

# FIRE & LIFE SAFETY IMPROVEMENTS - 2014 EUGENE SCHOOL DISTRICT 4J

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## PROJECT MANUAL

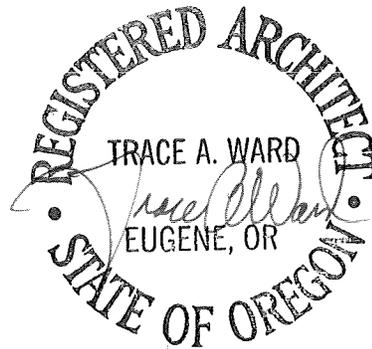
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**gLAs PROJECT NUMBER: 11041**  
**CIP NUMBER 420.684.702**

**ISSUE DATE: APRIL 2, 2014**

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Eugene, Oregon 97401  
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Set No. \_\_\_\_\_

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FIRE & LIFE SAFETY IMPROVEMENTS - 2014

EUGENE SCHOOL DISTRICT 4J  
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**DOCUMENT 00 11 13**  
**INVITATION TO BID**  
**FIRE & LIFE-SAFETY IMPROVEMENTS – 2014**  
**EUGENE SCHOOL DISTRICT 4J**

Sealed bids will be received by Kathi Hernandez, Facilities Management Assistant, for the Fire & Life Safety Improvements – 2014 project on Thursday, April 29, 2014 until the Deadline for Bid Submission at 2:00 PM at the Eugene School District 4J Facilities Management Office, 715 West Fourth Avenue, Eugene, Oregon 97402. The Bids will be opened publicly and read aloud immediately after the deadline for submission of bids. Late Bids will not be considered.

Briefly, the work is described as minor improvements to all four of the high schools in the Eugene School District. The improvements range from the installation of signage and exit hardware, to handrail installations along the exit path, to exit door landing and ramp/walk construction, to the installation of illuminated exit signs.

Beginning April 2, 2014, Prime Bidders, Sub-bidders, and Suppliers may obtain bidding documents at the following hyperlink: <http://www.4j.lane.edu/bids/fire-life-safety-2014/>. Hard copies are not provided by the School District.

Bidding Documents may be examined at the following locations:

Eugene Builder's Exchange, 2460 W. 11th, Eugene, OR 97402  
Central Oregon Builders Exchange, 1902 NE 4<sup>th</sup> Street, Bend, OR 97701  
McGraw Hill Construction, 3461 NW Yeon Ave. Portland, OR 97210  
Daily Journal of Commerce Plan Center, 921 S.W. Washington St., Ste 210, Portland, OR 97205  
Douglas County Plan Center, 3076 NE Diamond Lake Blvd, Roseburg, OR 97470  
Oregon Contractor Plan Center, 14625 SE 82nd Drive, Clackamas, OR 97015  
Reed Construction Data, 30 Technology Parkway South, Ste 500, Norcross, GA 90092  
Salem Contractor's Exchange, 2256 Judson Street SE, Salem, OR 97309  
Willamette Valley Bid Center, 32054 Old Hwy 34, Tangent, OR 97389  
Or, the office of gLAs Architects, LLC.

**It shall be the responsibility of all Prime Bidders, Sub-bidders, and Suppliers to obtain any and all Addenda from the hyperlink.**

Any questions may be directed to Trace Ward, gLAs Architects, LLC, 541-686-2014 (tracew@glas-arch.com) , or Larry Massey, Project Manager, Eugene Public Schools, 541-790-7428 (massey\_l@4j.lane.edu).

A mandatory pre-bid conference and walk-through has been scheduled for Wednesday, April 16, 2014 at 3:30 PM. The location of the conference will be at South Eugene High School, 400 E. 19<sup>th</sup> Ave., Eugene, OR. All Prime Bidders wishing to submit a bid are required to attend this conference. Statements made by the District's representatives at the conference are not binding upon the District unless confirmed by Written Addendum. Pre-qualification of bidders is not required.

Each Bid must be submitted on the prescribed form and accompanied by a Surety Bond, Cashiers Check, or Certified Check, executed in favor of Eugene School District 4J, in the amount not less than ten percent (10%) of the total bid, based upon the total bid amount for those items bid upon.

Either with the Bid or within two working hours of the Deadline for Submission of Bids, bidders shall submit, on the form provided, information first-tier subcontractors furnishing labor or labor and materials, as provided in ORS 279C.370. Bids for which disclosure forms are required, but not submitted, will be rejected.

**INVITATION TO BID – SECTION 01 11 13**

No bid for a construction contract will be received or considered unless the Bidder is registered with the Construction Contractors Board or licensed by the State Landscape Contractors Board at the time the Bid is made, as required by OAR 137-049-0230. [A license to work with asbestos-containing materials under ORS 468A.720 is not required for this project.]

For every bid \$100,000 or greater, all Contractors and Subcontractors shall have a public works bond, in the amount of \$30,000, filed with the Construction Contractors’ Board (CCB), before starting work on the project, unless exempt.

Each Bid shall contain a statement indicating whether the Bidder is a “resident bidder”, as defined in ORS 279A.120.

Each Bid shall contain a statement that the “Contractor agrees to be bound by and will comply with the provisions of ORS 279C.800 through 279C.870 regarding payment of Prevailing Wages” [in particular ORS 279C.838 since this is a federally funded project].

Contractor shall certify nondiscrimination in obtaining required subcontractors, in accordance with ORS 279A.110(4).

School District 4J reserves the right to (1) reject any or all Bids not in compliance with all public bidding procedures and requirements, (2) postpone award of the Contract for a period not to exceed sixty (60) days from the date of bid opening, (3) waive informalities in the Bids, and (4) select the Bid which appears to be in the best interest of the District.

Date: April 2, 2014  
By: Kathi Hernandez, Facilities Management Assistant  
Published: Register Guard, Daily Journal of Commerce, ORPIN (Oregon Procurement Information Network)  
Posted: School District 4J Administration Office  
200 North Monroe  
Eugene, OR 97403

INSTRUCTIONS TO BIDDERS  
SECTION 00 21 13

PART 1 GENERAL

STANDARD FORM

"Instructions to Bidders" AIA Document A701, 1997 Edition, immediately following are part of this Project Manual.

END OF SECTION 00 21 13



# AIA<sup>®</sup> Document A701<sup>™</sup> – 1997

## *Instructions to Bidders*

for the following PROJECT:  
*(Name and location or address)*

**THE OWNER:**  
*(Name, legal status and address)*

**THE ARCHITECT:**  
*(Name, legal status and address)*

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

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

## **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 other sample bidding and contract forms. The proposed Contract Documents consist of the form of Agreement between the Owner and Contractor, Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications and all Addenda issued prior to execution of the Contract.

§ 1.2 Definitions set forth in the General Conditions of the Contract for Construction, AIA Document A201, or in other Contract Documents are applicable to the Bidding Documents.

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

§ 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 as the base, to which Work may be added or from which Work may be deleted for 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 the amount of 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 The Bidder by making a Bid represents that:

§ 2.1.1 The Bidder has read and understands the Bidding Documents or Contract Documents, to the extent that such documentation relates to the Work for which the Bid is submitted, and for other portions of the Project, if any, being bid concurrently or presently under construction.

§ 2.1.2 The Bid is made in compliance with the Bidding Documents.

§ 2.1.3 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 personal observations with the requirements of the proposed Contract Documents.

§ 2.1.4 The Bid is based upon the materials, equipment and systems required by the Bidding Documents without exception.

## **ARTICLE 3 BIDDING DOCUMENTS**

### **§ 3.1 COPIES**

§ 3.1.1 Bidders may obtain complete sets of the Bidding Documents from the issuing office designated in the Advertisement or Invitation to Bid in the number and for the deposit sum, if any, stated therein. The deposit will be refunded to Bidders who submit a bona fide Bid and return the Bidding Documents in good condition within ten days after receipt of Bids. The cost of replacement of missing or damaged documents will be deducted from the deposit. A Bidder receiving a Contract award may retain the Bidding Documents and the Bidder's deposit will be refunded.

§ 3.1.2 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.

§ 3.1.3 Bidders shall use complete sets of Bidding Documents in preparing Bids; neither the Owner nor Architect assumes responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.

§ 3.1.4 The Owner and Architect may make copies of the Bidding Documents available on the above terms for the purpose of obtaining Bids on the Work. No license or grant of use is conferred by issuance of copies of the Bidding Documents.

### § 3.2 INTERPRETATION OR CORRECTION OF BIDDING DOCUMENTS

§ 3.2.1 The Bidder shall carefully study and compare the Bidding Documents with each other, and with other work being bid concurrently or presently under construction to the extent that it relates to the Work for which the Bid is submitted, shall examine the site and local conditions, and shall at once report to the Architect errors, inconsistencies or ambiguities discovered.

§ 3.2.2 Bidders and Sub-bidders requiring clarification or interpretation of the Bidding Documents shall make a written request which shall reach the Architect at least seven days prior to the date for receipt of Bids.

§ 3.2.3 Interpretations, corrections and changes of the Bidding Documents will be made by Addendum. Interpretations, corrections and changes of the Bidding Documents made in any other manner will 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 No substitution will be considered prior to receipt of Bids unless written request for approval has been received by the Architect at least ten days prior to the date for receipt of Bids. Such requests shall include the name of the material or equipment for which it is to be substituted and a complete description of the proposed substitution including drawings, performance and test data, and other information necessary for an evaluation. A statement setting forth changes in other materials, equipment or other portions of the Work, including changes in the work of other contracts that incorporation of the proposed substitution would require, shall be included. 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.

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

§ 3.3.4 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 all who are known by the issuing office to have received a complete set of Bidding Documents.

§ 3.4.2 Copies of Addenda will be made available for inspection wherever Bidding Documents are on file for that purpose.

§ 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 Each Bidder shall ascertain prior to submitting a Bid 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 the Bidding Documents.

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

§ 4.1.3 Sums shall be expressed in both words and figures. In case of discrepancy, the amount written in words shall govern.

§ 4.1.4 Interlineations, alterations and erasures 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."

§ 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 make no 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 of the Bidder and the nature of legal form of the Bidder. The Bidder shall provide evidence of legal authority to perform within the jurisdiction of the Work. Each copy shall be signed by the person or persons legally authorized to bind the Bidder to a contract. A Bid by a corporation shall further give the state of incorporation and have the 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.

#### § 4.2 BID SECURITY

§ 4.2.1 Each Bid shall be accompanied by a bid security in the form and amount required if so stipulated in the Instructions to Bidders. The Bidder pledges to enter into a Contract with the Owner on the terms stated in the Bid and will, 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. The amount of the bid security shall not be forfeited to the Owner in the event the Owner fails to comply with Section 6.2.

§ 4.2.2 If a surety bond is required, it shall be written on AIA Document A310, Bid Bond, unless otherwise provided in the Bidding Documents, and the attorney-in-fact who executes the bond on behalf of the surety shall affix to the bond a certified and current copy of the power of attorney.

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

#### § 4.3 SUBMISSION OF BIDS

§ 4.3.1 All copies of the Bid, the bid security, if any, 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.

§ 4.3.2 Bids shall be deposited at the designated location prior to the time and date for receipt of Bids. Bids received after the time and date for receipt of Bids will be returned unopened.

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

§ 4.3.4 Oral, telephonic, telegraphic, facsimile or other electronically transmitted bids will not be considered.

#### § 4.4 MODIFICATION OR WITHDRAWAL OF BID

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

§ 4.4.2 Prior to the time and date designated for receipt of Bids, a Bid submitted may be modified or withdrawn by notice to the party receiving Bids at the place designated for receipt of Bids. Such notice shall be in writing over the

signature of the Bidder. Written confirmation over the signature of the Bidder shall be received, and date- and time-stamped by the receiving party on or before the date and time set for receipt of Bids. A change shall be so worded as not to reveal the amount of the original Bid.

§ 4.4.3 Withdrawn Bids may be resubmitted up to the date and time designated for the receipt of Bids provided that they are then fully in conformance with these Instructions to Bidders.

§ 4.4.4 Bid security, if required, shall be in an amount sufficient for the Bid as resubmitted.

## **ARTICLE 5 CONSIDERATION OF BIDS**

### **§ 5.1 OPENING OF BIDS**

At the discretion of the Owner, if stipulated in the Advertisement or Invitation to Bid, the properly identified Bids received on time will be publicly opened and will be read aloud. An abstract of the Bids may be made available to Bidders.

### **§ 5.2 REJECTION OF BIDS**

The Owner shall have the right to reject any or all Bids. A Bid not accompanied by a required bid security or by other data required by the Bidding Documents, or a Bid which is in any way incomplete or irregular is subject to rejection.

### **§ 5.3 ACCEPTANCE OF BID (AWARD)**

§ 5.3.1 It is the intent of the Owner to award a Contract to the lowest qualified Bidder provided the Bid has been submitted in accordance with the requirements of the Bidding Documents and does not exceed the funds available. The Owner 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 own best interests.

§ 5.3.2 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 low 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, a properly executed AIA Document A305, Contractor's Qualification Statement, unless such a Statement has been previously required and submitted as a prerequisite to the issuance of Bidding Documents.

### **§ 6.2 OWNER'S FINANCIAL CAPABILITY**

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

### **§ 6.3 SUBMITTALS**

§ 6.3.1 The Bidder shall, as soon as practicable or as stipulated in the Bidding Documents, after notification of selection for the award of a Contract, furnish to the Owner through the Architect in writing:

- .1 a designation of the Work to be performed with the Bidder's own forces;
- .2 names of the manufacturers, products, and the suppliers of principal items or systems of materials and equipment proposed for the Work; 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 in writing 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, (1)

withdraw the Bid or (2) submit an acceptable substitute person or entity with an adjustment in the Base Bid or Alternate Bid to cover 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. Bonds may be secured through the Bidder's usual sources.

§ 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 If the Owner requires that bonds be secured from other than the Bidder's usual sources, changes in cost will be adjusted as provided in the Contract Documents.

### **§ 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 be commenced prior thereto 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. Both bonds shall be written in the amount of the Contract Sum.

§ 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 thereto a certified and current copy of the power of attorney.

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

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

**SUPPLEMENTARY INSTRUCTIONS TO BIDDERS**  
**SECTION 00 22 13**

**PART 1 GENERAL**

The following Supplementary Instructions to Bidders modify, change from or add to AIA Document A701 Instruction To Bidders, 1997 Edition. Where any Article of the Instructions to Bidders is modified or any paragraph, subparagraph, or clause thereof is modified or deleted by these Supplementary Instructions to Bidders, the unaltered provisions of that Article, paragraph, subparagraph, or clause shall remain in effect.

**1.1 ARTICLE 2 BIDDER'S REPRESENTATIONS**

**A. Add the following subparagraphs to 2.1.3:**

2.1.3.1 Bidders are required to attend any mandatory pre-bid conferences or tours as stated in the Advertisement for Bids. Bidders not attending this pre-bid conference and tour shall be disqualified from bidding. Bidders will be required to sign in at the project site prior to the conference or tour.

2.1.3.2 Bidders are encouraged to visit the site(s) to become familiar with existing conditions. The Owner is not responsible and shall not bear financial burden for oversights made by the Bidder for failure to inspect sites prior to submitting a bid.

2.1.3.3 In all cases, persons wishing to examine the area of work must sign in at the school office prior to visiting the work area. Prior to leaving the school, sign-out at the office is required.

2.1.3.4 If access is required at times when the school office is not staffed, contact the Facilities Office, 687-3259, for assistance.

**B. Add the following paragraph 2.1.5:**

2.1.5 The Bidder certifies by signing the Bid that the Bidder has a drug-testing program in place for its employees that includes, at a minimum, the following:

- .1 A written employee drug-testing program,
- .2 Required drug testing for all new Subject Employees, or alternatively, requiring testing of Subject Employees every six months on a random selection basis,
- .3 Required testing of a Subject Employee when the Contractor has reasonable cause to believe the Subject Employee is under the influence of drugs, and
- .4 Required testing of a Subject Employee when the Subject Employee is involved in: (I) an incident causing an injury requiring treatment by a physician, or (ii) an incident resulting in damage to property or equipment.

A drug-testing program that meets the above requirements will be deemed a "Qualifying Employee Drug-testing Program". For purposes of this rule an employee is a "Subject Employee" only if that employee will be working on the Project job site; and

That if awarded the Public Improvement Contract, the Bidder will execute a contract in which the Contractor shall represent and warrant to the District that the Qualifying Employee Drug-testing Program is in place at the time of contract execution and will continue in full force and effect for the duration of the Public Improvement Contract; and that the Contract will condition the Agency's performance obligation upon the Contractor's compliance with this representation and warranty; and

That the Public Improvement Contract shall contain Contractor's covenant requiring each subcontractor providing labor for the Project to:

- .1 Demonstrate to the Contractor that it has a Qualifying Employee Drug-testing Program for the subcontractor's Subject Employees, and represent and warrant to the Contractor that the Qualifying Employee Drug-testing Program is in place at the time of subcontract execution and will continue in full force and effect for the duration of the subcontract; or
- .2 Require the subcontractor's Subject Employees to participate in the Contractor's Qualifying Employee Drug-testing Program for the duration of the subcontract.

## SUPPLEMENTARY INSTRUCTIONS TO BIDDERS – SECTION 00 22 13

### 1.2 ARTICLE 3 BIDDING DOCUMENTS

#### A. 3.3 SUBSTITUTIONS

##### 1. Add the following:

3.3.2.1 All requests for approval must be submitted in duplicate on "Substitution Request Form". Include a self-addressed stamped envelope. Requests received by Architect less than ten (10) days prior to bid will not be considered.

#### B. 3.4 ADDENDA

##### 1. Delete paragraph 3.4.1 and substitute the following:

3.4.1 Addenda will be issued to plan centers listed in the Advertisement for Bids and all firms listed on the Planholder List.

### 1.3 ARTICLE 4 BIDDING PROCEDURES

#### A. 4.1 PREPARATION OF BIDS

##### 1. Add the following Paragraphs:

4.1.8 Bidders shall certify to non-collusion practices on the form included as part of the Bid Form, to be submitted with the Bid Form.

.1 A Non-Collusion Affidavit is required for any contract awarded pursuant to the bid. According to the Oregon Public Contracts and Purchasing Laws, a public contracting agency may reject any or all bids upon a finding of the agency that it is in the public interest to do so (ORS 279C.395). This agency finds that it is in the public interest to require the completion of this affidavit by potential contractors.

.2 The Non-Collusion Affidavit must be executed by the member, officer or employee of the bidder who makes the final decision on prices and the amount quoted in the bid.

.3 Bid rigging and other efforts to restrain competition, and the making of false sworn statements in connection with the submission of bids are unlawful and may be subject to criminal prosecution. The person who signs the Affidavit should examine it carefully before signing and assure himself or herself that each statement is true and accurate, making diligent inquiry, as necessary, of all other persons employed by or associated with the bidder with responsibilities for the preparation approval or submission of the bid.

.4 In the case of a bid submitted by a joint venture, each party to the venture must be identified in the bid documents, and an Affidavit must be submitted separately on behalf of each party.

.5 The term "complementary bid" as used in the Affidavit has the meaning commonly associated with the term in the bidding process, and includes the knowing submission of bids higher than the bid of another firm, any intentionally high or noncompetitive bid, and any other form of bid submitted for the purpose of giving a false appearance of competition.

.6 Failure to file an Affidavit in compliance with these instructions will result in disqualification of the bid.

4.1.9 Bidders shall certify to non-discrimination in employment practices on the form, included as part of the Bid Form, to be submitted with the Bid Form. By submitting its bid, the Bidder certifies conformance to the applicable federal acts, executive orders, and Oregon statutes and regulations concerning affirmative action toward equal employment opportunities. All information and reports required by the federal or Oregon state governments having responsibility for the enforcement of such laws shall be supplied to the Owner in compliance with such acts, regulation, and orders.

4.1.10 Bidder shall indicate, on the Bid Form where provided, the bidder's status as a "resident" or "non-resident" in accordance with ORS 279C.365 and ORS 279A.120.

##### 4.1.11 First-Tier Subcontractor Disclosure:

.1 Within two working hours after the date and time of the deadline when the bids are due, a Bidder shall submit to the District a disclosure of the first-tier subcontractors that will be furnishing labor or

## SUPPLEMENTARY INSTRUCTIONS TO BIDDERS – SECTION 00 22 13

will be furnishing labor and materials in connection with the public improvement; and will have a contract value that is equal to or greater than 5% of the project bid or \$15,000, whichever is greater, or \$350,000, regardless of the percentage of the total project bid.

.2 The disclosure of first-tier subcontractors shall include the name of each subcontractor, the category of work that the subcontractor would be performing, and the dollar value of each subcontract.

.3 The first-tier subcontractor disclosure applies only to public improvements with a contract value of more than \$100,000.

.4 The District will consider the bid of any contractor that does not submit a required subcontractor disclosure to the District to be a non-responsive bid. A non-responsive Bid will not be considered for Award.

.5 Contractor shall certify that all subcontractors performing Work are registered with the Construction Contractors Board or licensed by the State Landscape Contractors Board in accordance with ORS 701.035 to 701.055 before the subcontractors commence work under the Contract.

### B. 4.2 BID SECURITY

1. Delete paragraphs 4.2.2 and 4.2.3 and substitute the following:

4.2.2 Each Bid shall be accompanied by a surety bond, cashiers check, or certified check, executed in favor of Eugene School District 4J, in the amount not less than ten percent (10%) of the total bid, based upon the total bid amount for those items bid upon. Should the Bidder refuse to enter into such Contract or fail to furnish Performance and Labor and Materials Payment Bonds and Certificates of Insurance as required by the Supplementary Conditions within ten (10) working days after contract forms are provided to the Bidder, the amount of the Bid Security may be forfeited to the Owner as liquidated damages, not as a penalty.

.1 The Surety Bond shall be written by a Bonding Company authorized and licensed by the Oregon Insurance Commissioner. The bonding company must be listed on the most current US Government Treasury List, Department Circular 570, or approved PRIOR TO BID SUBMISSION by the Eugene School District 4J's Risk Manager. The Bond shall be on a AIA Document A310, most current edition. The Attorney-in-Fact who executes the Bond on behalf of the Surety shall affix to the Bond, a certified copy of a power of attorney.

.2 The Owner will have the right to retain the Bid Security of Bidders until either; a) the Contract has been executed and Bonds have been furnished, or b) the specified time has elapsed so that Bids may be withdrawn, or c) all Bids have been rejected.

### C. 4.4 MODIFICATION OR WITHDRAWAL OF BID

1. Delete paragraph 4.4.1 and substitute the following:

4.4.1 A Bid may not be withdrawn or canceled by the Bidder following the time and date designated for the receipt of bids to the expiration of a 60 day period. The Bid for that sixty days is irrevocable and each Bidder so agrees in submitting a Bid.

### 1.4 ARTICLE 6 POST-BID INFORMATION

A. Delete Paragraph 6.1.

B. Modify paragraph 6.3.1 as follows:

In the first sentence delete the phrase "as soon as practicable" and add "within 48 hours."

C. Add the following:

6.3.1.4 Where asbestos abatement is required, Contractor or appropriate subcontractor shall be licensed by the Department of Environmental Quality to perform "asbestos abatement work", per OAR 340-248-0120, Adopted 1/25/90, and meet requirements of AHERA as specified in the Federal Register, 40 CFR part 763. Bidder shall submit evidence of licensing to Owner.

**SUPPLEMENTARY INSTRUCTIONS TO BIDDERS – SECTION 00 22 13**

1.5 ARTICLE 7 PERFORMANCE BOND AND PAYMENT BOND

A. 7.1 BOND REQUIREMENTS

1. Delete paragraphs 7.1.1, 7.1.2 and 7.1.3 and add the following:

7.1.1 Unless otherwise stated in the solicitation document, the successful Bidder shall be required to provide the Owner with a Performance Bond and Labor and Material Payment Bond, **each** in an amount equal to one hundred (100%) of the contract sum. The Surety Company shall meet requirements as specified in the Supplementary Conditions.

7.1.2 The Labor and Material Payment Bond shall contain a clause specifically guaranteeing payment of all sums of money withheld from employees and payable to the Internal Revenue Service; and all contributions or amounts due to the State of Oregon from the General Contractor or subcontractor incurred in the performance of this contract.

7.1.3 The Bond shall be fully executed, payable to the Owner.

7.1.4 The cost of these bonds shall be included in the Bid.

1.6 7.2 TIME OF DELIVERY AND FORM OF BONDS

A. Delete paragraph 7.2.1 and substitute the following:

7.2.1 The successful Bidder will be provided with contract forms through the Architect. These forms shall be executed and delivered to the Owner, along with Performance Bond and Labor and Material Payment Bond, within ten (10) days after receiving forms.

B. Add the following article:

**ARTICLE 9 MISCELLANEOUS PROVISIONS**

**9.1 ADMINISTRATIVE RULES**

All bidders are required to comply with the provisions of Oregon Revised Statutes and 4J Board Policy. Attention is directed to ORS 244, Government Ethics; ORS 279A and 279C, Public Contracting Code; Oregon Administrative Rules, Chapter 137, Divisions 46, 48 and 49; and 4J Board Policy DJC.

**9.2 PROTEST OF BID**

Protests of bid specifications or contract terms shall be presented to the Owner in writing five (5) calendar days prior to bid opening. Such protest or request for change shall include the reason for protest or request, and any proposed changes to specifications or terms. No protest against award because of the content of bid specifications or contract terms shall be considered after the deadline established for submitting such protest.

**9.3 PROTEST OF AWARD**

Any actual bidder or proposer who is adversely affected by the Owner's notice of award of the contract to another bidder or proposer on the same solicitation shall have seventy two (72) hours from the notice of award to submit to the Owner, a written protest of the notice of award. In order to be an adversely affected or aggrieved bidder or proposer with a right to submit a written protest, a bidder or proposer must itself claim to be eligible for award of the contract as the lowest responsible bidder or best proposer and must be next in line for award.

**9.4 FINAL AWARD**

The written notice of award of the contract shall constitute a final decision of the Owner to award the contract if no written protest of the notice of award is filed with the Owner within the designated time.

END OF DOCUMENT 00 22 13

**BID FORM  
SECTION 00 41 13**

**BID FOR:** Fire & Life Safety Improvements - 2014  
Eugene School District 4J

CIP Number: 420.684.702

Submitted to: Facilities Management  
Eugene School District 4J  
715 West Fourth Avenue  
Eugene, Oregon 97402

Bid Deadline: 2:00 P.M.  
April 29, 2014

Submitted by: \_\_\_\_\_  
(Company Name)

**BASE BID**

The undersigned proposes to furnish all material, equipment, and labor required for the complete project, and to perform all work in strict accordance with the Contract Documents for the lump sum prices indicated below with completion occurring on or prior to the dates indicated:

**BASE BID:**

Bid: \_\_\_\_\_ \$ \_\_\_\_\_  
(Words) (Figures)

The undersigned agrees, if awarded the Contract, to substantially complete all Base Bid work on or before the dates specified in Section 01 11 00.

**ALTERNATE BIDS**

The Undersigned proposes to ADD TO the Base Bid indicated above, the items of work relating to the following Alternates as described in the Project Manual, Section 01 23 00.

None.

It is understood that the Base Bid may be adjusted for any Alternates in determining the amount of the Contract. Any or all of such Alternates may be accepted or reinstated by the Owner at any time within 60 days from the date of the Contract Award by the Owner, at the respective amounts named herein.

**BID SECURITY**

Accompanying herewith is Bid Security, which is not less than ten percent (10%) of the total amount of the Base Bid plus additive alternates.

**STIPULATIONS**

The undersigned acknowledges the liquidated damages provision included in the Supplementary Conditions.

The undersigned agrees, if awarded the contract, to comply with the provisions of Oregon Revised Statutes 279C.800 through 279C.870 pertaining to the payment of prevailing rates of wage.

The undersigned agrees, if awarded the Contract, to execute and deliver to the Owner within ten (10) working days after receiving contract forms, an Agreement and a satisfactory Performance Bond and Payment Bond each in an amount equal to 100 percent (100%) of the Contract Sum.

For every bid \$100,000 or greater, all Contractors and Subcontractors shall have a public works bond, in the amount of \$30,000, filed with the Construction Contractors' Board (CCB), before starting work on the project, unless exempt.

The undersigned agrees that the Bid Security accompanying this proposal is the measure of liquidated damages which the Owner will sustain by the failure of the undersigned to execute and deliver the above named agreement and bonds; and that if the undersigned defaults in executing that agreement within ten (10) days after forms are provided or providing the bonds, then the Bid Security shall become the property of the Owner; but if this proposal is not accepted within sixty (60) days of the time set for the opening of bids, or if the undersigned executes and delivers said

agreement and bonds, the Bid Security shall be returned.

By submitting this Bid, the Bidder certifies that the Bidder:

- a) has available the appropriate financial, material, equipment, facility and personnel resources and expertise, or the ability to obtain the resources and expertise, necessary to meet all contractual responsibilities;
- b) has a satisfactory record of past performance;
- c) has a satisfactory record of integrity, and is not disqualified under ORS 279C.440;
- d) is qualified legally to contract with the Owner; and
- e) will promptly supply all necessary information in connection with any inquiry the Owner may make concerning the responsibility of the Bidder.

Prior to award of a Contract, the Bidder shall submit appropriate documentation to allow the Owner to determine whether or not the Bidder is “responsible” according to the above criteria.

The contractor agrees with the provisions of Oregon Revised Statutes 279C.505, which requires that the contractor shall demonstrate it has established a drug-testing program for employees and will require each subcontractor providing labor for the Project to do the same.

The undersigned has received addenda numbers \_\_\_\_\_ to \_\_\_\_\_ inclusive and has included their provisions in the above Bid amounts.

The undersigned has visited the site to become familiar with conditions under which the Work is to be performed and has correlated the Bidder's personal observations with the requirements of the proposed Contract Documents.

The undersigned certifies that the Bidder is a \_\_\_\_\_ Bidder under ORS. ("Resident" or "Non-resident", to be filled in by Bidder)

Names of Firm: \_\_\_\_\_

Street Address: \_\_\_\_\_  
(City) (State) (Zip)

Telephone Number: \_\_\_\_\_ FAX Number: \_\_\_\_\_

Email Address: \_\_\_\_\_

Signed By: \_\_\_\_\_ Printed Name: \_\_\_\_\_  
(Signature of Authorized Official. If bid is from a partnership, one of the partners must sign bid).

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

Official Capacity: \_\_\_\_\_

If corporation, attest: \_\_\_\_\_ Date: \_\_\_\_\_  
(Secretary of Corporation)

SEAL (If Corporate)

- \_\_\_\_\_ Corporation
- \_\_\_\_\_ Partnership
- \_\_\_\_\_ Individual

**NON-DISCRIMINATION REQUIREMENT**

Contractor certifies that the Contractor has not discriminated against minorities, women or emerging small business enterprises in obtaining any required subcontracts.

The Contractor agrees not to discriminate against any client, employee, or applicant for employment or for services, because of race, color, religion, sex, national origin, physical or mental handicap, sexual orientation or age, unless based upon bona fide occupational qualifications, and that they are otherwise in compliance with all federal, state and local laws prohibiting discrimination, with regard to, but not limited to, the following: Employment upgrading, demotion or transfer; Recruitment or recruitment advertising; Layoffs or termination; Rates of pay or other forms of compensation; Selection for training; Rendition of services. It is further understood that any vendor who is in violation of this clause shall be barred forthwith from receiving awards of any purchase order from the School District, unless a satisfactory showing is made that discriminatory practices have terminated and that a recurrence of such acts is unlikely.

FIRM NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

TELEPHONE \_\_\_\_\_

BY \_\_\_\_\_  
(Company or Firm Officer)

BY \_\_\_\_\_  
(Type or Print Name)

NON-COLLUSION AFFIDAVIT

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

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

I state that I am \_\_\_\_\_ of \_\_\_\_\_  
(Title) (Name of Firm)

and that I am authorized to make this affidavit on behalf of my firm, and its owners, directors, and officers. I am the person responsible in my firm for the price(s) and the amount of this bid.

I state that:

(1) The price(s) and amount of this bid have been arrived at independently and without consultation, communication or agreement with any other contractor, bidder or potential bidder, except as disclosed on the attached appendix.

(2) That neither the price(s) nor the amount of this bid, and neither the approximate price(s) nor approximate amount of this bid, have been disclosed to any other firm or person who is a bidder or potential bidder, and they will not be disclosed before bid opening.

(3) No attempt has been made or will be made to induce any firm or person to refrain from bidding on this contract, or to submit a bid higher than this bid, or to submit any intentionally high or noncompetitive bid or other form of complementary bid.

(4) The bid of my firm is made in good faith and not pursuant to any agreement or discussion with, or inducement from, any firm or person to submit a complementary or noncompetitive bid.

(5) \_\_\_\_\_, its affiliates, subsidiaries, officers, directors and  
(Name of my Firm)  
employees are not currently under investigation by any governmental agency and have not in the last four years been convicted of or found liable for any act prohibited by State or Federal law in any jurisdiction, involving conspiracy or collusion with respect to bidding on any public contract, except as described on the attached appendix.

I state that \_\_\_\_\_ understands and acknowledges that the above representations  
(Name of my Firm)  
are material and important, and will be relied on by School District 4J in awarding the contract(s) for which this bid is submitted. I understand and my firm understands that any misstatement in this affidavit is and shall be treated as fraudulent concealment from School District 4J of the true facts relating to the submission of bids for this contract.

\_\_\_\_\_  
(Authorized Signature)

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

\_\_\_\_\_  
(Notary Public for Oregon)

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

END OF BID FORM

**FIRST-TIER SUBCONTRACTOR DISCLOSURE FORM  
DOCUMENT 00 45 22**

**PROJECT:** Fire & Life Safety Improvements - 2014  
Eugene School District 4J

**CIP NUMBER:** 420.684.702

**TO:** Kathi Hernandez, Facilities Management Assistant  
Eugene School District 4J  
715 West Fourth Avenue  
Eugene, Oregon 97402

**BID SUBMISSION DEADLINE:** **Date:** April 29, 2014 **Time:** 2:00 P.M.

**SUBMITTAL REQUIREMENTS**

Subcontractor disclosure is required on all public improvement contracts greater than \$100,000.

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 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.)

SUBCONTRACTOR	DOLLAR VALUE	CATEGORY OF WORK
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

The above listed first- tier subcontractor(s) are providing labor, or labor and material, with a Dollar Value equal to or greater than:

- a) 5% of the total Contract Price, but at least \$15,000. [If the Dollar Value is less than \$15,000 do not list the subcontractor above.]
- b) \$350,000 regardless of the percentage of the total Contract Price

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:** \_\_\_\_\_

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

END OF DOCUMENT 00 45 22

FORM OF AGREEMENT  
SECTION 00 52 13

PART 1 GENERAL

STANDARD FORM

The form of Agreement will be executed on AIA Form A 101, Standard Form of Agreement Between Owner and Contractor, 2007 edition, a copy of which is included by reference. Copies are available for review at the office of Facilities Management, School District 4J.

END OF SECTION 00 52 13

GENERAL CONDITIONS  
SECTION 00 72 13

PART 1 GENERAL

STANDARD FORM

“General Conditions of the Contract for Construction” AIA Document A-201, 2007 Edition, immediately following, are part of these specifications.

The Contractor and all Subcontractors shall read and be governed by them.

CONFLICTS

In the case of conflicts between the “General Conditions” and these Specifications, the Specifications govern.

END OF SECTION 00 72 13



# AIA<sup>®</sup> Document A201<sup>™</sup> – 2007

## General Conditions of the Contract for Construction

for the following PROJECT:  
(Name and location or address)

**THE OWNER:**  
(Name, legal status and address)

**THE ARCHITECT:**  
(Name, legal status and address)

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- 15 CLAIMS AND DISPUTES

### 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.

Init.

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User Notes:

(878146103)

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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 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 and certify termination of the Agreement under Section 14.2.2.

### **§ 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.

§ 1.2.2 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 will retain all common law, statutory and other reserved rights, including copyrights. The Contractor, Subcontractors, Sub-subcontractors, and material or equipment 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 this 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 material or equipment suppliers are authorized to use and reproduce the Instruments of Service provided to them 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 material or equipment suppliers may not use the Instruments of Service on other projects or for additions to this Project outside the scope of the Work without the specific written consent of the Owner, Architect and the Architect's consultants.

### § 1.6 TRANSMISSION OF DATA IN DIGITAL FORM

If the parties intend to transmit Instruments of Service or any other information or documentation in digital form, they shall endeavor to establish necessary protocols governing such transmissions, unless otherwise already provided in the Agreement or the Contract Documents.

## 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 INFORMATION AND SERVICES REQUIRED OF THE OWNER

§ 2.2.1 Prior to commencement of the Work, the Contractor may request in writing that the Owner provide reasonable evidence that the Owner has made financial arrangements to fulfill the Owner's obligations under the Contract. Thereafter, the Contractor may only request such evidence if (1) the Owner fails to make payments to the Contractor as the Contract Documents require; (2) a change in the Work materially changes the Contract Sum; or (3) the Contractor identifies in writing a reasonable concern regarding the Owner's ability to make payment when due. The Owner shall furnish such evidence as a condition precedent to commencement or continuation of the Work or the

portion of the Work affected by a material change. After the Owner furnishes the evidence, the Owner shall not materially vary such financial arrangements without prior notice to the Contractor.

§ 2.2.2 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.

§ 2.2.3 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.

§ 2.2.4 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.

§ 2.2.5 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.

### § 2.3 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.

### § 2.4 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 written 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 deficiencies. In such case an appropriate Change Order shall be issued deducting from payments then or thereafter due the Contractor 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. Such action by the Owner and amounts charged to the Contractor are both subject to prior approval of the Architect. If payments then or thereafter due the Contractor are not sufficient to cover such amounts, the Contractor shall pay the difference to the Owner.

## 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 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 2.2.3, shall take field measurements of any existing conditions related to that portion of the Work, and shall observe any conditions at the site affecting it. These obligations are for the purpose of facilitating coordination and construction by the Contractor and are not for the purpose of discovering errors, omissions, or inconsistencies in the Contract Documents; however, the Contractor shall promptly report to the Architect any errors, inconsistencies or omissions discovered by or made known to the Contractor as a request for information in such form as the Architect may require. It is recognized that the Contractor's review is made in the Contractor's capacity as a contractor and not as a licensed design professional, unless otherwise specifically provided in the Contract Documents.

§ 3.2.3 The Contractor is not required to ascertain that the Contract Documents are in accordance with applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, but the Contractor shall promptly report to the Architect any nonconformity discovered by or made known to the Contractor as a request for information in such form as the Architect may require.

§ 3.2.4 If the Contractor believes that additional cost or time is involved because of clarifications or instructions the Architect issues in response to the Contractor's notices or requests for information pursuant to Sections 3.2.2 or 3.2.3, the Contractor shall make 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 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, unless the Contract Documents give other specific instructions concerning these matters. If the Contract Documents give specific instructions concerning construction means, methods, techniques, sequences or procedures, the Contractor shall evaluate the jobsite safety thereof and, except as stated below, shall be fully and 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 written notice to the Owner and Architect and shall not proceed with that portion of the Work without further written instructions from the Architect. If the Contractor is then instructed to proceed with the required means, methods, techniques, sequences or procedures without acceptance of changes proposed by the Contractor, the Owner shall be solely responsible for any loss or damage arising solely from those Owner-required 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 authorized by the Architect in accordance with Sections 3.12.8 or 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

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.

### § 3.6 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 21 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 an equitable adjustment 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 in writing, stating the reasons. If either party disputes the Architect's determination or recommendation, that party may proceed 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 furnish in writing to the Owner through the Architect the name and qualifications of a proposed superintendent. The Architect may reply within 14 days to the Contractor in writing stating (1) whether the Owner or the Architect has reasonable objection to the proposed superintendent or (2) that the Architect requires additional time to review. Failure of the Architect to reply 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 SCHEDULES

§ 3.10.1 The Contractor, promptly after being awarded the Contract, shall prepare and submit for the Owner's and Architect's information a Contractor's construction schedule for the Work. The schedule shall not exceed time limits current under the Contract Documents, shall be revised at appropriate intervals as required by the conditions of the Work and Project, shall be related to the entire Project to the extent required by the Contract Documents, and shall provide for expeditious and practicable execution of the Work.

§ 3.10.2 The Contractor shall prepare a submittal schedule, promptly after being awarded the Contract and thereafter as necessary to maintain a current submittal schedule, and shall submit the schedule(s) for the Architect's approval. The Architect's approval shall not unreasonably be 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, 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 maintain at the site for the Owner one copy of the Drawings, Specifications, Addenda, Change Orders and other Modifications, in good order and marked currently to indicate field changes and selections made during construction, and one copy of approved Shop Drawings, Product Data, Samples and similar required submittals. These shall be available to the Architect and shall be 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 the way by which 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 requirements of the Contract Documents by the Architect's approval of Shop Drawings, Product Data, Samples or similar submittals unless the Contractor has specifically informed the Architect in writing 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 written 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. 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 cause such services or certifications to be provided by a properly 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, accuracy and

completeness of the services, certifications and approvals performed or provided by such design professionals, provided the Owner and Architect have specified to the Contractor all performance and design criteria that such services must satisfy. Pursuant to this Section 3.12.10, the Architect will review, 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. The Contractor shall not be responsible for the adequacy of the performance and design criteria specified in the Contract Documents.

### **§ 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, and 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 and patching shall be restored to the condition existing prior to the cutting, fitting and 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 such construction by the Owner or a separate contractor except with written consent of the Owner and of such separate contractor; such consent shall not be unreasonably withheld. The Contractor shall not unreasonably withhold from the Owner or a separate contractor the Contractor's 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 or 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 Owner shall be entitled to reimbursement from the Contractor.

### **§ 3.16 ACCESS TO WORK**

The Contractor shall provide the Owner and Architect 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 such 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 the Contractor has reason to believe that the required design, process or product is an infringement of a copyright or a patent, the Contractor shall be responsible for such loss unless such information is promptly furnished to the Architect.

### **§ 3.18 INDEMNIFICATION**

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

§ 3.18.2 In claims against any person or entity indemnified under this Section 3.18 by an employee of the Contractor, a Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, the indemnification obligation under Section 3.18.1 shall not be limited by a limitation on amount or type of damages, compensation or benefits payable by or for the Contractor or a Subcontractor under workers' compensation acts, disability benefit acts or other employee benefit acts.

## ARTICLE 4 ARCHITECT

### § 4.1 GENERAL

§ 4.1.1 The 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.

§ 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.

