

### 3.03 Power One-Line Diagram

- A. Mount one-line diagram from Plans at main distribution assembly. Use a clean copy and mount under clear plastic cover, set in a metal frame.

### 3.04 Field Test

- A. Prior to energizing distribution equipment, perform following test and adjustments according to manufacturer's recommendations and instructions.
- B. Continuity check.
- C. Insulation level (megger) tests.
- D. Short circuit test.

### 3.05 Adjustment And Cleaning

- A. Tighten bus connections and mechanical fasteners. Check bus-to-bus and breaker-to-bus connection for correct torque tightening.
- B. Tighten feeder and circuit breaker connections as recommended by the manufacturer.
- C. Clean all foreign matter from interior and exterior of equipment and touch-up scratched or marred surfaces to match original finish.
- D. Adjust interior trim to fit tight against exterior trims.
- E. Check all moving mechanical parts for proper operation.

### 3.06 Grounding and Bonding

- A. Install in accordance with NEC Article 250.
- B. Except where specifically indicated otherwise, all exposed non-current carrying metallic parts of electrical equipment to be bonded together to limit any difference of potential

voltage. Metallic raceway systems may be considered the equipment grounding system where specifically noted or where approved in the NEC. Equipment grounding conductors must be installed in all non-metallic conduit systems. All load side equipment to have the neutral system isolated from the equipment grounding system. The equipment grounding system must provide a low impedance path from the equipment back to the source equipment-grounding bar. This equipment-grounding bar to be connected to the system neutral at the source by a main bonding jumper sized per NEC 250.28, 250.102, and 250.168. The equipment grounding conductors to be sized at least as large as required by NEC 250.122.

- C. The grounding electrode system to connect to the service neutral, if required, or to the system grounded conductor if a neutral is not required. The electrode system may terminate on the equipment-grounding bar at the main service where a properly sized main bonding jumper has been installed. Water system bonding must utilize the proper size water pipe bond clamp to match the size of the water pipe.
- D. Electrical Equipment Grounding (Safety Ground):
  - 1. Ground non-current carrying metal parts of electrical equipment enclosures, frames, man-holes, conductor raceways or cable trays to provide a low impedance path for line-to ground fault current and to bond all non-current carrying metal parts together.
  - 2. Equipment grounding conductor to be electrically and mechanically continuous from the electrical circuit source to the equipment to be grounded. Size ground conductors per NEC 250.122 unless larger conductors are shown on drawings.
  - 3. Grounding conductors to be identified with green insulation. Where green insulation is not available, on larger sizes, black insulation to be used and suitably identified with green tape at each junction box or device.
  - 4. Install metal raceway couplings, fittings and terminations secure and tight to ensure good ground continuity. Provide grounding bushing and bonding jumper where metal raceway is not directly attached to equipment metal enclosure, at concentric knock-outs, or at concentric or eccentric knockouts for circuits of over 250v to ground.
  - 5. Lighting fixtures to be securely connected to equipment grounding conductors. Outdoor lighting standards to have a factory installed ground lug for terminating the ground wire.
  - 6. Motors to be connected to equipment grounding conductors with a conduit ground bushing and with a bolted solderless lug connection on the metal frame. A separate equipment-grounding conductor to be run with each motor branch circuit.
  - 7. Bonding to be provided to assure electrical continuity and the capacity to conduct safely any fault current likely to be imposed.
  - 8. All plug-in receptacles to be bonded to the boxes, raceways and grounding conductor.
  - 9. Equipment grounding conductors to be provided for all lengths of flexible metallic conduit. All equipment provided with two conductor cords to be rewired to provide a three-conductor type "S" cord and grounding attachment plug caps.
- E. Neutrals throughout the system to be solidly grounded to one point at the system source.
- F. Lighting and power panelboard to be grounded by connecting a conductor to the grounding stud and to the incoming and outgoing feeder conduits grounding bushings. Each grounding-type bushing to have the maximum ground wire accommodation available in

standard manufacturer for the particular conduit size. Connection to the bushing to be with wire of this maximum size.

- G. When included as part of the project, the central equipment for the fire detection and alarm system is to have its grounding terminal connected to the ground lug on the panel-board serving the system by means of a No. 6 green coded insulated conductor, run in 3/4 inch metal conduit, utilizing a ground clamp.

END OF SECTION

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## **SECTION 31-2316 EXCAVATION**

### **PART 1 GENERAL**

#### **1.01 SECTION INCLUDES**

- A. Excavating for slabs-on-grade, paving, and utilities within the building.
- B. Trenching for utilities outside the building to existing utility connections.