§ 4.1.3 If the employment of the Architect is terminated, the Owner shall employ a successor architect as to whom the Contractor has no reasonable objection and whose status under the Contract Documents shall be that of the Architect.

### § 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, except as provided in Section 3.3.1.

§ 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 report to the Owner (1) known deviations from the Contract Documents and from the most recent construction schedule submitted by the Contractor, and (2) 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 FACILITATING CONTRACT ADMINISTRATION

Except as otherwise provided in the Contract Documents or when direct communications have been specially authorized, the Owner and Contractor shall endeavor to communicate with each other through the Architect about matters arising out of or relating to the Contract. Communications by and with the Architect's consultants shall be through the Architect. Communications by and with Subcontractors and material suppliers shall be through the Contractor. Communications by and with separate contractors shall be through the Owner.

§ 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 13.5.2 and 13.5.3, whether or not such 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, material and equipment 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, unless otherwise specifically stated by the Architect, 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 authorize 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 duties, responsibilities and limitations of authority of such project representatives shall be as set forth in an exhibit to be incorporated in the Contract Documents.

§ 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 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 or the bidding requirements, the Contractor, as soon as practicable after award of the Contract, shall furnish in writing to the Owner through the Architect the names of persons or entities (including those who are to furnish materials or equipment fabricated to a special design) proposed for each principal portion of the Work. The Architect may reply within 14 days to the Contractor in writing stating (1) whether the Owner or the Architect has reasonable objection to any such proposed person or entity or (2) that the Architect requires additional time for review. Failure of the Owner or Architect to reply 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 previously selected if the Owner or Architect makes reasonable objection to such substitution.

## § 5.3 SUBCONTRACTUAL RELATIONS

By appropriate agreement, written where legally required for validity, 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, which the Contractor, by these 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 in writing; 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 such 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 Owner reserves the right to perform construction or operations related to the Project with the Owner's own forces, and to award separate contracts in connection with other portions of the Project or other construction or operations on the site under Conditions of the Contract identical or substantially similar to these including those portions related to insurance and waiver of subrogation. If the Contractor claims that delay or additional cost is involved because of such action by the Owner, the Contractor shall make such Claim as provided in Article 15.

**§ 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 other separate contractors and the Owner in reviewing their construction schedules. The Contractor shall make any revisions to the 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, the Owner shall be deemed to be subject to the same obligations and to have the same rights that apply to the Contractor 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 report to the Architect apparent discrepancies or defects in such other construction that would render it unsuitable for such proper execution and results. Failure of the Contractor so to report 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, except as to defects not then reasonably discoverable.

**§ 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 the Contractor wrongfully causes to completed or partially completed construction or to property of the Owner or separate contractors 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, and the Contractor shall proceed promptly, 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 7.3.7.

§ 7.3.4 If unit prices are stated in the Contract Documents or subsequently agreed upon, and if quantities originally contemplated are materially changed in a proposed Change Order or Construction Change Directive so that application of such unit prices to quantities of Work proposed will cause substantial inequity to the Owner or Contractor, the applicable unit prices shall be equitably adjusted.

§ 7.3.5 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.

§ 7.3.6 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.

§ 7.3.7 If the Contractor does not respond promptly or disagrees with the method for adjustment in the Contract Sum, the Architect shall determine the method and 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 7.3.7 shall be limited to the following:

- .1 Costs of labor, including social security, old age and unemployment insurance, fringe benefits required by agreement or custom, and workers' compensation insurance;
- .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 related to the Work; and
- .5 Additional costs of supervision and field office personnel directly attributable to the change.

§ 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 has authority to order minor changes in the Work not involving adjustment in the Contract Sum or extension of the Contract Time and not inconsistent with the intent of the Contract Documents. Such changes will be effected by written order signed by the Architect and shall be binding on the Owner and Contractor.

### 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, prematurely commence operations on the site or elsewhere prior to the effective date of insurance required by Article 11 to be furnished by the Contractor and Owner. The date of commencement of the Work shall not be changed by the effective date of such insurance.

§ 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 an act or neglect of the Owner or Architect, or of an employee of either, or of a separate contractor employed by the Owner; or by changes ordered in the Work; or by labor disputes, fire, unusual delay in deliveries, unavoidable casualties or other causes beyond the Contractor's control; or by delay authorized by the Owner pending mediation and arbitration; or by other causes that the Architect determines may justify delay, then the Contract Time shall be extended by Change Order 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

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.

### § 9.2 SCHEDULE OF VALUES

Where the Contract is based on a stipulated sum or Guaranteed Maximum Price, the Contractor shall submit to the Architect, before the first Application for Payment, a schedule of values allocating the entire Contract Sum to the various portions of the Work and prepared in such form and supported by such data to substantiate its accuracy as the Architect may require. This schedule, unless objected to by the Architect, shall be used as a basis for reviewing the Contractor's 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. Such application shall be notarized, if required, and supported by such data substantiating the Contractor's right to payment as the Owner or Architect may require, such as copies of requisitions from Subcontractors and material 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 material 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, material suppliers, or other persons or entities making a claim by reason of having 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 issue to the Owner a Certificate for Payment, with a copy to the Contractor, for such amount as the Architect determines is properly due, or notify the Contractor and Owner in writing of the Architect's reasons for withholding certification in whole or in part 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 comprising the Application for Payment, that, to the best of the Architect's knowledge, information and belief, the Work has progressed to the point indicated and that the quality of the Work is in accordance with the Contract Documents. 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. The issuance of a Certificate for Payment will further constitute a representation that the Contractor is entitled to payment in the amount certified. 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 material 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 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 the above reasons for withholding certification are removed, certification will be made for amounts previously withheld.

§ 9.5.3 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 material or equipment suppliers 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 Architect will reflect such payment on the next Certificate 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 material and equipment 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 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, except as may otherwise be required by law.

§ 9.6.5 Contractor payments to material and equipment 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 and 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, shall create any fiduciary liability or tort liability on the part of the Contractor for breach of trust or shall entitle any person or entity to an award of punitive damages against the Contractor for breach of the requirements of this provision.

#### § 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' written 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 shut-down, 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, shall establish responsibilities of the Owner and Contractor for security, maintenance, heat, utilities, damage to the Work and insurance, and shall 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 such Certificate. Upon such acceptance and consent of surety, if any, the Owner shall make payment of retainage applying to such 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 as required under Section 11.3.1.5 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 written 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 and, 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 terms and conditions of 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 and will not be canceled or allowed to expire until at least 30 days' prior written notice has been given to the Owner, (3) a written statement that the Contractor knows of no substantial 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 and (5), if required by the Owner, other data establishing payment or satisfaction of obligations, such as receipts, 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. If such lien 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 such lien, 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 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 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; or
- .3 terms of special warranties required by the Contract Documents.

§ 9.10.5 Acceptance of final payment by the Contractor, a Subcontractor or material 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 or the Contractor's Subcontractors or Sub-subcontractors; 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 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 owners and users of adjacent sites and utilities.

§ 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, except damage or loss 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, written notice of such 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

§ 10.3.1 The Contractor is responsible for compliance with any requirements included in the Contract Documents regarding hazardous materials. 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 report the condition to the Owner and Architect in writing.

§ 10.3.2 Upon receipt of the Contractor's written 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 such material or substance or who are to perform the task of removal or safe containment of such 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 in the amount of the Contractor's reasonable additional costs of shut-down, 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 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 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 indemnify the Owner for the cost and expense the Owner incurs (1) for remediation of a material or substance 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 indemnify 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 LIABILITY INSURANCE

§ 11.1.1 The Contractor shall purchase from and maintain in a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located such insurance as will protect the Contractor from claims set forth below which may arise out of or result from the Contractor's operations and completed operations under the Contract and for which the Contractor may be legally liable, whether such operations be by the Contractor or by a Subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable:

- .1 Claims under workers' compensation, disability benefit and other similar employee benefit acts that are applicable to the Work to be performed;
- .2 Claims for damages because of bodily injury, occupational sickness or disease, or death of the Contractor's employees;
- .3 Claims for damages because of bodily injury, sickness or disease, or death of any person other than the Contractor's employees;
- .4 Claims for damages insured by usual personal injury liability coverage;
- .5 Claims for damages, other than to the Work itself, because of injury to or destruction of tangible property, including loss of use resulting therefrom;
- .6 Claims for damages because of bodily injury, death of a person or property damage arising out of ownership, maintenance or use of a motor vehicle;
- .7 Claims for bodily injury or property damage arising out of completed operations; and
- .8 Claims involving contractual liability insurance applicable to the Contractor's obligations under Section 3.18.

§ 11.1.2 The insurance required by Section 11.1.1 shall be written for not less than limits of liability specified in the Contract Documents or required by law, whichever coverage is greater. Coverages, whether written on an occurrence or claims-made basis, shall be maintained without interruption from the date of commencement of the Work until the date of final payment and termination of any coverage required to be maintained after final payment, and, with respect to the Contractor's completed operations coverage, until the expiration of the period for correction of Work or for such other period for maintenance of completed operations coverage as specified in the Contract Documents.

§ 11.1.3 Certificates of insurance acceptable to the Owner shall be filed with the Owner prior to commencement of the Work and thereafter upon renewal or replacement of each required policy of insurance. These certificates and the insurance policies required by this Section 11.1 shall contain a provision that coverages afforded under the policies will not be canceled or allowed to expire until at least 30 days' prior written notice has been given to the Owner. An additional certificate evidencing continuation of liability coverage, including coverage for completed operations, shall be submitted with the final Application for Payment as required by Section 9.10.2 and thereafter upon renewal or replacement of such coverage until the expiration of the time required by Section 11.1.2. Information concerning reduction of coverage on account of revised limits or claims paid under the General Aggregate, or both, shall be furnished by the Contractor with reasonable promptness.

§ 11.1.4 The Contractor shall cause the commercial liability coverage required by the Contract Documents to include (1) the Owner, the Architect and the Architect's consultants as additional insureds for claims caused in whole or in part by the Contractor's negligent acts or omissions during the Contractor's operations; and (2) the Owner as an additional insured for claims caused in whole or in part by the Contractor's negligent acts or omissions during the Contractor's completed operations.

### § 11.2 OWNER'S LIABILITY INSURANCE

The Owner shall be responsible for purchasing and maintaining the Owner's usual liability insurance.

### § 11.3 PROPERTY INSURANCE

§ 11.3.1 Unless otherwise provided, the Owner shall purchase and maintain, in a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located, property insurance written on a builder's risk "all-risk" or equivalent policy form in the amount of the initial Contract Sum, plus value of subsequent Contract Modifications and cost of materials supplied or installed by others, comprising total value for the entire Project at the site on a replacement cost basis without optional deductibles. Such property insurance shall be maintained, unless otherwise provided in the Contract Documents or otherwise agreed in writing by all persons and entities who are beneficiaries of such insurance, until final payment has been made as provided in Section 9.10 or until no person or entity other than the Owner has an insurable interest in the property required by this Section 11.3 to be covered, whichever is later. This insurance shall include interests of the Owner, the Contractor, Subcontractors and Sub-subcontractors in the Project.

§ 11.3.1.1 Property insurance shall be on an "all-risk" or equivalent policy form and shall include, without limitation, insurance against the perils of fire (with extended coverage) and physical loss or damage including, without duplication of coverage, theft, vandalism, malicious mischief, collapse, earthquake, flood, windstorm, falsework, testing and startup, temporary buildings and debris removal including demolition occasioned by enforcement of any applicable legal requirements, and shall cover reasonable compensation for Architect's and Contractor's services and expenses required as a result of such insured loss.

§ 11.3.1.2 If the Owner does not intend to purchase such property insurance required by the Contract and with all of the coverages in the amount described above, the Owner shall so inform the Contractor in writing prior to commencement of the Work. The Contractor may then effect insurance that will protect the interests of the Contractor, Subcontractors and Sub-subcontractors in the Work, and by appropriate Change Order the cost thereof shall be charged to the Owner. If the Contractor is damaged by the failure or neglect of the Owner to purchase or maintain insurance as described above, without so notifying the Contractor in writing, then the Owner shall bear all reasonable costs properly attributable thereto.

§ 11.3.1.3 If the property insurance requires deductibles, the Owner shall pay costs not covered because of such deductibles.

§ 11.3.1.4 This property insurance shall cover portions of the Work stored off the site, and also portions of the Work in transit.

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

### § 11.3.2 BOILER AND MACHINERY INSURANCE

The Owner shall purchase and maintain boiler and machinery insurance required by the Contract Documents or by law, which shall specifically cover such insured objects during installation and until final acceptance by the Owner; this insurance shall include interests of the Owner, Contractor, Subcontractors and Sub-subcontractors in the Work, and the Owner and Contractor shall be named insureds.

### § 11.3.3 LOSS OF USE INSURANCE

The Owner, at the Owner's option, may purchase and maintain such insurance as will insure the Owner against loss of use of the Owner's property due to fire or other hazards, however caused. The Owner waives all rights of action against the Contractor for loss of use of the Owner's property, including consequential losses due to fire or other hazards however caused.

§ 11.3.4 If the Contractor requests in writing that insurance for risks other than those described herein or other special causes of loss be included in the property insurance policy, the Owner shall, if possible, include such insurance, and the cost thereof shall be charged to the Contractor by appropriate Change Order.

§ 11.3.5 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, the Owner shall waive all rights in accordance with the terms of Section 11.3.7 for damages caused by fire or other causes of loss covered by this separate property insurance. All separate policies shall provide this waiver of subrogation by endorsement or otherwise.

§ 11.3.6 Before an exposure to loss may occur, the Owner shall file with the Contractor a copy of each policy that includes insurance coverages required by this Section 11.3. Each policy shall contain all generally applicable conditions, definitions, exclusions and endorsements related to this Project. Each policy shall contain a provision that the policy will not be canceled or allowed to expire, and that its limits will not be reduced, until at least 30 days' prior written notice has been given to the Contractor.

#### § 11.3.7 WAIVERS OF SUBROGATION

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, and (2) the Architect, Architect's consultants, separate contractors described in Article 6, 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 covered by property insurance obtained pursuant to this Section 11.3 or other property insurance applicable to the Work, except such rights as they have to proceeds of such insurance held by the Owner as fiduciary. The Owner or Contractor, as appropriate, shall require of the Architect, Architect's consultants, separate contractors described in Article 6, if any, and the subcontractors, sub-subcontractors, agents and employees of any of them, by appropriate agreements, written where legally required for validity, similar waivers each in favor of other parties enumerated herein. The policies shall provide such waivers of subrogation by endorsement or otherwise. A waiver of subrogation shall be effective as to a person or entity even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, did not pay the insurance premium directly or indirectly, and whether or not the person or entity had an insurable interest in the property damaged.

§ 11.3.8 A loss insured under the Owner's property insurance 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 11.3.10. The Contractor shall pay Subcontractors their just shares of insurance proceeds received by the Contractor, and by appropriate agreements, written where legally required for validity, shall require Subcontractors to make payments to their Sub-subcontractors in similar manner.

§ 11.3.9 If required in writing by a party in interest, the Owner as fiduciary shall, upon occurrence of an insured loss, give bond for proper performance of the Owner's duties. The cost of required bonds shall be charged against proceeds received as fiduciary. The Owner shall deposit in a separate account proceeds so received, which the Owner shall distribute in accordance with such agreement as the parties in interest may reach, or as determined in accordance with the method of binding dispute resolution selected in the Agreement between the Owner and Contractor. If after such loss no other special agreement is made and unless the Owner terminates the Contract for convenience, replacement of damaged property shall be performed by the Contractor after notification of a Change in the Work in accordance with Article 7.

§ 11.3.10 The Owner as fiduciary shall have power to adjust and settle a loss with insurers unless one of the parties in interest shall object in writing within five days after occurrence of loss to the Owner's exercise of this power; if such objection is made, the dispute shall be resolved in the manner selected by the Owner and Contractor as the method of binding dispute resolution in the Agreement. If the Owner and Contractor have selected arbitration as the method of binding dispute resolution, the Owner as fiduciary shall make settlement with insurers or, in the case of a dispute over distribution of insurance proceeds, in accordance with the directions of the arbitrators.

#### § 11.4 PERFORMANCE BOND AND PAYMENT BOND

§ 11.4.1 The Owner shall have the right to require the Contractor to furnish bonds covering faithful performance of the Contract and payment of obligations arising thereunder as stipulated in bidding requirements or specifically required in the Contract Documents on the date of execution of the Contract.

§ 11.4.2 Upon the request of any person or entity appearing to be a potential beneficiary of bonds covering payment of obligations arising under the Contract, the Contractor shall promptly furnish a copy of the bonds or shall authorize a copy to be furnished.

## 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, costs of uncovering and replacement shall, by appropriate Change Order, be at the Owner's expense. If such Work is not in accordance with the Contract Documents, such costs and the cost of correction shall be at the Contractor's expense unless the condition was caused by the Owner or a separate contractor in which event the Owner shall be responsible for payment of such costs.

### § 12.2 CORRECTION OF WORK

#### § 12.2.1 BEFORE OR AFTER SUBSTANTIAL COMPLETION

The Contractor shall promptly correct Work rejected by the Architect or failing to conform to the requirements of the Contract Documents, whether discovered before or after 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 an 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 written 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 2.4.

§ 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, whether completed or partially completed, of the Owner or separate contractors 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 except that, 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 such 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 such assignment.

### § 13.3 WRITTEN NOTICE

Written notice shall be deemed to have been duly served if delivered in person to the individual, to a member of the firm or entity, or to an officer of the corporation for which it was intended; or if delivered at, or sent by registered or certified mail or by courier service providing proof of delivery to, the last business address known to the party giving notice.

### § 13.4 RIGHTS AND REMEDIES

§ 13.4.1 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.

§ 13.4.2 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 there under, except as may be specifically agreed in writing.

### § 13.5 TESTS AND INSPECTIONS

§ 13.5.1 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 (1) tests, inspections or approvals that do not become requirements until after bids are received or negotiations concluded, and (2) tests, inspections or approvals where building codes or applicable laws or regulations prohibit the Owner from delegating their cost to the Contractor.

§ 13.5.2 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 13.5.1, 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 13.5.3, shall be at the Owner's expense.

§ 13.5.3 If such procedures for testing, inspection or approval under Sections 13.5.1 and 13.5.2 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.

§ 13.5.4 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.

§ 13.5.5 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.

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

### § 13.6 INTEREST

Payments due and unpaid under the Contract Documents shall bear interest from the date payment is due at such rate as the parties may 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.

### § 13.7 TIME LIMITS ON CLAIMS

The Owner and Contractor shall commence all claims and causes of action, whether in contract, tort, breach of warranty or otherwise, against the other arising out of or related to the Contract in accordance with the requirements of the final dispute resolution method selected in the Agreement within the time 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 13.7.

## 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 or a Subcontractor, Sub-subcontractor or their agents or employees or any other persons or entities performing portions of the Work under direct or indirect contract with the Contractor, 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 promptly, upon the Contractor's request, reasonable evidence as required by Section 2.2.1.

§ 14.1.2 The Contractor may terminate the Contract if, through no act or fault of the Contractor or a Subcontractor, Sub-subcontractor or their agents or employees or any other persons or entities performing portions of the Work under direct or indirect contract with the Contractor, 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' written notice to the Owner and Architect, terminate the Contract and recover from the Owner payment for Work executed, including reasonable overhead and profit, costs incurred by reason of such termination, and damages.

§ 14.1.4 If the Work is stopped for a period of 60 consecutive days through no act or fault of the Contractor or a Subcontractor or their agents or employees or any other persons performing portions of the Work under contract with the Contractor 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' written 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 for materials or labor in accordance with the respective agreements between the Contractor and the Subcontractors;
- .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 above reasons exist, the Owner, upon certification by the Initial Decision Maker that sufficient cause exists to justify such action, 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' written 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 as described in 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 written 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 Contractor shall be entitled to receive payment for Work executed, and costs incurred by reason of such termination, along with reasonable overhead and profit on the Work not executed.

## 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, 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.

#### § 15.1.2 NOTICE OF CLAIMS

Claims by either the Owner or Contractor must be initiated by written 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 must 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 CONTINUING CONTRACT PERFORMANCE

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. The Architect will prepare Change Orders and issue Certificates for Payment in accordance with the decisions of the Initial Decision Maker.

#### § 15.1.4 CLAIMS FOR ADDITIONAL COST

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

#### § 15.1.5 CLAIMS FOR ADDITIONAL TIME

§ 15.1.5.1 If the Contractor wishes to make a Claim for an increase in the Contract Time, written notice as provided herein 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.

§ 15.1.5.2 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.

#### § 15.1.6 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 15.1.6 shall be deemed to preclude an award of liquidated damages, when applicable, in accordance with the requirements of the Contract Documents.

### § 15.2 INITIAL DECISION

§ 15.2.1 Claims, excluding those arising under Sections 10.3, 10.4, 11.3.9, and 11.3.10, 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 arising prior to the date final payment is due, unless 30 days have passed after the Claim has been referred to the Initial Decision Maker with no 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 such 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 an initial decision, demand in writing that the other party file for mediation within 60 days of the initial decision. If such a demand is made and the party receiving the demand fails to file for mediation within the time required, 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 15.1.6 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 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. 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 Either party, at its sole discretion, 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 Either party, at its sole discretion, 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 the Owner and Contractor under this Agreement.

**DOCUMENT 00 73 00**  
**SUPPLEMENTARY CONDITIONS**  
**FOR GENERAL CONDITIONS FOR THE CONTRACT FOR CONSTRUCTION**

**PART 1 GENERAL**

The following supplements modify, change, delete from or add to AIA Document A201, General Conditions of the Contract for Construction 2007 Edition. Where any part of the AIA General Conditions is amended, voided, or superseded by the Supplementary Conditions, the unaltered provisions shall remain in effect.

**1.1 ARTICLE 1 GENERAL PROVISIONS**

**A. BASIC DEFINITIONS**

1. Add the following Subparagraphs:

1.1.9 ARCHITECT/ENGINEER

Where the term ARCHITECT is used in the Bidding documents, Contract documents, Addenda, Change Orders or other documents related to this contract it shall be defined as either "Architect" or "Engineer" depending upon which design professional has prepared the document in question. When the project has been designed and initiated under the direction of a licensed engineer, the term ENGINEER shall be substituted for the term "Architect" throughout all documents.

1.1.10 MISCELLANEOUS DEFINITIONS

- .1 "Provide:" Furnish and install, or furnish labor and materials required for installation, ready for use and in accordance with the Contract Documents.
- .2 "As shown:" As indicated, as detailed, as noted, or words of similar import refer to Contract Documents.
- .3 "Selected:" As selected by the Architect.
- .4 "Approved:" Approved by Architect.
- .5 "For Approval:" For the Architect's approval.

**B. CORRELATION AND INTENT OF THE CONTRACT DOCUMENTS**

1. Add the following to Subparagraph 1.2.1:

1.2.1.1 In the event of conflicts or discrepancies among the Contract Documents, interpretations will be based on the following priorities.

1. The Agreement.
2. Addenda, with those of later date having precedence over those of earlier date.
3. The Supplementary Conditions.
4. The General Conditions of the Contract for Construction.
5. Division 1 of the Specifications.
6. Drawings and Divisions 2- 49 of the Specifications.

In the case of conflicts or discrepancies between Drawings and Divisions 2- 49 of the Specifications or within either Document not clarified by Addendum, the Architect will determine which takes precedence in accordance with Subparagraph 4.2.11.

2. Add the following Subparagraphs:

1.2.4 If work is required in such 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, the Contractor will thereafter be expected to carry out work in satisfactory manner.

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1.2.5 Reference to codes, standard specifications, or other standards means and intends latest edition of such documents and/or adopted as of bid date. Where brand name products are specified and no installation instructions given herein, install product in accordance with the manufacturer's specifications and instructions, latest edition.

1.2.6 No provision of any reference standard specification, manual or code shall change the privileges or responsibilities of Owner, Architect, or Contractor, or any of their consultants, agents or employees from those set forth in the Contract Documents, nor shall it be effective to assign to Architect, or any of Architect's consultants, agents or employees, any duty or authority to supervise or direct the furnishing or performance of the work or any duty or authority to undertake responsibility contrary to the provision of the Contract Documents.

1.2.7 Sections of Division 1, General Requirements govern the execution of all sections of the specifications.

**1.2 ARTICLE 2 OWNER**

**A. 2.1 GENERAL**

1. Add the following Subparagraph:

2.1.3 The Owner is the Eugene School District 4J, 200 North Monroe Street, Eugene, Oregon 97402, (541) 790-7417.

The Owner's representative is Larry Massey, Phone: (541) 790-7428, 715 West Fourth Avenue, Eugene, OR 97402.

**B. INFORMATION AND SERVICES REQUIRED OF THE OWNER**

1. Delete Subparagraph 2.2.5 and substitute the following:

2.2.5 The Contractor will be furnished free of charge up to 6 copies of the Contract Documents. The Owner will furnish additional copies requested by the Contractor at the cost of reproduction, postage and handling.

**1.3 ARTICLE 3 CONTRACTOR**

**A. 3.1 GENERAL**

1. Delete the second sentence to Subparagraph 3.1.1, and add the following:

The Contractor and each subcontractor shall maintain for the duration of the Project a registration with the Oregon State Construction Contractor's Board.

2. Add the following Subparagraph 3.1.4

3.1.4 The Contractor is required to demonstrate that an employee drug testing program is in place.

3. Add the following Subparagraph 3.1.5

3.1.5 The Contractor certifies that the Contractor is not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in this Contract by any Federal department or agency. If requested by the Eugene 4J School District, the Contractor shall complete a Certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion form. Any such form completed by the Contractor for this Contract shall be incorporated into this Contract by reference.

**B. 3.2 REVIEW OF CONTRACT DOCUMENTS AND FIELD CONDITIONS BY CONTRACTOR**

1. Delete the last sentence to Subparagraph 3.2.4, and add the following:

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, unless the Contractor recognized such error, inconsistency, omission or difference and knowingly failed to report it to the Architect.

C. 3.3 SUPERVISION AND CONSTRUCTION PROCEDURES

1. Add the following Subparagraphs:

3.3.4 The Contractor shall review with all Subcontractors, construction means, 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.

3.3.5 The Contractor shall comply with the provisions of Oregon Revised Statutes and 4J Board Policy. Attention is directed to ORS 279A and 279C, Public Contracting Code.

D. 3.4 LABOR AND MATERIALS

1. Add the following Subparagraphs:

3.4.4 PAYMENT OF LABORERS AND MATERIALMEN, CONTRIBUTIONS TO INDUSTRIAL ACCIDENT FUND, LIENS AND WITHHOLDING TAXES: The Contractor shall: (1) Make payment promptly, as due, to all persons supplying to such contractor labor or material for the prosecution of the Work provided for in such contract. (2) Pay all contributions or amounts due the Industrial Accident Fund from such Contractor or subcontractor incurred in the performance of the contract. (3) Not permit any lien or claim to be filed or prosecuted against the state, county, school district, municipality, municipal corporation or subdivision thereof, on account of any labor or material furnished. (4) Pay to the Department of Revenue all sums withheld from employees pursuant to ORS 316.167.

3.4.5 HOURS OF LABOR: No person shall be employed for more than ten hours in any one day, or 40 hours in any one week, except in the cases of necessity, emergency, or where the public policy absolutely requires it, and in such cases the person so employed shall be paid at least time and a half of the regular pay for all time worked.

.1 For all overtime in excess of eight hours a day or 40 hours in any one week when the work week is five consecutive days, Monday through Friday; or

.2 For all overtime in excess of 10 hours a day or 40 hours in any one week when the work week is four consecutive days, Monday through Friday; and

.3 For all work performed on Saturday and on any legal holiday specified in ORS 279C.540.

.4 Worker claims for overtime, in order to be considered, must be filed with the Contractor within 90 days from the completion of the contract, in accordance with ORS 279C.545.

The Contractor shall give notice to employees who work on a public contract in writing, either at the time of hire or before commencement of work on the contract, or by posting a notice in a location frequented by employees, of the number of hours per day and days per week the employees may be required to work.

3.4.6 PAYMENT FOR MEDICAL CARE AND PROVIDING WORKERS' COMPENSATION: The 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 the employees of such Contractor, of all sums which the Contractor agrees to pay for such services and all moneys 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. All employers working under this contract are subject employers and must comply with ORS 656.017.

3.4.7 PREVAILING WAGE RATES: When the total price of the Project is \$50,000 or more, each worker in each trade or occupation employed in the performance of this Contract either by the contractor, subcontractor or other person doing or contracting to do contracting for the whole or any part of the Work on the Contract shall be paid not less than the applicable state prevailing rate of wage. This provision applies to all contracts, regardless of the price of the individual contract, as long as the combined price of all contracts awarded on the Project is \$50,000 or more.

a. The existing Oregon prevailing rate of wage in effect at the time the specifications are first advertised for bid solicitations is the applicable rate.

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- b. The Owner will pay the public works fee to Oregon Bureau of Labor and Industries.
- c. Certification of rate or wage by Contractor or Subcontractor (ORS 279C.845):
  - .1 The contractor or the contractor's surety and every subcontractor or the subcontractor's surety shall file certified statements with the public agency in writing, on a form prescribed by the Commissioner of the Bureau of Labor and Industries, certifying the hourly rate of wage paid each worker whom the contractor or the subcontractor has employed upon the public works, and further certifying that no worker employed upon the public works has been paid less than the higher of the applicable state or federal prevailing rate of wage or less than the minimum hourly rate of wage specified in the contract. The certificate and statement shall be verified by the oath of the contractor or the contractor's surety or subcontractor or the subcontractor's surety that the contractor or subcontractor has read the statement and certificate and knows the contents thereof and that the same is true to the contractor or subcontractor's knowledge. The certified statements shall set out accurately and completely the payroll records for the prior week, including the name and address of each worker, the worker's correct classification, rate of pay, daily and weekly number of hours worked, deductions made, and actual wages paid.
  - .2 If the Contractor does not file certified payroll as required (at least once per month) the Owner will withhold 25% of the amounts due the Contractor, in addition to any other required retainage.
  - .3 If a first-tier Subcontractor does not file certified payroll reports as required, the prime Contractor shall withhold 25% of amounts due the first-tier Subcontractor.
  - .4 Each certified statement required by subsection (1) of this section shall be delivered or mailed by the contractor or subcontractor to the public contracting agency. Certified statements shall be submitted to the public contracting agency once a month by the fifth business day of the following month, for each week workers are employed. Information submitted on certified statements may be used only to ensure compliance with the provisions of ORS 279C.800 to 279C.870.
  - .5 Each contractor or subcontractor shall preserve the certified statements for a period of three years from the date of completion of the contract.
  - .6 Certified statements received by a public agency are public records subject to the provisions of ORS 192.410 to 192.505. As such, they must be made available upon request.

3.4.8 PAYMENT OF CLAIMS BY PUBLIC OFFICERS: If the Contractor fails, neglects or refuses to make prompt payment of any claims for labor or services furnished to the Contractor or a subcontractor by any person in connection with this Contract as such claim becomes due, the Owner may pay such claim and charge the amount of the payment against funds due or to become due the Contractor by reason of this Contract.

3.4.9 PAYMENT FOR MEDICAL CARE AND PROVIDING WORKERS' COMPENSATION: The 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 the employees of such Contractor, of all sums which the Contractor agrees to pay for such services and all moneys 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.

3.4.10 Any person owed for labor or material by a subcontractor or Contractor may file a complaint with the Construction Contractors Board in accordance with ORS 279C.515(3).

**E. 3.7 PERMITS, FEES AND NOTICES**

- 1. Delete Subparagraph 3.7.1, and substitute the following:

3.7.1 The OWNER will pay the plan check fee, building permit fee, and systems development charges directly to the authority having jurisdiction.

The CONTRACTOR shall pay for all other permits, fees, licenses and inspections necessary for the proper execution and completion of the Work which are customarily secured after execution of the

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Contract and which are legally required when bids are received or negotiations concluded. The Contractor shall pick up permits and call for inspections through final inspection, as required by the City Building Department.

**F. 3.12 SHOP DRAWINGS, PRODUCT DATA AND SAMPLES**

1. Add the following to Subparagraph 3.12.5:

Submittals which are not marked as reviewed for compliance with the Contract Documents and approved by the Contractor may be returned by the Architect without action.

2. Add the following to Subparagraph 3.12.9:

Shop drawings that are submitted to the Architect for review do not constitute "in writing" unless it is brought to the attention of the Architect, in written form, that specific changes are being suggested. In any event, changes to the contract documents by means of shop drawings become the responsibility of the person initiating such changes.

**G. 3.18 INDEMNIFICATION**

1. Delete Subparagraph 3.18.1, and substitute the following:

13.18.1 To the fullest extent of the law, the Contractor will defend, indemnify, hold harmless and reimburse the Eugene School District 4J (including its officers, board members, agents, and employees) from all claims, demands, suits, actions, penalties, and damage expenses, for liability of any kind including attorney's fees. To the extent that death or bodily injury to persons or damage to property arises out of the fault of the Contractor, the Contractor's indemnity obligation exists only to the extent that the death or bodily injury to persons or damage to property arises out of the fault of the Contractor, or the fault of the Contractor's agents, representatives or subcontractors, contributed to or caused such damage, whether or not such incidents are contributed to or caused in any part by Eugene School District 4J.

**1.4 ARTICLE 4 ARCHITECT**

**A. 4.1 GENERAL**

1. Modify Paragraph 4.1.1

- a. In the first sentence delete "shall retain" and insert "may have retained" in it's place.
- b. Add sentence: "The term "Architect" means the Architect or the Architect's authorized representative."

2. Add the following to Subparagraph 4.1.2:

Written consent of the Contractor shall only apply to those items which directly or indirectly affect the work of the Contractor.

3. Add the following Subparagraph:

In the first sentence delete "shall" and insert "may" in its place.

4. Add the following Subparagraph:

4.1.4 The Architect is defined as: gLAs Architects, LLC, 1415 Pearl Street, Eugene, OR 97401, Phone: (541) 686-2014.

**B. 4.2 ADMINISTRATION OF THE CONTRACT**

1. Add the following sentence to 4.2.1:

The architect may be retained to administer the Contract through the specified period for correction of the Work described in Section 12.2

2. Add the following to Subparagraph 4.2.4:

4.2.4.1 The Owner may communicate directly with the Contractor when necessary or appropriate. The Owner may give direction to the Contractor in matters related to access to the site, coordination with Owner's occupancy and use by the public, use of parking and staging areas, use of potentially hazardous

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products, drug and alcohol policy, no smoking policy, appropriate dress and behavior, safety requirements and safe work practices, where appropriate. The Owner will advise the Architect regarding any communication with or direction given to the Contractor.

4.2.4.2 Representatives of the Owner, Contractor and Architect shall meet periodically at mutually agreed-upon intervals for the purpose of establishing procedures to facilitate cooperation, communication and timely responses among the participants. By participating in this arrangement, the parties do not intend to create additional contractual obligations or modify the legal relationships which may otherwise exist. Nothing in this agreement shall give the Architect the authority to make decisions or give direction without the Owner's concurrence.

3. Add the following to Subparagraph 4.2.9:

4.2.9.1 The Architect will make one inspection for the determination of Substantial Completion and one for determination of Final Acceptance. Such inspections will be made only after receipt of written notification of readiness for such inspections from Contractor.

4.2.9.2 Should additional inspections beyond those listed in 4.2.9.1 be required due to Contractor's failure to satisfactorily complete all work, the Contractor shall become responsible for all costs incurred by the Owner in conjunction with required re-inspections. A deductive Change Order shall be prepared using the following hourly rates as the basis for calculating the amounts to be deducted:

Architect/Engineer:	\$100 per hour
District 4J Personnel:	\$ 75 per hour

4.2.9.3 The amount to be deducted from the Contract shall be calculated by multiplying the hours expended in additional inspections and documentation by the hourly rates listed in 4.2.9.2.

4. Add the following sentence to Subparagraph 4.2.11:

The architect's response will be within 10 days of receipt of written requests from the Owner or Contractor.

5. Delete Subparagraph 4.2.13, and substitute the following:

4.2.13 Decisions on matters related to aesthetic effect will be made collaboratively between the Owner and the Architect. The final decision shall be the Owner's, if consistent with the intent expressed in the Contract Documents.

6. Add the following sentence to Subparagraph 4.2.14

The architect's response will be within 10 days of receipt of written requests from the Owner or Contractor.

**1.5 ARTICLE 5 SUBCONTRACTORS**

**A. 5.3 SUBCONTRACTUAL RELATIONS**

1. Add the following Subparagraphs:

5.3.1 The Contractor shall include in each subcontract for property or services entered into by the Contractor and a subcontractor, including a material supplier, for the purpose of performing a construction contract:

- .1 A payment clause that obligates the Contractor to pay the subcontractor for satisfactory performance under its subcontract within 10 days out of such amounts as are paid to the Contractor by the owner under such contract; and
- .2 An interest penalty clause that obligates the Contractor to pay to the subcontractor an interest penalty on amounts due in the case of each payment not made in accordance with the payment clause included in the subcontract pursuant to paragraph .1 of this section for the period beginning on the day after the required payment date and ending on the date on which payment of the amount due is made; computed at the rate specified in ORS 279C.580.

5.3.2 The Contractor shall include in each of its subcontracts, for the purpose of performance of such contract condition, a provision requiring the subcontractor to include a payment clause and an interest penalty clause conforming to the requirements of Subparagraph 5.3.1 in each of its subcontracts and to

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require each of its subcontractors to include such clauses in their subcontracts with each lower-tier subcontractor or supplier.

**1.6 ARTICLE 6 CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS**

No modifications.

**1.7 ARTICLE 7 CHANGES IN THE WORK**

**A. 7.1 GENERAL**

1. Paragraph 7.1.2, delete the following: “an order for minor changes in the Work can be issued by the Architect alone”.

2. Add the following Subparagraph 7.1.4 to Paragraph 7.1:

7.1.4 The combined overhead and profit included in the total cost or credit to the Owner of a change in the Work shall not exceed that stated in 7.1.4.4 below. In no case shall the Contractor’s or Subcontractors individual overhead and profit request exceed the following schedule:

.1 For the Contractor, for Work performed by the Contractor’s own forces, 15 percent of the cost.

.2 For the Contractor, for Work performed by the Contractor’s Subcontractors, 10 percent of the amount due the Subcontractors.

.3 For each Subcontractor involved, for Work performed by that Subcontractor’s own forces, 10 percent of the cost.

.4 The **Base Cost** to which overhead and profit is to be applied shall be determined in accordance with Subparagraph 7.3.7., articles .1, .2, .3, .4, and .5. To this **Base Cost** is added the applicable overhead and profit. In no case shall the combined overhead and profit (including all Contractor and Subcontractor(s) overhead and profit) exceed 25 percent of this **Base Cost**.

.5 In order to facilitate checking of quotations for extras or credits, all proposals, except those so minor that their propriety can be seen by inspection, shall be accompanied by a complete itemization of costs including those applicable costs from paragraph 7.3.7, .1 - .5, and Subcontractor and Contractor overhead and profit as applicable.

.6 Cost of preparing change order shall not be included in cost of Change Order.

3. Add the following Subparagraph 7.1.5 to Paragraph 7.1:

7.1.5 A Change Order providing a CREDIT to the Owner shall include a credit for overhead and profit based on the following schedule:

.1 For the Contractor, 5 percent of the Cost to be credited.

.2 For each Subcontractor, 5 percent of the Cost to be credited.

.3 For each Sub-subcontractor, 5 percent of the Cost to be credited.

.4 All other provisions of Subparagraph 7.1.4 shall apply to Credit Change Orders.

**B. 7.3 CONSTRUCTION CHANGE DIRECTIVES**

1. Add the following to Subparagraph 7.3.1:

For the purposes of this Agreement, The Owner’s “CHANGE REQUEST/PROCEED ORDER” may be substituted for and used interchangeably with “CONSTRUCTION CHANGE DIRECTIVE”.

2. Modify Subparagraph 7.3.7 as follows:

In the first sentence, delete the words "a reasonable amount." and substitute "an amount for overhead and profit in accordance with Paragraph 7.1.4 or 7.1.5.”

3. Delete Subparagraph 7.3.7.1 and substitute the following:

7.3.7.1 The maximum allowable hourly wage rate for Changes to the Work shall be the appropriate Base Wage Rate plus Fringe Rate as listed for each occupation in the Prevailing Wage Rate for Public

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Works Contracts in Oregon manual issued by the Oregon Bureau of Industries; multiplied by 1.20. An amount for Overhead and Profit may be added in accordance with Paragraph 7.1.4 or 7.1.5.

4. Delete 7.3.7.3, and substitute the following:

7.3.7.3 Rental costs of machinery and equipment, exclusive of hand tools and motor vehicles, when rented from the Contractor or others;

5. Change the first sentence of Subparagraph 7.3.8 to read as follows:

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, including overhead and profit according to the schedule in Subparagraph 7.1.5 above.

6. Change the first sentence of Subparagraph 7.3.9 to read as follows:

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 the Application for Payment accompanied by an executed Change Order indicating the parties' agreement with part or all of such costs.

**1.8 ARTICLE 8 TIME**

**A. 8.2 PROGRESS AND COMPLETION**

1. Add the following Subparagraph 8.2.4

8.2.4 The Contractor agrees that said work shall be executed regularly, diligently, at such a rate of progress as will insure Substantial Completion thereof within the time specified. It is expressly understood and agreed 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.

**1.9 ARTICLE 9 PAYMENT AND COMPLETION**

**A. 9.2 SCHEDULE OF VALUES**

1. Revise the first sentence of Subparagraph 9.2 to read as follows:

“... the Contractor shall submit to the Architect and the Owner,.....”

2. Add the following sentence to Paragraph 9.2:

Submit on AIA Document A703, latest edition.

**B. 9.3 APPLICATIONS FOR PAYMENT**

1. Add the following sentence to Subparagraph 9.3.1:

The form of Application for Payment shall be a notarized AIA Document G702, Application and Certification for Payment, supported by AIA Document G703, Continuation Sheet.

2. Delete Clause 9.3.1.1, and substitute the following:

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, accompanied by an executed Change Order.

**C. 9.5 DECISIONS TO WITHHOLD CERTIFICATION**

1. Delete Subparagraph 9.5.3.

D. 9.6 PROGRESS PAYMENTS

1. Add the following Clause to Subparagraph 9.6.1:

9.6.1.1 After the Architect has issued a certificate for payment and it has been approved by the Owner, the Owner will pay the Contractor 95 percent (95%) of the total value of material and labor incorporated into the project as indicated on the Application for Payment less the aggregate of previous payments. Progress schedule update shall accompany each payment request.