#### **1.02 RELATED REQUIREMENTS**

- A. Section 01-7000 - Execution and Closeout Requirements: Project conditions; protection of bench marks, survey control points, and existing construction to remain; General requirements for dewatering of excavations and water control.
- B. Section 02-4100 - Demolition: Shoring and underpinning existing structures.
- C. Section 31-2200 - Grading: Grading.
- D. Section 31-2323 - Fill: Fill materials, backfilling, and compacting.

#### **1.03 SUBMITTALS**

- A. See Section 01-3000 - Administrative Requirements, for submittal procedures.
- B. Project Record Documents: Record drawings at project closeout according to 01-7000 - Execution and Closeout Requirements. Show locations of installed support materials left in place, including referenced locations and depths, on drawings.
- C. Field Quality Control Submittals: Document visual inspection of load-bearing excavated surfaces.

### **PART 2 PRODUCTS**

#### **2.01 MATERIALS**

- A. Bedding and Fill to Correct Over-Excavation:
  - 1. See Section 31-2323 for bedding and corrective fill materials at general excavations.

### **PART 3 EXECUTION**

#### **3.01 PREPARATION**

- A. Identify required lines, levels, contours, and datum locations.
- B. Locate, identify, and protect utilities that remain and protect from damage.
- C. Protect bench marks, survey control points, existing structures, fences, sidewalks, paving, and curbs from excavating equipment and vehicular traffic.
- D. Grade top perimeter of excavation to prevent surface water from draining into excavation. Provide temporary means and methods, as required, to maintain surface water diversion until no longer needed, or as directed by Architect.
- E. See Section 02-4100 for underpinning and shoring of adjacent structures that could be damaged by excavating work.

#### **3.02 EXCAVATING**

- A. Excavate to accommodate new structures, construction operations, and inspection.
  - 1. Hand trim excavations. Remove loose matter.
- B. Notify Architect of unexpected subsurface conditions and discontinue affected Work in area until notified to resume work.
- C. Do not interfere with 45 degree bearing splay of foundations.

- D. Building Foundation and Pavement Excavation: Over excavation will be required for footing excavation in soft material, clay or unsuitable fill. The finished footing excavations should be observed by Architect to confirm the foundation soils and determine if any addition excavation is required.
- E. Provide temporary means and methods, as required, to remove all water from excavations until directed by Architect. Remove and replace soils deemed suitable by classification and which are excessively moist due to lack of dewatering or surface water control.
- F. Remove excavated material that is unsuitable for re-use from site.

### **3.03 SUBGRADE PREPARATION**

- A. See Section 31-2323 for subgrade preparation at general excavations.

### **3.04 FILLING AND BACKFILLING**

- A. Do not fill or backfill until all debris, water, unsatisfactory soil materials, obstructions, and deleterious materials have been removed from excavation.
- B. See Section 31-2323 for fill, backfill, and compaction requirements at general excavations.

### **3.05 REPAIR**

- A. Correct areas that are over-excavated and load-bearing surfaces that are disturbed; see Section 31-2323.

### **3.06 FIELD QUALITY CONTROL**

- A. See Section 01-4000 - Quality Requirements, for general requirements for field inspection and testing.
- B. Provide for visual inspection of load-bearing excavated surfaces by Architect before placement of foundations.

### **3.07 CLEANING**

- A. Stockpile excavated material to be re-used in area designated on site in accordance with Section 31-2200.

### **3.08 PROTECTION**

- A. Divert surface flow from rains or water discharges from the excavation.
- B. Prevent displacement of banks and keep loose soil from falling into excavation; maintain soil stability.
- C. Protect open excavations from rainfall, runoff, freezing groundwater, or excessive drying so as to maintain foundation subgrade in satisfactory, undisturbed condition.
- D. Protect bottom of excavations and soil adjacent to and beneath foundation from freezing.
- E. Keep excavations free of standing water and completely free of water during concrete placement.

**END OF SECTION**

**SECTION 31-2323  
FILL**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Filling, backfilling, and compacting for building volume below grade.
- B. Backfilling and compacting for utilities outside the building to utility main connections.
- C. Filling holes, pits, and excavations generated as a result of removal (demolition) operations.

**1.02 RELATED REQUIREMENTS**

- A. Section 03-3000 - Cast-in-Place Concrete.
- B. Section 31-2316 - Excavation: Removal and handling of soil to be re-used.
- C. Section 32-1216 - Asphalt Paving

**1.03 REFERENCE STANDARDS**

- A. ASTM C136/C136M - Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates; 2019.
- B. ASTM D698 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft<sup>3</sup> (600 kN-m/m<sup>3</sup>)); 2012 (Reapproved 2021).