9.6.1.2 Payment will be made within fifteen (15) days of approval of the Application for Payment by School District 4J ("Progress Payment Due Date").

9.6.1.3 The first Application for Payment and each subsequent Application for Payment will not be considered complete unless it is accompanied by the certified payroll for the contractor and all subcontractors requesting payment.

2. Add the following Subparagraph to Paragraph 9.6:

9.6.8 In lieu of cash retainage to be held by the Owner, the Contractor may select one of the following options:

- .1 The Contractor may deposit bonds or securities with the Owner or in any bank or trust company to be held for the benefit of the Owner. In such event, the Owner shall reduce the retainage in an equal amount to the value of the bonds and securities.
- .2 Upon written request of the Contractor, the Owner will deposit any amounts withheld as retainage in an interest-bearing account in a bank, savings bank, trust company or savings association for the benefit of the Owner. Interest earned shall accrue to the Contractor.
- .3 If the Owner incurs additional costs as a result of the exercise of any of the options for retainage described herein, the Owner may recover such costs from the Contractor by reduction of final payment.

E. 9.8 SUBSTANTIAL COMPLETION

1. Delete Subparagraph 9.8.1 and substitute the following:

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 the Owner can fully occupy and fully utilize the Work for its intended use with only minor corrective work remaining which can be accomplished without disruption of the occupants.

2. Delete the last two sentences to Subparagraph 9.8.5 and add the following:

9.8.5 Upon Substantial Completion of the Work, the Contractor may submit an application for payment in accordance with Subparagraph 9.3.1 in an amount sufficient to increase the total payments to ninety-five percent (95%) of the Contract Sum, less such amounts as the Architect determines for incomplete Work or unsettled claims.

F. 9.10 FINAL COMPLETION AND FINAL PAYMENT

1. Add the following Subparagraph to Paragraph 9.10:

9.10.6 The Contractor shall not permit any lien or claim to be filed or prosecuted against the Owner on account of any labor or material furnished in connection with the Work.

G. Add the following Paragraphs to Article 9:

1. 9.11 LIQUIDATED DAMAGES

9.11.1 The Owner will suffer financial loss if the Work is not Substantially Complete, as defined in Article 9.8.1 above, on the dates specified in Section 01 11 00. The Contractor and the Contractor's surety shall be liable for and shall pay the Owner the sum hereinafter stipulated as fixed, agreed, and liquidated damages for each calendar day of delay until the date established in the Certificate of Substantial Completion.

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The agreed amount of liquidated damages is \$1000 per each calendar day. The amount of liquidated damages may be reduced in cases of partial occupancy, at the sole discretion of the Owner.

**2. 9.12 AGENCY PAYMENT FOR UNPAID LABOR OR SUPPLIES**

9.12.1 Contract incomplete. If the Contract is still in force, the Agency may, in accordance with ORS 279C.515, pay a valid claim to the Entity furnishing the labor or services, and charge the amount against payments due or to become due to the Contractor under the Contract. If an Agency chooses to make such a payment as provided in 279C.515, the Contractor and the Contractor's surety shall not be relieved from liability for unpaid claims.

9.12.2. Contract completed. If the Contract has been completed and all funds disbursed to the prime Contractor, all claims shall be referred to the Contractor's surety for resolution. The Agency shall not make payments to subcontractors or suppliers for Work already paid for by the Agency.

**1.10 ARTICLE 10 PROTECTION OF PERSONS AND PROPERTY**

**A. 10.1 SAFETY PRECAUTIONS AND PROGRAMS**

**1. Add the following sentence to Article 10.1**

Where asbestos abatement is part of the Work, the Contractor or appropriate subcontractor shall be licensed by the Department of Environmental Quality to perform "asbestos abatement work", OAR 340-248-0120, Adopted January 25, 1990, and meet requirements of AHERA, as specified in Federal Register 40CFR, Part 763.

**B. 10.3 HAZARDOUS MATERIALS**

**1. Delete Subparagraph 10.3.3.**

**1.11 ARTICLE 11 INSURANCE AND BONDS**

**A. 11.1 CONTRACTOR'S LIABILITY INSURANCE**

**1. Modify the second sentence of Subparagraph 11.1.2 as follows:**

a. Delete the following: "...and, with respect to the Contractor's completed operations coverage, until the expiration of the period for correction of Work or for such other period for maintenance of coverage as specified in the Contract Documents."

**2. Add the following Clause to Subparagraph 11.1.2:**

.1. The Contractor shall provide and maintain in force for the duration of this agreement, the following:

**.1 General Insurance:**

The Contractor shall maintain in force for the duration of this agreement a Umbrella Insurance Policy with the limits not less than \$5,000,000, a Commercial General Liability, Automobile Liability (owned, non-owned and hired) Insurance policy(s) written on an occurrence basis with limits not less than \$1,000,000 per occurrence and \$3,000,000 in the aggregated naming the District, its employees, officials and agents as an additional insured as respects to work or services performed under this agreement. This insurance will be primary to any insurance the District may carry on its own. If the District requires Professional Liability coverage, the terms, conditions, and limits must be approved by the District's Risk Manager.

**.2 Workers' Compensation:**

Contractor shall provide and maintain workers' compensation coverage for its employees, officers, agents, or partners, as required by applicable workers' compensation laws.

**.3 Evidence of Coverage:**

Evidence of the above coverages issued by a company satisfactory to the District shall be provided to the District by way of a certificate of insurance before any work or services commence. A 30-day notice of cancellation or material change in coverage clause shall be included. It is the Contractor's obligation to provide the 30 days notice if not done so by the

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Contractor's insurance company(s). Failure to maintain the proper insurance shall be grounds for immediate termination of this Agreement.

.4 Subcontractors:

The Contractor shall require all subcontractors to provide and maintain general liability, auto liability, professional liability (as applicable) and Workers' Compensation insurance with coverage's equivalent to those required of the General Contractor in this Agreement. The Contractor shall require certificates of insurance from all subcontractors as evidence of coverage.

.5 Exceptions or Waivers:

Any exception or waiver of these requirements shall be subject to review and written approval from the Eugene School District Risk Manager.

3. Delete the third sentence of Subparagraph 11.1.3

**B. 11.3 PROPERTY INSURANCE**

1. Modify the first sentence of Subparagraph 11.3.1 as follows:

- a. Delete "Unless otherwise provided, the Owner" and substitute "The Contractor".
- b. Modify the last sentence by adding "Architect," after the word "Owner".

2. Add the following to Clause 11.3.1.1:

The form of policy for this coverage shall be Completed Value. If the Owner is damaged by the failure of the Contractor to maintain such insurance, then the Contractor shall bear all reasonable costs properly attributed thereto.

3. Delete Clause 11.3.1.2.

4. Modify Clause 11.3.1.3 by substituting "Contractor" for "Owner".

5. Delete Clause 11.3.1.4.

6. Modify the first sentence of Subparagraph 11.3.2 to read: "The Owner, at the Owner's option, may purchase..."

7. Delete Subparagraph 11.3.4.

8. Delete Subparagraph 11.3.6, and substitute the following:

11.3.6 Evidence of the above coverages issued by a company satisfactory to the District shall be provided to the District by way of a certificate of insurance before any work or services commence. A 30-day notice of cancellation or material change in coverage clause shall be included. It is the Contractor's obligation to provide the 30 days notice if not done so by the Contractor's insurance company(s). Failure to maintain the proper insurance shall be grounds for immediate termination of this Agreement.

9. Modify 11.3.7 by substituting "Contractor" for "Owner" at the end of the first sentence.

10. Modify the first sentence of Subparagraph 11.3.8 to read as follows:

11.3.8 A loss insured under the Contractor's property insurance shall be adjusted by the Contractor as fiduciary and made payable to the Contractor and Owner, as their interests may appear, subject to requirements of any applicable mortgagee clause.

11. Delete Subparagraph 11.3.9.

12. Modify the first sentence of Subparagraph 11.3.10 by substituting "Contractor" for "Owner" the first two times it occurs. Modify the last sentence by substituting "Contractor" for "Owner" the second time it occurs.

13. Add the following Subparagraph:

11.3.11 EQUIPMENT AND MATERIAL:

The Contractor shall be responsible for any loss, damage, or destruction of Contractor's own property, equipment, and materials used in conjunction with the Work.

C. 11.4 PERFORMANCE BOND AND PAYMENT BOND

1. Delete 11.4.1 and 11.4.2 and substitute the following:

11.4.1 Unless otherwise stated in the solicitation document, prior to execution of the Agreement, the Bidder shall furnish separate bonds that in all respects conform to the requirements of ORS 279C.380 covering the faithful performance of the Contract, and the payment of all obligations arising thereunder, each in an amount equal to one hundred percent (100%) of the Contract sum. The duration of the performance bond shall match the length of the project warranty.

11.4.2 The surety issuing such bonds shall be duly authorized and licensed to issue bonds in the State of Oregon. The bonds shall be executed by an Attorney-in-fact, principal or other authorized representative for the surety company, showing the Oregon agent for service, and bears the seal of the surety company. Where the bond is executed by a person outside the state of Oregon, his authority to execute bond shall be shown.

11.4.3 Bonds are to be obtained through a company that is on the US Government Treasury list for approved sureties and/or approved by the Owner's Risk Manager.

11.4.4 Bonds shall be submitted on AIA Document A312, latest edition.

11.4.5 The cost of furnishing such bonds shall be included in the bid.

11.4.6 The Contractor shall deliver the required bonds to the Owner with the signed Agreement to:

Larry Massey  
Facilities Management Office  
Eugene Public School District 4J  
715 West Fourth  
Eugene, Oregon 97402

11.4.7 The Contractor shall require the Attorney-in-fact who executes the required bonds on behalf of the surety to affix thereto a certified and current copy of their power of attorney.

D. Add the following Paragraphs to Article 11:

1. 11.5 PUBLIC WORKS BOND:

11.5.1 Pursuant to ORS 279C.836, for any contract awarded where the contract price is \$100,000 or greater, the Contractor and every subcontractor shall have a Public Works bond, in the amount of \$30,000 filed with the Construction Contractors Board (CCB) before starting work on the project unless exempt. This bond is in addition to performance bond and payment bond requirements. **A copy of the Contractor's BOLI Public Works Bond shall be provided with the executed contract documents.**

11.5.2 Contractor shall include in every subcontract a provision requiring their Subcontractors to have a public works bond filed with the CCB before starting work on the project, unless exempt. Contractors shall verify that all of their subcontractors have filed a public works bond with the CCB.

1.12 ARTICLE 12 UNCOVERING AND CORRECTION OF WORK

A. 12.2 AFTER SUBSTANTIAL COMPLETION

1. Add the following sentence to Clause 12.2.2.1:

The correction period relating to faulty products and workmanship will begin on the date appearing on the Certificate of Substantial Completion, or if a Certificate of Substantial Completion is not issued, on the date appearing on the Final Certificate of Payment to the Contractor, whichever is earlier. The Owner's use of the project will not alter the warranty period herein defined.

2. Add the following sentence to Clause 12.2.2.2:

The correction periods specified are an extension of the one-year correction period called for in the General Conditions and are in addition to any guaranty bond called for elsewhere.

1.13 ARTICLE 13 MISCELLANEOUS PROVISIONS

A. 13.1 GOVERNING LAW

1. Change Paragraph 13.1 to read as follows:

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

B. Add the following Subparagraph 13.1.1:

13.1.1 Contractor shall be in compliance with the Oregon Department of Revenue tax certification rules including OAR 150-305.385 (6)-A, (6)-B, (6)-C and (7).

C. Revise Subparagraph 13.2.1 as follows:

Delete last two sentences, and replace with:

Contractor shall not assign, sell, dispose of, or transfer rights, nor delegate duties under the contract, either in whole or in part, without the Contracting Agency's prior written consent. Unless otherwise agreed by the Contracting Agency in writing, such consent shall not relieve the Contractor of any obligations under the contract. Any assignee or transferee shall be considered the agent of the Contractor and be bound to abide by all provisions of the contract. If the Contracting Agency consents in writing to an assignment, sale, disposal or transfer of the Contractor's rights or delegation of Contractor's duties, the Contractor and its surety, if any, shall remain liable to the Contracting Agency for complete performance of the contract as if no such assignment, sale, disposal, transfer or delegation had occurred unless the Contracting Agency otherwise agrees in writing, in accordance with ORS 279A.065.

D. Delete Subparagraph 13.2.2

E. Add the following Paragraphs to Article 13:

1. 13.8 ENVIRONMENTAL AND NATURAL RESOURCES LAWS AND RULES

13.8.1 The Contractor and subcontractors shall comply with federal, state, and local ordinances and regulations dealing with prevention of pollution and preservation of natural resources that affect Work of this project.

13.8.2 Pursuant to ORS 279C.525, If the Contractor is delayed or must undertake additional work by reason of existing regulation or ordinances of agencies not cited in the Contract Documents or due to the enactment of new or the amendment of existing statutes, ordinances, or regulations relating to the prevention of environmental pollution and the preservation of natural resources occurring after the Bid Date, the Owner will grant a time extension and issue a change order setting forth the additional work that must be undertaken. The change order shall not invalidate the contract and there shall be, in addition to a reasonable extension of the Contract time, a reasonable adjustment in the Contract price to compensate the successful bidder for all costs and expenses incurred, including overhead and profits, as a result of such delay or additional work.

2. 13.9 FOREIGN CONTRACTORS

In the event this Contract is awarded to a Contractor not domiciled in or registered to do business in the State of Oregon and the contract price exceeds \$10,000, the Contractor shall promptly report to the Department of Revenue the total price, terms of payment, length of contract, and such other information as the Department of Revenue may require before final payment can be received on the public contract. The Owner will satisfy itself that the requirement of this subsection has been complied with before it issues a Final Payment.

3. 13.10 EQUAL OPPORTUNITY

13.10.1 The Contractor shall maintain policies of employment as follows:

13.10.1.1 The Contractor and the Contractor's subcontractors shall not discriminate against any employee or applicant for employment because of race, religion, color, sex or national origin. The Contractor shall take affirmative action to insure that applicants are employed, and that employees are treated during employment without regard to their race, religion, color, sex, national origin, physical or mental handicap, sexual orientation or age, unless based upon bona fide occupational qualifications; and that they are otherwise in compliance with all federal, state and local laws prohibiting discrimination. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. It is further understood that any vendor who is in violation of this clause shall be barred forthwith from receiving awards of any purchase order from the School District, unless a satisfactory showing is made that discriminatory practices have terminated and that a recurrence of such acts is unlikely. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the policies of nondiscrimination.

13.10.1.2 The Contractor and the Contractor's subcontractors shall, in all solicitations or advertisements for employees placed by them or on their behalf, state that all qualified applicants will receive consideration for employment without regard to race, religion, color, sex or national origin.

4. 13.11 DRUG-TESTING PROGRAM

13.11.1 The contractor agrees with the provisions of Oregon Revised Statutes 279C.505, which requires that the contractor shall demonstrate it has established a drug-testing program for employees and will require each subcontractor providing labor for the Project to do the same.

1.14 ARTICLE 14 TERMINATION OR SUSPENSION OF THE CONTRACT

No modifications.

1.15 ARTICLE 15 CLAIMS AND DISPUTES

A. 15 CLAIMS AND DISPUTES

1. Add the following to Clause 15.1.5.2

Abnormal weather conditions for the purposes of this agreement are defined as conditions more extreme than any conditions experienced within the general vicinity of the site for each project for a comparable period at any time within the past ten years.

2. Delete Subparagraph 15.1.6.

B. 15.2 INITIAL DECISION

1. Modify Subparagraph 15.2.1 as follows:

In the third sentence, change "30 days" to read "10 days" and add the following: The Initial Decision Maker shall review all submitted claims and render decisions as soon as possible.

2. Modify Clause 15.2.6.1 as follows:

In the first sentence, change the "30 days and "60 days" to read "10 days" and "30 days" respectively.

C. 15.3 MEDIATION

1. Delete Paragraph 15.3 MEDIATION, and substitute the following:

15.3 MEDIATION AND ARBITRATION

15.3.1 Parties shall attempt to resolve all disputes at the lowest possible level. Both parties to this Agreement agree to provide other resources and personnel to negotiate and find resolution to disputes that cannot be resolved at the Project Manager level. As a next step, claims, disputes or other matters in question between the parties to this Agreement arising out of or relating to this Agreement or breach

**SUPPLEMENTARY CONDITIONS - DOCUMENT 00 73 00**

thereof shall be determined by mediation, arbitration or litigation. Disputes shall be initially submitted to mediation by a mediator chosen by the parties. The cost of mediation shall be borne equally by the parties. If the parties are unable to agree upon a mediator within five days or if mediation fails to resolve the dispute, either party may request that the dispute be submitted to arbitration before a single arbitrator agreed to by the parties in an additional five days. If both parties agree to arbitration but are unable to agree upon an arbitrator, each party shall select an arbitrator, the arbitrators so chosen shall select a third, and the decision of a majority of the arbitrators shall be final, binding the parties, and any judgment may be entered thereon. Unless the parties mutually agree otherwise, any arbitration proceeding shall be conducted in accordance with the currently in effect Construction Industry Arbitration Rules of the American Arbitration Association.

Notwithstanding the above, the Owner may, at the Owner's sole discretion, elect to resolve disputes in excess of \$50,000 by litigation, if mediation is not successful.

15.3.2 In the event of arbitration or litigation arising out of the execution of this Agreement, the prevailing party shall be entitled to recover from the adverse party, reasonable attorney fees and costs for the arbitration proceedings, trial court or any appellate proceeding, in the amount determined by the arbitrator or the court, as appropriate.

For the purposes of the above provisions referring to attorney fees and related costs, the prevailing party in an arbitration proceeding or trial shall be a claimant who receives an award or damages in excess of the adverse party's pretrial or prehearing offer made at least 10 days before trial or hearing. If the claimant receives an award of damages no greater than the adverse party's pretrial or prehearing offer, the adverse party shall be deemed to be the prevailing party. In the event both sides are awarded damages, the prevailing party shall be the party who recovers the net award, provided the recovery exceeds the adverse party's pretrial or prehearing offer. If the claimant net recovery is no greater than the adverse party's pretrial or prehearing offer, the adverse party shall be deemed the prevailing party.

**D. 15.4 ARBITRATION**

1. Delete Paragraph 15.4 ARBITRATION.

END OF DOCUMENT 00 73 00

DOCUMENT 00 73 43

PREVAILING WAGE RATES

PART 1 GENERAL

The Prevailing Wage Rates dated January 1, 2014, including any subsequent corrections or amendments issued by the Oregon Bureau of Labor and Industries, are included as a portion of the Contract Documents by reference. Copies are available for review at the office of Facilities Management, School District 4J, and can be viewed on line at [www.boli.state.or.us](http://www.boli.state.or.us). Click on Prevailing Wages, then PWR Rate Publications, and then Prevailing Wage Rates for Public Works Contracts in Oregon (subject only to state law).

This Project is funded by the federally sponsored "Qualified School Construction Bond", and subject to the provisions of the wage rates listed under the federal Davis-Bacon Act, OR the Oregon Bureau of Labor and Industries; a link to the Davis-Bacon wage rates may be found on the same web site.

END OF DOCUMENT 00 73 43

**SUMMARY OF WORK**  
**SECTION 01 11 00**

**PART 1 - GENERAL**

**1.1 RELATED DOCUMENTS**

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

**1.2 WORK COVERED BY CONTRACT DOCUMENTS**

- A. Project Identification: The work is described as minor improvements to all four of the high schools in the Eugene School District. The improvements range from the installation of signage and exit hardware, to handrail installations along the exit path, to exit door landing and ramp construction, to the installation of illuminated exit signs.

- 1. Project Location: Various high school sites.
- 2. Owner: Eugene School District 4J, 715 West Fourth Avenue, Eugene, OR 97402.

- B. Architect Identification: The Contract Documents, dated March 14, 2014, were prepared for Project by gLAs Architects, LLC, 1415 Pearl Street, Eugene, OR 97401.

- C. Project Manager: Larry Massey has been appointed by Owner to serve as Project Coordinator.

**1.3 CONTRACT**

- A. Project will be constructed under a general construction contract.

- 1. Fire & Life Safety Improvements - 2014  
Eugene School District 4J

**1.4 WORK SEQUENCE**

- A. Do not commence Work until after execution of Agreement and receipt of Notice-to-Proceed from Owner. It is the Owner's intent to start work as soon as possible after award of contract.
- B. Perform work in order to achieve Substantial Completion by August 15, 2014.
- C. Achieve Final Completion within fourteen (14) days following the date of Substantial Completion.

**1.5 USE OF PREMISES**

- A. Work Area Access: Adjacent areas of the Buildings will be occupied during work. Access to the work area will be available on a week-day basis from approximately 7:00 am to 4:00 pm. Coordinate all other work hour schedules with Owner so as not to interfere with Owner's use of the building.
- B. Limit use of the premises to construction activities in areas indicated; allow for Owner occupancy and use by the public, subject to approval by a District Safety Specialist.

## SUMMARY OF WORK – SECTION 01 11 00

- C. Site Access: Maintain drives and building entrances and exits clear and protected at all times to Owner's, employees, and public access and for use by emergency personnel. Do not use these areas for parking or storage. Schedule deliveries to minimize space and time requirements for storage of materials at site.
- D. Parking: Contractor may use existing parking areas as indicated on Drawings.
- E. Contractor Staging Areas: Coordinate with Owner.
- F. Construction Operations: Limited to areas indicated on Drawings.

### 1.6 WORK UNDER SEPERATE CONTRACTS

- A. Separate Contract: Owner may award a separate contract for performance of certain construction operations at Project site. Those operations may be conducted simultaneously with work under this Contract.
- B. Cooperate fully with separate contractors so work on those contracts may be carried out smoothly, without interfering with or delaying work under this Contract.

### 1.7 OWNER-FURNISHED PRODUCTS

- A. None.

### 1.8 MISCELLANEOUS PROVISIONS

#### A. DRUG AND ALCOHOL POLICY

- 1. The possession, use, or distribution of illicit drugs and alcohol on school premises is prohibited. Prescription medications brought to the project site shall be in the original container bearing the name of the drug, the name of the physician and the prescribed dosage.

#### B. USE OF TOBACCO PRODUCTS

- 1. Smoking and the other use of tobacco products is prohibited on all school district property pursuant to OAR 581-021-0110.

#### C. SAFETY REQUIREMENTS

- 1. Safety must not be sacrificed for the sake of productivity or expedience. Safety of students, staff, and the public is critical. Take all reasonable precautions to prevent endangerment or injury. Advise and coordinate operations with the school office.
- 2. All contractors who perform work on District property, and their employees, are expected to know the District's expectations for safe work and to adhere to those expectations.
- 3. Contractors are to adhere to the regulations of Oregon OSHA for all projects within the School District.

#### D. GENERAL SAFE WORK PRACTICES

- 1. Students, public and school staff shall not be put at risk by the activities of contractors or their employees.
- 2. Safe vehicle operation rules are to be followed at all times. These include positioning vehicles to minimize the necessity of backing and providing a "spotter", someone who

## SUMMARY OF WORK – SECTION 01 11 00

will make sure that people do not run into the path of a vehicle when driving on a playground or field that is occupied by students.

3. Tools shall never be left out when an unsecured work area is vacated.
4. Ladders and scaffolding will be taken down when an unsecured work area is vacated.
5. Open holes and other tripping hazards shall be fenced or barricaded when an unsecured work area is vacated.
6. Operations resulting in vapors, emissions or flying objects shall be conducted in such a way as to prevent exposure to any unprotected parties or property.
7. "Secured Work Area" is defined as an area having a perimeter cyclone fence at least 6 feet in height, with gates which close and lock so that no casual entrance is possible by unauthorized adults or children.
8. Contractor to follow all OR-OSHA rules for Confined Spaces, where applicable.

### E. COMMUNICATIONS REGARDING UNSAFE PRACTICES

1. Upon perceiving a problem, the District will immediately communicate the concern to the Contractor or Contractor's representative on the work site.
2. If agreement on correction of unsafe conditions cannot be reached, the concerns of the District shall prevail and safety concerns shall be addressed in accordance with the District requirements.

### F. ELECTRICAL PANELS - LOCKOUT/TAGOUT

1. Contractor shall implement a Lockout/Tag-out program for his employees who take equipment out of service or place equipment back into service. Contractor shall review the District's Energy Control Program prior to commencing work. Rules applying to this procedure are Oregon Occupational Safety and Health Code OAR 437, Division 2, Subdivision J, General Environmental Controls Lockout/Tag-out (1919.147), or latest edition.

### G. ARC FLASH - ELECTRICAL SAFETY

1. Contractor shall comply with NFPA 70E (Electrical Safety in the Workplace), current edition. Contractor shall comply with Oregon OSHA 1910.137 (Personal Protective Equipment). The Contractor shall review with the School District Project Manager the 'Eugene School District Electrical Safety Program' before any work commences. The Contractor shall comply with all 'Arc Flash' and 'Electrical Safety' protocols referenced in any and all NFPA, OSHA, OROSHA, NEC, NESC, UL, IBC, IFC and ANSI documents (current editions).

### H. POTENTIALLY HAZARDOUS PRODUCTS

1. The District attempts to maintain a safe and healthy environment for students and staff. The Contractor is therefore required to follow District guidelines controlling the use of potentially hazardous products and to use these products in a safe manner. Guidelines include the use of materials (adhesives, coatings, carpeting, etc.) which are known to emit little or no airborne pollutants.
2. MSDS information is required for all potentially hazardous products. The Project Manager and a District Safety Specialist will review these and determine what, if any, mitigation procedures will be required.
3. Contractor is to maintain and post copies of all MSDS information at the project site and adhere to the required controls.
4. Contractor is to ensure that work area by students and teachers is restricted. The District will provide signage appropriate for this purpose. The Contractor is to construct and

## SUMMARY OF WORK – SECTION 01 11 00

maintain appropriate barriers. This shall include provision of physical separation barriers between “construction” and “occupied” spaces.

5. Contractor to adopt means of maintaining the construction space in negative air pressure in relation to occupied spaces.
6. Where there is a new or existing ventilation system in an affected space, the system shall be adjusted to provide the maximum amount of outside air possible with the system.
7. Efforts shall be made to install and operate new ventilation systems as soon in the construction process as practical.

### I. ASBESTOS CONTAINING MATERIALS WARNING

1. Asbestos containing materials are not known to exist in areas of the Work. The Contractor shall not, in any way, disturb materials which are known to contain asbestos, assumed to contain asbestos, or otherwise have not been tested and confirmed to be asbestos free.
2. Where access to concealed spaces is required, or it is necessary to disturb building materials such as for drilling of holes, cutting, etc., notify the Owner so that proper investigation and/or removal procedures are followed.
3. Prior to commencing Work, the Contractor shall meet with the District Safety Specialist and review the Owner’s Asbestos Management Plan for the locations of asbestos-containing materials and/or materials assumed to contain asbestos. After reviewing the Owner’s Asbestos Management Plan, the Contractor is required to sign Form 01 10 00A, Asbestos-containing Materials Notification Statement, provided at the end of this Section.
4. Contractor must not install any asbestos-containing materials when performing the Work of this project. At the completion of the Work, Contractor will be required to furnish a statement stating that no asbestos-containing materials were installed during the course of the Work. Refer to Sample Form 01 10 00B at the end of this Section

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

PART 4 - SCHEDULE OF PRODUCTS ORDERED IN ADVANCE

PART 5 - ASBESTOS FORMS



**Form 01 11 00B**

The Environmental Protection Agency (AHERA) rules require the School District obtain a signed statement from the Site Superintendent that, to the best of his/her knowledge, no asbestos-containing building materials were installed during the Work. Therefore, the following statement must be submitted on the Contractors letterhead prior to Project Closeout.

**SAMPLE FORM**

(To be submitted on the Contractor's letterhead)

**ASBESTOS-CONTAINING MATERIALS STATEMENT**

EUGENE SCHOOL DISTRICT 4J

---

(Name of Project and CIP Number)

We the undersigned, (Name of Company), hereby warrant that to the best of our knowledge all materials furnished for the above referenced project contain 0% asbestos.

---

(Name of Construction Company)

---

(Signature and Date)

---

Printed Name

---

Job Title

END OF SECTION 01 11 00

## **SECTION 01 23 00**

### **ALTERNATES**

#### **PART 1 - GENERAL**

##### **1.1 RELATED DOCUMENTS**

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

##### **1.2 SUMMARY**

- A. This Section includes administrative and procedural requirements for alternates.

##### **1.3 DEFINITIONS**

- A. Alternate: An amount proposed by bidders and stated on the Bid Form for certain work defined in the Bidding Requirements that may be added to or deducted from the Base Bid amount if Owner decides to accept a corresponding change either in the amount of construction to be completed, the time to complete, or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.

- 1. The cost or credit for each alternate is the net addition to or deduction from the Contract Sum to incorporate alternate into the Work. No other adjustments are made to the Contract Sum.

##### **1.4 PROCEDURES**

- A. Coordination: Modify or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.

- 1. Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of alternate.

- B. Notification: Immediately following award of the Contract, notify each party involved, in writing, of the status of each alternate. Indicate if alternates have been accepted, rejected, or deferred for later consideration. Include a complete description of negotiated modifications to alternates.

- C. Execute accepted alternates under the same conditions as other work of the Contract.

- D. Schedule: A Schedule of Alternates is included at the end of this Section. Specification Sections referenced in schedule contain requirements for materials necessary to achieve the work described under each alternate.

**SECTION 01 23 00 – ALTERNATES**

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF ALTERNATES

A. None.

END OF SECTION 01 23 00

**SECTION 012500**  
**CONTRACT MODIFICATION PROCEDURES**

**PART 1 - GENERAL**

**1.1 RELATED DOCUMENTS**

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

**1.2 SUMMARY**

- A. This Section specifies administrative and procedural requirements for handling and processing Contract modifications.
- B. Related Sections include the following:
  - 1. "Agreement" for monetary values of established Unit Prices and Alternates.
  - 2. "General Conditions" for additional requirements for Changes in the Work, Contract Sum, and Contract Time.
  - 3. Division 01 Section 00 73 00 "Supplementary Conditions" for allowable percentages for Contractors' Overhead and Profit.
  - 4. Division 01 Section 01 33 00 "Submittal Procedures" for Schedule of Values requirements.
  - 5. Division 01 Section 01 60 00 "Product Requirements" for administrative procedures for handling requests for substitutions made after Contract award.
  - 6. Division 01 Section 01 78 39 "Project Record Documents" documentation requirements.

**1.3 MINOR CHANGES IN THE WORK**

- A. Architect, with the concurrence of the Owner, will issue supplemental instructions authorizing Minor Changes in the Work, not involving adjustment to the Contract Sum or the Contract Time.

**1.4 CHANGE REQUEST/PROCEED ORDER (CONSTRUCTION CHANGE DIRECTIVE)**

- A. Architect or Owner may issue a Change Request/Proceed Order on form included at end of Part 3.
  - 1. Change Request contains a complete description of change in the Work. It also designates method to be followed to determine change in the Contract Sum or the Contract Time.
  - 2. Proceed Order, when signed by the Owner, instructs Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.
- B. Documentation: Maintain detailed records on a time and material basis of work required by the Proceed Order.
  - 1. After completion of change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.

## CONTRACT MODIFICATION PROCEDURES – SECTION 01 25 00

- C. Authorization Required: When a Change Request is approved and signed by the Owner, it becomes a Proceed Order authorizing the change requested. Do not proceed with any change without the Owner's signature on the Change Request/Proceed Order.
- D. Owner-Initiated Change Requests: Architect will issue a Change Request, which will include a detailed description of proposed changes in the Work that may require adjustment to the Contract Sum or the Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications.
1. Change Requests issued by Architect are for information only. Do not consider them instructions either to stop work in progress or to execute the proposed change.
  2. Within time specified in Change Request after receipt of Change Request, submit a quotation estimating cost adjustments to the Contract Sum and the Contract Time necessary to execute the change.
    - a. Include a complete cost breakdown including a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
    - b. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
    - c. Include costs of labor, supervision, overhead, and profit directly attributable to the change.
    - d. Include an updated Contractor's Construction Schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
- E. Contractor-Initiated Requests: If latent or unforeseen conditions require modifications to the Contract, Contractor may propose changes by submitting a request for a change to the Architect.
1. Changes requested by the Contractor will be authorized only by signature of the Owner on the prescribed. Do not proceed with any changes without this authorization.
  2. Include a statement outlining reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and the Contract Time.
  3. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
  4. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
  5. Include costs of labor, supervision, overhead, and profit directly attributable to the change.
  6. Include an updated Contractor's Construction Schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
  7. Comply with requirements in Division 1 Section 01 60 00 "Product Requirements" if the proposed change requires substitution of one product or system for product or system specified.

## **CONTRACT MODIFICATION PROCEDURES – SECTION 01 25 00**

- F. Change Request Form: Use forms provided by Owner. Sample copies are included at end of Section 3.

### 1.5 CHANGE ORDER PROCEDURES

- A. On Owner's approval of a Change Request, and at intervals to be determined, Architect will collect Change Requests and issue a Change Order for signatures of Owner and Contractor on AIA Document G701.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

**CHANGE REQUEST/PROCEED ORDER**

**Capital Improvement Program  
Eugene School District 4J**

.....  
**CHANGE REQUEST NOTICE**

Change Request No.: \_\_\_\_\_

Project No.: \_\_\_\_\_ Contract No.: \_\_\_\_\_ Date: \_\_\_\_\_

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

Contractor: \_\_\_\_\_

**1. REQUEST INFORMATION**

Estimated \$ \_\_\_\_\_ Time \_\_\_\_\_ Days \_\_\_\_\_ Initiated by \_\_\_\_\_

Reason for change: \_\_\_\_\_

**2. DESCRIPTION**

Describe changes: \_\_\_\_\_

Describe affected work: \_\_\_\_\_

List plan and spec sections: \_\_\_\_\_

Describe impacted activities: \_\_\_\_\_

Comment: \_\_\_\_\_

**3. DATES**

Need for change first known \_\_\_\_\_ By whom \_\_\_\_\_

Contractor first notified \_\_\_\_\_ How \_\_\_\_\_

Owner first notified \_\_\_\_\_

Date approved or rejected \_\_\_\_\_ By whom \_\_\_\_\_

**4. RECOMMENDATION (cost and time) \_\_\_\_\_**

.....  
**PROCEED ORDER**

PROCEED ORDER NO.: \_\_\_\_\_

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

**1. PAYMENT/COST**

Actual amount of change \$ \_\_\_\_\_

The contract time will be:

Contractor amount \$ \_\_\_\_\_

( ) increased ( ) decreased by \_\_\_\_\_ days

Subcontractor amount \$ \_\_\_\_\_

( ) will remain unchanged

Type of payment (LS/T&M) \_\_\_\_\_

**2. MISCELLANEOUS**

Subcontractors involved: \_\_\_\_\_

Major materials: \_\_\_\_\_

The cost is not to exceed \$ \_\_\_\_\_

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

**3. CHANGE REQUEST ACCEPTED BY:**

Contractor: \_\_\_\_\_

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

Architect: \_\_\_\_\_

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

4J CIP Project Manager: \_\_\_\_\_

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

4J CIP Program Manager: \_\_\_\_\_

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

4J Facilities Director: \_\_\_\_\_

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

Without the signature of Facilities Director, or the acting Director, this Proceed Order is neither accepted or authorized, except by written authorization of other specific delegation.

END OF SECTION 01 25 00

## **PAYMENT PROCEDURES**

### **SECTION 01 29 00**

#### **PART 1 - GENERAL**

##### **1.1 RELATED DOCUMENTS**

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

##### **1.2 SUMMARY**

- A. This Section specifies administrative and procedural requirements necessary to prepare and process Applications for Payment.
- B. Related Sections include the following:
  - 1. Division 01 Section 01 25 00 "Contract Modification Procedures" for administrative procedures for handling changes to the Contract.
  - 2. Division 01 Section 01 32 00 "Construction Progress Documentation" for administrative requirements governing preparation and submittal of Contractor's Construction Schedule and Submittals Schedule.
  - 3. Division 01 Section 01 77 00 "Closeout Procedures" for final application for payment.

##### **1.3 DEFINITIONS**

- A. Schedule of Values: A statement furnished by Contractor allocating portions of the Contract Sum to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

##### **1.4 SCHEDULE OF VALUES**

- A. Coordination: Coordinate preparation of the Schedule of Values with preparation of Contractor's Construction Schedule.
  - 1. Correlate line items in the Schedule of Values with other required administrative forms and schedules, including the following:
    - a. Application for Payment forms with Continuation Sheets.
    - b. Submittals Schedule.
    - c. Contractor's Construction Schedule.
  - 2. Submit the Schedule of Values to Architect and Owner at earliest possible date but no later than seven days before the date scheduled for submittal of initial Application for Payment.
- B. Format and Content: Use the Project Manual table of contents as a guide to establish line items for the Schedule of Values. Provide at least one line item for each Specification Section.

## PAYMENT PROCEDURES – SECTION 01 29 00

1. Identification: Include the following Project identification on the Schedule of Values:
  - a. Project name and location.
  - b. Name of Architect.
  - c. Architect's project number.
  - d. Contractor's name and address.
  - e. Date of submittal.
2. Submit draft of AIA Document G703 Continuation Sheets.
3. Provide a breakdown of the Contract Sum in enough detail to facilitate continued evaluation of Applications for Payment and progress reports. Coordinate with the Project Manual table of contents. Provide several line items for principal subcontract amounts, where appropriate.
4. Round amounts to nearest whole dollar; total shall equal the Contract Sum.
5. Provide a separate line item in the Schedule of Values for each part of the Work where Applications for Payment may include materials or equipment purchased or fabricated and stored, but not yet installed.
  - a. Differentiate between items stored on-site and items stored off-site. If specified, include evidence of insurance or bonded warehousing.
6. Provide separate line items in the Schedule of Values for initial cost of materials, for each subsequent stage of completion, and for total installed value of that part of the Work.
7. Allowances: Provide a separate line item in the Schedule of Values for each allowance. Show line-item value of unit-cost allowances, as a product of the unit cost, multiplied by measured quantity. Use information indicated in the Contract Documents to determine quantities.
8. Each item in the Schedule of Values and Applications for Payment shall be complete. Include total cost and proportionate share of general overhead and profit for each item.
  - a. Temporary facilities and other major cost items that are not direct cost of actual work-in-place may be shown either as separate line items in the Schedule of Values or distributed as general overhead expense, at Contractor's option.
9. Schedule Updating: Update and resubmit the Schedule of Values before the next Applications for Payment when Change Orders or Construction Change Directives result in a change in the Contract Sum.

### 1.5 APPLICATIONS FOR PAYMENT

- A. Each Application for Payment shall be consistent with previous applications and payments as certified by Architect and paid for by Owner.
  1. Initial Application for Payment, Application for Payment at time of Substantial Completion, and final Application for Payment involve additional requirements.
- B. Payment Application Forms: Use AIA Document G702 and AIA Document G703 Continuation Sheets as form for Applications for Payment.

## PAYMENT PROCEDURES – SECTION 01 29 00

- C. Application Preparation: Complete every entry on form. Notarize and execute by a person authorized to sign legal documents on behalf of Contractor. Architect will return incomplete applications without action.
1. Entries shall match data on the Schedule of Values and Contractor's Construction Schedule. Use updated schedules if revisions were made.
  2. Include amounts of Change Orders issued before last day of construction period covered by application.
  3. Transmittal: Submit 3 signed and notarized original copies of each Application for Payment to Architect by a method ensuring receipt within 24 hours.
- D. Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of first Application for Payment include the following:
1. List of subcontractors.
  2. Schedule of Values (draft submitted previously).
  3. Contractor's Construction Schedule (preliminary if not final).
  4. Products list.
  5. Schedule of unit prices.
  6. Submittals Schedule (based Architect's list or required submittals).
  7. List of Contractor's staff assignments.
  8. Initial progress report.
  9. Report of preconstruction conference.
- E. Application for Payment at Substantial Completion: After Architect issues the Certificate of Substantial Completion, submit an Application for Payment showing 100 percent completion for portion of the Work claimed as substantially complete.
1. Include documentation supporting claim that the Work is substantially complete and a statement showing an accounting of changes to the Contract Sum.
  2. This application shall reflect Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions of the Work.
- F. Final Payment Application: Submit final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:
1. Evidence of completion of Project closeout requirements (See itemized list in Section 01 77 00 "Closeout Procedures").
  2. Updated final statement, accounting for final changes to the Contract Sum.
  3. AIA Document G706, "Contractor's Affidavit of Payment of Debts and Claims."
  4. AIA Document G706A, "Contractor's Affidavit of Release of Liens."
  5. AIA Document G707, "Consent of Surety to Final Payment."
  6. Evidence that claims have been settled.
  7. Final, liquidated damages settlement statement.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 10 29 00

**PROJECT MANAGEMENT AND COORDINATION**  
**SECTION 01 31 00**

**PART 1 - GENERAL**

**1.1 RELATED DOCUMENTS**

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

**1.2 SUMMARY**

- A. This Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:
  - 1. Administrative and supervisory personnel.
  - 2. Project meetings.
- B. Related Sections include the following:
  - 1. Division 1 Section 01 32 00 "Construction Progress Documentation" for preparing and submitting Contractor's Construction Schedule.
  - 2. Division 1 Section 01 73 00 "Execution Requirements" for procedures for coordinating general installation and field-engineering services, including establishment of benchmarks and control points.
  - 3. Division 1 Section 01 77 00 "Closeout Procedures" for coordinating Contract closeout.

**1.3 COORDINATION**

- A. Coordination: Coordinate construction operations included in different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations, included in different Sections, that depend on each other for proper installation, connection, and operation.
  - 1. Schedule construction operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
  - 2. Coordinate installation of different components with other contractors to ensure maximum accessibility for required maintenance, service, and repair.
  - 3. Make adequate provisions to accommodate items scheduled for later installation.
  - 4. Where availability of space is limited, coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair of all components, including mechanical and electrical.
- B. Prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and list of attendees at meetings.
  - 1. Prepare similar memoranda for Owner and separate contractors if coordination of their Work is required.

## PROJECT MANAGEMENT AND COORDINATION – SECTION 01 31 00

- C. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities and activities of other contractors to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
1. Preparation of Contractor's Construction Schedule.
  2. Preparation of the Schedule of Values.
  3. Installation and removal of temporary facilities and controls.
  4. Delivery and processing of submittals.
  5. Progress meetings.
  6. Preinstallation conferences.
  7. Project closeout activities.
  8. Startup and adjustment of systems.
  9. Project closeout activities.
- D. Conservation: Coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water, and materials.
1. Salvage materials and equipment involved in performance of, but not actually incorporated into, the Work. Refer to other Sections for disposition of salvaged materials that are designated as Owner's property.

### 1.4 SUBMITTALS

- A. Key Personnel Names: Within 15 days of Notice-to-Proceed, submit a list of key personnel assignments, including superintendent and other personnel in attendance at Project site. Identify individuals and their duties and responsibilities; list addresses and telephone numbers, including pager, cell, and office telephone numbers. Provide names, addresses, and telephone numbers of individuals assigned as standbys in the absence of individuals assigned to Project.

### 1.5 PROJECT MEETINGS

- A. General: Schedule and conduct meetings and conferences at Project site, unless otherwise indicated.
1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Schedule meeting dates and times with Owner and Architect.
  2. Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees.
  3. Minutes: Architect will record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned, within three days of receiving them from the Architect.
- B. Preconstruction Conference: Owner's Project Manager will schedule a preconstruction conference before starting construction, no later than 15 days after execution of the Agreement. Hold the conference at Project site or another convenient location. Conduct the meeting to review responsibilities and personnel assignments.
1. Attendees: Owner's Project Manager, Architect, and their consultants, as required; Contractor and its superintendent; major subcontractors; suppliers; and other concerned

## PROJECT MANAGEMENT AND COORDINATION – SECTION 01 31 00

- parties shall attend the conference. All participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
2. Agenda: Discuss items of significance that could affect progress, including the following (see sample agenda at the end of Part 3):
    - a. Introduction of persons present.
    - b. Tentative construction schedule.
    - c. Phasing.
    - d. Critical work sequencing and long-lead items.
    - e. Designation of key personnel and their duties.
    - f. Procedures for processing field decisions and Change Orders.
    - g. Procedures for requests for interpretations (RFIs).
    - h. Procedures for testing and inspecting.
    - i. Procedures for processing Applications for Payment.
    - j. Distribution of the Contract Documents.
    - k. Communications.
    - l. Role of District's Project Manager.
    - m. Submittal procedures, including MSDS information.
    - n. Energy design requirements.
    - o. Preparation of Record Documents.
    - p. Use of the premises and existing building.
    - q. Work hours and restrictions.
    - r. Owner's occupancy requirements.
    - s. Responsibility for temporary facilities and controls.
    - t. Construction waste management and recycling.
    - u. Parking availability.
    - v. Office, work, and storage areas.
    - w. Equipment deliveries and priorities.
    - x. Safety and first aid.
    - y. Security.
    - z. Progress cleaning.
  3. Minutes: Architect will record and distribute meeting minutes.
  4. Statements made by the Contracting Agency's representative at the pre-construction conference are not binding upon the Contracting Agency unless confirmed by Written Addendum.
- C. Preinstallation Conferences: When required by individual specification sections, conduct a preinstallation conference at Project site before each construction activity that requires coordination with other construction.
1. Attendees: Installer and representatives of manufacturers and fabricators involved in or affected by the installation and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting. Advise Architect and Owner's Project Manager a minimum of four days prior to scheduled meeting dates.
  2. Agenda: Review progress of other construction activities and preparations for the particular activity under consideration, including requirements for the following:
    - a. Contract documents.
    - b. Related requests for interpretations (RFIs).
    - c. Related Change Orders.

**PROJECT MANAGEMENT AND COORDINATION – SECTION 01 31 00**

- d. Purchases.
  - e. Deliveries.
  - f. Submittals.
  - g. Possible conflicts.
  - h. Compatibility problems.
  - i. Time schedules.
  - j. Weather limitations.
  - k. Manufacturer's written recommendations.
  - l. Warranty requirements.
  - m. Compatibility of materials.
  - n. Acceptability of substrates.
  - o. Space and access limitations.
  - p. Regulations of authorities having jurisdiction.
  - q. Testing and inspecting requirements.
  - r. Installation procedures.
  - s. Coordination with other work.
  - t. Required performance results.
  - u. Protection of adjacent work.
- 3. Contractor to record significant conference discussions, agreements, and disagreements, including required corrective measures and actions.
  - 4. Distribute minutes of the meeting to each party present and to parties who should have been present, within three working days.
  - 5. Do not proceed with installation if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of the Work and reconvene the conference at earliest feasible date.
- D. Progress Meetings: Conduct progress meetings at weekly intervals. Coordinate dates of meetings with preparation of payment requests.
- 1. Attendees: In addition to the Owner's Project Manager and Architect, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
  - 2. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.
    - a. Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's Construction Schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
    - b. Review present and future needs of each entity present, including the following:
      - 1) Interface requirements.
      - 2) Sequence of operations.
      - 3) Status of submittals.

**PROJECT MANAGEMENT AND COORDINATION – SECTION 01 31 00**

- 4) Deliveries.
  - 5) Off-site fabrication.
  - 6) Access.
  - 7) Site utilization.
  - 8) Temporary facilities and controls.
  - 9) Work hours.
  - 10) Hazards and risks.
  - 11) Progress cleaning.
  - 12) Quality and work standards.
  - 13) Status of correction of deficient items.
  - 14) Field observations.
  - 15) Requests for interpretations (RFIs).
  - 16) Status of proposal requests.
  - 17) Pending changes.
  - 18) Status of Change Orders.
  - 19) Pending claims and disputes.
  - 20) Documentation of information for payment requests.
3. Minutes: Architect will record and distribute to Contractor the meeting minutes.
  4. Reporting: Distribute minutes of the meeting to each party present and to parties who should have been present.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

**PRECONSTRUCTION CONFERENCE AGENDA (SAMPLE)**

Eugene School District 4J  
FIRE & LIFE SAFETY IMPROVEMENTS - 2014

[Date]

AGENDA

1. ( ) Introduction of Persons Present
  - ( ) District 4J
  - ( ) Consultants
  - ( ) Contractor (including job foreman)
  - ( ) Subcontractors
  
2. ( ) Availability of Contract Documents
  
3. ( ) Building Permit Status
  - ( ) Plan check and Building Permit paid by District
  - ( ) Pick up Permit at City of Eugene by Contractor
  - ( ) Location of site stored approved contract documents
  - ( ) Utility permits
  - ( ) LRAPA Permit
  
4. ( ) Prevailing Wage Requirements
  - ( ) Submittal schedule
  - ( ) Conformance with requirements
  
5. ( ) Communications
  - ( ) Notification of problems
  
6. ( ) Role of District's representative
  - ( ) Limits of authority
  - ( ) Visitation schedules
  
7. ( ) Work Description and Schedule
  - ( ) General work description
  - ( ) Proposed start date: \_\_\_\_\_
  - ( ) Proposed completion date: \_\_\_\_\_
  - ( ) Proposed project schedule and phasing
  - ( ) Progress schedule updates
  - ( ) Methods to be employed to maintain schedule
  - ( ) Work requiring Shop Drawings or submittals shall not commence until review is complete.
  
8. ( ) Submittals Required per Contract Documents
  - ( ) MSDS Information
  - ( ) Written proof of Asbestos Worker Certification
  - ( ) Name, Experience and Qualifications of Asbestos Supervisor
  - ( ) Copy of Contractor's Asbestos Abatement License
  - ( ) Other information as required by Section 01 31 00.

**PROJECT MANAGEMENT AND COORDINATION – SECTION 01 31 00**

- Schedule of values
- List of subcontractors including name of contact person, telephone number, and address
  
- 9.  Construction
  - Working hours
  - Use of premises/set up locations
  - Protection of existing facilities
  - Traffic and protection
  - Excavation and clean-up
  - Weather restrictions
  - Deviation from details and/or specifications
  
- 10.  Correction of Defects
  - Daily and/or as observed
  
- 11.  Weekly On-Site Progress Meetings
  - Establish day and time: Day \_\_\_\_\_ Time \_\_\_\_\_
  - Provide updated project schedules
  - Discuss project progress, problems, etc.
  - Review applications for payment
  - Required attendance
  - Observation report distribution
  
- 12.  Change Order Requests and Change Order Procedures
  - Written Change Order requests required
  - Supporting back-up will be required for all Change Orders
  - Mark-up limitations on Change Orders
    - Contractor - 15 percent
    - Subcontractors - 10 percent
  - Progressive requests and Change Orders
  - Processing time required
  
- 13.  Applications for Payment
  - Use AIA documents G702 and G703 latest edition
  - Provide 5 signed and notarized copies
  - Wage certifications to be attached
  
- 14.  Safety and Emergency Procedures
  
- 15.  Clean-up Daily
  - Project completion
  
- 16.  Project Closeout
  - Inspections for
    - Air Clearance
    - AHERA Close Out Requirements
    - Substantial completion
      - Contractor provided list of items to be completed
      - Inspection with job foreman
    - Final Acceptance
      - Written notice from Contractor that all work is done and ready for inspection

**PROJECT MANAGEMENT AND COORDINATION – SECTION 01 31 00**

- Inspection with job foreman
- Responsibility for cost of additional inspections
- Submittals for Closeout
  - Final application for payment
  - Final set of wage certifications
  - Release of liens from all Subcontractors and general Contractor

17.  Tour of Project Sites to Examine and Document Existing Conditions

18.  Additional Comments

The undersigned acknowledges that the items listed above were discussed during this preconstruction conference and are fully understood.

Date:

A/E Firm:

Contractor:

Subcontractors:

END OF SECTION 01 31 00

## CONSTRUCTION PROGRESS DOCUMENTATION

### SECTION 01 32 00

#### PART 1 - GENERAL

##### 1.1 RELATED DOCUMENTS

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

##### 1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for documenting the progress of construction during performance of the Work, including the following:

1. Preliminary Construction Schedule.
2. Contractor's Construction Schedule.
3. Submittals Schedule.

- B. Related Sections include the following:

1. Division 1 Section 01 29 00 "Payment Procedures" for submitting the Schedule of Values.
2. Division 1 Section 01 31 00 "Project Management and Coordination" for submitting and distributing meeting and conference minutes.
3. Division 1 Section 01 33 00 "Submittal Procedures" for submitting schedules and reports.
4. Division 1 Section 01 40 00 "Quality Requirements" for submitting a schedule of tests and inspections.

##### 1.3 SUBMITTALS

- A. Submittals Schedule: Submit three copies of schedule. Arrange the following information in a tabular format.

1. Scheduled date for first submittal.
2. Specification Section number and title.
3. Submittal category (action or informational).
4. Name of subcontractor.
5. Description of the Work covered.
6. Scheduled date for Architect's final release or approval.

- B. Contractor's Construction Schedule: Submit two opaque copies of initial schedule, large enough to show entire schedule for entire construction period.

##### 1.4 COORDINATION

- A. Coordinate preparation and processing of schedules and reports with performance of construction activities and with scheduling and reporting of separate contractors.

## CONSTRUCTION PROGRESS DOCUMENTATION – SECTION 01 32 00

- B. Coordinate Contractor's Construction Schedule with the Schedule of Values, list of subcontracts, Submittals Schedule, progress reports, payment requests, and other required schedules and reports.
  - 1. Secure time commitments for performing critical elements of the Work from parties involved.
  - 2. Coordinate each construction activity in the network with other activities and schedule them in proper sequence.

### PART 2 - PRODUCTS

#### 2.1 SUBMITTALS SCHEDULE

- A. Preparation: Submit a schedule of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, resubmittal, ordering, manufacturing, fabrication, and delivery when establishing dates.
  - 1. Coordinate Submittals Schedule with list of subcontracts, the Schedule of Values, and Contractor's Construction Schedule.
  - 2. Initial Submittal: List those required to maintain orderly progress of the Work and those required early because of long lead time for manufacture or fabrication.
  - 3. Final Submittal: Submit concurrently with the first complete submittal of Contractor's Construction Schedule.

#### 2.2 CONTRACTOR'S CONSTRUCTION SCHEDULE, GENERAL

- A. Time Frame: Extend schedule from date established for the Notice to Proceed to date of Final Completion.
- B. Activities: Treat each floor or separate area as a separately numbered activity for each principal element of the Work
- C. Constraints: Include constraints and work restrictions indicated in the Contract Documents and as follows in schedule, and show how the sequence of the Work is affected.
- D. Products Ordered in Advance: Include a separate activity for each product. Include delivery date indicated in Division 1 Section 01 11 00 "Summary of Work." Delivery dates indicated stipulate the earliest possible delivery date.
- E. Owner-Furnished Products: Include a separate activity for each product. Include delivery date indicated in Division 1 Section 01 11 00 "Summary of Work." Delivery dates indicated stipulate the earliest possible delivery date.
- F. Milestones: Include milestones indicated in the Contract Documents in schedule, including, but not limited to, the Notice to Proceed, Substantial Completion, and Final Completion.
- G. Cost Correlation: At the head of schedule, provide a cost correlation line, indicating planned and actual costs. On the line, show dollar volume of the Work performed as of dates used for preparation of payment requests.

## CONSTRUCTION PROGRESS DOCUMENTATION – SECTION 01 32 00

### 2.3 CONTRACTOR'S CONSTRUCTION SCHEDULE

- A. Bar-Chart Schedule: Submit preliminary horizontal bar-chart-type construction schedule within 10 days of date established for the Notice to Proceed.
- B. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line.

## PART 3 - EXECUTION

### 3.1 CONTRACTOR'S CONSTRUCTION SCHEDULE

- A. Contractor's Construction Schedule Updating: At monthly intervals, update schedule to reflect actual construction progress and activities. Issue schedule one week before each regularly scheduled progress meeting.
  - 1. Revise schedule immediately after each meeting or other activity where revisions have been recognized or made. Issue updated schedule concurrently with the report of each such meeting.
  - 2. Include a report with updated schedule that indicates every change, including, but not limited to, changes in logic, durations, actual starts and finishes, and activity durations.
  - 3. As the Work progresses, indicate Actual Completion percentage for each activity.
- B. Distribution: Distribute copies of approved schedule to Architect Owner's Project Manager, separate contractors, testing and inspecting agencies, and other parties identified by Contractor with a need-to-know schedule responsibility.
  - 1. Post copies in Project meeting rooms and temporary field offices.
  - 2. When revisions are made, distribute updated schedules to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in performance of construction activities.

END OF SECTION 01 32 00

## **SUBMITTAL PROCEDURES**

### **SECTION 01 33 00**

#### **PART 1 - GENERAL**

##### **1.1 RELATED DOCUMENTS**

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

##### **1.2 SUMMARY**

- A. This Section includes administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, Information Submittals, Delegated Design and other submittals.
- B. Related Sections include the following:
  - 1. Division 1 Section 01 29 00 "Payment Procedures" for submitting Applications for Payment and the Schedule of Values.
  - 2. Division 1 Section 01 31 00 "Project Management and Coordination" for submitting and distributing meeting and conference minutes and for submitting Coordination Drawings.
  - 3. Division 1 Section 01 32 00 "Construction Progress Documentation" for submitting schedules and reports, including Contractor's Construction Schedule and the Submittals Schedule.
  - 4. Division 1 Section 01 40 00 "Quality Requirements" for submitting test and inspection reports and for mockup requirements, if any.
  - 5. Division 1 Section 01 77 00 "Closeout Procedures" for submitting warranties.
  - 6. Division 1 Section 01 78 39 "Project Record Documents" for submitting Record Drawings, Record Specifications, and Record Product Data.
  - 7. Division 1 Section 01 78 23 "Operation and Maintenance Data" for submitting operation and maintenance manuals.
  - 8. Divisions 02 through 49 Sections for specific requirements for submittals in those Sections.

##### **1.3 DEFINITIONS**

- A. Action Submittals: Written and graphic information that requires Architect's responsive action.
- B. Informational Submittals: Written information that does not require Architect's responsive action. Submittals may be rejected for not complying with requirements.

##### **1.4 SUBMITTAL PROCEDURES**

- A. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
  - 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.

## SUBMITTAL PROCEDURES – SECTION 01 33 00

2. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.
- B. Submittals Schedule: Comply with requirements in Division 1 Section 01 32 00 "Construction Progress Documentation" for list of submittals and time requirements for scheduled performance of related construction activities.
- C. Processing Time: Allow enough time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Architect's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.
1. Initial Review: Allow 14 calendar days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Architect will advise Contractor when a submittal being processed must be delayed for coordination.
  2. Intermediate Review: If intermediate submittal is necessary, process it in same manner as initial submittal.
- D. Identification: Place a permanent label or title block on each submittal for identification.
1. Indicate name of firm or entity that prepared each submittal on label or title block.
  2. Provide a space approximately 6 by 8 inches on label or beside title block to record Contractor's review and approval markings and action taken by Architect.
- E. Deviations: Highlight, encircle, or otherwise specifically identify deviations from the Contract Documents on submittals.
- F. Transmittal: Package each submittal individually and appropriately for transmittal and handling. Transmit each submittal using a transmittal form. Architect will return submittals, without review, if received from sources other than Contractor without prior consent.
1. Transmittal Form: Provide locations on form for the following information:
    - a. Project name.
    - b. Date.
    - c. Destination (To:).
    - d. Source (From:).
    - e. Names of subcontractor, manufacturer, and supplier.
    - f. Category and type of submittal.
    - g. Submittal purpose and description.
    - h. Specification Section number and title.
    - i. Drawing number and detail references, as appropriate.
    - j. Submittal and transmittal distribution record.
    - k. Remarks.
    - l. Signature of transmitter.
- G. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.
1. Note date and content of previous submittal.
  2. Note date and content of revision in label or title block and clearly indicate extent of revision.

## SUBMITTAL PROCEDURES – SECTION 01 33 00

3. Resubmit submittals until they are marked “Reviewed - No Comment” or “Reviewed - See Comments”.
- H. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
- I. Use for Construction: Use only final submittals with mark indicating “Reviewed - No Comment” or “Reviewed - See Comments” taken by Architect.

### PART 2 - PRODUCTS

#### 2.1 ACTION SUBMITTALS

- A. General: Prepare and submit Action Submittals required by individual Specification Sections.
- B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
1. If information must be specially prepared for submittal because standard printed data are not suitable for use, submit as Shop Drawings, not as Product Data.
  2. Mark each copy of each submittal to show which products and options are applicable.
  3. Include the following information, as applicable:
    - a. Manufacturer's written recommendations.
    - b. Manufacturer's product specifications.
    - c. Manufacturer's installation instructions.
    - d. Standard color charts.
    - e. Manufacturer's catalog cuts.
    - f. Wiring diagrams showing factory-installed wiring.
    - g. Printed performance curves.
    - h. Operational range diagrams.
    - i. Compliance with specified referenced standards.
    - j. Testing by recognized testing agency.
    - k. Application of testing agency labels and seals.
    - l. Notation of coordination requirements.
    - m. MSDS information, where applicable.
  4. Submit Product Data before or concurrent with Samples.
  5. Number of Copies: Submit the number required by the Contractor plus four (4) copies of Product Data, unless otherwise indicated. Architect will return two copies to Contractor and one to Owner. Mark up and retain one returned copy as a Project Record Document.
- C. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.
1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:
    - a. Dimensions.
    - b. Identification of products.

## SUBMITTAL PROCEDURES – SECTION 01 33 00

- c. Wiring diagrams showing field-installed wiring, including power, signal, and control wiring.
  - d. Schedules.
  - e. Design calculations.
  - f. Compliance with specified standards.
  - g. Notation of coordination requirements.
  - h. Notation of dimensions established by field measurement.
  - i. Relationship to adjoining construction clearly indicated.
  - j. Seal and signature of professional engineer if specified.
2. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches but no larger than 30 by 40 inches.
  3. Number of Copies: Submit four opaque copies of each submittal, unless copies are required for operation and maintenance manuals. Submit five copies where copies are required for operation and maintenance manuals. Architect will retain two copies, including one for the Owner's Project Manager; remainder will be returned. Mark up and retain one returned copy as a Project Record Drawing.
- D. Samples: Submit Samples for review of kind, color, pattern, and texture for a check of these characteristics with other elements and for a comparison of these characteristics between submittal and actual component as delivered and installed.
1. Transmit Samples that contain multiple, related components such as accessories together in one submittal package.
  2. Identification: Attach label on unexposed side of Samples that includes the following:
    - a. Generic description of Sample.
    - b. Product name and name of manufacturer.
    - c. Sample source.
    - d. Number and title of appropriate Specification Section.
  3. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.
    - a. Samples that may be incorporated into the Work are indicated in individual Specification Sections. Such Samples must be in an undamaged condition at time of use.
    - b. Samples not incorporated into the Work, or otherwise designated as Owner's property, are the property of Contractor..
    - c. Number of Samples: Submit three sets of Samples. Architect will retain two Sample sets; remainder will be returned.

### 2.2 INFORMATIONAL SUBMITTALS

- A. General: Prepare and submit Informational Submittals required by other Specification Sections.
1. Number of Copies: Submit two copies of each submittal, unless otherwise indicated. Architect will not return copies.

## SUBMITTAL PROCEDURES – SECTION 01 33 00

2. Certificates and Certifications: Provide a notarized statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.
  3. Test and Inspection Reports: Comply with requirements specified in Division 1 Section 01 40 00 "Quality Requirements."
- B. Coordination Drawings: Comply with requirements specified in Division 1 Section 01 31 00 "Project Management and Coordination."
  - C. Contractor's Construction Schedule: Comply with requirements specified in Division 1 Section 01 32 00 "Construction Progress Documentation."
  - D. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, names and addresses of architects and owners, and other information specified.
  - E. Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements in the Contract Documents. Submit record of Welding Procedure Specification (WPS) and Procedure Qualification Record (PQR) on AWS forms. Include names of firms and personnel certified.
  - F. Installer Certificates: Prepare written statements on manufacturer's letterhead certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.
  - G. Manufacturer Certificates: Prepare written statements on manufacturer's letterhead certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.
  - H. Product Certificates: Prepare written statements on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.
  - I. Material Certificates: Prepare written statements on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.
  - J. Material Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.
  - K. Product Test Reports: Prepare written reports indicating current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.
  - L. Schedule of Tests and Inspections: Comply with requirements specified in Division 1 Section 01 40 00 "Quality Requirements."
  - M. Preconstruction Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of tests performed before installation of product, for compliance with performance requirements in the Contract Documents.

## SUBMITTAL PROCEDURES – SECTION 01 33 00

- N. Compatibility Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of product. Include written recommendations for primers and substrate preparation needed for adhesion.
- O. Field Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements in the Contract Documents.
- P. Maintenance Data: Prepare written and graphic instructions and procedures for operation and normal maintenance of products and equipment. Comply with requirements specified in Division 1 Section 01 78 23 "Operation and Maintenance Data."
- Q. Design Data: Prepare written and graphic information, including, but not limited to, performance and design criteria, list of applicable codes and regulations, and calculations. Include list of assumptions and other performance and design criteria and a summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Include page numbers.
- R. Manufacturer's Instructions: Prepare written or published information that documents manufacturer's recommendations, guidelines, and procedures for installing or operating a product or equipment. Include name of product and name, address, and telephone number of manufacturer.
- S. Insurance Certificates and Bonds: Prepare written information indicating current status of insurance or bonding coverage. Include name of entity covered by insurance or bond, limits of coverage, amounts of deductibles, if any, and term of the coverage.
- T. Material Safety Data Sheets (MSDSs): Submit information directly to Owner; do not submit to Architect.

### 2.3 DELEGATED DESIGN

- A. Performance and Design Criteria: Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.
- B. Delegated-Design Submittal: In addition to Shop Drawings, Product Data, and other required submittals, submit three copies of a statement, signed and sealed by the responsible design professional, for each product and system specifically assigned to Contractor to be designed or certified by a design professional.

Indicate that products and systems comply with performance and design criteria in the Contract Documents. Include list of codes, loads, and other factors used in performing these services.

## SUBMITTAL PROCEDURES – SECTION 01 33 00

### PART 3 - EXECUTION

#### 3.1 CONTRACTOR'S REVIEW

- A. Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Architect.
- B. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

#### 3.2 ARCHITECT'S ACTION

- A. General: Architect will not review submittals that do not bear Contractor's approval stamp and will return them without action.
- B. Action Submittals: Architect will review each submittal, make marks to indicate corrections or modifications required, and return it. Architect will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action taken, as follows:
  - 1. Reviewed - No Comment.
  - 2. Reviewed - See Comments.
  - 3. Revise and Resubmit.
- C. Informational Submittals: Architect will review each submittal and will not return it, or will return it if it does not comply with requirements. Architect will forward each submittal to appropriate party.
- D. Partial submittals are not acceptable, will be considered nonresponsive, and will be returned without review.
- E. Submittals not required by the Contract Documents may not be reviewed and may be discarded.

END OF SECTION 01 33 00

## QUALITY REQUIREMENTS

### SECTION 01 40 00

#### PART 1 - GENERAL

##### 1.1 RELATED DOCUMENTS

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

##### 1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for quality assurance and quality control.
- B. Testing and inspecting services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.
  - 1. Specific quality-assurance and -control requirements for individual construction activities are specified in the Sections that specify those activities. Requirements in those Sections may also cover production of standard products.
  - 2. Specified tests, inspections, and related actions do not limit Contractor's other quality-assurance and -control procedures that facilitate compliance with the Contract Document requirements.
  - 3. Requirements for Contractor to provide quality-assurance and -control services required by Architect, Owner, or authorities having jurisdiction are not limited by provisions of this Section.
- C. Related Sections include the following:
  - 1. Division 01 Section 01 32 00 "Construction Progress Documentation" for developing a schedule of required tests and inspections.
  - 2. Divisions 02 through 49 Sections for specific test and inspection requirements.

##### 1.3 CONFLICTING REQUIREMENTS

- A. General: If compliance with two or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer uncertainties and requirements that are different, but apparently equal, to Architect for a decision before proceeding.
- B. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of requirements. Refer uncertainties to Architect for a decision before proceeding.

1.4 SUBMITTALS

- A. Qualification Data: For testing agencies specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include proof of qualifications in the form of a recent report on the inspection of the testing agency by a recognized authority.
- B. Reports: Prepare and submit certified written reports that include the following:
  - 1. Date of issue.
  - 2. Project title and number.
  - 3. Name, address, and telephone number of testing agency.
  - 4. Dates and locations of samples and tests or inspections.
  - 5. Names of individuals making tests and inspections.
  - 6. Description of the Work and test and inspection method.
  - 7. Identification of product and Specification Section.
  - 8. Complete test or inspection data.
  - 9. Test and inspection results and an interpretation of test results.
  - 10. Record of temperature and weather conditions at time of sample taking and testing and inspecting.
  - 11. Comments or professional opinion on whether tested or inspected Work complies with the Contract Document requirements.
  - 12. Name and signature of laboratory inspector.
  - 13. Recommendations on retesting and reinspecting.
- C. Permits, Licenses, and Certificates: For Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents, established for compliance with standards and regulations bearing on performance of the Work.

1.5 QUALITY CONTROL

- A. Owner Responsibilities: Where quality-control services are indicated as Owner's responsibility, Owner will engage a qualified testing agency to perform these services.
  - 1. Owner will furnish Contractor with names, addresses, and telephone numbers of testing agencies engaged and a description of types of testing and inspecting they are engaged to perform.
  - 2. Payment for these services will be made by Owner.
  - 3. Costs for retesting and reinspecting construction that replaces or is necessitated by work that failed to comply with the Contract Documents will be charged to Contractor, and the Contract Sum will be adjusted by Change Order.
- B. Tests and inspections not explicitly assigned to Owner are Contractor's responsibility. Unless otherwise indicated, provide quality-control services specified and those required by authorities having jurisdiction. Perform quality-control services required of Contractor by authorities having jurisdiction, whether specified or not.
  - 1. Where services are indicated as Contractor's responsibility, engage a qualified testing agency to perform these quality-control services.
  - 2. Notify testing agencies at least 24 hours in advance of time when Work that requires testing or inspecting will be performed.

## QUALITY REQUIREMENTS – SECTION 01 40 00

3. Where quality-control services are indicated as Contractor's responsibility, submit a certified written report, in duplicate, of each quality-control service.
  4. Testing and inspecting requested by Contractor and not required by the Contract Documents are Contractor's responsibility.
  5. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.
- C. **Manufacturer's Field Services:** Where indicated, engage a factory-authorized service representative to inspect field-assembled components and equipment installation, including service connections. Report results in writing as specified in Division 1 Section 01 33 00 "Submittal Procedures."
- D. **Retesting/Reinspecting:** Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and reinspecting, for construction that replaced Work that failed to comply with the Contract Documents.
- E. **Testing Agency Responsibilities:** Cooperate with Architect and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.
1. Notify Architect and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
  2. Determine the location from which test samples will be taken and in which in-situ tests are conducted.
  3. Conduct and interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from requirements.
  4. Submit a certified written report, in duplicate, of each test, inspection, and similar quality-control service through Contractor.
  5. Do not release, revoke, alter, or increase the Contract Document requirements or approve or accept any portion of the Work.
  6. Do not perform any duties of Contractor.
- F. **Associated Services:** Cooperate with agencies performing required tests, inspections, and similar quality-control services, and provide reasonable auxiliary services as requested. Notify agency sufficiently in advance of operations to permit assignment of personnel. Provide the following:
1. Access to the Work.
  2. Incidental labor and facilities necessary to facilitate tests and inspections.
  3. Adequate quantities of representative samples of materials that require testing and inspecting. Assist agency in obtaining samples.
  4. Facilities for storage and field curing of test samples.
  5. Delivery of samples to testing agencies.
  6. Preliminary design mix proposed for use for material mixes that require control by testing agency.
  7. Security and protection for samples and for testing and inspecting equipment at Project site.
- G. **Coordination:** Coordinate sequence of activities to accommodate required quality-assurance and control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspecting.

## QUALITY REQUIREMENTS – SECTION 01 40 00

1. Schedule times for tests, inspections, obtaining samples, and similar activities.

### 1.6 SPECIAL TESTS AND INSPECTIONS

- A. Special Tests and Inspections: Owner will engage a qualified testing agency to conduct special tests and inspections required by authorities having jurisdiction as the responsibility of the Owner, described as follows:

None.

### PART 2 - PRODUCTS (Not Used)

### PART 3 - EXECUTION

#### 3.1 TEST AND INSPECTION LOG

- A. Prepare a record of tests and inspections. Include the following:
  1. Date test or inspection was conducted.
  2. Description of the Work tested or inspected.
  3. Date test or inspection results were transmitted to Architect.
  4. Identification of testing agency or special inspector conducting test or inspection.
- B. Maintain log at Project site. Post changes and modifications as they occur. Provide access to test and inspection log for Architect's reference during normal working hours.

#### 3.2 REPAIR AND PROTECTION

- A. General: On completion of testing, inspecting, sample taking, and similar services, repair damaged construction and restore substrates and finishes.
  1. Provide materials and comply with installation requirements specified in other Specification Sections. Restore patched areas and extend restoration into adjoining areas with durable seams that are as invisible as possible.
- B. Protect construction exposed by or for quality-control service activities.
- C. Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

#### 3.3 SCHEDULE OF QUALITY CONTROL TEST AND INSPECTIONS

- A. Special Tests and Inspections: Owner will engage a qualified testing agency to conduct special tests and inspections required by authorities having jurisdiction as the responsibility of Owner, described as follows:
  1. Structural Concrete:
    - a. Complete Form inspection.
    - b. Check reinforcing steel in place before concrete placement.
    - c. Continuous inspection during placing of Concrete.
    - d. Refer to Structural Drawings for additional requirements.

## QUALITY REQUIREMENTS – SECTION 01 40 00

- e. Comply with OSSC 1704.4 and table 1704.4.
2. Test Concrete Slump as follows:
    - a. Follow ASTM C-143 and C-172.
    - b. Prepare tests from same batch as that employed in preparing strength test specimens, unless otherwise directed.
    - c. If measured slump falls outside specified limits, retest immediately from another portion of same load.
    - d. In event of second failure, Concrete shall be considered as failing Specification requirements.
  3. Test Concrete Compressive Strength as follows:
    - a. Follow ASTM C-31, C-39, and C-172.
    - b. Provide not less than four Test Cylinders for each 100 cubic yard or less for each strength of Concrete cast in any one day.
    - c. Break two Cylinders at 7 days of age, and unless otherwise directed, break remainder at 28 days.
    - d. If any one set of two Cylinders does not develop full design strength at 28 days of age, Cores and load-testing may be called for. All coring and load-testing costs paid by Contractor.
    - e. No one test value may go more than 20% below specified strength, and average of any three consecutive tests shall be equal to or greater than the specified strength.
    - f. Coring and/or load-testing may be required because of low tests; coring and load-testing costs paid by Contractor.
    - g. If tests indicate Concrete has failed to meet Specifications, replace substandard material when directed by Architect.
  4. Structural Steel:
    - a. Inspection at Fabrication Shop and Jobsite as follows: Inspection of Specification conformance of fabricated Structural Steel Members and Assemblies.
    - b. Comply with OSSC 1704.2 and 1704.3.
  5. Inspection of Welding in accordance with AWS Structural Welding Code, Section 6, and as follows:
    - a. Special inspection in accordance with OSSC Section 1704.3.1.
    - b. And the following as they may be deemed necessary and specially ordered:
      - 1) Liquid Penetrant inspection in accordance with ASTM E-165, Procedure B.
      - 2) Magnetic Particle inspection in accordance with ASTM E-109.
      - 3) Radiographic inspection in accordance with Appendix B. Ultrasonic inspection in accordance with Appendix C.
  6. Earthwork Density:
    - a. Method: AASHTO Standards T-180, Method C.

## QUALITY REQUIREMENTS – SECTION 01 40 00

- b. Provide tests for each layer of Fill and Backfill, for Pavement beds in cuts, if any, and to any other Earthwork construction which will support finished Surfaces or Structures.
  - c. Comply with OSSC 1704.7 and 1803.5.
7. Shear Walls and Roof Diaphragms:
- a. Inspection of Structural Panel Assembly and Fastening. Report fastener type, size and spacing. Report panel thickness and span rating. Verify that panels have appropriate grade stamp. Note panel edge gap dimensions.
  - b. Comply with OSSC 1705.3.
8. Timber Connectors:
- a. Inspection of Structural Timber Connections. Includes “Simpson” type framing connectors. Verify installation of connectors shown on the drawings. Note fastener sizes.
9. Adhesive Anchors:
- a. Provide inspection services during installation of adhesive anchors. Verify hole size and depth, cleanliness, adhesive type and proper mixing, and fastener size and material grade.
  - b. Installation to be in accordance with manufacturers published information and ICBO Report.

END OF SECTION 01 40 00

## TEMPORARY FACILITIES AND CONTROL

### SECTION 01 50 00

#### PART 1 - GENERAL

##### 1.1 RELATED DOCUMENTS

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

##### 1.2 SUMMARY

- A. This Section includes requirements for temporary utilities, support facilities, and security and protection facilities.
- B. Related Sections include the following:
  - 1. Division 01 Section 01 11 00 "Summary of Work" for limitations on utility interruptions and other work restrictions.
  - 2. Division 01 Section 01 33 00 "Submittal Procedures" for procedures for submitting copies of implementation and termination schedule and utility reports.
  - 3. Division 01 Section 01 77 00 "Execution Requirements" for progress cleaning requirements.
  - 4. Divisions 02 through 49 Sections for temporary heat, ventilation, and humidity requirements for products in those Sections.

##### 1.3 DEFINITIONS

- A. Permanent Enclosure: As determined by Architect, permanent or temporary roofing is complete, insulated, and weathertight; exterior walls are insulated and weathertight; and all openings are closed with permanent construction or substantial temporary closures.

##### 1.4 USE CHARGES

- A. General: Cost or use charges for temporary facilities shall be included in the Contract Sum. Allow other entities to use temporary services and facilities without cost, including, but not limited to, Owner's construction forces, Architect, testing agencies, and authorities having jurisdiction.

##### 1.5 SUBMITTALS

- A. Site Plan: Show temporary facilities, utility hookups, staging areas, and parking areas for construction personnel.

##### 1.6 QUALITY ASSURANCE

- A. Electric Service: Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.
- B. Tests and Inspections: Arrange for authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.

## TEMPORARY FACILITIES AND CONTROLS – SECTION 01 50 00

### 1.7 PROJECT CONDITIONS

- A. Temporary Use of Permanent Facilities: Installer of each permanent service shall assume responsibility for operation, maintenance, and protection of each permanent service during its use as a construction facility before Owner's acceptance, regardless of previously assigned responsibilities.

### PART 2 - PRODUCTS

#### 2.1 MATERIALS

- A. Portable Chain-Link Fencing: Minimum 6-feet high. See Drawings.

#### 2.2 TEMPORARY FACILITIES

- A. Field Offices, General: Prefabricated or mobile units with serviceable finishes, temperature controls, and foundations adequate for normal loading.
- B. Common-Use Field Office: Of sufficient size to accommodate needs of construction personnel. Keep office clean and orderly. Furnish and equip offices as follows:
  - 1. Not Required
- C. Storage and Fabrication Sheds: Provide sheds sized, furnished, and equipped to accommodate materials and equipment for construction operations.
  - 1. Store combustible materials apart from building.

#### 2.3 EQUIPMENT

- A. Fire Extinguishers: Portable, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures.
- B. Heating Equipment: Unless Owner authorizes use of permanent heating system, provide vented, self-contained, liquid-propane-gas or fuel-oil heaters with individual space thermostatic control.
  - 1. Use of gasoline-burning space heaters, open-flame heaters, or salamander-type heating units is prohibited.
  - 2. Heating Units: Listed and labeled for type of fuel being consumed, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

### PART 3 - EXECUTION

#### 3.1 INSTALLATION, GENERAL

- A. Locate facilities where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required by progress of the Work.
- B. Provide each facility ready for use when needed to avoid delay. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

## TEMPORARY FACILITIES AND CONTROLS – SECTION 01 50 00

### 3.2 TEMPORARY UTILITY INSTALLATION

- A. General: Install temporary service or connect to existing service.
  - 1. Arrange with utility company, Owner, and existing users for time when service can be interrupted, if necessary, to make connections for temporary services.
- B. Sewers and Drainage: Provide temporary utilities to remove effluent lawfully.
  - 1. Connect temporary sewers to municipal system as directed by authorities having jurisdiction.
- C. Water Service: Use of Owner's existing water service facilities will be permitted, as long as facilities are cleaned and maintained in a condition acceptable to Owner. At Substantial Completion, restore these facilities to condition existing before initial use.
- D. Sanitary Facilities: Provide temporary toilets, wash facilities, and drinking water for use of construction personnel. Comply with authorities having jurisdiction for type, number, location, operation, and maintenance of fixtures and facilities.
- E. Heating: Provide temporary heating required by construction activities for curing or drying of completed installations or for protecting installed construction from adverse effects of low temperatures or high humidity. Select equipment that will not have a harmful effect on completed installations or elements being installed.
- F. Ventilation and Humidity Control: Provide temporary ventilation required by construction activities for curing or drying of completed installations or for protecting installed construction from adverse effects of high humidity. Select equipment that will not have a harmful effect on completed installations or elements being installed. Coordinate ventilation requirements to produce ambient condition required and minimize energy consumption.
- G. Electric Power Service: Use of Owner's existing electric power service will be permitted, as long as equipment is maintained in a condition acceptable to Owner.
- H. Electric Power Service: Provide electric power service and distribution system of sufficient size, capacity, and power characteristics required for construction operations.
  - 1. Connect temporary service to Owner's existing power source, as directed by Owner.
- I. Lighting: Provide temporary lighting with local switching that provides adequate illumination for construction operations, observations, inspections, and traffic conditions.
  - 1. Install and operate temporary lighting that fulfills security and protection requirements without operating entire system.
  - 2. Install lighting for Project identification sign.
- J. Telephone Service: Provide temporary telephone service in common-use facilities for use by all construction personnel. Install two telephone lines for each field office.
  - 1. At each telephone, post a list of important telephone numbers.
    - a. Police and fire departments.
    - b. Ambulance service.
    - c. Contractor's home office.

## TEMPORARY FACILITIES AND CONTROLS – SECTION 01 50 00

- d. Architect's office.
  - e. Engineers' offices.
  - f. Owner's office.
  - g. Principal subcontractors' field and home offices.
2. Provide superintendent with cellular telephone or portable two-way radio for use when away from field office.

### 3.3 SUPPORT FACILITIES INSTALLATION

#### A. General: Comply with the following:

1. Provide incombustible construction for offices, shops, and sheds located within construction area or within 30 feet of building lines. Comply with NFPA 241.
2. Maintain support facilities until near Substantial Completion. Remove before Substantial Completion. Personnel remaining after Substantial Completion will be permitted to use permanent facilities, under conditions acceptable to Owner.

#### B. Temporary Roads and Paved Areas: Construct and maintain temporary roads and paved areas adequate for construction operations. Locate temporary roads and paved areas as indicated on Drawings.

1. Provide dust-control treatment that is nonpolluting and nontracking. Reapply treatment as required to minimize dust.

#### C. Traffic Controls: Comply with requirements of authorities having jurisdiction.

1. Protect existing site improvements to remain including curbs, pavement, and utilities.
2. Maintain access for fire-fighting equipment and access to fire hydrants.

#### D. Parking: Arrange for temporary parking areas for construction personnel.

#### E. Dewatering Facilities and Drains: Comply with requirements of authorities having jurisdiction. Maintain Project site, excavations, and construction free of water.

1. Dispose of rainwater in a lawful manner that will not result in flooding Project or adjoining properties nor endanger permanent Work or temporary facilities.

#### F. Project Identification and Temporary Signs: Provide Project identification and other signs as indicated on Drawings. Install signs where indicated to inform public and individuals seeking entrance to Project. Unauthorized signs are not permitted.

1. Provide temporary, directional signs for construction personnel and visitors.
2. Maintain and touchup signs so they are legible at all times.

#### G. Waste Disposal Facilities: Provide waste-collection containers in sizes adequate to handle waste from construction operations. Comply with requirements of authorities having jurisdiction. Comply with Division 01 Section 01 77 00 "Execution Requirements" for progress cleaning requirements.