**1.04 SUBMITTALS**

- A. See Section 01-3000 - Administrative Requirements, for submittal procedures.
- B. Fill Composition Test Reports: Results of laboratory tests on proposed and actual materials used, including manufactured fill.
- C. Compaction Density Test Reports.

**1.05 DELIVERY, STORAGE, AND HANDLING**

- A. When necessary, store materials on site in advance of need.
- B. When fill materials need to be stored on site, locate stockpiles where approved.
  - 1. Separate differing materials with dividers or stockpile separately to prevent intermixing.
  - 2. Prevent contamination.
  - 3. Protect stockpiles from erosion and deterioration of materials.

**PART 2 PRODUCTS**

**2.01 FILL MATERIALS**

- A. General Fill - Fill Type Class A: Use native or common material excavated from within limits of the project, free from vegetation and other detrimental material and containing no frozen ground. Maximum particle size shall be 3 inches. Engineer will make approval prior to placement. Compact to at least 90 percent of the maximum dry density, as determined by ASTM D1557.
- B. Granular Fill - Fill Type Class B: Use high quality, dense-grade, 1-1/2' to 1"-0 crushed rock, with less than 5 percent passing the U.S. Standard No. 200 sieve, compact to at least 90 percent of the maximum density, as determined by ASTM D698. Class B Granular Fill shall conform to Section 02630 of ODOT/APWA 2021 Oregon Standard Specifications for Construction. Larger rock maybe used up to 8 inches or 2/3 of the un-compacted thickness, whichever is lesser.
- C. Sand-Fill Type [Class C]: Clean sand; washed; free of silt, clay, loam, friable or soluble materials, and organic matter.
  - 1. Grade in accordance with ASTM D2487 Group Symbol SW. Graded in accordance with ASTM C136/C136M; within the following limits:
    - a. No. 200 sieve: [Less than 5] percent passing.

- D. Drainrock Fill - Fill Type Class D: Use granular permeable material; coarse, clean, free drain open graded 1 inch to 2 inch minus crushed rock containing no fines or round rock, less than 2 percent passing the #200 sieve.
- E. Topsoil - Fill Type F: Replace topsoil excavated on-site. Import local friable loam replacement.
  - 1. Graded.
  - 2. Free of roots, rocks larger than 1/2 inch, subsoil, debris, large weeds and foreign matter.
  - 3. Acidity range (pH) of 5.5 to 7.5.
  - 4. Containing a minimum of 4 percent and a maximum of 25 percent inorganic matter.

### **PART 3 EXECUTION**

#### **3.01 EXAMINATION**

- A. Identify required lines, levels, contours, and datum locations.
- B. Verify structural ability of unsupported walls to support imposed loads by the fill.
- C. Verify areas to be filled are not compromised with surface or ground water.

#### **3.02 PREPARATION**

- A. Scarify and proof roll subgrade surface to a depth of 6 inches to identify soft spots.
- B. Cut out soft areas of subgrade not capable of compaction in place. Backfill with general fill.
- C. Compact subgrade to density equal to or greater than requirements for subsequent fill material.
- D. Until ready to fill, maintain excavations and prevent loose soil from falling into excavation.

#### **3.03 FILLING**

- A. Fill to contours and elevations indicated using unfrozen materials.
- B. Employ a placement method that does not disturb or damage other work.
- C. Systematically fill to allow maximum time for natural settlement. Do not fill over porous, wet, frozen or spongy subgrade surfaces.
- D. Maintain optimum moisture content of fill materials to attain required compaction density.
- E. Granular Fill: Place and compact materials in equal continuous layers not exceeding 8 inches compacted depth.
- F. Slope grade away from building minimum 2 inches in 10 feet, unless noted otherwise. Make gradual grade changes. Blend slope into level areas.
- G. Correct areas that are over-excavated.
  - 1. Load-bearing foundation surfaces: Use structural fill, flush to required elevation, compacted to 90 percent of maximum dry density.
  - 2. Other areas: Use Fill Type B, flush to required elevation, compacted to minimum 92 percent of maximum dry density.
- H. Compaction Density Unless Otherwise Specified or Indicated:
- I. Reshape and re-compact fills subjected to vehicular traffic.
- J. Maintain temporary means and methods, as required, to remove all water while fill is being placed as required, or until directed by the Architect. Remove and replace soils deemed unsuitable by classification and which are excessively moist due to lack of dewatering or surface water control.