## TEMPORARY FACILITIES AND CONTROLS – SECTION 01 50 00

### 3.4 SECURITY AND PROTECTION FACILITIES INSTALLATION

- A. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction in ways and by methods that comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.
  - 1. Comply with work restrictions specified in Division 01 Section 01 11 00 "Summary of Work."
- B. Temporary Erosion and Sedimentation Control: Comply with requirements specified in Division 2 Section "Site Clearing", and requirements of authority having jurisdiction.
- C. Stormwater Control: Comply with authorities having jurisdiction. Provide barriers in and around excavations and subgrade construction to prevent flooding by runoff of stormwater from heavy rains.
- D. Tree and Plant Protection: Comply with requirements specified in Division 02 Section "Tree Protection and Trimming."
- E. Tree and Plant Protection: Install temporary fencing located as indicated or outside the drip line of trees to protect vegetation from damage from construction operations. Protect tree root systems from damage, flooding, and erosion.
- F. Site Enclosure Fence: Before construction operations begin, furnish and install site enclosure fence in a manner that will prevent people and animals from easily entering site except by entrance gates.
  - 1. Extent of Fence: As required to enclose portion of Project site determined sufficient to accommodate construction operations.
  - 2. Maintain security by limiting number of keys and restricting distribution to authorized personnel. Provide Owner with one set of keys.
- G. Security Enclosure and Lockup: Install substantial temporary enclosure around partially completed areas of construction. Provide lockable entrances to prevent unauthorized entrance, vandalism, theft, and similar violations of security.
- H. Barricades, Warning Signs, and Lights: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.
- I. Temporary Enclosures: Provide temporary enclosures for protection of construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities. Provide temporary weathertight enclosure for building exterior.
  - 1. Where heating or cooling is needed and permanent enclosure is not complete, insulate temporary enclosures.
- J. Temporary Partitions: Provide floor-to-ceiling dustproof partitions to limit dust and dirt migration and to separate areas occupied by Owner from fumes and noise.
  - 1. Construct dustproof partitions with gypsum wallboard with joints taped on occupied side, and fire-retardant plywood on construction operations side.

## TEMPORARY FACILITIES AND CONTROLS – SECTION 01 50 00

2. Insulate partitions to provide noise protection to occupied areas.
  3. Seal joints and perimeter. Equip partitions with dustproof doors and security locks.
  4. Protect air-handling equipment.
  5. Weather strip openings.
  6. Provide walk-off mats at each entrance through temporary partition.
- K. Temporary Fire Protection: Install and maintain temporary fire-protection facilities of types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 241.
1. Prohibit smoking in construction areas.
  2. Supervise welding operations, combustion-type temporary heating units, and similar sources of fire ignition according to requirements of authorities having jurisdiction.
  3. Develop and supervise an overall fire-prevention and -protection program for personnel at Project site. Review needs with local fire department and establish procedures to be followed. Instruct personnel in methods and procedures. Post warnings and information.
  4. Provide temporary standpipes and hoses for fire protection. Hang hoses with a warning sign stating that hoses are for fire-protection purposes only and are not to be removed. Match hose size with outlet size and equip with suitable nozzles.

### 3.5 OPERATION, TERMINATION, AND REMOVAL

- A. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.
- B. Maintenance: Maintain facilities in good operating condition until removal.
1. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation, and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.
- C. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.

END OF SECTION 01 50 00

**PRODUCT REQUIREMENTS**  
**SECTION 01 60 00**

**PART 1 - GENERAL**

**1.1 RELATED DOCUMENTS**

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

**1.2 SUMMARY**

- A. This Section includes administrative and procedural requirements for selection of products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; product substitutions; and comparable products.
- B. Related Sections include the following:
  - 1. Division 01 Section 01 23 00 "Alternates" for products selected under an alternate.
  - 2. Division 01 Section 01 77 00 "Closeout Procedures" for submitting warranties for Contract closeout.
  - 3. Divisions 02 through 49 Sections for specific requirements for warranties on products and installations specified to be warranted.

**1.3 DEFINITIONS**

- A. Products: Items purchased for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
- B. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor.
- C. Basis-of-Design Product Specification: Where a specific manufacturer's product is named and accompanied by the words "basis of design," including make or model number or other designation, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics for purposes of evaluating comparable products of other named manufacturers.

**1.4 SUBMITTALS**

- A. Substitution Requests: Instructions to Bidders specify time restrictions for submitting requests for Substitutions during the bidding period, in compliance with this Section.
- B. After execution of Agreement, the Owner may, at the Owner's option, consider formal requests from the Contractor for substitution of products for those specified. One or more of the following conditions must be documented:
  - 1. Compliance with final interpretation of code requirements or insurance regulations which require that the use of a substituted Product.
  - 2. Unavailability of a specified Product through no fault of the Contractor.

## PRODUCT REQUIREMENTS – SECTION 01 60 00

3. Inability of specified Product to perform properly of fit in designated place.
  4. Manufacturer's or Fabricator's refusal or inability to certify or guarantee performance of a specified Product in the application intended.
- C. A Substitution Request constitutes a representation that the Bidder/Contractor:
1. Has investigated the proposed Product and determined that it meets or exceeds the quality level of the specified Product.
  2. Will provide the same warranty for the Substituted Product as for the specified Product.
  3. Will coordinate installation and make changes to the Work which may be required for the Work to be completed with no additional cost to the Owner.
  4. Waives claims for additional costs or time extension which may subsequently become apparent.
  5. Will reimburse the Owner for review or redesign services associated with re-approval by authorities.
- D. Substitutions will not be considered when they are indicated or implied on Shop Drawings or Product Data Submittals, without separate request on the form provided, or when acceptance will require revision to the Contract Documents.
- E. Submit three copies of each request for consideration. Limit each request to one proposed Substitution. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
1. Substitution Request Form: Use form provided at end of Section.
  2. Documentation: Show compliance with requirements for substitutions and the following, as applicable:
    - a. Statement indicating why specified material or product cannot be provided.
    - b. Coordination information, including a list of changes or modifications needed to other parts of the Work and to construction performed by Owner and separate contractors, that will be necessary to accommodate proposed substitution.
    - c. Detailed comparison of significant qualities of proposed substitution with those of the Work specified. Significant qualities may include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
    - d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
    - e. Provide MSDS information to confirm that the product is no more harmful than the products specified.
    - f. Samples, where applicable or requested.
    - g. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners.
    - h. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
    - i. Research/evaluation reports evidencing compliance with building code in effect for Project, from a model code organization acceptable to authorities having jurisdiction.
    - j. Detailed comparison of Contractor's Construction Schedule using proposed substitution with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided

## PRODUCT REQUIREMENTS – SECTION 01 60 00

within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating lack of availability or delays in delivery.

- k. Cost information, including a proposal of change, if any, in the Contract Sum.
  - l. Contractor's certification that proposed substitution complies with requirements in the Contract Documents and is appropriate for applications indicated.
  - m. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.
3. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within 7 days of receipt of a request for substitution. Architect will notify Contractor of acceptance or rejection of proposed substitution within 15 days of receipt of request, or 7 days of receipt of additional information or documentation, whichever is later.
- a. Form of Acceptance: Change Order.
  - b. Use product specified if Architect cannot make a decision on use of a proposed substitution within time allocated.

### 1.5 QUALITY ASSURANCE

- A. Compatibility of Options: If Contractor is given option of selecting between two or more products for use on Project, product selected shall be compatible with products previously selected, even if previously selected products were also options.

### 1.6 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft. Comply with manufacturer's written instructions.
- B. Delivery and Handling:
  - 1. Schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.
  - 2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
  - 3. Deliver products to Project site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
  - 4. Inspect products on delivery to ensure compliance with the Contract Documents and to ensure that products are undamaged and properly protected.
- C. Storage:
  - 1. Store products to allow for inspection and measurement of quantity or counting of units.
  - 2. Store materials in a manner that will not endanger Project structure.
  - 3. Store products that are subject to damage by the elements, under cover in a weathertight enclosure above ground, with ventilation adequate to prevent condensation.
  - 4. Store cementitious products and materials on elevated platforms.

## PRODUCT REQUIREMENTS – SECTION 01 60 00

5. Store foam plastic from exposure to sunlight, except to extent necessary for period of installation and concealment.
6. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
7. Protect stored products from damage and liquids from freezing.
8. Provide a secure location and enclosure at Project site for storage of materials and equipment by Owner's construction forces. Coordinate location with Owner.
9. Provide bonded and insured off-site storage and protection when site does not permit on-site storage and protection.

### 1.7 PRODUCT WARRANTIES

- A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.
  1. Manufacturer's Warranty: Preprinted written warranty published by individual manufacturer for a particular product and specifically endorsed by manufacturer to Owner.
  2. Special Warranty: Written warranty required by or incorporated into the Contract Documents, either to extend time limit provided by manufacturer's warranty or to provide more rights for Owner.
- B. Submittal Time: Comply with requirements in Division 1 Section 01 77 00 "Closeout Procedures."

### PART 2 - PRODUCTS (Not Used)

**PRODUCT REQUIREMENTS – SECTION 01 60 00**

**SUBSTITUTION REQUEST FORM**

TO: gLAs Architects, LLC  
Architect

DEADLINE: 5 days prior to Bid Date

1415 Pearl Street  
Street Address

Eugene, OR 97405  
City, State Zip Code

PROJECT: Fire & Life Safety Improvements - 2014  
Project Title  
Eugene School District 4J

400.684.702  
CIP #

ITEM: \_\_\_\_\_  
Section No. Page No. Paragraph Description

The Undersigned requests consideration of the following substitution:

\_\_\_\_\_

The Undersigned states that the following paragraphs are true, except where noted otherwise:

1. The function, appearance and quality of the proposed substitution are equivalent or superior to the specified item;
2. The proposed substitution does not affect dimensions shown on the Drawings;
3. The Undersigned will pay for changes to the building design, including engineering and design services, detailing and construction costs caused by the requested substitution;
4. The proposed substitution will have no adverse affect on other trades, the construction schedule, or specified warranty requirements;
5. Maintenance and service parts will be locally available for the proposed substitution;
6. The Undersigned has attached data concerning the proposed substitution, including: Manufacturers product description, specifications, drawings, photographs, performance and test data, adequate for evaluation of the request, with applicable portions of the data clearly indicated. Attachments also include description of changes to Contract Documents which the proposed substitution will require for its proper installation.

Submitted by: \_\_\_\_\_ Signature: \_\_\_\_\_

Firm: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone: \_\_\_\_\_ Fax: \_\_\_\_\_

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

END OF SECTION 01 60 00

**EXECUTION REQUIREMENTS**  
**SECTION 01 73 00**

**PART 1 - GENERAL**

**1.1 RELATED DOCUMENTS**

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

**1.2 SUMMARY**

- A. This Section includes general procedural requirements governing execution of the Work including, but not limited to, the following:

- 1. Construction layout.
- 2. Field engineering and surveying.
- 3. General installation of products.
- 4. Coordination of Owner-installed products.
- 5. Progress cleaning.
- 6. Starting and adjusting.
- 7. Protection of installed construction.
- 8. Correction of the Work.

- B. Related Sections include the following:

- 1. Division 01 Section 01 31 00 "Project Management and Coordination" for procedures for coordinating field engineering with other construction activities.
- 2. Division 01 Section 01 33 00 "Submittal Procedures" for submitting surveys.
- 3. Division 01 Section 01 77 00 "Closeout Procedures" for submitting final property survey with Project Record Documents, recording of Owner-accepted deviations from indicated lines and levels, and final cleaning.

**1.3 SUBMITTALS**

- A. Landfill Receipts: Submit copy of receipts issued by a landfill facility, licensed to accept hazardous materials, for hazardous waste disposal.

- B. Final Property Survey: Submit 2 copies showing the Work performed and record survey data.

**1.4 QUALITY ASSURANCE**

- A. Land Surveyor Qualifications: A professional land surveyor who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing land-surveying services of the kind indicated.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Existing Conditions: The existence and location of site improvements, utilities, and other construction indicated as existing are not guaranteed. Before beginning work, investigate and verify the existence and location of mechanical and electrical systems and other construction affecting the Work.
  - 1. Before construction, verify the location and points of connection of utility services.
- B. Existing Utilities: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning sitework, investigate and verify the existence and location of underground utilities and other construction affecting the Work.
  - 1. Before construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer, and water-service piping; and underground electrical services.
  - 2. Furnish location data for work related to Project that must be performed by public utilities serving Project site.
- C. Acceptance of Conditions: Examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.
  - 1. Written Report: Where a written report listing conditions detrimental to performance of the Work is required by other Sections, include the following:
    - a. Description of the Work.
    - b. List of detrimental conditions, including substrates.
    - c. List of unacceptable installation tolerances.
    - d. Recommended corrections.
  - 2. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
  - 3. Examine roughing-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation.
  - 4. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.
  - 5. Proceed with installation only after unsatisfactory conditions have been corrected.  
**PROCEEDING WITH THE WORK INDICATES ACCEPTANCE OF SURFACES AND CONDITIONS.**

## EXECUTION REQUIREMENTS – SECTION 01 73 00

### 3.2 PREPARATION

- A. Existing Utility Information: Furnish information to local utility that is necessary to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by construction. Coordinate with authorities having jurisdiction.
- B. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
- C. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.
- D. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents, submit a request for information to Architect. Include a detailed description of problem encountered, together with recommendations for changing the Contract Documents.

### 3.3 CONSTRUCTION LAYOUT

- A. Verification: Before proceeding to lay out the Work, verify layout information shown on Drawings, in relation to the property survey and existing benchmarks. If discrepancies are discovered, notify Architect and Owner's Project Manager promptly.
  - 1. General: Engage a land surveyor to lay out the Work using accepted surveying practices.
- B. Site Improvements: Locate and lay out site improvements, including pavements, grading, fill and topsoil placement, utility slopes, and invert elevations.
- C. Building Lines and Levels: Locate and lay out control lines and levels for structures, building foundations, column grids, and floor levels, including those required for mechanical and electrical work. Transfer survey markings and elevations for use with control lines and levels. Level foundations and piers from two or more locations.
- D. Record Log: Maintain a log of layout control work. Record deviations from required lines and levels. Include beginning and ending dates and times of surveys, weather conditions, name and duty of each survey party member, and types of instruments and tapes used. Make the log available for reference by Architect and Owner's Project Manager.

### 3.4 FIELD ENGINEERING

- A. Identification: Owner will identify existing benchmarks, control points, and property corners.
- B. Reference Points: Locate existing permanent benchmarks, control points, and similar reference points before beginning the Work. Preserve and protect permanent benchmarks and control points during construction operations.

## EXECUTION REQUIREMENTS – SECTION 01 73 00

- C. Benchmarks: Establish and maintain a minimum of two permanent benchmarks on Project site, referenced to data established by survey control points. Comply with authorities having jurisdiction for type and size of benchmark.
  - 1. Record benchmark locations, with horizontal and vertical data, on Project Record Documents.
  - 2. Where the actual location or elevation of layout points cannot be marked, provide temporary reference points sufficient to locate the Work.
  - 3. Remove temporary reference points when no longer needed. Restore marked construction to its original condition.

### 3.5 INSTALLATION

- A. General: Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.
  - 1. Make vertical work plumb and make horizontal work level.
  - 2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.
  - 3. Conceal pipes, ducts, and wiring in finished areas, unless otherwise indicated.
  - 4. Maintain minimum headroom clearance of seven feet in spaces without a suspended ceiling.
- B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated. Bring any conflicts to the Architect for review.
- C. Install products at the time and under conditions that will ensure the best possible results. Maintain conditions required for product performance until Substantial Completion.
- D. Conduct construction operations so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy.
- E. Templates: Obtain and distribute to the parties involved templates for work specified to be factory prepared and field installed. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.
- F. Anchors and Fasteners: Provide anchors and fasteners as required to anchor each component securely in place, accurately located and aligned with other portions of the Work.
  - 1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Architect.
  - 2. Allow for building movement, including thermal expansion and contraction.
  - 3. Coordinate installation of anchorages. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.
- G. Joints: Make joints of uniform width. Where joint locations in exposed work are not indicated, arrange joints for the best visual effect. Fit exposed connections together to form hairline joints

## EXECUTION REQUIREMENTS – SECTION 01 73 00

where possible. Obtain Architect and Owner's Project Manager approval for all questionable conditions.

- H. Hazardous Materials: Use products, cleaners, and installation materials that are not considered hazardous.

### 3.6 OWNER-INSTALLED PRODUCTS

- A. Site Access: Provide access to Project site for Owner's construction forces.
- B. Coordination: Coordinate construction and operations of the Work with work performed by Owner's construction forces.
  - 1. Construction Schedule: Inform Owner of Contractor's preferred construction schedule for Owner's portion of the Work. Adjust construction schedule based on a mutually agreeable timetable. Notify Owner if changes to schedule are required due to differences in actual construction progress.
  - 2. Preinstallation Conferences: Include Owner's construction forces at preinstallation conferences covering portions of the Work that are to receive Owner's work. Attend preinstallation conferences conducted by Owner's construction forces if portions of the Work depend on Owner's construction.

### 3.7 PROGRESS CLEANING

- A. General: Clean Project site and work areas daily, including common areas. Coordinate progress cleaning for joint-use areas where more than one installer has worked. Enforce requirements strictly. Dispose of materials lawfully.
  - 1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
  - 2. Do not hold materials more than 7 days during normal weather or 3 days if the temperature is expected to rise above 80 deg F.
  - 3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to applicable regulations.
- B. Site: Maintain Project site free of waste materials and debris.
- C. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for safety and proper execution of the Work.
  - 1. Remove liquid spills promptly.
  - 2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.
- D. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.
- E. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.

## EXECUTION REQUIREMENTS – SECTION 01 73 00

- F. Exposed Surfaces in Finished Areas: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.
- G. Waste Disposal: Burying or burning waste materials on-site will not be permitted. Washing waste materials down sewers or into waterways will not be permitted.
- H. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.
- I. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
- J. Limiting Exposures: Supervise construction operations to assure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

### 3.8 STARTING AND ADJUSTING

- A. Start equipment and operating components to confirm proper operation. Remove malfunctioning units, replace with new units, and retest.
- B. Adjust operating components for proper operation without binding. Adjust equipment for proper operation.
- C. Test each piece of equipment to verify proper operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
- D. Manufacturer's Field Service: If a factory-authorized service representative is required to inspect field-assembled components and equipment installation, comply with qualification requirements in Division 01 Section 01 40 00 "Quality Requirements."

### 3.9 PROTECTION OF INSTALLED CONSTRUCTION

- A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.
- B. Comply with manufacturer's written instructions for temperature and relative humidity.

### 3.10 CORRECTION OF THE WORK

- A. Repair or remove and replace defective construction. Restore damaged substrates and finishes.
  - 1. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment.
- B. Restore permanent facilities used during construction to their specified condition.
- C. Remove and replace damaged surfaces that are exposed to view if surfaces cannot be repaired without visible evidence of repair.

**EXECUTION REQUIREMENTS – SECTION 01 73 00**

- D. Repair components that do not operate properly. Remove and replace operating components that cannot be repaired.
- E. Remove and replace chipped, scratched, and broken glass or reflective surfaces.

END OF SECTION 01 73 00

**CUTTING AND PATCHING**  
**SECTION 01 73 29**

**PART 1 - GENERAL**

**1.1 RELATED DOCUMENTS**

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

**1.2 SUMMARY**

- A. This Section includes procedural requirements for cutting and patching.
- B. Related Sections include the following:
  - 1. Division 01 Section 02 41 19 "Selective Demolition" for demolition of selected portions of the building.
  - 2. Divisions 02 through 49 Sections for specific requirements and limitations applicable to cutting and patching individual parts of the Work.

**1.3 DEFINITIONS**

- A. Cutting: Removal of in-place construction necessary to permit installation or performance of other Work.
- B. Patching: Fitting and repair work required to restore surfaces to original conditions after installation of other Work.

**1.4 SUBMITTALS**

- A. Cutting and Patching Proposal: Submit a written request describing procedures prior to the time cutting and patching will be performed, requesting approval to proceed, for cutting or alteration which affects:
  - 1. Structural integrity of any element of Project.
  - 2. Integrity of weather-exposed or moisture-resistant element.
  - 3. Efficiency, maintenance, or safety of any operational element.
  - 4. Visual qualities of site-exposed elements.
  - 5. Work of Owner or separate contractor.
- B. Include the following information:
  - 1. Identification of Project and CIP number
  - 2. Location and description of the affected Work.
  - 3. Necessity for cutting or alteration.
  - 4. Description of proposed Work and Products to be used.
  - 5. Alternatives to cutting and patching.
  - 6. Effect on work of Owner or separate contractor.
  - 7. Written permission of affected separate contractor, if any.

8. date and time work will be executed.

#### 1.5 QUALITY ASSURANCE

- A. Structural Elements: Do not cut and patch structural elements in a manner that could change their load-carrying capacity or load-deflection ratio.
  1. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety.
  2. Miscellaneous Elements: Do not cut and patch miscellaneous elements or related components in a manner that could change their load-carrying capacity, that results in reducing their capacity to perform as intended, or that results in increased maintenance or decreased operational life or safety.
- B. Visual Requirements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch construction exposed on the exterior or in occupied spaces in a manner that would, in Architect's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.

#### 1.6 WARRANTY

- A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during cutting and patching operations, by methods and with materials so as not to void existing warranties.

### PART 2 - PRODUCTS

#### 2.1 MATERIALS

- A. General: Comply with requirements specified in other Sections.
- B. In-Place Materials: Use materials identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.
  1. If identical materials are unavailable or cannot be used, use materials that, when installed, will match the visual and functional performance of in-place materials.

### PART 3 - EXECUTION

#### 3.1 EXAMINATION

- A. Examine surfaces to be cut and patched and conditions under which cutting and patching are to be performed.
  1. Compatibility: Before patching, verify compatibility with and suitability of substrates, including compatibility with in-place finishes or primers.
  2. Proceed with installation only after unsafe or unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Temporary Support: Provide temporary support of Work to be cut.
- B. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.
- C. Adjoining Areas: Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.
- D. Existing Utility Services and Mechanical/Electrical Systems: Where existing services/systems are required to be removed, relocated, or abandoned, bypass such services/systems before cutting to minimize interruption to occupied areas.

3.3 PERFORMANCE

- A. General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.
  - 1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.
- B. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.
  - 1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots as small as possible, neatly to size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
  - 2. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
  - 3. Concrete or Masonry: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.
  - 4. Excavating and Backfilling: Comply with requirements in applicable Division 2 Sections where required by cutting and patching operations.
  - 5. Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting.
  - 6. Proceed with patching after construction operations requiring cutting are complete.
- C. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other Work. Patch with durable seams that are as invisible as possible. Provide materials and comply with installation requirements specified in other Sections.
  - 1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate integrity of installation.

## CUTTING AND PATCHING - SECTION 01 73 29

2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.
    - a. Clean piping, conduit, and similar features before applying paint or other finishing materials.
    - b. Restore damaged pipe covering to its original condition.
  3. Floors and Walls: Where walls or partitions that are removed extend one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish, color, texture, and appearance. Remove in-place floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.
    - a. Where patching occurs in a painted surface, apply primer and intermediate paint coats over the patch and apply final paint coat over entire unbroken surface containing the patch. Provide additional coats until patch blends with adjacent surfaces.
  4. Ceilings: Patch, repair, or rehang in-place ceilings as necessary to provide an even-plane surface of uniform appearance.
  5. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weathertight condition.
- D. Cleaning: Clean areas and spaces where cutting and patching are performed. Completely remove paint, mortar, oils, putty, and similar materials.

END OF SECTION 01 73 29

## **CLOSEOUT PROCEDURES**

### **SECTION 01 77 00**

#### **PART 1 - GENERAL**

##### **1.1 RELATED DOCUMENTS**

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

##### **1.2 SUMMARY**

- A. This Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:
  - 1. Inspection procedures.
  - 2. Warranties.
  - 3. Final cleaning.
- B. Related Sections include the following:
  - 1. Division 1 Section 01 29 00 "Payment Procedures" for requirements for Applications for Payment for Substantial and Final Completion.
  - 2. Division 1 Section 01 73 00 "Execution Requirements" for progress cleaning of Project site.
  - 3. Division 1 Section 01 78 39 "Project Record Documents" for submitting Record Drawings, Record Specifications, and Record Product Data.
  - 4. Division 1 Section 017823 "Operation and Maintenance Data" for operation and maintenance manual requirements.
  - 5. Divisions 02 through 49 Sections for specific closeout and special cleaning requirements for the Work in those Sections.

##### **1.3 SUBSTANTIAL COMPLETION**

- A. Preliminary Procedures: Before requesting inspection for determining date of Substantial Completion, complete the following. List items below that are incomplete in request.
  - 1. Prepare a list of items to be completed and corrected (punch list), the value of items on the list, and reasons why the Work is not complete.
  - 2. Advise Owner of pending insurance changeover requirements.
  - 3. Submit specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
  - 4. Obtain and submit releases permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
  - 5. Prepare and submit Project Record Documents, operation and maintenance manuals, damage or settlement surveys, property surveys, and similar final record information.
  - 6. Deliver tools, spare parts, extra materials, and similar items to location designated by Owner. Label with manufacturer's name and model number where applicable.

## CLOSEOUT PROCEDURES - SECTION 01 77 00

7. Make final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions.
8. Complete startup testing of systems.
9. Submit test/adjust/balance records.
10. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
11. Advise Owner of changeover in heat and other utilities.
12. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.
13. Complete final cleaning requirements, including touchup painting.
14. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.

B. Inspection: Submit a written request for inspection for Substantial Completion. On receipt of request, Architect and Owner's Project Manager will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Architect, that must be completed or corrected before certificate will be issued.

1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
2. Results of completed inspection will form the basis of requirements for Final Completion.

### 1.4 FINAL COMPLETION

A. Preliminary Procedures: Before requesting final inspection for determining date of Final Completion, complete the following:

1. Submit a final Application for Payment according to Division 1 Section "Payment Procedures."
2. Submit certified copy of Architect's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Architect. The certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
3. Submit evidence of final, continuing insurance coverage complying with insurance requirements.
4. Submit the following completed forms, items and documents:
  - a. AIA Document G706 Contractor's Affidavit of Payment of Debts and Claims.
  - b. AIA Document G706A Contractor's Affidavit of Release of Liens.
  - c. AIA Document G707 Consent of Surety Company to Final Payment.
  - d. Operation and Maintenance Manuals
  - e. Warranties and Bonds. Submit original documents, including Contractor's General Warranty,
  - f. Record Documents.
  - g. Keys.
  - h. Testing and Start-Up records.
  - i. Affidavit of Prevailing Wages paid.

## CLOSEOUT PROCEDURES - SECTION 01 77 00

- j. Complete list of Contractor and all Subcontractors with address, phone numbers, and work
  - k. Asbestos-Containing Materials Statement (Form 01100B).
  - l. Proof of final acceptance and compliance from governing authorities having jurisdiction.
5. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems.
- B. Inspection: Submit a written request for final inspection for acceptance. On receipt of request, Architect and Owner's Project Manager will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.
1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
  2. Cost of additional re-inspections by Architect and Owner's Project manager will be deducted from Final Payment to the Contractor.

### 1.5 WARRANTIES

- A. Submittal Time: Submit written warranties on request of Architect for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated.
- B. Partial Occupancy: Submit properly executed warranties within 10 days of completion of designated portions of the Work that are completed and occupied or used by Owner during construction period by separate agreement with Contractor.
- C. Organize warranty documents into an orderly sequence based on the table of contents of the Project Manual.
1. Bind warranties and bonds in heavy-duty, 3-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch paper.
  2. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address, and telephone number of Installer.
  3. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project name, and name of Contractor.
- D. Provide additional copies of each warranty to include in operation and maintenance manuals.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

PART 3 - EXECUTION

3.1 FINAL CLEANING

- A. General: Provide final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
- B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.
  - 1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a portion of Project:
    - a. Clean Project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
    - b. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
    - c. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
    - d. Remove tools, construction equipment, machinery, and surplus material from Project site.
    - e. Remove snow and ice to provide safe access to building.
    - f. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
    - g. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
    - h. Sweep concrete floors broom clean in unoccupied spaces.
    - i. Vacuum carpet and similar soft surfaces, removing debris and excess nap; shampoo if visible soil or stains remain.
    - j. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other noticeable, vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials. Polish mirrors and glass, taking care not to scratch surfaces.
    - k. Remove labels that are not permanent.
    - l. Touch up and otherwise repair and restore marred, exposed finishes and surfaces. Replace finishes and surfaces that cannot be satisfactorily repaired or restored or that already show evidence of repair or restoration.

## CLOSEOUT PROCEDURES - SECTION 01 77 00

- 1) Do not paint over "UL" and similar labels, including mechanical and electrical nameplates.
  - m. Wipe surfaces of mechanical and electrical equipment, and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
  - n. Replace parts subject to unusual operating conditions.
  - o. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.
  - p. Replace disposable air filters and clean permanent air filters. Clean exposed surfaces of diffusers, registers, and grills.
  - q. Clean ducts, blowers, and coils if units were operated without filters during construction.
  - r. Clean light fixtures, lamps, globes, and reflectors to function with full efficiency. Replace burned-out bulbs, and those noticeably dimmed by hours of use, and defective and noisy starters in fluorescent and mercury vapor fixtures to comply with requirements for new fixtures.
  - s. Leave Project clean and ready for occupancy.
- C. Comply with safety standards for cleaning. Do not burn waste materials. Do not bury debris or excess materials on Owner's property. Do not discharge volatile, harmful, or dangerous materials into drainage systems. Remove waste materials from Project site and dispose of lawfully.

END OF SECTION 01 77 00

**OPERATION AND MAINTENANCE DATA**  
**SECTION 01 78 23**

**PART 1 - GENERAL**

**1.1 RELATED DOCUMENTS**

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

**1.2 SUMMARY**

- A. This Section includes administrative and procedural requirements for preparing operation and maintenance manuals, including the following:

- 1. Operation and maintenance documentation directory.
- 2. Emergency manuals.
- 3. Operation manuals for systems, subsystems, and equipment.
- 4. Maintenance manuals for the care and maintenance of products, material, finishes, systems, and equipment.

- B. Related Sections include the following:

- 1. Division 01 Section 01 33 00 "Submittal Procedures" for submitting copies of submittals for operation and maintenance manuals.
- 2. Division 01 Section 01 77 00 "Closeout Procedures" for submitting operation and maintenance manuals.
- 3. Division 01 Section 01 78 39 "Project Record Documents" for preparing Record Drawings for operation and maintenance manuals.
- 4. Divisions 02 through 49 Sections for specific operation and maintenance manual requirements for the Work in those Sections.

**1.3 DEFINITIONS**

- A. System: An organized collection of parts, equipment, or subsystems united by regular interaction.
- B. Subsystem: A portion of a system with characteristics similar to a system.

**1.4 SUBMITTALS**

- A. Initial Submittal: Submit 2 draft copies of each manual at least 15 working days before requesting inspection for Final Completion. Include a complete operation and maintenance directory. Architect will return one copy of draft and mark whether general scope and content of manual are acceptable.
- B. Final Submittal: Submit one copy of each manual in final form at least 15 days before final inspection. Architect will return copy with comments within 15 days after final inspection.

## OPERATION AND MAINTENANCE DATA – SECTION 01 78 23

1. Correct or modify each manual to comply with Architect's comments. Submit 3 copies of each corrected manual within 15 days of receipt of Architect's comments.

### 1.5 COORDINATION

- A. Where operation and maintenance documentation includes information on installations by more than one factory-authorized service representative, assemble and coordinate information furnished by representatives and prepare manuals.

## PART 2 - PRODUCTS

### 2.1 OPERATION AND MAINTENANCE DOCUMENTATION DIRECTORY

- A. Organization: Include a section in the directory for each of the following:
  1. List of documents.
  2. List of systems.
  3. List of equipment.
  4. List of all subcontractors and material suppliers, including names, addresses and phone numbers.
  5. Table of contents.
- B. List of Systems and Subsystems: List systems alphabetically. Include references to operation and maintenance manuals that contain information about each system.
- C. List of Equipment: List equipment for each system, organized alphabetically by system. For pieces of equipment not part of system, list alphabetically in separate list.
- D. Tables of Contents: Include a table of contents for each emergency, operation, and maintenance manual.
- E. Identification: In the documentation directory and in each operation and maintenance manual, identify each system, subsystem, and piece of equipment with same designation used in the Contract Documents. If no designation exists, assign a designation according to ASHRAE Guideline 4, "Preparation of Operating and Maintenance Documentation for Building Systems."

### 2.2 MANUALS, GENERAL

- A. Organization: Unless otherwise indicated, organize each manual into a separate section for each system and subsystem, and a separate section for each piece of equipment not part of a system. Each manual shall contain the following materials, in the order listed:
  1. Title page.
  2. Table of contents.
  3. Manual contents.
- B. Title Page: Enclose title page in transparent plastic sleeve. Include the following information:
  1. Subject matter included in manual.
  2. Name and address of Project.

## OPERATION AND MAINTENANCE DATA – SECTION 01 78 23

3. Name and address of Owner.
  4. Date of submittal.
  5. Name, address, and telephone number of Contractor.
  6. Name and address of Architect.
  7. Cross-reference to related systems in other operation and maintenance manuals.
- C. Table of Contents: List each product included in manual, identified by product name, indexed to the content of the volume, and cross-referenced to Specification Section number in Project Manual.
1. If operation or maintenance documentation requires more than one volume to accommodate data, include comprehensive table of contents for all volumes in each volume of the set.
- D. Manual Contents: Organize into sets of manageable size. Arrange contents alphabetically by system, subsystem, and equipment. If possible, assemble instructions for subsystems, equipment, and components of one system into a single binder.
1. Binders: Heavy-duty, 3-ring, vinyl-covered, loose-leaf binders, in thickness necessary to accommodate contents, sized to hold 8-1/2-by-11-inch paper; with clear plastic sleeve on spine to hold label describing contents and with pockets inside covers to hold folded oversize sheets.
    - a. If two or more binders are necessary to accommodate data of a system, organize data in each binder into groupings by subsystem and related components. Cross-reference other binders if necessary to provide essential information for proper operation or maintenance of equipment or system.
    - b. Identify each binder on front and spine, with printed title "OPERATION AND MAINTENANCE MANUAL," Project title or name, and subject matter of contents. Indicate volume number for multiple-volume sets.
  2. Dividers: Heavy-paper dividers with plastic-covered tabs for each section. Mark each tab to indicate contents. Include a Table of Contents for each volume with a list of products and major components of equipment included in the section on the face of each divider, cross-referenced to Specification Section number and title of Project Manual.
  3. Protective Plastic Sleeves: Transparent plastic sleeves designed to enclose diagnostic software media for computerized electronic equipment.
  4. Supplementary Text: Prepared on 8-1/2-by-11-inch white bond paper.
  5. Drawings: Attach reinforced, punched binder tabs on drawings and bind with text.
    - a. If oversize drawings are necessary, fold drawings to same size as text pages and use as foldouts.
    - b. If drawings are too large to be used as foldouts, fold and place drawings in labeled envelopes and bind envelopes in rear of manual. At appropriate locations in manual, insert typewritten pages indicating drawing titles, descriptions of contents, and drawing locations.

## OPERATION AND MAINTENANCE DATA – SECTION 01 78 23

### 2.3 EMERGENCY MANUALS

- A. None required.

### 2.4 OPERATION MANUALS

- A. Content: In addition to requirements in this Section, include operation data required in individual Specification Sections and the following information:

1. System, subsystem, and equipment descriptions.
2. Performance and design criteria if Contractor is delegated design responsibility.
3. Operating standards.
4. Operating procedures.
5. Operating logs.
6. Wiring diagrams.
7. Control diagrams.
8. Piped system diagrams.
9. Precautions against improper use.
10. License requirements including inspection and renewal dates.

- B. Descriptions: Include the following:

1. Product name and model number.
2. Manufacturer's name.
3. Equipment identification with serial number of each component.
4. Equipment function.
5. Operating characteristics.
6. Limiting conditions.
7. Performance curves.
8. Engineering data and tests.
9. Complete nomenclature and number of replacement parts.

- C. Operating Procedures: Include the following, as applicable:

1. Startup procedures.
2. Equipment or system break-in procedures.
3. Routine and normal operating instructions.
4. Regulation and control procedures.
5. Instructions on stopping.
6. Normal shutdown instructions.
7. Seasonal and weekend operating instructions.
8. Required sequences for electric or electronic systems.
9. Special operating instructions and procedures.

- D. Systems and Equipment Controls: Describe the sequence of operation, and diagram controls as installed.

- E. Piped Systems: Diagram piping as installed, and identify color-coding where required for identification.

## OPERATION AND MAINTENANCE DATA – SECTION 01 78 23

### 2.5 PRODUCT MAINTENANCE MANUAL

- A. Content: Organize manual into a separate section for each product, material, and finish. Include source information, product information, maintenance procedures, repair materials and sources, and warranties and bonds, as described below.
- B. Source Information: List each product included in manual, identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual.
- C. Product Information: Include the following, as applicable:
  - 1. Product name and model number.
  - 2. Manufacturer's name.
  - 3. Color, pattern, and texture.
  - 4. Material and chemical composition.
  - 5. Reordering information for specially manufactured products.
- D. Maintenance Procedures: Include manufacturer's written recommendations and the following:
  - 1. Inspection procedures.
  - 2. Types of cleaning agents to be used and methods of cleaning.
  - 3. List of cleaning agents and methods of cleaning detrimental to product.
  - 4. Schedule for routine cleaning and maintenance.
  - 5. Repair instructions.
  - 6. Contact information.
- E. Repair Materials and Sources: Include lists of materials and local sources of materials and related services.
- F. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.
  - 1. Include procedures to follow and required notifications for warranty claims.

### 2.6 SYSTEMS AND EQUIPMENT MAINTENANCE MANUAL

- A. Content: For each system, subsystem, and piece of equipment not part of a system, include source information, manufacturers' maintenance documentation, maintenance procedures, maintenance and service schedules, spare parts list and source information, maintenance service contracts, and warranty and bond information, as described below.
- B. Source Information: List each system, subsystem, and piece of equipment included in manual, identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual.
- C. Manufacturers' Maintenance Documentation: Manufacturers' maintenance documentation including the following information for each component part or piece of equipment:

## OPERATION AND MAINTENANCE DATA – SECTION 01 78 23

1. Standard printed maintenance instructions and bulletins.
  2. Drawings, diagrams, and instructions required for maintenance, including disassembly and component removal, replacement, and assembly.
  3. Identification and nomenclature of parts and components.
  4. List of items recommended to be stocked as spare parts.
- D. Maintenance Procedures: Include the following information and items that detail essential maintenance procedures:
1. Test and inspection instructions.
  2. Troubleshooting guide.
  3. Precautions against improper maintenance.
  4. Disassembly; component removal, repair, and replacement; and reassembly instructions.
  5. Aligning, adjusting, and checking instructions.
  6. Demonstration and training videotape, if available.
- E. Maintenance and Service Schedules: Include service and lubrication requirements, list of required lubricants for equipment, and separate schedules for preventive and routine maintenance and service with standard time allotment.
1. Scheduled Maintenance and Service: Tabulate actions for daily, weekly, monthly, quarterly, semiannual, and annual frequencies.
  2. Maintenance and Service Record: Include manufacturers' forms for recording maintenance.
- F. Spare Parts List and Source Information: Include lists of replacement and repair parts, with parts identified and cross-referenced to manufacturers' maintenance documentation and local sources of maintenance materials and related services.
- G. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.
1. Include procedures to follow and required notifications for warranty claims.

### PART 3 - EXECUTION

#### 3.1 MANUAL PREPARATION

- A. Operation and Maintenance Documentation Directory: Prepare a directory that provides an organized reference to operation and maintenance manuals.
- B. Operation and Maintenance Manuals: Assemble a complete set of operation and maintenance data indicating operation and maintenance of each system, subsystem, and piece of equipment not part of a system.
  1. Engage a factory-authorized service representative to assemble and prepare information for each system, subsystem, and piece of equipment not part of a system.
  2. Prepare a separate manual for each system and subsystem, in the form of an instructional manual for use by Owner's operating personnel.

## OPERATION AND MAINTENANCE DATA – SECTION 01 78 23

- C. Manufacturers' Data: Where manuals contain manufacturers' standard printed data, include only sheets pertinent to product or component installed. Mark each sheet to identify each product or component incorporated into the Work. If data include more than one item in a tabular format, identify each item using appropriate references from the Contract Documents. Identify data applicable to the Work and delete references to information not applicable.
  - 1. Prepare supplementary text if manufacturers' standard printed data are not available and where the information is necessary for proper operation and maintenance of equipment or systems.
- D. Drawings: Prepare drawings supplementing manufacturers' printed data to illustrate the relationship of component parts of equipment and systems and to illustrate control sequence and flow diagrams. Coordinate these drawings with information contained in Record Drawings to ensure correct illustration of completed installation.
  - 1. Do not use original Project Record Documents as part of operation and maintenance manuals.
  - 2. Comply with requirements of newly prepared Record Drawings in Division 01 Section 01 78 39 "Project Record Documents."
- E. Comply with Division 01 Section 01 77 00 "Closeout Procedures" for schedule for submitting operation and maintenance documentation.

END OF SECTION 01 78 23

## PROJECT RECORD DOCUMENTS

### SECTION 01 78 39

#### PART 1 - GENERAL

##### 1.1 RELATED DOCUMENTS

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

##### 1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for Project Record Documents, including the following:
  - 1. Record Drawings.
  - 2. Record Specifications.
  - 3. Record Product Data.
- B. Related Sections include the following:
  - 1. Division 01 Section 01 77 00 "Closeout Procedures" for general closeout procedures.
  - 2. Division 01 Section 01 78 23 "Operation and Maintenance Data" for operation and maintenance manual requirements.
  - 3. Divisions 02 through 49 Sections for specific requirements for Project Record Documents of the Work in those Sections.

##### 1.3 SUBMITTALS

- A. Record Drawings: Comply with the following:
  - 1. Number of Copies: Submit copies of Record Drawings as follows:
    - a. Final Submittal: Submit one set of marked-up Record Prints (not "Job Shack" set).
- B. Record Specifications: Submit one copy of Project's Specifications, including addenda and contract modifications.
- C. Record Product Data: Submit one copy of each Product Data submittal.
  - 1. Where Record Product Data is required as part of operation and maintenance manuals, submit marked-up Product Data as an insert in manual instead of submittal as Record Product Data.

#### PART 2 - PRODUCTS

##### 2.1 RECORD DRAWINGS

- A. Record Prints: Maintain one set of blue- or black-line white prints of the Contract Drawings and Shop Drawings.

## PROJECT RECORD DOCUMENTS – SECTION 01 78 39

1. Preparation: Mark Record Prints to show the actual installation where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to prepare the marked-up Record Prints.
    - a. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later.
    - b. Accurately record information in an understandable drawing technique.
    - c. Record data as soon as possible after obtaining it. Record and check the markup before enclosing concealed installations.
  2. Content: Types of items requiring marking include, but are not limited to, the following:
    - a. Dimensional changes to Drawings.
    - b. Revisions to details shown on Drawings.
    - c. Depths of foundations below first floor.
    - d. Locations and depths of underground utilities.
    - e. Revisions to routing of piping and conduits.
    - f. Revisions to electrical circuitry.
    - g. Actual equipment locations.
    - h. Duct size and routing.
    - i. Locations of concealed internal utilities.
    - j. Changes made by Change Order.
    - k. Changes made following Architect's written orders.
    - l. Details not on the original Contract Drawings.
    - m. Field records for variable and concealed conditions.
    - n. Record information on the Work that is shown only schematically.
  3. Mark the Contract Drawings or Shop Drawings, whichever is most capable of showing actual physical conditions, completely and accurately. If Shop Drawings are marked, show cross-reference on the Contract Drawings.
  4. Mark record sets with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at same location.
  5. Mark important additional information that was either shown schematically or omitted from original Drawings.
  6. Note Alternate numbers, Change Order numbers, and similar identification, where applicable.
- B. Format: Identify and date each Record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location.
1. Record Prints: Organize Record Prints and newly prepared Record Drawings into manageable sets. Bind each set with durable paper cover sheets. Include identification on cover sheets.
  2. Record Transparencies: Organize into unbound sets matching Record Prints. Place transparencies in durable tube-type drawing containers with end caps. Mark end cap of each container with identification. If container does not include a complete set, identify Drawings included.
  3. Identification: As follows:
    - a. Project name.

- b. Date.
- c. Designation "PROJECT RECORD DRAWINGS."
- d. Name of Architect and Owner's Project Manager.
- e. Name of Contractor.

## 2.2 RECORD SPECIFICATIONS

- A. Preparation: Mark Specifications to indicate the actual product installation where installation varies from that indicated in Specifications, addenda, and contract modifications.
  - 1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
  - 2. Mark copy with the proprietary name and model number of products, materials, and equipment furnished, including substitutions and product options selected.
  - 3. Record the name of manufacturer, supplier, Installer, and other information necessary to provide a record of selections made.

## 2.3 RECORD PRODUCT DATA

- A. Preparation: Mark Product Data to indicate the actual product installation where installation varies substantially from that indicated in Product Data submittal.
  - 1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
  - 2. Include significant changes in the product delivered to Project site and changes in manufacturer's written instructions for installation.
  - 3. Note related Change Orders where applicable.

## 2.4 MISCELLANEOUS RECORD SUBMITTALS

- A. Assemble miscellaneous records required by other Specification Sections for miscellaneous record keeping and submittal in connection with actual performance of the Work. Bind or file miscellaneous records and identify each, ready for continued use and reference.

## PART 3 - EXECUTION

### 3.1 RECORDING AND MAINTENANCE

- A. Recording: Maintain one copy of each submittal during the construction period for Project Record Document purposes. Post changes and modifications to Project Record Documents as they occur; do not wait until the end of Project.
- B. Maintenance of Record Documents and Samples: Store Record Documents and Samples in the field office apart from the Contract Documents used for construction. Do not use Project Record Documents for construction purposes. Maintain Record Documents in good order and in a clean, dry, legible condition, protected from deterioration and loss. Provide access to Project Record Documents for Architect's and Owner's Project Manager's reference during normal working hours.

END OF SECTION 10 78 39

1 PART 1 - GENERAL  
2  
3

4 1.1 SUMMARY  
5

6 A. This Section includes the following:  
7

- 8 1. Remove walls, as indicated.
- 9 2. Demolition of wall finishes and flooring as required to support mechanical and electrical  
10 installations.
- 11 3. Remove cabinets.
- 12 4. Remove doors and frames.
- 13 5. Remove door hardware to allow for installation of new door hardware.
- 14 6. Cut and remove handrails or portions of handrails.
- 15 7. Cutting and removal of asphaltic or concrete pavements.  
16

17 B. This Section does not include:  
18

- 19 1. Any work associated with demolition or removal of hazardous materials.
- 20 2. Abatement of hazardous materials will be completed by Owner under separate contract.  
21  
22

23 1.2 DEFINITIONS  
24

25 A. Remove: Detach items from existing construction and legally dispose of them off-site, unless  
26 indicated to be removed and salvaged or removed and reinstalled.  
27

28 B. Remove and Salvage: Detach items from existing construction and deliver them to  
29 Owner ready for reuse.  
30

31 C. Remove and Reinstall: Detach items from existing construction, prepare them for reuse, and  
32 reinstall them where indicated.  
33

34 D. Existing to Remain: Existing items of construction that are not to be removed and that are not  
35 otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.  
36  
37

38 1.3 SUBMITTALS  
39

40 A. Schedule of Selective Demolition Activities: Indicate detailed sequence of selective  
41 demolition and removal work, with starting and ending dates for each activity, interruption of  
42 utility services, and locations of temporary partitions and means of egress.  
43  
44  
45  
46

1 1.4 QUALITY ASSURANCE  
2

- 3 A. Demolition Firm Qualifications: A firm that is experienced in commercial demolition work  
4 similar in material and extent to that indicated for this Project.  
5
- 6 B. Regulatory Requirements: Comply with governing EPA notification regulations before  
7 beginning selective demolition. Comply with hauling and disposal regulations of authorities  
8 having jurisdiction.  
9
- 10 C. Standards: Comply with ANSI A10.6 and NFPA 241.  
11
- 12 D. Predemolition Conference: Conduct conference at Project site.  
13  
14

15 1.5 PROJECT CONDITIONS  
16

- 17 A. Owner may occupy portions of building immediately adjacent to selective demolition area.  
18 The building will remain functional during all hours of the day during the course of this Work.  
19 Conduct selective demolition so Owner's operations will not be disrupted.  
20
- 21 B. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as  
22 far as practical.  
23
- 24 C. Notify Architect and Owner's Authorized Representative of discrepancies between existing  
25 conditions and Drawings before proceeding with selective demolition.  
26
- 27 D. Utility Service: Maintain existing utilities indicated to remain in service and protect them  
28 against damage during selective demolition operations.  
29
- 30 1. Maintain fire-protection facilities in service during selective demolition operations.  
31 2. Schedule any and all service interruptions with Owner, providing a minimum of 96  
32 hours advance notice.  
33  
34

35 PART 2 - PRODUCTS (Not Used)  
36  
3738 PART 3 - EXECUTION  
39  
4041 3.1 EXAMINATION  
42

- 43 A. Survey existing conditions and correlate with requirements indicated to determine extent of  
44 selective demolition required.  
45

1 B. Inventory and record the condition of items to be removed and reinstalled and items to be  
2 removed and salvaged.

3

4 C. When unanticipated mechanical, electrical, or structural elements that conflict with intended  
5 function or design are encountered, investigate and measure the nature and extent of conflict.  
6 Promptly submit a written report to Architect and Owner's Authorized Representative.

7

8

9 3.2 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS

10

11 A. Existing Services/Systems: Maintain services/systems indicated to remain and protect them  
12 against damage during selective demolition operations.

13

14 B. Service/System Requirements: Locate, identify, disconnect, and seal or cap off indicated  
15 utility services and mechanical/electrical systems serving areas to be selectively demolished.

16

17 1. If services/systems are required to be removed, relocated, or abandoned, before  
18 proceeding with selective demolition provide temporary services/systems that bypass  
19 area of selective demolition and that maintain continuity of services/systems to other  
20 parts of building.

21

22

23 3.3 PREPARATION

24

25 A. Site Access and Temporary Controls: Conduct selective demolition and debris-removal  
26 operations to ensure minimum interference with roads, streets, walks, walkways, and other  
27 adjacent occupied and used facilities.

28

29 1. Comply with requirements for access and protection specified in Division 01 Section  
30 015100 "Construction Facilities and Temporary Controls."

31

32 B. Temporary Facilities: Provide temporary barricades and other protection required to prevent  
33 injury to people and damage to adjacent facilities to remain.

34

35

36 3.4 SELECTIVE DEMOLITION

37

38 A. General: Demolish and remove existing construction only to the extent required by new  
39 construction and as indicated. Use methods required to complete the Work within limitations  
40 of governing regulations and as follows:

41

42 1. Neatly cut openings and holes plumb, square, and true to dimensions required. Use  
43 cutting methods least likely to damage construction to remain or adjoining construction.  
44 Use hand tools or small power tools designed for sawing or grinding, not hammering and  
45 chopping, to minimize disturbance of adjacent surfaces. Temporarily cover openings  
46 to remain.

- 1           2.    Cut or drill from the exposed or finished side into concealed surfaces to avoid marring
- 2           existing finished surfaces.
- 3           3.    Locate selective demolition equipment and remove debris and materials so as not to
- 4           impose excessive loads on supporting walls, floors, or framing.
- 5           4.    Dispose of demolished items and materials promptly.
- 6
- 7    B.    Removed and Reinstalled Items:
- 8
- 9           1.    Clean and repair items to functional condition adequate for intended reuse.
- 10          2.    Protect items from damage during transport and storage.
- 11          3.    Reinstall items in locations indicated. Comply with installation requirements for new
- 12           materials and equipment. Provide connections, supports, and miscellaneous materials
- 13           necessary to make item functional for use indicated.
- 14
- 15

### 16 3.5    DISPOSAL OF DEMOLISHED MATERIALS

- 17
- 18    A.    General: Except for items or materials indicated to be recycled, reused, salvaged, reinstalled,
- 19           or otherwise indicated to remain Owner's property, remove demolished materials from Project
- 20           site and legally dispose of them in an EPA-approved landfill.
- 21
- 22    B.    Disposal: Transport demolished materials off Owner's property and legally dispose of them.
- 23
- 24

### 25 3.6    CLEANING

- 26
- 27    A.    Clean adjacent structures and improvements of dust, dirt, and debris caused by selective
- 28           demolition operations. Return adjacent areas to condition existing before selective demolition
- 29           operations began.
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END OF SECTION 024119

1 PART 1 - GENERAL

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3  
4 1.1 SUMMARY

- 5  
6 A. This Section specifies cast-in place concrete, including formwork, reinforcement, concrete  
7 materials, mixture design, placement procedures, and finishes.  
8  
9 B. See Division 31 Section 312000 "Earth Moving" for drainage fill under slabs-on-grade.

10  
11  
12 1.2 SUBMITTALS

- 13  
14 A. Product Data: For each type of product indicated.  
15  
16 B. Design Mixtures: For each concrete mixture.  
17  
18 C. Shop Drawings: For steel reinforcement and formwork.  
19  
20 D. Material test reports, certificates.

21  
22  
23 1.3 QUALITY ASSURANCE

- 24  
25 A. Manufacturer Qualifications: A firm experienced in manufacturing ready-mixed concrete  
26 products and that complies with ASTM C 94/C 94M requirements for production facilities and  
27 equipment.  
28  
29 B. ACI Publications: Comply with the following unless modified by requirements in the Contract  
30 Documents:  
31  
32 1. ACI 301, "Specification for Structural Concrete," Sections 1 through 5.  
33 2. ACI 117, "Specifications for Tolerances for Concrete Construction and Materials."  
34  
35 C. Preinstallation Conference: Conduct conference at Project site.  
36  
37

38 PART 2 - PRODUCTS

39  
40  
41 2.1 FORM-FACING MATERIALS

- 42  
43 A. Smooth-Formed Finished Concrete: Form-facing panels that will provide continuous, true, and  
44 smooth concrete surfaces, MDO plywood or approved. Furnish in largest practicable sizes to  
45 minimize number of joints.

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## 2.2 STEEL REINFORCEMENT

- A. Reinforcing Bars: ASTM A 615, Grade 60, deformed.
- B. Plain-Steel Welded Wire Reinforcement: ASTM A 185, plain, fabricated from as-drawn steel wire into flat sheets.
- C. Bar Supports: Bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcing bars and welded wire reinforcement in place. Manufacture bar supports from steel wire, plastic, or precast concrete according to CRSI's "Manual of Standard Practice."

## 2.3 CONCRETE MATERIALS

- A. Cementitious Material: Use the following cementitious materials, of the same type, brand, and source, throughout Project:
  - 1. Portland Cement: ASTM C 150, Type I/II. Supplement with the following:
    - a. Fly Ash: ASTM C 618, Class C or F.
    - b. Ground Granulated Blast-Furnace Slag: ASTM C 989, Grade 100 or 120.
  - B. Normal-Weight Aggregates: ASTM C 33, graded, 1-inch nominal maximum coarse-aggregate size.
    - 1. Fine Aggregate: Free of materials with deleterious reactivity to alkali in cement.
  - C. Water: ASTM C 94.
  - D. Air-Entraining Admixture: ASTM C 260.
  - E. Chemical Admixtures: Provide admixtures certified by manufacturer to be compatible with other admixtures and that will not contribute water-soluble chloride ions exceeding those permitted in hardened concrete. Do not use calcium chloride or admixtures containing calcium chloride.
    - 1. Water-Reducing Admixture: ASTM C 494, Type A.

## 2.4 CURING MATERIALS

- A. Evaporation Retarder: Waterborne, monomolecular film forming, manufactured for application to fresh concrete.

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- B. Absorptive Cover: AASHTO M 182, Class 2, burlap cloth made from jute or kenaf, weighing approximately 9 oz./sq. yd. when dry.
- C. Moisture-Retaining Cover: ASTM C 171, polyethylene film or white burlap-polyethylene sheet.
- D. Water: Potable.
- E. Clear, Waterborne, Membrane-Forming Curing Compound: ASTM C 309, Type 1, Class B, nondissipating, certified by curing compound manufacturer to not interfere with bonding of floor covering.

## 2.5 RELATED MATERIALS

- A. Expansion- and Isolation-Joint-Filler Strips: ASTM D 1751, asphalt-saturated cellulosic fiber.
- B. Tread Nosing: 3" wide, with aluminum oxide abrasive. Type 101, by Wooster Products, Inc.

## 2.6 CONCRETE MIXTURES

- A. Prepare design mixtures for each type and strength of concrete, proportioned on the basis of laboratory trial mixture or field test data, or both, according to ACI 301.
- B. Proportion normal-weight concrete mixture as follows:
  1. Minimum Compressive Strength: 4000 psi at structural slabs and beams; 3000 psi at 28 days elsewhere.
  2. Maximum Water-Cementitious Materials Ratio: 0.42 for interior slabs, 0.45 at concrete walls and columns, 0.50 elsewhere.
  3. Slump Limit: 4 inches for concrete with verified slump of 2 to 4 inches before adding high-range water-reducing admixture or plasticizing admixture, plus or minus 1 inch.
  4. Air Content: 5-1/2 percent, plus or minus 1.5 percent at point of delivery for 1-1/2-inch nominal maximum aggregate size.
  5. Air Content: Do not allow air content of troweled finished floors to exceed 3 percent.

## 2.7 FABRICATING REINFORCEMENT

- A. Fabricate steel reinforcement according to CRSI's "Manual of Standard Practice."

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## 2.8 CONCRETE MIXING

- A. Ready-Mixed Concrete: Measure, batch, mix, and deliver concrete according to ASTM C 94, and furnish batch ticket information.
  - 1. When air temperature is between 85 and 90 deg F, reduce mixing and delivery time from 1-1/2 hours to 75 minutes; when air temperature is above 90 deg F, reduce mixing and delivery time to 60 minutes.

## PART 3 - EXECUTION

### 3.1 FORMWORK

- A. Design, erect, shore, brace, and maintain formwork according to ACI 301 to support vertical, lateral, static, and dynamic loads, and construction loads that might be applied, until structure can support such loads.
- B. Construct formwork so concrete members and structures are of size, shape, alignment, elevation, and position indicated, within tolerance limits of ACI 117.
- C. In addition to ACI 303.1 limits on form-facing panel deflection, limit cast-in-place architectural concrete surface irregularities, designated by ACI 347R as abrupt or gradual, as follows:
  - 1. Class B, 1/4 inch.
- D. Fabricate forms to result in cast-in-place architectural concrete that complies with ACI 117, "Specifications for Tolerances for Concrete Construction and Materials".
- E. Chamfer exterior corners and edges of cast-in-place architectural concrete.
- F. Clean forms and adjacent surfaces to receive concrete. Remove chips, wood, sawdust, dirt, and other debris just before placing concrete.
- G. Retighten forms and bracing before placing concrete, as required, to prevent mortar leaks and maintain proper alignment.
- H. Place forms accurately to provide finished surface texture indicated. Provide solid backing and attach securely to prevent deflection and maintain stability of forms during concreting. Prevent forms from sagging and stretching in hot weather. Seal joints of forms and form accessories to prevent mortar leaks. Coat forms with form-release agent.

1 3.2 EMBEDDED ITEMS  
2

- 3 A. Place and secure anchorage devices and other embedded items required for adjoining work that
- 
- 4 is attached to or supported by cast-in-place concrete. Use setting drawings, templates,
- 
- 5 diagrams, instructions, and directions furnished with items to be embedded.
- 
- 6
- 
- 7

8 3.3 STEEL REINFORCEMENT  
9

- 10 A. General: Comply with CRSI's "Manual of Standard Practice" for placing reinforcement.
- 
- 11
- 
- 12

13 3.4 JOINTS  
14

- 15 A. General: Construct joints true to line with faces perpendicular to surface plane of concrete.
- 
- 16
- 
- 17 B. Construction Joints: Install so strength and appearance of concrete are not impaired, at
- 
- 18 locations indicated or as approved by Architect.
- 
- 19
- 
- 20 C. Contraction Joints in Slabs-on-Grade: Form weakened-plane contraction joints, sectioning
- 
- 21 concrete into areas as indicated. Construct contraction joints for a depth equal to at least
- 
- 22 one-fourth of concrete thickness as follows:
- 
- 23 1. Sawed Joints: Form contraction joints with power saws equipped with shatterproof
- 
- 24 abrasive or diamond-rimmed blades. Cut 1/8-inch- wide joints into concrete when
- 
- 25 cutting action will not tear, abrade, or otherwise damage surface and before concrete
- 
- 26 develops random contraction cracks.
- 
- 27
- 
- 28 D. Isolation Joints in Slabs-on-Grade: After removing formwork, install joint-filler strips at slab
- 
- 29 junctions with vertical surfaces, such as column pedestals, foundation walls, grade beams, and
- 
- 30 other locations, as indicated.
- 
- 31
- 
- 32

33 3.5 CONCRETE PLACEMENT  
34

- 35 A. Before placing concrete, verify that installation of formwork, reinforcement, and embedded
- 
- 36 items is complete and that required inspections have been performed.
- 
- 37
- 
- 38 B. Deposit concrete continuously in one layer or in horizontal layers of such thickness that no new
- 
- 39 concrete will be placed on concrete that has hardened enough to cause seams or planes of
- 
- 40 weakness. If a section cannot be placed continuously, provide construction joints as indicated.
- 
- 41 Deposit concrete to avoid segregation.
- 
- 42 1. Consolidate placed concrete with mechanical vibrating equipment according to
- 
- 43 ACI 301.
- 
- 44 2. Provide additional consolidation at exposed concrete finishes to eliminate air pockets.
- 
- 45

1 C. Cold-Weather Placement: Comply with ACI 306.1.

2

3 D. Hot-Weather Placement: Comply with ACI 301.

4

5

6 3.6 FINISHING FORMED SURFACES

7

8 A. Rough-Formed Finish: As-cast concrete texture imparted by form-facing material with tie  
9 holes and defects repaired and patched. Remove fins and other projections that exceed  
10 specified limits on formed-surface irregularities.

11

12 1. Apply to concrete surfaces not exposed to public view.

13

14 B. Smooth-Formed Finish: As-cast concrete texture imparted by form-facing material, arranged  
15 in an orderly and symmetrical manner with a minimum of seams. Remove fins and other  
16 projections that exceed specified limits on formed-surface irregularities. Patching of exposed  
17 concrete is not permitted. Remove and replace concrete with significant irregularities in the  
18 finish.

19

20 1. Apply to concrete surfaces exposed to public view.

21

22 C. Related Unformed Surfaces: At tops of walls, horizontal offsets, and similar unformed  
23 surfaces adjacent to formed surfaces, strike off smooth and finish with a texture matching  
24 adjacent formed surfaces. Continue final surface treatment of formed surfaces uniformly  
25 across adjacent unformed surfaces, unless otherwise indicated.

26

27

28 3.7 FINISHING FLOORS AND SLABS

29

30 A. General: Comply with ACI 302.1R recommendations for screeding, restraighening, and  
31 finishing operations for concrete surfaces. Do not wet concrete surfaces.

32

33 B. Float Finish: Consolidate surface with power-driven floats or by hand floating if area is small  
34 or inaccessible to power driven floats. Restraighten, cut down high spots, and fill low spots.  
35 Repeat float passes and restraighening until surface is left with a uniform, smooth, granular  
36 texture.

37

38 C. Trowel Finish: After applying float finish, apply first troweling and consolidate concrete by  
39 hand or power-driven trowel. Continue troweling passes and restraighten until surface is free  
40 of trowel marks and uniform in texture and appearance. Grind smooth any surface defects that  
41 would telegraph through applied coatings or floor coverings.

42

43 1. Finish and measure surface so gap at any point between concrete surface and an  
44 unlevelled, freestanding, 10-foot- long straightedge resting on 2 high spots and placed  
45 anywhere on the surface does not exceed 1/8 inch.

- 1 D. Broom Finish: Apply a broom finish to exterior concrete platforms, steps, and ramps, and  
2 elsewhere as indicated.  
3

4  
5 3.8 CONCRETE PROTECTING AND CURING  
6

- 7 A. General: Protect freshly placed concrete from premature drying and excessive cold or hot  
8 temperatures. Comply with ACI 306.1 for cold-weather protection and ACI 301 for  
9 hot-weather protection during curing.  
10

- 11 B. Evaporation Retarder: Apply evaporation retarder to unformed concrete surfaces if hot, dry,  
12 or windy conditions cause moisture loss approaching 0.2 lb/sq. ft. x h before and during  
13 finishing operations. Apply according to manufacturer's written instructions after placing,  
14 screeding, and bull floating or darbying concrete, but before float finishing.  
15

- 16 C. Cure concrete according to ACI 308.1, by one or a combination of the following methods:  
17

- 18 1. Moisture Curing: Keep surfaces continuously moist for not less than seven days.  
19 2. Moisture-Retaining-Cover Curing: Cover concrete surfaces with moisture-retaining  
20 cover for curing concrete, placed in widest practicable width, with sides and ends lapped  
21 at least 12 inches, and sealed by waterproof tape or adhesive. Cure for not less than  
22 seven days. Immediately repair any holes or tears during curing period using cover  
23 material and waterproof tape.  
24 3. Curing and Sealing Compound: Apply uniformly to floors and slabs indicated in a  
25 continuous operation by power spray or roller according to manufacturer's written  
26 instructions. Recoat areas subjected to heavy rainfall within three hours after initial  
27 application. Repeat process 24 hours later and apply a second coat. Maintain continuity  
28 of coating and repair damage during curing period.  
29  
30

31 3.9 CONCRETE SURFACE REPAIRS  
32

- 33 A. Defective Concrete: Repair and patch defective areas when approved by Architect. Remove  
34 and replace concrete that cannot be repaired and patched to Architect's approval.  
35  
36

37 3.10 FIELD QUALITY CONTROL  
38

- 39 A. Testing and Inspecting: Owner will engage a qualified independent testing and inspecting  
40 agency to perform field tests and inspections and prepare test reports.  
41

- 42 1. Testing Services: Tests shall be performed according to ACI 301.  
43  
44

45  
END OF SECTION 033000

1 PART 1 - GENERAL

2  
3  
4 1.1 SUMMARY

- 5  
6 A. This Section includes the following:
- 7 1. Handrails and handrail extensions.
  - 8 2. Guards.
- 9

10  
11 1.2 SUBMITTALS

- 12  
13 A. Product Data: For the following:
- 14 1. Grout.
- 15  
16  
17 B. Shop Drawings: Include plans, elevations, sections, and details of metal fabrications and their  
18 connections. Show anchorage and accessory items.
- 19  
20 C. Templates: For anchors and bolts.
- 21  
22

23 PART 2 - PRODUCTS

24  
25  
26 2.1 MANUFACTURERS

- 27  
28 A. In other Part 2 articles where titles below introduce lists, the following requirements apply to  
29 product selection:
- 30 1. Available Products: Subject to compliance with requirements, products that may be  
31 incorporated into the Work include, but are not limited to, products specified.
  - 32 2. Available Manufacturers: Subject to compliance with requirements, manufacturers  
33 offering products that may be incorporated into the Work include, but are not limited to,  
34 manufacturers specified.
- 35  
36  
37

38 2.2 METALS

- 39  
40 A. Metal Surfaces, General: Provide materials with smooth, flat surfaces without blemishes.
- 41  
42 B. Ferrous Metals:
- 43 1. Steel Plates, Shapes, and Bars: ASTM A 36.
  - 44 2. Steel Tubing: ASTM A 500, cold-formed steel tubing.
- 45

- 1           3.    Steel Pipe: ASTM A 53, standard weight (Schedule 40), unless another weight is  
2                    indicated or required by structural loads.  
3  
4

5   2.3    FASTENERS  
6

- 7    A.    General: Zinc-plated fasteners with coating complying with ASTM B 633, Class Fe/Zn 5, at  
8            exterior walls. Select fasteners for type, grade, and class required.  
9  
10   B.    Cast-in-Place Anchors in Concrete: Threaded or wedge type; galvanized ferrous castings,  
11            either ASTM A 47 malleable iron or ASTM A 27 cast steel. Provide bolts, washers, and shims  
12            as needed, hot-dip galvanized per ASTM A 153.  
13  
14

15   2.4    MISCELLANEOUS MATERIALS  
16

- 17   A.    Universal Shop Primer: Fast-curing, lead- and chromate-free, universal modified-alkyd primer  
18            complying with MPI #79.  
19  
20   B.    Zinc-Rich Primer: Complying with SSPC-Paint 20 or SSPC-Paint 29 and compatible with  
21            topcoat.  
22

23        1.    Available Products:  
24

- 25            a.    Benjamin Moore & Co.; Epoxy Zinc-Rich Primer CM18/19.  
26            b.    Carboline Company; Carbozinc 621.  
27            c.    ICI Devoe Coatings; Catha-Coat 313.  
28            d.    International Coatings Limited; Interzinc 315 Epoxy Zinc-Rich Primer.  
29            e.    PPG Architectural Finishes, Inc.; Aquapon Zinc-Rich Primer 97-670.  
30            f.    Sherwin-Williams Company (The); Corothane I GalvaPac Zinc Primer.  
31            g.    Tnemec Company, Inc.; Tneme-Zinc 90-97.  
32

- 33   C.    Galvanizing Repair Paint: SSPC-Paint 20, high-zinc-dust-content paint for regalvanizing  
34            welds in steel.  
35  
36   D.    Nonshrink, Nonmetallic Grout: Factory-packaged, nonstaining, noncorrosive, nongaseous  
37            grout complying with ASTM C 1107.  
38  
39   E.    Concrete Materials and Properties: Comply with requirements in Division 03 Section  
40            "Cast-in-Place Concrete" for normal-weight, air-entrained, ready-mix concrete with a  
41            minimum 28-day compressive strength of 3000 psi, unless otherwise indicated.  
42  
43  
44  
45

## 1 2.5 FABRICATION

2

3 A. General: Preassemble items in the shop to greatest extent possible. Use connections that  
4 maintain structural value of joined pieces.

5

6 1. Cut, drill, and punch metals cleanly and accurately. Remove burrs and ease edges.  
7 Remove sharp or rough areas on exposed surfaces.8 2. Weld corners and seams continuously. Use materials and methods that minimize  
9 distortion and develop strength and corrosion resistance of base metals. Obtain fusion  
10 without undercut or overlap. Remove welding flux immediately. Finish exposed welds  
11 smooth and blended.12 3. Form exposed connections with hairline joints, flush and smooth, using concealed  
13 fasteners where possible. Locate joints where least conspicuous.14 4. Fabricate seams and other connections that will be exposed to weather in a manner to  
15 exclude water. Provide weep holes where water may accumulate.16 5. Where units are indicated to be cast into concrete or built into masonry, equip with  
17 integrally welded steel strap anchors, not less than 24 inches o.c.

18

19

20

## 21 2.6 FINISHES

22

23 A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for  
24 recommendations for applying and designating finishes. Finish metal fabrications after  
25 assembly.

26

27 B. Steel and Iron Finishes:

28

29 1. Hot-dip galvanize items as indicated to comply with ASTM A 123 or ASTM A 153 as  
30 applicable.31 2. Preparation for Shop Priming: Prepare uncoated ferrous-metal surfaces to comply with  
32 requirements indicated below for environmental exposure conditions of installed metal  
33 fabrications:

34

35 a. Interiors (SSPC Zone 1A): SSPC-SP 3, "Power Tool Cleaning."

36

37 3. Shop Priming: Apply shop primer to uncoated surfaces of metal fabrications, except  
38 those with galvanized finishes and those to be embedded in concrete, sprayed-on  
39 fireproofing, or masonry, to comply with SSPC-PA 1, "Paint Application Specification  
40 No. 1: Shop, Field, and Maintenance Painting," for shop painting.

41

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1 PART 3 - EXECUTION

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3.1 INSTALLATION

- A. General: Perform cutting, drilling, and fitting required for installing metal fabrications. Set metal fabrications accurately in location, with edges and surfaces level, plumb, and true.
1. Fit exposed connections accurately together. Weld connections that are not to be left as exposed joints but cannot be shop welded. Do not weld, cut, or abrade surfaces of exterior units that have been hot-dip galvanized after fabrication.
  2. Provide anchorage devices and fasteners where metal fabrications are required to be fastened to in-place construction.
  3. Provide temporary bracing or anchors in formwork for items that are to be built into concrete, masonry, or similar construction.
- B. Perform cutting, drilling, and fitting required for installing metal stairs. Set units accurately in location, alignment, and elevation, measured from established lines and levels and free of rack.
- C. Fit exposed connections accurately together to form hairline joints. Weld connections that are not to be left as exposed joints. Do not weld, cut, or abrade surfaces of exterior units that have been hot-dip galvanized after fabrication and are for bolted or screwed field connections.
- D. Place and finish concrete fill for treads and platforms to comply with Division 03 Section "Cast-in-Place Concrete."
- E. Attach handrails to wall with wall brackets.
1. Use type of bracket with predrilled hole for exposed bolt anchorage.
- F. Touch up surfaces and finishes after erection.
1. Painted Surfaces: Clean field welds, bolted connections, and abraded areas and touch up paint with the same material as used for shop painting.
  2. Galvanized Surfaces: Clean field welds, bolted connections, and abraded areas and repair galvanizing to comply with ASTM A 780.

END OF SECTION 055000

1 PART 1 - GENERAL

2  
3  
4 1.1 SUMMARY

5  
6 A. This Section includes the following:

- 7  
8 1. Framing with dimension lumber.  
9 2. Wood blocking, cants, and nailers.  
10 3. Wood furring and grounds.

11  
12  
13 1.2 SUBMITTALS

14  
15 A. Product Data: For each type of process and factory-fabricated product.

- 16  
17 1. Include data for wood-preservative treatment from chemical treatment manufacturer and  
18 certification by treating plant that treated materials comply with requirements.

19  
20 B. Material Certificates: For dimension lumber specified to comply with minimum allowable unit  
21 stresses. Indicate species and grade selected for each use and design values approved by the  
22 American Lumber Standards Committee Board of Review.

23  
24 C. Research/Evaluation Reports: For the following, showing compliance with building code in  
25 effect for Project:

- 26  
27 1. Wood-preservative-treated wood.  
28 2. Power-driven fasteners.  
29 3. Powder-actuated fasteners.  
30 4. Expansion anchors.  
31 5. Metal framing anchors.  
32  
33

34 PART 2 - PRODUCTS

35  
36  
37 2.1 WOOD PRODUCTS, GENERAL

38  
39 A. Lumber: DOC PS 20 and applicable rules of grading agencies indicated. If no grading agency  
40 is indicated, provide lumber that complies with the applicable rules of any rules-writing agency  
41 certified by the ALSC Board of Review. Provide lumber graded by an agency certified by the  
42 ALSC Board of Review to inspect and grade lumber under the rules indicated.  
43

- 44 1. Factory mark each piece of lumber with grade stamp of grading agency.

2. For exposed lumber indicated to receive a stained or natural finish, omit grade stamp and provide certificates of grade compliance issued by grading agency.
3. Provide dressed lumber, S4S, unless otherwise indicated.

## 2.2 WOOD-PRESERVATIVE-TREATED LUMBER

- A. Preservative Treatment by Pressure Process: AWPAC, except that lumber that is not in contact with the ground and is continuously protected from liquid water may be treated according to AWPAC31 with inorganic boron (SBX).
  1. Preservative Chemicals: Acceptable to authorities having jurisdiction and containing no arsenic or chromium.
- B. Kiln-dry lumber after treatment to a maximum moisture content of 19 percent.
- C. Mark lumber with treatment quality mark of an inspection agency approved by the ALSC Board of Review.
- D. Application: Treat items indicated on Drawings, and the following:
  1. Wood cants, nailers, curbs, equipment support bases, blocking, stripping, and similar members in connection with roofing, flashing, vapor barriers, and waterproofing.
  2. Wood sills, sleepers, blocking, furring, stripping, and similar concealed members in contact with masonry or concrete.
  3. Wood framing and furring attached directly to the interior of below-grade exterior masonry or concrete walls.
  4. Wood floor plates that are installed over concrete slabs-on-grade.

## 2.3 DIMENSION LUMBER FRAMING

- A. Maximum Moisture Content: 19 percent.
- B. Non-Load-Bearing Interior Partitions: As shown on Structural Drawings.
- C. Framing Other Than Non-Load-Bearing Interior Partitions: As shown on Structural Drawings.
  1. Douglas fir-larch; WCLIB or WWPAC.

## 2.4 MISCELLANEOUS LUMBER

- A. General: Provide miscellaneous lumber indicated and lumber for support or attachment of other construction, including the following:

1

2

1. Blocking.

3

2. Nailers.

4

3. Cants.

5

4. Furring.

6

5. Grounds.

7

8

B. For items of dimension lumber size, provide with 19 percent maximum moisture content of any species.

9

10

11

C. For concealed boards, provide lumber with 19 percent maximum moisture content.

12

13

14

## 2.5 FASTENERS

15

16

A. General: Provide fasteners of size and type indicated that comply with requirements specified.

17

18

1. Where rough carpentry is exposed to weather, in ground contact, pressure-preservative treated, or in area of high relative humidity, provide fasteners with hot-dip zinc coating complying with ASTM A 153.

19

20

21

22

B. Power-Driven Fasteners: NES NER-272.

23

24

C. Bolts: Steel bolts complying with ASTM A 307, Grade A; with ASTM A 563 hex nuts and, where indicated, flat washers.

25

26

27

28

## 2.6 METAL FRAMING ANCHORS

29

30

A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

31

32

33

B. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

34

35

36

1. Alpine Engineered Products, Inc.

37

2. Cleveland Steel Specialty Co.

38

3. Harlen Metal Products, Inc.

39

4. KC Metals Products, Inc.

40

5. Simpson Strong-Tie Co., Inc.

41

6. Southeastern Metals Manufacturing Co., Inc.

42

7. USP Structural Connectors.

43

44

C. Allowable Design Loads: Provide products with allowable design loads, as published by manufacturer, that meet or exceed those indicated of products of manufacturers listed.

45

1 Manufacturer's published values shall be determined from empirical data or by rational  
2 engineering analysis and demonstrated by comprehensive testing performed by a qualified  
3 independent testing agency.  
4

- 5 D. Galvanized Steel Sheet: Hot-dip, zinc-coated steel sheet complying with ASTM A 653, G60  
6 coating designation. Verify compatibility with pressure treatments where in contact and  
7 provide adjustment in galvanizing product where necessary.  
8  
9

### 10 PART 3 - EXECUTION

11  
12

#### 13 3.1 INSTALLATION

14

- 15 A. Set rough carpentry to required levels and lines, with members plumb, true to line, cut, and  
16 fitted. Fit rough carpentry to other construction; scribe and cope as needed for accurate fit.  
17 Locate furring, nailers, blocking, and similar supports to comply with requirements for  
18 attaching other construction.  
19
- 20 B. Metal Framing Anchors: Install metal framing to comply with manufacturer's written  
21 instructions.  
22
- 23 C. Do not splice structural members between supports, unless otherwise indicated.  
24
- 25 D. Comply with AWWA M4 for applying field treatment to cut surfaces of preservative-treated  
26 lumber.  
27
- 28 E. Securely attach rough carpentry work to substrate by anchoring and fastening as indicated,  
29 complying with the following:  
30
- 31 1. NES NER-272 for power-driven fasteners.
  - 32 2. Table 2304.9.1, "Fastening Schedule," in ICC's International Building Code.  
33  
34

#### 35 3.2 PROTECTION

36

- 37 A. Protect wood that has been treated with inorganic boron (SBX) from weather. If, despite  
38 protection, inorganic boron-treated wood becomes wet, apply EPA-registered borate treatment.  
39 Apply borate solution by spraying to comply with EPA-registered label.  
40  
41

42 END OF SECTION 061000  
43

1 PART 1 - GENERAL

2

3

4 1.1 SUMMARY

5

6 A. This Section includes the following:

7

8 1. Interior standing and running trim.

9

10 2. Shop finishing of woodwork.

11

12 B. Interior architectural woodwork includes wood furring, blocking, shims, and hanging strips  
13 unless concealed within other construction before woodwork installation.

14

15 1.2 SUBMITTALS

16

17 A. Product Data: For solid-surfacing material, cabinet hardware and accessories, handrail  
18 brackets, and finishing materials and processes.

19

20 B. Shop Drawings: Show location of each item, dimensioned plans and elevations, large-scale  
21 details, attachment devices, and other components.

22

23 C. Samples:

24

25 1. Lumber and panel products with shop-applied opaque finish, for each finish system and  
26 color, with exposed surface finished.

27

28

29 1.3 QUALITY ASSURANCE

30

31 A. Installer Qualifications: Fabricator of woodwork.

32

33 B. Quality Standard: Unless otherwise indicated, comply with AWI's "Architectural Woodwork  
34 Quality Standards."

35

36

37 1.4 PROJECT CONDITIONS

38

39 A. Environmental Limitations: Do not deliver or install woodwork until building is enclosed, wet  
40 work is complete, and HVAC system is operating and maintaining temperature and relative  
41 humidity at occupancy levels during the remainder of the construction period.

42

43

44

45

1 PART 2 - PRODUCTS

2  
3  
4 2.1 WOODWORK FABRICATORS

- 5  
6 A. Fabricators: Subject to compliance with requirements, provide interior architectural  
7 woodwork.  
8  
9

10 2.2 MATERIALS

- 11  
12 A. Wood Products:

- 13  
14 1. Hardboard: AHA A135.4.  
15 2. Softwood Plywood: DOC PS 1, Medium Density Overlay.  
16

- 17 B. Wood Species for Opaque Finish: Hemlock.  
18

- 19 C. Metal Corner Trim: 18 gauge Type 304 Stainless Steel Trim with tamper-resistant screw  
20 fasteners. 1.5x1.5x84 inches. Similar to Model 181128H-304 by InPro Corporation.  
21  
22

23 2.3 MISCELLANEOUS MATERIALS

- 24  
25 A. Furring, Blocking, Shims, and Hanging Strips: Softwood or hardwood lumber,  
26 fire-retardant-treated, kiln-dried to less than 15 percent moisture content.  
27

- 28 B. Adhesives, General: Do not use adhesives that contain urea formaldehyde.  
29  
30

31 2.4 FABRICATION

- 32  
33 A. General: Complete fabrication to maximum extent possible before shipment to Project site.  
34 Where necessary for fitting at site, provide allowance for scribing, trimming, and fitting.  
35

- 36 1. Interior Woodwork Grade: Custom.  
37 2. Shop cut openings to maximum extent possible. Sand edges of cutouts to remove  
38 splinters and burrs. Seal edges of openings in countertops with a coat of varnish.  
39  
40

41 2.5 SHOP FINISHING

- 42  
43 A. Finish architectural woodwork at fabrication shop. Defer only final touchup, cleaning, and  
44 polishing until after installation.  
45

- 1 B. Backpriming: Apply one coat of sealer or primer, compatible with finish coats, to concealed  
2 surfaces of woodwork. Apply two coats to back of paneling.  
3  
4

5 PART 3 - EXECUTION  
6  
7

8 3.1 INSTALLATION  
9

- 10 A. Before installation, condition woodwork to average prevailing humidity conditions in  
11 installation areas. Examine shop-fabricated work for completion and complete work as  
12 required, including removal of packing and backpriming.  
13  
14 B. Grade: Install woodwork to comply with requirements for the same grade specified in Part 2  
15 for fabrication of type of woodwork involved.  
16  
17 C. Install woodwork level, plumb, true, and straight to a tolerance of 1/8 inch in 96 inches. Shim  
18 as required with concealed shims.  
19  
20 D. Scribe and cut woodwork to fit adjoining work, refinish cut surfaces, and repair damaged finish  
21 at cuts.  
22  
23 E. Anchor woodwork to anchors or blocking built in or directly attached to substrates. Secure  
24 with countersunk, concealed fasteners and blind nailing as required for complete installation.  
25 Use fine finishing nails or finishing screws for exposed fastening, countersunk and filled flush  
26 with woodwork and matching final finish if transparent finish is indicated.  
27  
28 F. Standing and Running Trim: Install with minimum number of joints possible, using full-length  
29 pieces (from maximum length of lumber available) to greatest extent possible. Scarf running  
30 joints and stagger in adjacent and related members. Fill gaps, if any, between top of base and  
31 wall with plastic wood filler, sand smooth, and finish same as wood base if finished.  
32  
33  
34  
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36  
37

38 END OF SECTION 064023  
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1 PART 1 - GENERAL

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3  
4 1.1 SUMMARY

- 5  
6 A. This Section includes joint sealants for the following applications:  
7 1. Exterior joints in vertical surfaces and horizontal nontraffic surfaces.  
8 2. Interior joints in vertical surfaces and horizontal nontraffic surfaces.  
9

10  
11 1.2 PERFORMANCE REQUIREMENTS

- 12  
13 A. Provide elastomeric joint sealants that establish and maintain watertight and airtight continuous  
14 joint seals without staining or deteriorating joint substrates.  
15  
16 B. Provide joint sealants for interior applications that establish and maintain airtight and  
17 water-resistant continuous joint seals without staining or deteriorating joint substrates.  
18

19  
20 1.3 SUBMITTALS

- 21  
22 A. Product Data: For each joint-sealant product indicated.  
23  
24 B. Samples: For each type and color of joint sealant required, provide Samples with joint sealants  
25 in 1/2-inch- wide joints formed between two 6-inch- long strips of material matching the  
26 appearance of exposed surfaces adjacent to joint sealants.  
27  
28 C. Preconstruction field test reports.  
29  
30 D. Compatibility and adhesion test reports.  
31  
32 E. Product test reports.  
33  
34

35 1.4 QUALITY ASSURANCE

- 36  
37 A. Preconstruction Compatibility and Adhesion Testing: Submit samples of materials that will  
38 contact or affect joint sealants to joint-sealant manufacturers for testing according to  
39 ASTM C 1087 to determine whether priming and other specific joint preparation techniques  
40 are required to obtain rapid, optimum adhesion of joint sealants to joint substrates.  
41  
42 B. Preconstruction Field-Adhesion Testing: Before installing elastomeric sealants, field test their  
43 adhesion to Project joint substrates according to the method in ASTM C 1193 that is  
44 appropriate for the types of Project joints.  
45

## 1 1.5 WARRANTY

- 2
- 3 A. Special Installer's Warranty: Installer's standard form in which Installer agrees to repair or
- 4 replace elastomeric joint sealants that do not comply with performance and other requirements
- 5 specified in this Section within specified warranty period.
- 6

7 1. Warranty Period: Two years from date of Substantial Completion.