#### **3.04 FILL AT SPECIFIC LOCATIONS**

- A. Use general granular Fill (Type B) fill unless otherwise specified or indicated.
- B. Structural Fill at Building pads, under foundation:
  - 1. Use Fill Type Building Foundation Select Fill.
  - 2. Fill up to subgrade elevations as noted per drawings.
  - 3. Maximum depth per lift: 8 inches, compacted.



4. Maximum thickness: No minimum thickness required as the foundation is pile supported and structural fill not required for foundation support/base. However, a gravel working pad is recommended for wet weather construction.
  5. Compact to minimum 95 percent of maximum dry density per ASTM D 698.
- C. Over Buried Utility Piping and Conduits in Trenches:
1. Under footings.under slab
  2. Under slab
  3. Bedding: Use general fill.
  4. Cover with general fill.
  5. Compact in maximum 8 inch lifts to 95 percent of maximum dry density.
- D. At Lawn Areas:
1. Use general fill.
  2. Fill up to 6 inches below finish grade elevations.
  3. Make flush to adjacent grade with top soil. Seed, with mix to be specified.
  4. Compact to 90 percent of maximum dry density.

### **3.05 TOLERANCES**

- A. Top Surface of General Filling: Plus or minus 1 inch from required elevations.
- B. Top Surface of Filling Under Paved Areas: Plus or minus 1/2" inch from required elevations.

### **3.06 FIELD QUALITY CONTROL**

- A. See Section 01-4000 - Quality Requirements, for general requirements for field inspection and testing.

### **3.07 CLEANING**

- A. See Section 01-7419 - Construction Waste Management and Disposal, for additional requirements.
- B. Remove unused stockpiled materials, leave area in a clean and neat condition. Grade stockpile area to prevent standing surface water.
- C. Leave borrow areas in a clean and neat condition. Grade to prevent standing surface water.

**END OF SECTION**

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**SECTION 32-1216  
ASPHALT PAVING**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Single course bituminous concrete paving.
- B. Double course bituminous concrete paving.
- C. Surface sealer.

**1.02 RELATED REQUIREMENTS**

- A. Section 31-2200 - Grading: Preparation of site for paving and base.
- B. Section 31-2323 - Fill: Compacted subgrade for paving.

**1.03 REFERENCE STANDARDS**

- A. ASTM D946 - Standard Specification for Penetration-Graded Asphalt Cement for Use in Pavement Construction; 2009a.

**1.04 QUALITY ASSURANCE**

- A. Perform Work in accordance with State of Oregon Highways standard.
- B. Mixing Plant: Conform to State of Oregon Highways standard.
- C. Obtain materials from same source throughout.

**PART 2 PRODUCTS**

**2.01 MATERIALS**

- A. Asphalt Cement: ASTM D946.
- B. Aggregate for Wearing Course: In accordance with State of Oregon Highways standards. 1/2 inch maximum size.
- C. Primer: In accordance with State of Oregon Highways standards.
- D. Tack Coat: Homogeneous, medium curing, liquid asphalt.

**2.02 ASPHALT PAVING MIXES AND MIX DESIGN**

- A. Wearing Course: 5 to 7 percent of asphalt cement by weight in mixture in accordance with AI MS-2.

**PART 3 EXECUTION**

**3.01 EXAMINATION**

- A. Verify that compacted subgrade is dry and ready to support paving and imposed loads.
- B. Verify gradients and elevations of base are correct.

**3.02 PREPARATION - PRIMER**

- A. Apply primer in accordance with manufacturer's instructions.
- B. Apply primer on aggregate base or subbase at uniform rate of 1/3 gal/sq yd.
- C. Use clean sand to blot excess primer.

**3.03 PREPARATION - TACK COAT**

- A. Apply tack coat in accordance with manufacturer's instructions.
- B. Apply tack coat on asphalt or concrete surfaces over subgrade surface at uniform rate of 1/3 gal/sq yd.

**3.04 PLACING ASPHALT PAVEMENT - DOUBLE COURSE**

- A. Place asphalt binder course within 24 hours of applying primer or tack coat.

- B. Place wearing course within two hours of placing and compacting binder course.
- C. Compact pavement by rolling to specified density. Do not displace or extrude pavement from position. Hand compact in areas inaccessible to rolling equipment.
- D. Perform rolling with consecutive passes to achieve even and smooth finish, without roller marks.

**3.05 CURBS**

- A. Install extruded asphalt curbs of straight profile as indicated.

**3.06 FIELD QUALITY CONTROL**

- A. See Section 01-4000 - Quality Requirements, for general requirements for quality control.

**3.07 SCHEDULE**

- A. Pavement at Parking Areas: One course; 2 inch compacted thickness.
- B. Pavement at Access Drive: Two courses; 3 inch compacted thickness.

**END OF SECTION**