8

- 9 B. Special Manufacturer's Warranty: Manufacturer's standard form in which elastomeric sealant
- 10 manufacturer agrees to furnish elastomeric joint sealants to repair or replace those that do not
- 11 comply with performance and other requirements specified in this Section within specified
- 12 warranty period.
- 13

14 1. Warranty Period: Ten years from date of Substantial Completion.

15

16

17 PART 2 - PRODUCTS

18

19

20 2.1 MANUFACTURERS

21

- 22 A. Available Products: Subject to compliance with requirements, products that may be
- 23 incorporated into the Work include, but are not limited to, products listed in other Part 2
- 24 articles.
- 25
- 26

27 2.2 MATERIALS, GENERAL

28

- 29 A. Compatibility: Provide joint sealants, backings, and other related materials that are compatible
- 30 with one another and with joint substrates under conditions of service and application, as
- 31 demonstrated by sealant manufacturer, based on testing and field experience.
- 32

- 33 B. VOC Content of Interior Sealants: Provide interior sealants and sealant primers that comply
- 34 with the following limits for VOC content when calculated according to 40 CFR 59, Subpart D
- 35 (EPA Method 24):
- 36

- 37 1. Sealants: 250 g/L.
- 38 2. Sealant Primers for Nonporous Substrates: 250 g/L.
- 39 3. Sealant Primers for Porous Substrates: 775 g/L.
- 40

- 41 C. Colors of Exposed Joint Sealants: As selected by Architect from manufacturer's full range.
- 42
- 43
- 44
- 45

1 2.3 ELASTOMERIC JOINT SEALANTS  
2

3 A. Elastomeric Sealants: Comply with ASTM C 920 and other requirements indicated for each  
4 liquid-applied chemically curing sealant specified, including those referencing ASTM C 920  
5 classifications for type, grade, class, and uses related to exposure and joint substrates.  
6

7 B. Stain-Test-Response Characteristics: Where elastomeric sealants are specified to be  
8 nonstaining to porous substrates, provide products that have undergone testing according to  
9 ASTM C 1248 and have not stained porous joint substrates indicated for Project.  
10

11 C. Suitability for Immersion in Liquids. Where elastomeric sealants are indicated for Use I for  
12 joints that will be continuously immersed in liquids, provide products that have undergone  
13 testing according to ASTM C 1247 and qualify for the length of exposure indicated by  
14 reference to ASTM C 920 for Class 1 or 2. Liquid used for testing sealants is deionized water,  
15 unless otherwise indicated.  
16

17 D. Low Modulus, fast curing, nonsag, silyl-terminated polyether (STPe):  
18

19 1. Products:  
20

21 a. BASF, Sonneborn Products; Sonolastic 150 with VLM Technology.  
22

23 2. NS (nonsag).

24 3. Uses Related to Exposure: NT (nontraffic).

25 4. Uses related to Joint Substrates: M, G, A, and, as applicable to joint substrates  
26 indicated, O.  
27

28 E. Interior Joint Caulking; Single-Component Neutral- and Basic-Curing Silicone Sealant (Clear  
29 Caulk):  
30

31 1. Products:

32 a. Dow Corning Corporation; 799.

33 b. Sonneborn, Division of ChemRex Inc.; Omniseal.

34 c. Tremco; Spectrem 2.

35 d. Pecora Corporation; 895.  
36

37 2. Type and Grade: S (single component) and NS (nonsag).

38 3. Class: 50.

39 4. Use Related to Exposure: NT (nontraffic).

40 5. Uses Related to Joint Substrates: M, G, A, and, as applicable to joint substrates  
41 indicated, O.

42 6. Stain-Test-Response Characteristics: Nonstaining to porous substrates per  
43 ASTM C 1248.

44 7. Color: Clear.  
45

1 2.4 LATEX JOINT SEALANTS  
23 A. Latex Sealant (Caulk): Comply with ASTM C 834, Type O P, Grade NF.  
45 B. Products:  
6

- 7 1. Pecora Corporation; AC-20+.
- 
- 8 2. Sonneborn, Division of ChemRex Inc.; Sonolac.
- 
- 9 3. Tremco; Tremflex 834.
- 
- 10

11 C. Color: White.  
12  
1314 2.5 JOINT-SEALANT BACKING  
1516 A. General: Provide sealant backings of material and type that are nonstaining; are compatible  
17 with joint substrates, sealants, primers, and other joint fillers; and are approved for applications  
18 indicated by sealant manufacturer based on field experience and laboratory testing.  
1920 B. Cylindrical Sealant Backings: ASTM C 1330, Type C (closed-cell material with a surface  
21 skin) as approved in writing by joint-sealant manufacturer for joint application indicated, and  
22 of size and density to control sealant depth and otherwise contribute to producing optimum  
23 sealant performance.  
2425 C. Elastomeric Tubing Sealant Backings: Neoprene, butyl, EPDM, or silicone tubing complying  
26 with ASTM D 1056, nonabsorbent to water and gas, and capable of remaining resilient at  
27 temperatures down to minus 26 deg F. Provide products with low compression set and of size  
28 and shape to provide a secondary seal, to control sealant depth, and to otherwise contribute to  
29 optimum sealant performance.  
3031 D. Bond-Breaker Tape: Polyethylene tape or other plastic tape recommended by sealant  
32 manufacturer for preventing sealant from adhering to rigid, inflexible joint-filler materials or  
33 joint surfaces at back of joint where such adhesion would result in sealant failure. Provide  
34 self-adhesive tape where applicable.  
35  
3637 2.6 MISCELLANEOUS MATERIALS  
3839 A. Primer: Material recommended by joint-sealant manufacturer where required for adhesion of  
40 sealant to joint substrates indicated, as determined from preconstruction joint-sealant-substrate  
41 tests and field tests.  
4243 B. Cleaners for Nonporous Surfaces: Chemical cleaners acceptable to manufacturers of sealants  
44 and sealant backing materials, free of oily residues or other substances capable of staining or

1           harming joint substrates and adjacent nonporous surfaces in any way, and formulated to  
2           promote optimum adhesion of sealants to joint substrates.

- 3  
4       C.   Masking Tape: Nonstaining, nonabsorbent material compatible with joint sealants and  
5       surfaces adjacent to joints.

6  
7  
8   PART 3 - EXECUTION

9  
10  
11   3.1    PREPARATION

- 12  
13    A.    Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants.

14  
15       1.    Remove all foreign material from joint substrates that could interfere with adhesion of  
16       joint sealant.

- 17  
18           a.   Clean porous joint substrate surfaces by brushing, grinding, blast cleaning,  
19           mechanical abrading, or a combination of these methods to produce a clean,  
20           sound substrate capable of developing optimum bond with joint sealants. Remove  
21           loose particles remaining after cleaning operations above by vacuuming or  
22           blowing out joints with oil-free compressed air.

23  
24       2.    Remove laitance and form-release agents from concrete.

- 25  
26           a.   Clean nonporous surfaces with chemical cleaners or other means that do not stain,  
27           harm substrates, or leave residues capable of interfering with adhesion of joint  
28           sealants.

- 29  
30    B.    Joint Priming: Prime joint substrates, where recommended in writing by joint-sealant  
31    manufacturer, based on preconstruction joint-sealant-substrate tests or prior experience. Apply  
32    primer to comply with joint-sealant manufacturer's written instructions. Confine primers to  
33    areas of joint-sealant bond; do not allow spillage or migration onto adjoining surfaces.

- 34  
35    C.    Masking Tape: Use masking tape where required to prevent contact of sealant with adjoining  
36    surfaces that otherwise would be permanently stained or damaged by such contact or by  
37    cleaning methods required to remove sealant smears. Remove tape immediately after tooling  
38    without disturbing joint seal.

39  
40  
41   3.2    INSTALLATION

- 42  
43    A.    Sealant Installation Standard: Comply with recommendations in ASTM C 1193 for use of joint  
44    sealants as applicable to materials, applications, and conditions indicated.

- 1 B. Install sealant backings of type indicated to support sealants during application and at position  
2 required to produce cross-sectional shapes and depths of installed sealants relative to joint  
3 widths that allow optimum sealant movement capability.  
4
- 5 1. Do not leave gaps between ends of sealant backings.  
6 2. Do not stretch, twist, puncture, or tear sealant backings.  
7 3. Remove absorbent sealant backings that have become wet before sealant application and  
8 replace them with dry materials.  
9
- 10 C. Install bond-breaker tape behind sealants where sealant backings are not used between sealants  
11 and backs of joints.  
12
- 13 D. Install sealants using proven techniques that comply with the following and at the same time  
14 backings are installed:  
15
- 16 1. Place sealants so they directly contact and fully wet joint substrates.  
17 2. Completely fill recesses in each joint configuration.  
18 3. Produce uniform, cross-sectional shapes and depths relative to joint widths that allow  
19 optimum sealant movement capability.  
20
- 21 E. Tooling of Nonsag Sealants: Immediately after sealant application and before skinning or  
22 curing begins, tool sealants according to requirements specified below to form smooth, uniform  
23 beads of configuration indicated; to eliminate air pockets; and to ensure contact and adhesion  
24 of sealant with sides of joint.  
25
- 26 1. Remove excess sealant from surfaces adjacent to joints.  
27 2. Use tooling agents that are approved in writing by sealant manufacturer and that do not  
28 discolor sealants or adjacent surfaces.  
29 3. Provide concave joint configuration per Figure 5A in ASTM C 1193, unless otherwise  
30 indicated.  
31
- 32 F. Clean off excess sealant or sealant smears adjacent to joints as the Work progresses by  
33 methods and with cleaning materials approved in writing by manufacturers of joint sealants  
34 and of products in which joints occur.  
35  
36  
37  
38

39 END OF SECTION 079200  
40

1 PART 1 - GENERAL

2  
3  
4 1.1 SUMMARY

5  
6 A. Section Includes:

- 7  
8 1. Standard hollow metal doors and frames.  
9

10  
11 1.2 SUBMITTALS

12  
13 A. Product Data: For each type of product indicated.

14  
15 B. Shop Drawings: Include elevations, door edge details, frame profiles, metal thicknesses,  
16 preparations for hardware, and other details.

17  
18 C. Schedule: Prepared by or under the supervision of supplier, using same reference numbers for  
19 details and openings as those on Drawings.  
20

21  
22 PART 2 - PRODUCTS

23  
24  
25 2.1 MANUFACTURERS

26  
27 A. Manufacturers: Subject to compliance with requirements, available manufacturers offering  
28 products that may be incorporated into the Work include, the following:

- 29  
30 1. Ceco Door Products; an Assa Abloy Group company.  
31 2. Curries Company; an Assa Abloy Group company.  
32 3. Steelcraft; an Ingersoll-Rand company.  
33

34  
35 2.2 MATERIALS

36  
37 A. Cold-Rolled Steel Sheet: ASTM A 1008, CS, Type B; suitable for exposed applications.

38  
39 B. Hot-Rolled Steel Sheet: ASTM A 1011, CS, Type B.

40  
41 C. Metallic-Coated Steel Sheet: ASTM A 653, Commercial Steel (CS), Type B; with minimum  
42 G60 metallic coating.

43  
44 D. Frame Anchors: ASTM A 591, Commercial Steel (CS), 40Z coating designation; mill  
45 phosphatized.

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1. For anchors built into exterior walls, steel sheet complying with ASTM A 1008 or ASTM A 1011, hot-dip galvanized according to ASTM A 153, Class B.

E. Inserts, Bolts, and Fasteners: Hot-dip galvanized according to ASTM A 153.

F. Grout: ASTM C 476, except with a maximum slump of 4 inches, as measured according to ASTM C 143.

G. Bituminous Coating: Cold-applied asphalt mastic, SSPC-Paint 12, compounded for 15-mil dry film thickness per coat.

### 2.3 STANDARD HOLLOW METAL FRAMES

A. General: Comply with ANSI/SDI A250.8.

B. Interior Frames: Fabricated from cold-rolled steel sheet unless metallic-coated sheet is indicated.

1. Fabricate frames with mitered or coped corners.

2. Fabricate frames as full face welded unless otherwise indicated.

3. Frames for Level 2 Steel Doors: 0.0598-inch- (16 ga.) thick steel sheet.

4. Frames for Level 3 Steel Doors: 0.0747-inch- (14 ga.) thick steel sheet.

5. Frames for Wood Doors: 0.0598-inch- (16 ga.) thick steel sheet.

C. Hardware Reinforcement: ANSI/SDI A250.6.

### 2.4 FRAME ANCHORS

A. Jamb Anchors:

1. Stud-Wall Type: Designed to engage stud, welded to back of frames; not less than 0.042 inch thick.

### 2.5 STOPS AND MOLDINGS

A. Fixed Frame Moldings: Formed integral with hollow metal frames, a minimum of 5/8 inch high unless otherwise indicated.

B. Loose Stops for Glazed Lites in Frames: Minimum 0.032 inch thick, same material as frames.

## 1 2.6 ACCESSORIES

2

3 A. Grout Guards: Formed from same material as frames, not less than 0.016 inch thick.

4

5

## 6 2.7 FABRICATION

7

8 A. Tolerances: Fabricate hollow metal work to tolerances indicated in SDI 117.

9

10 B. Hollow Metal Frames: Where frames are fabricated in sections, provide alignment plates or  
11 angles at each joint, fabricated of same thickness metal as frames.

12

13 1. Welded Frames: Weld flush face joints continuously; grind, fill, dress, and make  
14 smooth, flush, and invisible.15 2. Provide countersunk, flat- or oval-head exposed screws and bolts for exposed fasteners  
16 unless otherwise indicated.17 3. Grout Guards: Weld guards to frame at back of hardware mortises in frames to be  
18 grouted.

19 4. Jamb Anchors: Provide number and spacing of anchors as follows:

20

21 a. Stud-Wall Type: Locate anchors not more than 18 inches from top and bottom  
22 of frame, welded to back of frame. Space anchors not more than 32 inches o.c.  
23 and as follows:

24

25 1) Four anchors per jamb from 60 to 90 inches high.

26 2) Five anchors per jamb from 90 to 96 inches high.

27 3) Two anchors per head for frames more than 42 inches wide and mounted  
28 in metal-stud partitions.

29

30 b. Postinstalled Expansion Type: Locate anchors not more than 6 inches from top  
31 and bottom of frame. Space anchors not more than 26 inches o.c.

32

33 5. Door Silencers: Except on weather-stripped doors, drill stops to receive door silencers.

34

35 a. Single-Door Frames: Three door silencers.

36 b. Double-Door Frames: Two door silencers.

37

38 C. Hardware Preparation: Factory prepare hollow metal work to receive templated mortised  
39 hardware according to the Door Hardware Schedule and templates furnished as specified in  
40 Division 08 Section 087100 "Door Hardware."

41

42 1. Locate hardware as indicated, or if not indicated, according to ANSI/SDI A250.8.

43 2. Reinforce doors and frames to receive nontemplated, mortised and surface-mounted  
44 door hardware.

- 1 3. Comply with applicable requirements in ANSI/SDI A250.6 and ANSI/DHI A115 Series
- 2 specifications for preparation of hollow metal work for hardware.
- 3 4. Coordinate locations of conduit and wiring boxes for electrical connections with
- 4 Division 26 Electrical Sections.
- 5

6 D. Stops and Moldings: Provide stops and moldings around glazed lites where indicated. Form

7 corners of stops and moldings with butted or mitered hairline joints.

- 8
- 9 1. Provide fixed frame moldings on outside of exterior and on secure side of interior doors
- 10 and frames.
- 11 2. Provide loose stops and moldings on inside of hollow metal work.
- 12 3. Coordinate rabbet width between fixed and removable stops with type of glazing and
- 13 type of installation indicated.
- 14 4. Any lite opening over 30% of door area shall be internally reinforced with welded U
- 15 channel around perimeter.
- 16

## 17

### 18 2.8 STEEL FINISHES

19

20 A. Prime Finish: Factory primed only after welding.

- 21
- 22 1. Shop Primer: ANSI/SDI A250.10.
- 23
- 24

## 25 PART 3 - EXECUTION

### 26

### 27

### 28 3.1 INSTALLATION

29

30 A. Hollow Metal Frames: Comply with ANSI/SDI A250.11.

- 31
- 32 1. Set frames accurately in position, plumbed, aligned, and braced securely until permanent
- 33 anchors are set. After wall construction is complete, remove temporary braces, leaving
- 34 surfaces smooth and undamaged.
- 35
- 36 a. At fire-protection-rated openings, install frames according to NFPA 80.
- 37 b. Where frames are fabricated in sections because of shipping or handling
- 38 limitations, field splice at approved locations by welding face joint continuously;
- 39 grind, fill, dress, and make splice smooth, flush, and invisible on exposed faces.
- 40 c. Install frames with removable glazing stops located on secure side of opening.
- 41 d. Install door silencers in frames before grouting.
- 42 e. Remove temporary braces necessary for installation only after frames have been
- 43 properly set and secured.
- 44 f. Check plumbness, squareness, and twist of frames as walls are constructed. Shim
- 45 as necessary to comply with installation tolerances.

1 g. Field apply bituminous coating to backs of frames that are filled with grout  
2 containing antifreezing agents.  
3

4 2. Installation Tolerances: Adjust hollow metal door frames for squareness, alignment,  
5 twist, and plumb to the following tolerances:  
6

7 a. Squareness: Plus or minus 1/16 inch, measured at door rabbet on a line 90  
8 degrees from jamb perpendicular to frame head.

9 b. Alignment: Plus or minus 1/16 inch, measured at jambs on a horizontal line  
10 parallel to plane of wall.

11 c. Twist: Plus or minus 1/16 inch, measured at opposite face corners of jambs on  
12 parallel lines, and perpendicular to plane of wall.

13 d. Plumbness: Plus or minus 1/16 inch, measured at jambs at floor.  
14  
15

16 3.2 ADJUSTING AND CLEANING  
17

18 A. Final Adjustments: Check and readjust operating hardware items immediately before final  
19 inspection. Leave work in complete and proper operating condition. Remove and replace  
20 defective work, including hollow metal work that is warped, bowed, or otherwise  
21 unacceptable.  
22

23 B. Prime-Coat Touchup: Immediately after erection, sand smooth rusted or damaged areas of  
24 prime coat and apply touchup of compatible air-drying, rust-inhibitive primer.  
25

26 C. Metallic-Coated Surfaces: Clean abraded areas and repair with galvanizing repair paint  
27 according to manufacturer's written instructions.  
28  
29  
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END OF SECTION 081113

1 PART 1 - GENERAL

2  
3  
4 1.1 SUMMARY

5  
6 A. Section Includes:

- 7  
8 1. Solid-core doors with plastic laminate faces.  
9 2. Factory fitting flush wood doors to frames and factory machining for hardware.

10  
11 B. Related Sections:

- 12  
13 1. Division 08 Section 088000 "Glazing" for glass view panels in flush wood doors.  
14  
15

16 1.2 SUBMITTALS

17  
18 A. Product Data: For each type of door indicated.

19  
20 B. Shop Drawings: Indicate location, size, and hand of each door; elevation of each kind of door;  
21 construction details not covered in Product Data; location and extent of hardware blocking; and  
22 other pertinent data.

- 23  
24 1. Indicate dimensions and locations of mortises and holes for hardware.  
25 2. Indicate dimensions and locations of cutouts.  
26 3. Indicate doors to be factory finished and finish requirements.  
27 4. Indicate fire-protection ratings for fire-rated doors.  
28

29 C. Samples: For factory-finished doors.  
30  
31

32 1.3 QUALITY ASSURANCE

33  
34 A. Quality Standard: In addition to requirements specified, comply with AWI's "Architectural  
35 Woodwork Quality Standards Illustrated".  
36  
37

38 1.4 WARRANTY

39  
40 A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or  
41 replace doors that fail in materials or workmanship within specified warranty period.  
42

43 1. Failures include, but are not limited to, the following:

- 44  
45 a. Warping (bow, cup, or twist) more than 1/4 inch in a 42-by-84-inch section.

- 1                   b.    Telegraphing of core construction in face veneers exceeding 0.01 inch in a 3-inch  
2                   span.  
3  
4                   2.    Warranty shall also include installation and finishing that may be required due to repair  
5                   or replacement of defective doors.  
6  
7                   3.    Warranty Period for Solid-Core Interior Doors: Life of installation.  
8  
9

10 PART 2 - PRODUCTS  
11  
12

13 2.1    MANUFACTURERS  
14

- 15        A.    Manufacturers: Subject to compliance with requirements, provide products by one of the  
16        following:  
17  
18            1.    Algoma Hardwoods, Inc.  
19            2.    Eggers Industries.  
20            3.    Marshfield Door Systems, Inc.  
21            4.    VT Industries Inc.  
22  
23

24 2.2    DOOR CONSTRUCTION, GENERAL  
25

- 26        A.    Low-Emitting Materials: Provide doors made with adhesives and composite wood products  
27        that do not contain urea formaldehyde.  
28  
29        B.    Particleboard-Core Doors:  
30  
31            1.    Particleboard: ANSI A208.1, Grade LD-2.  
32            2.    Blocking: Provide wood blocking in particleboard-core doors as needed to eliminate  
33            through-bolting hardware.  
34            3.    Provide doors with either glued-wood-stave or structural-composite-lumber cores  
35            instead of particleboard cores for doors indicated to receive exit devices.  
36  
37

38 2.3    PLASTIC-LAMINATE-FACED DOORS  
39

- 40        A.    Interior Solid-Core Doors:  
41  
42            1.    Grade: Custom.  
43            2.    Plastic-Laminate Faces: High-pressure decorative laminates complying with  
44            NEMA LD 3, Grade HGS.

- 1           3.   Colors, Patterns, and Finishes: As selected by Architect from laminate  
2           manufacturer's full range of products.
- 3           4.   Exposed Vertical Edges: Impact-resistant polymer edging, applied after faces.
- 4
- 5           a.   Polymer Edging Color: Beige.
- 6
- 7           5.   Core: Particleboard.
- 8           6.   Construction: Five plies. Stiles and rails are bonded to core, then entire unit abrasive  
9           planed before faces and crossbands are applied.
- 10          7.   WDMA I.S.1-A Performance Grade: Heavy Duty.
- 11
- 12
- 13   2.4   LOUVERS AND LIGHT FRAMES
- 14
- 15    A.   Metal Louvers:
- 16
- 17          1.   Metal and Finish: Hot-dip galvanized steel, 0.040 inch thick, with baked-enamel- or  
18          powder-coated finish.
- 19
- 20    B.   Wood-Veneered Beads for Light Openings: Manufacturer's standard wood-veneered beads  
21          matching veneer species of door faces and approved for use in doors of fire-protection rating  
22          indicated. Include concealed metal glazing clips where required for opening size and  
23          fire-protection rating indicated.
- 24
- 25
- 26   2.5   FABRICATION
- 27
- 28    A.   Factory fit doors to suit frame-opening sizes indicated. Comply with clearance requirements  
29          of referenced quality standard for fitting unless otherwise indicated.
- 30
- 31          1.   Comply with requirements in NFPA 80 for fire-rated doors.
- 32
- 33    B.   Factory machine doors for hardware that is not surface applied.
- 34
- 35    C.   Openings: Cut and trim openings through doors in factory.
- 36
- 37          1.   Light Openings: Trim openings with moldings of material and profile indicated.
- 38          2.   Glazing: Install glazing in doors indicated to be factory finished. Comply with  
39          applicable requirements in Division 08 Section 088000 "Glazing."
- 40          3.   Louvers: Factory install louvers in prepared openings.
- 41
- 42
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## 1 2.6 FACTORY FINISHING

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- A. General: Comply with referenced quality standard for factory finishing. Complete fabrication, including fitting doors for openings and machining for hardware that is not surface applied, before finishing.
1. Finish faces, all four edges, edges of cutouts, and mortises. Stains and fillers may be omitted on top and bottom edges, edges of cutouts, and mortises..

PART 3 - EXECUTION

## 3.1 INSTALLATION

- A. Hardware: For installation, see Division 08 Section 087100 "Door Hardware."
- B. Installation Instructions: Install doors to comply with manufacturer's written instructions and the referenced quality standard, and as indicated.
- C. Job-Fitted Doors: Align and fit doors in frames with uniform clearances and bevels; do not trim stiles and rails in excess of limits set by manufacturer or permitted for fire-rated doors. Machine doors for hardware. Seal edges of doors, edges of cutouts, and mortises after fitting and machining.
1. Clearances: Provide 1/8 inch at heads, jambs, and between pairs of doors. Provide 1/8 inch from bottom of door to top of decorative floor finish or covering unless otherwise indicated. Where threshold is shown or scheduled, provide 1/4 inch from bottom of door to top of threshold unless otherwise indicated.
- D. Putty all fastener holes at door relite frames.

END OF SECTION 081416

1 PART 1 - GENERAL

2  
3  
4 1.1 SUMMARY

5  
6 A. This Section includes the following:

- 7  
8 1. Installation of Commercial door hardware.  
9 2. Materials will be provided by the Owner for installation by the Contractor.

10  
11  
12 1.2 SUBMITTALS

13  
14 A. Product Data: For each type of product indicated.

15  
16 B. Shop Drawings: Details of electrified door hardware, including wiring diagrams.

17  
18 C. Samples: For each exposed finish.

19  
20 D. Product certificates.

21  
22 E. Other Action Submittals:

23  
24 1. Door Hardware Sets: Prepared by or under the supervision of Hardware Supplier's  
25 Representative, detailing fabrication and assembly of door hardware, as well as  
26 procedures and diagrams.

27  
28 a. Format: Use same scheduling sequence and format and use same door numbers  
29 as in the Contract Documents.

30 b. Content: Include the following information:

- 31  
32 1) Identification number, location, hand, fire rating, and material of each door  
33 and frame.  
34 2) Type, style, function, size, quantity, and finish of each door hardware item.  
35 3) Complete designations of every item required for each door or opening  
36 including name and manufacturer.  
37 4) Description of each electrified door hardware function, including location,  
38 sequence of operation, and interface with other building control systems.

39  
40 2. Keying Schedule: Prepared by or under the supervision of Hardware Supplier's  
41 Representative, detailing Owner's final keying instructions for locks.

1 1.3 QUALITY ASSURANCE  
2

- 3 A. Installer Qualifications: An employer of workers trained and approved by lock manufacturer.  
4  
5 1. Installer's responsibilities include supplying and installing door hardware and providing  
6 a qualified Architectural Hardware Consultant available during the course of the Work  
7 to consult with Contractor, Architect, and Owner about door hardware and keying.  
8  
9 B. Architectural Hardware Consultant Qualifications: A person who is currently certified by DHI  
10 as an Architectural Hardware Consultant and who is experienced in providing consulting  
11 services for door hardware installations that are comparable in material, design, and extent to  
12 that indicated for this Project.  
13  
14 C. Source Limitations: Provide electrified door hardware from same manufacturer as mechanical  
15 door hardware, unless otherwise indicated. Manufacturers that perform electrical  
16 modifications and that are listed by a testing and inspecting agency acceptable to authorities  
17 having jurisdiction are acceptable.  
18  
19 D. Keying Conference: Conduct conference at Project site to comply with requirements in  
20 Division 01 Section 013100 "Project Management and Coordination." Incorporate keying  
21 conference decisions into final keying schedule and lockset functions after reviewing door  
22 hardware keying system.  
23  
24 E. Preinstallation Conference: Conduct conference at Project site.  
25  
26 F. Mock-up: For each type of installation, Contractor shall provide an installed mock-up of the  
27 hardware installation to a typical door. Contractor shall notify Owner and Architect when  
28 mock-up is complete. Installation of remaining hardware shall not continue until mock-up has  
29 been accepted.  
30

31  
32 1.4 DELIVERY, STORAGE, AND HANDLING  
33

- 34 A. Deliver keys to manufacturer of key control system for subsequent delivery to Owner.  
35  
36

37 1.5 COORDINATION  
38

- 39 A. Templates: Distribute door hardware templates for doors, frames, and other work specified  
40 to be factory prepared for installing door hardware. Check Shop Drawings of other work to  
41 confirm that adequate provisions are made for locating and installing door hardware to comply  
42 with indicated requirements.  
43  
44  
45

1 1.6 WARRANTY  
2

3 A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or  
4 replace components of door hardware that fail in materials or workmanship within specified  
5 warranty period.  
6

- 7 1. Warranty Period: Three years from date of Substantial Completion, except as follows:  
8 a. Locksets: One year from date of Substantial Completion.  
9

10  
11  
12 PART 2 - PRODUCTS  
1314  
15 2.1 SCHEDULED DOOR HARDWARE  
16

17 A. General: Provide door hardware for each door to comply with requirements in this Section and  
18 door hardware sets indicated in door and frame schedule.  
19

- 20 1. Door Hardware Sets: Provide quantity, item, size, finish or color indicated, and named  
21 manufacturers' products. No substitutions.  
22

23 B. Designations: Requirements for design, grade, function, finish, size, and other distinctive  
24 qualities of each type of door hardware are indicated in Part 3 "Door Hardware Sets" Article.  
25 Products are identified by using door hardware designations, as follows:  
26

- 27 1. Named Manufacturers' Products: Manufacturer and product designation are listed for  
28 each door hardware type required for the purpose of establishing minimum  
29 requirements. Manufacturers' names are abbreviated in Part 3 "Door Hardware Sets"  
30 Article.  
31 2. References to BHMA Standards: Provide products complying with these standards and  
32 requirements for description, quality, and function.  
33  
34

35 2.2 HINGES, GENERAL  
36

37 A. Template Requirements: Except for hinges and pivots to be installed entirely (both leaves) into  
38 wood doors and frames, provide only template-produced units.  
39

40 B. Hinge Base Metal: Unless otherwise indicated, provide the following:  
41

- 42 1. Interior Hinges: Steel, with steel pin.  
43 2. Hinges for Fire-Rated Assemblies: Steel, with steel pin.  
44

- 1 C. Nonremovable Pins: Provide set screw in hinge barrel that, when tightened into a groove in  
2 hinge pin, prevents removal of pin while door is closed; for all doors.  
3
- 4 D. Fasteners: Comply with the following:  
5
- 6 1. Machine Screws: For metal doors and frames. Install into drilled and tapped holes.
  - 7 2. Wood Screws: For wood doors and frames.
  - 8 3. Threaded-to-the-Head Wood Screws: For fire-rated wood doors.
  - 9 4. Screws: Phillips flat-head; machine screws (drilled and tapped holes) for metal doors.  
10 Finish screw heads to match surface of hinges.

### 11 12 13 2.3 HINGES

- 14
- 15 A. Butts and Hinges: BHMA A156.1.  
16
- 17 B. Template Hinge Dimensions: BHMA A156.7.  
18
- 19 C. Available Manufacturers:  
20
- 21 1. McKinney Products Company; an ASSA ABLOY Group company (MCK).
  - 22 2. Ives: an Ingersoll-Rand Company (I).

### 23 24 25 2.4 CONTINUOUS HINGES

- 26
- 27 A. Standard: BHMA A156.26.  
28
- 29 B. General: Minimum 0.120-inch- thick, hinge leaves with minimum overall width of 4 inches;  
30 fabricated to full height of door and frame and to template screw locations; with components  
31 finished after milling and drilling are complete.  
32
- 33 1. Fire Pins: Steel pins to hold labeled fire doors in place if required by tested listing.  
34
- 35 C. Continuous, Barrel-Type Hinges: Hinge with knuckles formed around a pin that extends entire  
36 length of hinge.  
37
- 38 1. Base Metal for Exterior Hinges: Stainless steel.
  - 39 2. Base Metal for Interior Hinges: Steel.
  - 40 3. Base Metal for Hinges for Fire-Rated Assemblies: Steel.
  - 41 4. Manufacturers:  
42
  - 43 a. McKinney Products Company; an ASSA ABLOY Group company (MCK).  
44  
45

1 2.5 LOCKS AND LATCHES, GENERAL  
2

- 3 A. Accessibility Requirements: Provide operating devices that do not require tight grasping,  
4 pinching, or twisting of the wrist and that operate with a force of not more than 5 lbf.  
5
- 6 B. Latches and Locks for Means of Egress Doors: Comply with NFPA 101. Latches shall not  
7 require more than 8 lbf to release the latch. Locks shall not require use of a key, tool, or  
8 special knowledge for operation.  
9
- 10 C. Electrified Locking Devices: BHMA A156.25.  
11
- 12 D. Lock Trim:  
13
- 14 1. Levers: LNB.
  - 15 2. Dummy Trim: Match lever lock trim and escutcheons.  
16
- 17 E. Lock Throw: Comply with testing requirements for length of bolts required for labeled fire  
18 doors.  
19
- 20 F. Backset: 2-3/4 inches, unless otherwise indicated.  
21
- 22 G. Strikes: Manufacturer's standard strike with strike box for each latchbolt or lock bolt, with  
23 curved lip extended to protect frame, finished to match door hardware set.  
24  
25

26 2.6 MECHANICAL LOCKS AND LATCHES  
27

- 28 A. Lock Functions: Function numbers and descriptions indicated in door hardware sets comply  
29 with the following:  
30
- 31 1. Mortise Locks: BHMA A156.13.  
32
  - 33 B. Mortise Locks: Stamped steel case with steel or brass parts; BHMA A156.13, Grade 1;  
34 Series 1000.  
35
  - 36 1. Manufacturers:  
37
  - 38 a. Schlage; an Ingersoll Rand Company.  
39  
40

41 2.7 EXIT DEVICES  
42

- 43 A. Exit Devices: BHMA A156.3, Grade 1.  
44

- 1 B. Accessibility Requirements: Provide operating devices that do not require tight grasping,  
2 pinching, or twisting of the wrist and that operate with a force of not more than 5 lbf.  
3
- 4 C. Exit Devices for Means of Egress Doors: Comply with NFPA 101. Exit devices shall not  
5 require more than 8 lbf to release the latch. Locks shall not require use of a key, tool, or  
6 special knowledge for operation.  
7
- 8 D. Outside Trim: Lever with cylinder or Pull with cylinder; material and finish to match locksets,  
9 unless otherwise indicated.  
10
- 11 1. Match design for locksets and latchsets, unless otherwise indicated.  
12
- 13 E. Through Bolts: For exit devices and trim on all wood doors.  
14
- 15 F. Manufacturers:  
16
- 17 1. Von Duprin; an Ingersoll Rand Company.  
18 2. PHI.  
19
- 20
- 21 2.8 LOCK CYLINDERS  
22
- 23 A. Standard Lock Cylinders: BHMA A156.5, Grade 1.  
24
- 25 B. Cylinders: Manufacturer's standard tumbler type, constructed from brass or bronze, stainless  
26 steel, or nickel silver, and complying with the following:  
27
- 28 1. Number of Pins: Six.  
29
- 30 C. Permanent Cores: Manufacturer's standard; finish face to match lockset; with interchangeable  
31 cores.  
32 1. Provide interchangeable cores on Exit Devices and Removeable mulls.  
33
- 34 D. Construction Keying: Comply with the following:  
35
- 36 1. Construction Master Keys: Provide cylinders with feature that permits voiding of  
37 construction keys without cylinder removal.  
38 2. Construction Cores: Provide construction cores that are replaceable by permanent cores.  
39
- 40
- 41 E. Manufacturer: Same manufacturer as for locks and latches.  
42
- 43 F. Manufacturers:  
44
- 45 1. Schlage; an Ingersoll Rand Company.

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## 2.9 KEYING

- A. Keying System: Factory registered, complying with guidelines in BHMA A156.28, Appendix A. Incorporate decisions made in keying conference into grand master key system.
- B. Keys: Nickel silver; permanently inscribed with a visual key control number and including the notation "DO NOT DUPLICATE."
  - 1. Key locks to existing system, through coordination with the Owner.
  - 2. Quantity: Provide one key for each lockset or exit device. In addition, provide one extra key blank for each lock.

## 2.10 OPERATING TRIM

- A. Standard: BHMA A156.6.
- B. Materials: Fabricate from stainless steel, unless otherwise indicated.
- C. Manufacturers:
  - 1. IVES Hardware; an Ingersoll-Rand Company (IVS).
  - 2. Trimco (TBM).

## 2.11 PROTECTIVE TRIM UNITS

- A. Size: 1-1/2 inches less than door width on push side and 1/2 inch less than door width on pull side, by height specified in door hardware sets.
- B. Metal Protective Trim Units: BHMA A156.6; beveled top and 2 sides; fabricated from material indicated in door hardware sets.
  - 1. Material: 0.050-inch- thick stainless steel.
  - 2. Manufacturers:
    - a. IVES Hardware; an Ingersoll-Rand Company (IVS).
    - b. Trimco (TBM).

## 2.12 STOPS AND HOLDERS

- A. Stops and Bumpers: BHMA A156.16, Grade 1.

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1. Provide floor stops for doors unless wall or other type stops are scheduled or indicated. Do not mount floor stops where they will impede traffic. Where floor or wall stops are not appropriate, provide overhead holders.
- B. Mechanical Door Holders: BHMA A156.1, Grade 1 unless Grade 2 is indicated.
- C. Combination Floor and Wall Stops and Holders: BHMA A156.8, Grade 1 unless Grade 2 is indicated.
- D. Electromagnetic Door Holders: BHMA A156.15.
- E. Silencers for Door Frames: BHMA A156.16, Grade 1; neoprene or rubber; fabricated for drilled-in application to frame.
- F. Manufacturers:
  1. IVES Hardware; an Ingersoll-Rand Company (IVS).
  2. Rixson Specialty Door Controls; an ASSA ABLOY Group company (RIX).
  3. Trimco (TBM).

#### 2.13 THRESHOLDS

- A. Standard: BHMA A156.21.
- B. Accessibility Requirements: Bevel raised thresholds with a slope of not more than 1:2. Provide thresholds not more than 1/2 inch high.
- C. Thresholds for Means of Egress Doors: Comply with NFPA 101. Maximum 1/2 inch high.
- D. Available Manufacturers:
  1. Pemko Manufacturing Co. (PEM).

#### 2.14 FABRICATION

- A. Base Metals: Produce door hardware units of base metal, fabricated by forming method indicated, using manufacturer's standard metal alloy, composition, temper, and hardness. Furnish metals of a quality equal to or greater than that of specified door hardware units and BHMA A156.18. Do not furnish manufacturer's standard materials or forming methods if different from specified standard.
- B. Fasteners: Provide screws according to commercially recognized industry standards for application intended, except aluminum fasteners are not permitted. Provide Phillips flat-head screws with finished heads to match surface of door hardware, unless otherwise indicated.

- 1 1. Comply with NFPA 80 for fasteners of door hardware in fire-rated applications.
- 2 2. Drill and tap for screw fastening. Do not use self-tapping screws.

3  
4 C. Finishes: BHMA A156.18, as indicated in door hardware sets.

5  
6  
7 PART 3 - EXECUTION

8  
9  
10 3.1 INSTALLATION

- 11  
12 A. Steel Frames: Comply with DHI A115 Series. Drill and tap frames for surface-applied door  
13 hardware according to ANSI A250.6.
- 14  
15 B. Mounting Heights: Mount door hardware units at heights indicated as follows unless otherwise  
16 indicated or required to comply with governing regulations.
- 17 1. Standard Steel Doors and Frames: DHI's "Recommended Locations for Architectural  
18 Hardware for Standard Steel Doors and Frames."
  - 19 2. Wood Doors: DHI WDHS.3, "Recommended Locations for Architectural Hardware for  
20 Wood Flush Doors."
- 21  
22 C. Install each door hardware item to comply with manufacturer's written instructions. Where  
23 cutting and fitting are required to install door hardware onto or into surfaces that are later to  
24 be painted or finished in another way, coordinate removal, storage, and reinstallation of surface  
25 protective trim units with finishing work specified in Division 09 Sections. Do not install  
26 surface-mounted items until finishes have been completed on substrates involved.
- 27  
28 D. Thresholds: Set thresholds for exterior and acoustical doors in full bed of sealant complying  
29 with requirements specified in Division 07 Section 079200 "Joint Sealants."
- 30  
31 E. Adjustment: Adjust and check each operating item of door hardware and each door to ensure  
32 proper operation or function of every unit. Replace units that cannot be adjusted to operate as  
33 intended. Adjust door control devices to compensate for final operation of heating and  
34 ventilating equipment and to comply with referenced accessibility requirements.
- 35 1. Spring Hinges: Adjust to achieve positive latching when door is allowed to close freely  
36 from an open position of 30 degrees.
  - 37 2. Door Closers: Unless otherwise required by authorities having jurisdiction, adjust sweep  
38 period so that, from an open position of 70 degrees, the door will take at least 3 seconds  
39 to move to a point 3 inches from the latch, measured to the leading edge of the door.

40  
41 END OF SECTION 087100  
42

1 PART 1 - GENERAL

2  
3  
4 1.1 SUMMARY

5  
6 A. This Section includes the following:

7  
8 1. Gypsum board.

9  
10  
11 1.2 SUBMITTALS

12  
13 A. Product Data: For each type of product indicated.

14  
15 B. Samples: For the following products:

16  
17 1. Trim Accessories: Full-size Sample in 12-inch long length for each trim accessory  
18 indicated.

19 2. Textured Finishes: Manufacturer's standard size for each textured finish indicated and  
20 on same backing indicated for Work.

21  
22  
23 1.3 QUALITY ASSURANCE

24  
25 A. Fire-Resistance-Rated Assemblies: For fire-resistance-rated assemblies, provide materials and  
26 construction identical to those tested in assembly indicated according to ASTM E 119 by an  
27 independent testing agency.

28  
29  
30 PART 2 - PRODUCTS

31  
32  
33 2.1 GYPSUM BOARD

34  
35 A. General: Complying with ASTM C 36 or ASTM C 1396, as applicable to type of gypsum  
36 board indicated and whichever is more stringent.

37  
38 1. Manufacturers: Subject to compliance with requirements, provide products by one of  
39 the following:

40 a. American Gypsum Co.

41 b. G-P Gypsum.

42 c. National Gypsum Company.

43 d. PABCO Gypsum.

44 e. USG Corporation.

45

- 1 B. Type X:  
2 1. Thickness: 5/8 inch.  
3 2. Long Edges: Tapered.  
4  
5 C. Abuse-Resistant Gypsum Board: ASTM C 1629, Level 2.  
6 1. Core: 5/8 inch, Type X.  
7 2. Long Edges: Tapered.  
8 3. Mold Resistance: ASTM D 3273, score of 10 as rated according to ASTM D 3274.  
9

10  
11 2.2 JOINT TREATMENT MATERIALS  
12

- 13 A. General: Comply with ASTM C 475.  
14  
15 B. Joint Tape:  
16 1. Interior Gypsum Wallboard: Paper.  
17  
18 C. Joint Compound for Interior Gypsum Wallboard: For each coat use formulation that is  
19 compatible with other compounds applied on previous or for successive coats.  
20 1. Prefilling: At open joints and damaged surface areas, use setting-type taping compound.  
21 2. Embedding and First Coat: For embedding tape and first coat on joints, fasteners, and  
22 trim flanges, use setting-type taping compound.  
23 3. Fill Coat: For second coat, use setting-type, sandable topping compound.  
24 4. Finish Coat: For third coat, use drying-type, all-purpose compound.  
25  
26

27 2.3 AUXILIARY MATERIALS  
28

- 29 A. General: Provide auxiliary materials that comply with referenced installation standards and  
30 manufacturer's written recommendations.  
31 1. Fire-Resistance-Rated Assemblies: Comply with mineral-fiber requirements of  
32 assembly.  
33  
34

35 PART 3 - EXECUTION  
36

37  
38 3.1 APPLYING AND FINISHING PANELS, GENERAL  
39

- 40 A. Comply with ASTM C 840.  
41  
42 B. Examine panels before installation. Reject panels that are wet, moisture damaged, and mold  
43 damaged.  
44

- 1 C. Isolate perimeter of gypsum board applied to non-load-bearing partitions at structural  
2 abutments, except floors. Provide 1/4- to 1/2-inch- wide spaces at these locations, and trim  
3 edges with edge trim where edges of panels are exposed.  
4
- 5 D. Wood Framing: Install gypsum panels over wood framing, with floating internal corner  
6 construction. Do not attach gypsum panels across the flat grain of wide-dimension lumber,  
7 including floor joists and headers. Float gypsum panels over these members, or provide  
8 control joints to counteract wood shrinkage.  
9

10  
11 3.2 APPLYING INTERIOR GYPSUM BOARD  
12

- 13 A. Install interior gypsum board in the following locations:  
14 1. Type X: Vertical surfaces, unless otherwise indicated.  
15 2. Abuse-resistant type: Vertical surfaces in high-use areas: corridors, hallways,  
16 classrooms.  
17

18  
19 3.3 FINISHING GYPSUM BOARD  
20

- 21 A. General: Treat gypsum board joints, interior angles, edge trim, control joints, penetrations,  
22 fastener heads, surface defects, and elsewhere as required to prepare gypsum board surfaces  
23 for decoration. Promptly remove residual joint compound from adjacent surfaces.  
24
- 25 B. Prefill open joints and damaged surface areas.  
26
- 27 C. Apply joint tape over gypsum board joints, except those with trim having flanges not intended  
28 for tape.  
29
- 30 D. Gypsum Board Finish Levels: Finish panels to levels indicated below:  
31 1. Level 4: Exposed areas.  
32 2. Level 2: Ceiling plenum areas, concealed areas, and where indicated.  
33

34  
35 3.4 PROTECTION  
36

- 37 A. Protect installed products from damage from weather, condensation, direct sunlight,  
38 construction, and other causes during remainder of the construction period.  
39
- 40 B. Remove and replace panels that are wet, moisture damaged, and mold damaged.  
41 1. Indications that panels are wet or moisture damaged include, but are not limited to,  
42 discoloration, sagging, or irregular shape.  
43

44 END OF SECTION 092900  
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1 PART 1 - GENERAL

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1.1 SUMMARY

A. Section Includes:

1. Resilient base.
2. Resilient molding accessories.

1.2 SUBMITTALS

A. Product Data: For each type of product indicated.

B. Samples: For each type of product indicated, in manufacturer's standard-size Samples but not less than 12 inches long, of each resilient product color, texture, and pattern required.

1.3 PROJECT CONDITIONS

A. Maintain ambient temperatures within range recommended by manufacturer in spaces to receive resilient products.

B. Until Substantial Completion, maintain ambient temperatures within range recommended by manufacturer.

C. Install resilient products after other finishing operations, including painting, have been completed.

1.4 EXTRA MATERIALS

A. Furnish extra materials as specified below that match products installed and are packaged with protective covering for storage and identified with labels describing contents.

1. None required.

1 PART 2 - PRODUCTS

2  
3  
4 2.1 RESILIENT BASE (RB)

5  
6 A. Resilient Base:

7  
8 1. Manufacturers: Subject to compliance with requirements, provide products by one of  
9 the following:

- 10  
11 a. Armstrong World Industries, Inc.  
12 b. Burke Mercer Flooring Products; Division of Burke Industries, Inc.  
13 c. Flexco, Inc.  
14 d. Johnsonite  
15 e. Roppe Corporation, USA

16  
17 B. Resilient Base Standard: ASTM F 1861.

- 18  
19 1. Material Requirement: Type TS (rubber, vulcanized thermoset).  
20 2. Manufacturing Method: Group I (solid, homogeneous).  
21 3. Style: Cove (base with toe).

22  
23 C. Minimum Thickness: 0.125 inch.

24  
25 D. Height: 4 or 6 inches, as required to match existing adjacent base.

26  
27 E. Lengths: Coils in manufacturer's standard length.

28  
29 F. Outside Corners: Preformed.

30  
31 G. Inside Corners: Job formed.

32  
33 H. Finish: As selected by Architect from manufacturer's full range.

34  
35 I. Colors and Patterns: As selected by Architect from full range of industry colors. For bidding  
36 purposes, assume one color and pattern will be selected. To match existing at patch locations.

37  
38  
39 2.2 RESILIENT MOLDING ACCESSORY

40  
41 A. Resilient Molding Accessory:

42  
43 1. Manufacturers: Subject to compliance with requirements, provide products by one of  
44 the following:  
45

- 1           a.     Armstrong World Industries, Inc.  
2           b.     Burke Mercer Flooring Products; Division of Burke Industries, Inc.  
3           c.     Flexco, Inc.  
4           d.     Johnsonite.  
5           e.     Roppe Corporation, USA.  
6  
7     B.     Description: Nosing for carpet, Reducer strip for resilient floor covering and Transition strips.  
8  
9     C.     Material: Vinyl.  
10  
11    D.     Profile and Dimensions: As indicated.  
12  
13    E.     Colors and Patterns: As selected by Architect from full range of industry colors.  
14  
15

### 16 2.3     INSTALLATION MATERIALS

- 17  
18    A.     Trowelable Leveling and Patching Compounds: Latex-modified, portland cement based or  
19           blended hydraulic-cement-based formulation provided or approved by manufacturer for  
20           applications indicated.  
21  
22    B.     Adhesives: Water-resistant type recommended by manufacturer to suit resilient products and  
23           substrate conditions indicated. Durabond D-815, or approved.  
24  
25    C.     Metal Edge Strips: Extruded aluminum with mill finish of width shown, of height required to  
26           protect exposed edges of tiles, and in maximum available lengths to minimize running joints.  
27  
28

## 29 PART 3 - EXECUTION

### 30 31 32 3.1     PREPARATION

- 33  
34    A.     Prepare substrates according to manufacturer's written instructions to ensure adhesion of  
35           resilient products.  
36  
37    B.     Fill cracks, holes, and depressions in substrates with trowelable leveling and patching  
38           compound and remove bumps and ridges to produce a uniform and smooth substrate.  
39  
40    C.     Do not install resilient products until they are same temperature as the space where they are  
41           to be installed.  
42  
43         1.     Move resilient products and installation materials into spaces where they will be  
44                installed at least 48 hours in advance of installation.  
45

- 1 D. Sweep and vacuum clean substrates to be covered by resilient products immediately before  
2 installation.  
3

4  
5 3.2 RESILIENT BASE INSTALLATION  
6

- 7 A. Comply with manufacturer's written instructions for installing resilient base.  
8  
9 B. Apply resilient base to walls, columns, pilasters, casework and cabinets in toe spaces, and other  
10 permanent fixtures in rooms and areas where base is required.  
11  
12 C. Install resilient base in lengths as long as practicable without gaps at seams and with tops of  
13 adjacent pieces aligned.  
14  
15 D. Tightly adhere resilient base to substrate throughout length of each piece, with base in  
16 continuous contact with horizontal and vertical substrates. Caulking of gaps in base  
17 installation is not acceptable. Base installed with gaps will be required to be removed and  
18 replaced until installation without gaps is achieved.  
19  
20 E. Do not stretch resilient base during installation.  
21  
22 F. Trowel size required: 1/16"x1/16"x1/16" square notch.  
23

24  
25 3.3 CLEANING AND PROTECTION  
26

- 27 A. Comply with manufacturer's written instructions for cleaning and protection of resilient  
28 products.  
29  
30 B. Cover resilient products until Substantial Completion.  
31  
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43 END OF SECTION 096513  
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1 PART 1 - GENERAL

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4

1.1 SUMMARY

5

6

A. Section Includes:

7

8

1. Vinyl composition floor tile.

9

10

11

1.2 SUBMITTALS

12

13

- A. Product Data: For each type of product indicated.

14

15

- B. Shop Drawings: For each type of floor tile. Include floor tile layouts, edges, columns, doorways, enclosing partitions, built-in furniture, cabinets, and cutouts.

16

17

18

- C. Samples: Full-size units of each color and pattern of floor tile required.

19

20

- D. Maintenance data.

21

22

1. Include wax application procedures.

23

24

25

1.3 QUALITY ASSURANCE

26

27

- A. Fire-Test-Response Characteristics: As determined by testing identical products according to ASTM E 648 or NFPA 253 by a qualified testing agency.

28

29

30

1. Critical Radiant Flux Classification: Class I, not less than 0.45 W/sq. cm.

31

32

33

1.4 PROJECT CONDITIONS

34

35

- A. Maintain ambient temperatures within range recommended by manufacturer in spaces to receive floor tile.

36

37

38

- B. Until Substantial Completion, maintain ambient temperatures within range recommended by manufacturer.

39

40

41

- C. Close spaces to traffic during floor tile installation.

42

43

- D. Close spaces to traffic for 48 hours after floor tile installation.

44

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- E. Install floor tile after other finishing operations, including painting, have been completed.

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## 1.5 EXTRA MATERIALS

- A. Provide extra materials described below which match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
1. Vinyl Composition Floor Tile: 2 unopened boxes.

## PART 2 - PRODUCTS

### 2.1 VINYL COMPOSITION FLOOR TILE (VCT)

- A. Products: Subject to compliance with requirements, provide products by one of the following:
1. Armstrong World Industries, Inc.; Standard Excelon.
  2. Azrock.
  3. Congoleum Corporation; Commercial Flooring.
  4. Mannington Mills, Inc.; Essentials.
  5. Tarkett, Inc.; Expressions.
  6. Match existing at locations of patching.
- B. Tile Standard: ASTM F 1066, Class 2, through-pattern tile.
- C. Wearing Surface: Smooth.
- D. Thickness: 0.125 inch.
- E. Size: 12 by 12 inches.
- F. Colors and Patterns: As selected by Architect from full range of industry colors. Assume three colors and patterns will be used throughout. Refer to detail drawings for general pattern configuration. Architect to provide complete layout drawings prior to ordering materials, with decorative varied-color layouts at primary building corridors and single color at all other locations. Match existing adjacent as possible. Armstrong 51904 Sterling as a field color in areas where a field color is not already established.

### 2.2 INSTALLATION MATERIALS

- A. Trowelable Leveling and Patching Compounds: Latex-modified, portland cement based or blended hydraulic-cement-based formulation provided or approved by manufacturer for applications indicated.

- 1  
2 B. Adhesives: Water-resistant type recommended by manufacturer to suit floor tile and substrate  
3 conditions indicated.  
4  
5 1. Use adhesives that comply with the following limits for VOC content when calculated  
6 according to 40 CFR 59, Subpart D (EPA Method 24):  
7 a. Vinyl Composition Floor Tile Adhesives: Not more than 50 g/L.  
8 b. Healthguard Thin-Spread Tile Adhesive by W.F. Taylor Co., Inc., or approved.  
9  
10 C. Floor Polish: Provide protective liquid floor polish products as recommended by  
11 manufacturer.  
12  
13

14 PART 3 - EXECUTION  
15

16  
17 3.1 PREPARATION  
18

- 19 A. Prepare substrates according to manufacturer's written instructions to ensure adhesion of  
20 resilient products.  
21  
22 B. Concrete Substrates: Prepare according to ASTM F 710.  
23  
24 1. Verify that substrates are dry and free of curing compounds, sealers, and hardeners.  
25 2. Remove substrate coatings and other substances that are incompatible with adhesives  
26 and that contain soap, wax, oil, or silicone, using mechanical methods recommended by  
27 manufacturer. Do not use solvents.  
28 3. Alkalinity and Adhesion Testing: Perform tests recommended by manufacturer.  
29 Proceed with installation only after substrates pass testing.  
30 4. Moisture Testing: Perform tests recommended by floor covering manufacturer and as  
31 follows. Proceed with installation only after substrates pass testing.  
32  
33 a. Perform anhydrous calcium chloride test, ASTM F 1869. Proceed with  
34 installation only after substrates have maximum moisture-vapor-emission rate of  
35 3 lb of water/1000 sq. ft. in 24 hours, or as required by warranty  
36  
37 C. Fill cracks, holes, and depressions in substrates with trowelable leveling and patching  
38 compound and remove bumps and ridges to produce a uniform and smooth substrate.  
39  
40 D. Do not install floor tiles until they are same temperature as space where they are to be installed.  
41  
42 1. Move resilient products and installation materials into spaces where they will be  
43 installed at least 48 hours in advance of installation.  
44

- 1 E. Sweep and vacuum clean substrates to be covered by resilient products immediately before  
2 installation.  
3  
4

5 3.2 FLOOR TILE INSTALLATION  
6

- 7 A. Comply with manufacturer's written instructions for installing floor tile.  
8  
9 B. Lay out floor tiles from center marks established with principal walls, discounting minor  
10 offsets, so tiles at opposite edges of room are of equal width. Adjust as necessary to avoid  
11 using cut widths that equal less than one-half tile at perimeter.  
12 1. Lay tiles square with room axis.  
13  
14 C. Match floor tiles for color and pattern by selecting tiles from cartons in the same sequence as  
15 manufactured and packaged, if so numbered. Discard broken, cracked, chipped, or deformed  
16 tiles.  
17 1. Lay tiles with grain direction alternating in adjacent tiles (basket-weave pattern).  
18 2. Follow color patterning drawings provided by Architect for corridors.  
19  
20 D. Scribe, cut, and fit floor tiles to butt neatly and tightly to vertical surfaces and permanent  
21 fixtures including built-in furniture, cabinets, pipes, outlets, and door frames.  
22  
23 E. Extend floor tiles into toe spaces, door reveals, closets, and similar openings. Extend floor tiles  
24 to center of door openings.  
25  
26 F. Maintain reference markers, holes, and openings that are in place or marked for future cutting  
27 by repeating on floor tiles as marked on substrates. Use chalk or other nonpermanent,  
28 nonstaining marking device.  
29  
30 G. Adhere floor tiles to flooring substrates using a full spread of adhesive applied to substrate to  
31 produce a completed installation without open cracks, voids, raising and puckering at joints,  
32 telegraphing of adhesive spreader marks, and other surface imperfections.  
33  
34

35 3.3 CLEANING AND PROTECTION  
36

- 37 A. Comply with manufacturer's written instructions for cleaning and protection of floor tile.  
38  
39 B. Floor Polish: Remove soil, visible adhesive, and surface blemishes from floor tile surfaces  
40 before applying liquid floor polish.  
41 1. Apply three coat(s), type as recommended by Flooring manufacturer.  
42  
43 C. Cover floor tile until Substantial Completion.  
44

45 END OF SECTION 096519

1 PART 1 - GENERAL

2  
3  
4 1.1 SUMMARY

- 5  
6 A. This Section includes surface preparation and the application of paint systems on the following  
7 exterior substrates:

- 8  
9 1. Steel.  
10 2. Galvanized metal.  
11 3. Wood.  
12 4. Concrete.

13  
14  
15 1.2 SUBMITTALS

- 16  
17 A. Product Data: For each type of product indicated.  
18  
19 B. Samples: For each finish and for each color and texture required.  
20  
21 C. Product List: Printout of current "MPI Approved Products List" for each product category  
22 specified in Part 2, with the proposed product highlighted.  
23

24  
25 1.3 QUALITY ASSURANCE

- 26  
27 A. MPI Standards:  
28  
29 1. Products: Complying with MPI standards indicated and listed in "MPI Approved  
30 Products List."  
31 2. Preparation and Workmanship: Comply with requirements in "MPI Architectural  
32 Painting Specification Manual" for products and paint systems indicated.  
33  
34 B. Mockups: Apply benchmark samples of each paint system indicated and each color and finish  
35 selected to verify preliminary selections made under sample submittals and to demonstrate  
36 aesthetic effects and set quality standards for materials and execution.  
37  
38 1. Architect will select one surface to represent surfaces and conditions for application of  
39 each paint system specified in Part 3.  
40 a. Vertical and Horizontal Surfaces: Provide samples of at least 100 sq. ft.  
41 b. Other Items: Architect will designate items or areas required.  
42  
43 2. Final approval of color selections will be based on benchmark samples.  
44 a. If preliminary color selections are not approved, apply additional benchmark  
45 samples of additional colors selected by Architect at no added cost to Owner.

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#### 1.4 EXTRA MATERIALS

A. Furnish extra materials described below that are from same production run (batch mix) as materials applied and that are packaged for storage and identified with labels describing contents.

1. Quantity: Furnish an additional 5 percent, but not less than 1 gal. of each material and color applied. Extra materials are **not** to be used for punch list work.

### PART 2 - PRODUCTS

#### 2.1 PAINT, GENERAL

A. Material Compatibility:

1. Provide materials for use within each paint system that are compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
2. For each coat in a paint system, provide products recommended in writing by manufacturers of topcoat for use in paint system and on substrate indicated.

B. Colors: To be selected by Architect, with the intent to match existing adjacent colors at each site.

#### 2.2 PRIMERS/SEALERS

A. Alkali-Resistant Primer: MPI #3.

#### 2.3 WOOD PRIMERS

A. Exterior Latex Wood Primer: MPI #6.

#### 2.4 EXTERIOR LATEX PAINTS

A. Exterior Latex: MPI #10 (Gloss Level 3).

B. Exterior Latex (Gloss): MPI #119 (Gloss Level 6, except minimum gloss of 65 units at 60 deg).

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## 2.5 QUICK-DRYING ENAMELS

- A. Quick-Drying Enamel (Semigloss): MPI #81 (Gloss Level 5).
- B. Quick-Drying Enamel (High Gloss): MPI #96 (Gloss Level 7).

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of work.
- B. Maximum Moisture Content of Substrates: When measured with an electronic moisture meter as follows:
  - 1. Concrete: 12 percent.
  - 2. Wood: 15 percent.
- C. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers.
- D. Begin coating application only after unsatisfactory conditions have been corrected and surfaces are dry.
  - 1. Beginning coating application constitutes Contractor's acceptance of substrates and conditions.

### 3.2 PREPARATION AND APPLICATION

- A. Comply with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual" applicable to substrates and paint systems indicated.
- B. Clean substrates of substances that could impair bond of paints, including dirt, oil, grease, and incompatible paints and encapsulants.
  - 1. Remove incompatible primers and reprime substrate with compatible primers as required to produce paint systems indicated.

- 1 C. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks,  
2 roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color  
3 breaks.  
4
- 5 D. Protect work of other trades against damage from paint application. Correct damage to work  
6 of other trades by cleaning, repairing, replacing, and refinishing, as approved by Architect, and  
7 leave in an undamaged condition.  
8
- 9 E. At completion of construction activities of other trades, touch up and restore damaged or  
10 defaced painted surfaces.  
11

### 12 3.3 EXTERIOR PAINTING SCHEDULE

- 14 A. Steel Substrates:
- 15
- 16 1. Quick-Drying Enamel System: MPI EXT 5.1A.
- 17
- 18 a. Prime Coat: Quick-drying alkyd metal primer.
- 19 b. Intermediate Coat: Quick-drying enamel matching topcoat.
- 20 c. Topcoat: Quick-drying enamel semigloss.
- 21
- 22
- 23 B. Dressed Lumber Substrates: Including architectural trusses, overhang framing, and roof
- 24 ruffing.
- 25
- 26 1. Latex System: MPI EXT 6.3L.
- 27
- 28 a. Prime Coat: Exterior latex wood primer.
- 29 b. Intermediate Coat: Exterior latex matching topcoat.
- 30 c. Topcoat: Exterior latex semigloss.
- 31
- 32
- 33 C. Plywood Siding:
- 34
- 35 1. Latex System: MPI EXT 6.3L
- 36
- 37 a. Prime Coat: Exterior latex wood primer.
- 38 b. Intermediate Coat: Exterior latex matching topcoat.
- 39 c. Topcoat: Exterior latex semigloss.
- 40 d. Seal all edges prior to installation with primer.
- 41
- 42

43  
44 END OF SECTION 099113  
45

1 PART 1 - GENERAL

2  
3  
4 1.1 SUMMARY

- 5  
6 A. This Section includes surface preparation and the application of paint systems on the following  
7 interior substrates:

- 8  
9 1. Steel  
10 2. Wood  
11 3. Gypsum board

12  
13  
14 1.2 SUBMITTALS

- 15  
16 A. Product Data: For each type of product indicated.  
17  
18 B. Samples: For each finish and for each color and texture required.  
19  
20 C. Product List: Printout of current "MPI Approved Products List" for each product category  
21 specified in Part 2, with the proposed product highlighted.  
22  
23

24 1.3 QUALITY ASSURANCE

- 25  
26 A. MPI Standards:  
27  
28 1. Products: Complying with MPI standards indicated and listed in "MPI Approved  
29 Products List."  
30 2. Preparation and Workmanship: Comply with requirements in "MPI Architectural  
31 Painting Specification Manual" for products and paint systems indicated.  
32  
33 B. Mockups: Apply benchmark samples of each paint system indicated and each color and finish  
34 selected to verify preliminary selections made under sample submittals and to demonstrate  
35 aesthetic effects and set quality standards for materials and execution.  
36  
37 1. Architect will select one surface to represent surfaces and conditions for application of  
38 each paint system specified in Part 3.  
39  
40 a. Wall and Ceiling Surfaces: Provide samples of at least 100 sq. ft.  
41 b. Other Items: Architect will designate items or areas required.  
42  
43 2. Apply benchmark samples after permanent lighting and other environmental services  
44 have been activated.  
45 3. Final approval of color selections will be based on benchmark samples.

- 1 a. If preliminary color selections are not approved, apply additional benchmark  
2 samples of additional colors selected by Architect at no added cost to Owner.  
3  
4

5 1.4 EXTRA MATERIALS  
6

- 7 A. Furnish extra materials described below that are from same production run (batch mix) as  
8 materials applied and that are packaged for storage and identified with labels describing  
9 contents.  
10

- 11 1. Quantity: Furnish an additional 5 percent, but not less than 1 gal. of each material and  
12 color applied. Extra material shall **not** be used for punch list work.  
13  
14

15 PART 2 - PRODUCTS  
16  
17

18 2.1 PAINT, GENERAL  
19

- 20 A. Material Compatibility:  
21

- 22 1. Provide materials for use within each paint system that are compatible with one another  
23 and substrates indicated, under conditions of service and application as demonstrated by  
24 manufacturer, based on testing and field experience.  
25 2. For each coat in a paint system, provide products recommended in writing by  
26 manufacturers of topcoat for use in paint system and on substrate indicated.  
27  
28

29 2.2 PRIMERS/SEALERS  
30

- 31 A. Interior Latex Primer/Sealer: MPI #50.  
32  
33

34 2.3 METAL PRIMERS  
35

- 36 A. Quick Drying Alkyd Metal Primer: MPI #76.  
37  
38 B. Waterborne Galvanized-Metal Primer: MPI #134.  
39  
40

41 2.4 WOOD PRIMERS  
42

- 43 A. Interior Latex-Based Wood Primer: MPI #39.  
44  
45

## 1 2.5 LATEX PAINTS

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9

- A. Interior Latex (Low Sheen): MPI #44 (Gloss Level 2).
- B. Interior Latex (Satin): MPI #43 (Gloss Level 4).
- C. Interior Latex (Eggshell): MPI #54 (Gloss Level 5).

## 10 2.6 QUICK-DRYING ENAMELS

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12  
13  
14

- A. Quick-Drying Enamel (Semigloss): MPI #81 (Gloss Level 5).

15 PART 3 - EXECUTION16  
17

## 18 3.1 EXAMINATION

19

- A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of work.
- B. Maximum Moisture Content of Substrates: When measured with an electronic moisture meter as follows:
  - 1. Wood: 15 percent.
  - 2. Gypsum Board: 12 percent.
- C. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers.
- D. Begin coating application only after unsatisfactory conditions have been corrected and surfaces are dry.
  - 1. Beginning coating application constitutes Contractor's acceptance of substrates and conditions.

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## 39 3.2 PREPARATION AND APPLICATION

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- A. Comply with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual" applicable to substrates indicated.
- B. Clean substrates of substances that could impair bond of paints, including dirt, oil, grease, and incompatible paints and encapsulants.

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1. Remove incompatible primers and reprime substrate with compatible primers as required to produce paint systems indicated.

C. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.

D. Painting Mechanical and Electrical Work: Paint items exposed in all rooms (except mechanical and electrical rooms and under stairways), but not limited to, the following:

1. Electrical Work:

a. Electrical equipment that is indicated to have a factory-primed finish for field painting.

E. Protect work of other trades against damage from paint application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Architect, and leave in an undamaged condition.

F. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.

### 3.3 INTERIOR PAINTING SCHEDULE

A. Steel Substrates:

1. High-Performance Architectural Latex System: MPI INT 5.1R.

a. Prime Coat: Quick-drying alkyd metal primer.

b. Intermediate Coat: High-performance architectural latex matching topcoat.

c. Topcoat: High-performance architectural latex (semigloss).

B. Galvanized-Metal Substrates:

1. Latex System: MPI INT 5.3A.

a. Prime Coat: Galvanized-metal primer.

b. Intermediate Coat: Interior latex matching topcoat.

c. Topcoat: Interior latex (semigloss).

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C. Gypsum Board Substrates:

1. Latex System: MPI INT 9.2A.

- a. Prime Coat: Interior latex primer/sealer.
- b. Intermediate Coat: Interior latex matching topcoat.
- c. Topcoat: Interior latex (Satin).

D. Wood Substrates:

1. Latex System: MPI INT .

- a. Prime Coat: Interior latex primer/sealer.
- b. Intermediate Coat: Interior latex matching topcoat.
- c. Topcoat: Interior latex (Satin).

END OF SECTION 099123

1 PART 1 - GENERAL

2  
3  
4 1.1 SUMMARY

5  
6 A. This Section includes the following:

7  
8 1. Interior Panel Signs.  
9

10  
11 1.2 DEFINITIONS

12  
13 A. ADA-ABA Accessibility Guidelines: U.S. Architectural & Transportation Barriers  
14 Compliance Board's "Americans with Disabilities Act (ADA) Accessibility Guidelines for  
15 Buildings and Facilities; Architectural Barriers Act (ABA) Accessibility Guidelines."  
16

17  
18 1.3 SUBMITTALS

19  
20 A. Product Data: For each type of product indicated.

21  
22 B. Shop Drawings: Show fabrication and installation details for signs.

- 23  
24 1. Show sign mounting heights, locations of supplementary supports to be provided by  
25 others, and accessories.  
26 2. Provide message list, timesteps, graphic elements, including tactile characters and  
27 Braille, and layout for each sign.  
28

29 C. Samples: For each sign type and for each color and texture required.  
30

31  
32 1.4 QUALITY ASSURANCE

33  
34 A. Regulatory Requirements: Comply with applicable provisions in ADA-ABA Accessibility  
35 Guidelines.  
36

37  
38 PART 2 - PRODUCTS

39  
40  
41 2.1 MATERIALS

42  
43 A. Acrylic Sheet: ASTM D 4802, Category A-1 (cell-cast sheet), Type UVA (UV absorbing).  
44

- 1 B. Polycarbonate Sheet: Of thickness indicated, manufactured by extrusion process, coated on  
2 both surfaces with abrasion-resistant coating:  
3  
4 1. Impact Resistance: 16 ft-lbf/in. per ASTM D 256, Method A.  
5 2. Tensile Strength: 9000 lbf/sq. in. per ASTM D 638.  
6 3. Flexural Modulus of Elasticity: 340,000 lbf/sq. in. per ASTM D 790.  
7 4. Heat Deflection: 265 deg F at 264 lbf/sq. in. per ASTM D 648.  
8 5. Abrasion Resistance: 1.5 percent maximum haze increase for 100 revolutions of a Taber  
9 abramer with a load of 500 g per ASTM D 1044.

- 10  
11 C. Applied Vinyl: Die-cut characters from vinyl film of nominal thickness of 3 mils with  
12 pressure-sensitive adhesive backing, suitable for exterior applications.  
13

## 14 15 2.2 PANEL SIGNS

- 16  
17 A. Manufacturers: Subject to compliance with requirements, provide products by one of the  
18 following:  
19

- 20 1. ASI-Modulex, Inc.  
21 2. Best Sign Systems Inc.  
22 3. Innerface Sign Systems, Inc.  
23

- 24 B. Interior Panel Signs: Provide smooth sign panel surfaces constructed to remain flat under  
25 installed conditions within a tolerance of plus or minus 1/16 inch measured diagonally from  
26 corner to corner, complying with the following requirements:  
27

- 28 1. Acrylic Sheet: 0.080 inch thick.  
29 2. Edge Condition: Square cut.  
30 3. Corner Condition: Rounded to radius indicated.  
31 4. Mounting: Unframed.  
32  
33 a. Wall mounted with concealed anchors.  
34 b. Manufacturer's standard anchors for substrates encountered.  
35  
36 5. Color: As selected by Architect from manufacturer's full range.  
37 6. Tactile Characters: Characters and Grade 2 Braille raised 1/32 inch above surface with  
38 contrasting colors.  
39

- 40 C. Tactile and Braille Sign: Manufacturer's standard process for producing text and symbols  
41 complying with ADA-ABA Accessibility Guidelines and with ICC/ANSI A117.1. Text shall  
42 be accompanied by Grade 2 Braille. Produce precisely formed characters with square-cut  
43 edges free from burrs and cut marks; Braille dots with domed or rounded shape.  
44

- 45 1. Panel Material: Clear acrylic sheet with opaque color coating, subsurface applied.

1           2.     Raised-Copy Thickness: Not less than 1/32 inch.  
2  
3

4   2.3     DIMENSIONAL CHARACTERS  
5

6     A.     Manufacturers: Subject to compliance with requirements, provide products by one of the  
7           following:  
8

9     B.     Basis-of-Design Product: Subject to compliance with requirements, provide the product  
10           indicated on Drawings or a comparable product by one of the following:  
11

- 12           1.     ACE Sign Systems, Inc.
- 13           2.     Advance Corporation; Braille-Tac Division.
- 14           3.     A. R. K. Ramos.
- 15           4.     ASI-Modulex, Inc.
- 16           5.     Gemini Incorporated.
- 17           6.     Grimco, Inc.
- 18           7.     Innerface Sign Systems, Inc.
- 19           8.     Metal Arts; Div. of L&H Mfg. Co.
- 20           9.     Mills Manufacturing Company.
- 21           10.    Mohawk Sign Systems.
  
- 22
- 23
- 24

25   2.4     ACCESSORIES  
26

27     A.     Anchors and Inserts: Provide nonferrous-metal or hot-dip galvanized anchors and inserts for  
28           exterior installations and elsewhere as required for corrosion resistance. Use toothed steel or  
29           lead expansion-bolt devices for drilled-in-place anchors. Furnish inserts, as required, to be set  
30           into concrete or masonry work.  
31

32  
33   2.5     FABRICATION  
34

35     A.     General: Provide manufacturer's standard signs of configurations indicated.  
36

- 37           1.     Mill joints to tight, hairline fit. Form joints exposed to weather to exclude water  
38           penetration.
- 39           2.     Conceal fasteners if possible; otherwise, locate fasteners where they will be  
40           inconspicuous.  
41
- 42
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1 PART 3 - EXECUTION  
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3

4 3.1 INSTALLATION  
5

6 A. Locate signs and accessories where indicated, using mounting methods of types described and  
7 complying with manufacturer's written instructions.  
8

9 1. Install signs level, plumb, and at heights indicated, with sign surfaces free of distortion  
10 and other defects in appearance.

11 2. Interior Wall Signs: Install signs on walls adjacent to latch side of door where  
12 applicable. Where not indicated or possible, such as double doors, install signs on  
13 nearest adjacent walls. Locate to allow approach within 3 inches of sign without  
14 encountering protruding objects or standing within swing of door. Locate with center  
15 of sign 60 inches above floor.  
16

17 B. Wall-Mounted Signs: Comply with sign manufacturer's written instructions except where  
18 more stringent requirements apply.  
19

20 1. Mechanical Fasteners: Use nonremovable mechanical fasteners placed through  
21 predrilled holes. Attach signs with fasteners and anchors suitable for secure attachment  
22 to substrate as recommended in writing by sign manufacturer.

23 2. Signs Mounted on Glass: Provide matching opaque plate on opposite side of glass to  
24 conceal mounting materials.  
25  
26

27 END OF SECTION 101400  
28

1 PART 1 - GENERAL

2  
3  
4 1.1 REQUIREMENTS

- 5  
6 A. Refer to General Divisions for submittal requirements and procedures.  
7  
8

9 1.2 DEFINITIONS

- 10  
11 A. Manufacturer's Product Data: Manufacturer's product data consist of one or more levels of  
12 manufacturer's information as described below and as requested in the submittal schedule. The  
13 three levels of information include: manufacturer's list, manufacturer's catalog data, and  
14 manufacturer's technical and engineering data.

- 15 1. Manufacturer's List: Manufacturer's list shall include a typewritten list of manufacturer's  
16 name, sizes and model or catalog numbers, referenced to the specification section.  
17 2. Manufacturer's Catalog Data: Manufacturer's catalog data shall include standard catalog  
18 information marked to indicate specific equipment proposed and point of operation, if  
19 appropriate. Include installation instructions.  
20 3. Manufacturer's Technical and Engineering Data: Manufacturer's technical and engineering  
21 data shall include materials, dimensions, details, installation instructions, weights, capacities,  
22 illustrations, wiring diagrams, control diagrams, piping diagrams, connection diagrams,  
23 performance data (including performance curves), mix design, and any other information  
24 required for a complete and thorough evaluation of the equipment or items specified, and to  
25 verify compliance with specifications. Control diagrams or control schematics, where  
26 specified and required by the submittal schedule, shall include a detailed schematic of the  
27 proposed control modifications and their interface with existing control equipment, where  
28 appropriate, and a manufacturer and model number listing of all proposed control  
29 components shown on the control schematic.  
30

- 31 B. Shop Drawings: Shop drawings are construction drawings of items manufactured specifically for  
32 this project. Shop drawings include dimensions, construction details, weights, and additional  
33 information to identify the physical features of the system or piece of equipment.  
34

- 35 C. Samples: Samples illustrate functional characteristics of the product with integral parts and  
36 attachment devices. Samples shall allow evaluation of full range of manufacturer's standard colors,  
37 textures, and patterns.  
38

- 39 D. Certificates, Test Data or Other Information: Requirements for certificates, test data, or other  
40 information will be listed under referenced specification sections.  
41  
42

43 1.3 SUBMITTALS REQUIRED

- 44  
45 A. Product Evaluation Data. The submittal schedule for product evaluation data is as indicated below.  
46 Each item requiring a submittal is given the following code:  
47

- 1           1.     Manufacturer's list
- 2           2.     Manufacturer's catalog data
- 3           3.     Manufacturer's technical and engineering data
- 4           4.     Shop drawings
- 5           5.     Samples
- 6           6.     Certificates
- 7           7.     Test data
- 8           8.     Worker's qualifications
- 9           9.     See individual sections for special requirements

10

11

12   1.4    SUBMITTAL SCHEDULE

13

<u>Division 26 – Electrical</u>			<u>Codes</u>
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Section 262816 - Overcurrent Protective Devices			2,3
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Section 265113 - Indoor Lighting Fixtures, Lamps, and Ballasts			2,3,4
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19

20   PART 2 - PRODUCTS

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22   2.1    THIS PART NOT USED

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25   PART 3 - EXECUTION

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27   3.1    THIS PART NOT USED

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END OF SECTION 260126

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1 PART 1 - GENERAL

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4 1.1 CONTRACT DOCUMENTS

- 5  
6 A. The Contract Documents are complementary. What is required by any one, as affects this Division,  
7 shall be as binding as if repeated herein.  
8  
9 B. Separation of this Division from other Contract Documents shall not be construed as complete  
10 segregation of the Work.  
11  
12 C. Particular attention is called to Advertisement For Bids, Instructions to Bidders, Supplemental  
13 Instructions to Bidders, General Conditions, Supplemental General Conditions, Drawings and  
14 Specifications, and modifications incorporated in the documents before execution of the  
15 Agreement.  
16

17  
18 1.2 SCOPE OF WORK

- 19  
20 A. General: Provide and install complete and satisfactorily operating electrical systems as specified in  
21 this Division, as shown on Drawings, as required, and as reasonably intended. Work generally in-  
22 cludes, but is not limited to electrical distribution, lighting, devices, wiring systems and control  
23 systems.  
24  
25 B. Omissions: Omission of expressed reference to any item of labor or material necessary for the  
26 proper execution of the work shall not relieve responsibility from providing such additional labor or  
27 material.  
28

29  
30 1.3 EXAMINATION OF SITE

- 31  
32 A. Examine Site of Work before making Bid and ascertain all related physical conditions.  
33  
34 B. Field verify scale dimensions shown since exact locations, distances and levels will be governed by  
35 actual field conditions.  
36  
37 C. Owner will not be responsible for any loss or unanticipated costs which may be suffered by the  
38 successful Bidder as a result of such Bidder's failure to fully inform himself in advance in regard to  
39 all conditions pertaining to the Work and character of the Work.  
40

41  
42 1.4 COORDINATION OF TRADES

- 43  
44 A. Check Drawings of other trades to avert possible installation conflicts. Should major changes from  
45 original Drawings be necessary to resolve such conflicts, notify Architect and secure written  
46 approval and agreement on necessary adjustments before installation is started.  
47

- 1 B. Check equipment connections and equipment locations on the job for coordination with other  
2 Divisions equipment and connections, structure, and the like.  
3  
4

5 1.5 MINOR DEVIATIONS  
6

- 7 A. Make minor changes in equipment connections and equipment locations as directed or required  
8 before rough-in without extra cost.  
9

10  
11 1.6 SUBSTITUTIONS  
12

- 13 A. Equal material of other manufacturer may be used following Architect's approval of a written  
14 request submitted at least 7 working days prior to bid date.  
15

16  
17 1.7 RECORD DRAWINGS  
18

- 19 A. Maintain a marked set of prints at job site at all times. Show all changes from contract drawings,  
20 whether visible or concealed. Dimension accurately from building lines, floor or curb elevations.  
21 Show exact location, elevation, and size of conduit, access panel and doors, and all other  
22 information pertinent to the work.  
23

- 24 B. At project completion, submit marked set to Architect for approval.  
25

26  
27 1.8 WARRANTY  
28

- 29 A. Warrant all work, materials, and equipment for one year.  
30  
31

32 PART 2 - PRODUCTS  
33

34 2.1 THIS PART NOT USED  
35  
36

37 PART 3 - EXECUTION  
38

39 3.1 THIS PART NOT USED  
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45 END OF SECTION 260500

1 PART 1 – GENERAL

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4 1.1 WORK INCLUDED

- 5  
6 A. Wires and Cables  
7  
8 B. Wire Connections  
9

10  
11 1.2 REFERENCE STANDARDS

- 12  
13 A. National Fire Protection Association (NFPA)  
14 NFPA 70 National Electrical Code  
15

16  
17 1.3 DELIVERY, STORAGE AND HANDLING

- 18  
19 A. Deliver new wire to site in new standard coils or reels with approved tag denoting length, wire size,  
20 insulation type and manufacturer's name.  
21  
22 B. Protect from weather and damage during storage and handling.  
23

24  
25 PART 2 - PRODUCTS

26  
27  
28 2.1 CONDUCTOR AND CABLE MATERIALS

- 29  
30 A. Building Wiring: 98 percent conductivity copper, 600 volt insulation, stranded. Type THHN for  
31 interior dry and damp locations. Type THWN or XHHW for wet and exterior locations.  
32  
33 B. Branch Circuit Wiring: Conductors smaller than No. 12 AWG for power system branch circuits not  
34 permitted.  
35  
36 C. The use of MC or AC cables is not permitted.  
37  
38 D. Motor control wires shall be No. 14 minimum.  
39  
40 E. Wire for special areas shall be as specified on the Drawings.  
41

42  
43 2.2 TWIST-ON CONNECTOR

- 44  
45 A. UL pressure-type, solderless, insulated, wound spring grip twist on connector.  
46  
47 B. Solderless pressure connectors for terminals, taps, and splices.

2.3 TERMINAL, CRIMP-ON

- A. Flat, fork tongue, self-insulating.
- B. For connection of stranded wire to screw terminals.
- C. T & B "Sta-Kon," or equal.

PART 3 - EXECUTION

3.1 CONDUCTOR AND CABLE INSTALLATION

- A. Make conductor length for parallel feeders identical.
- B. Lace or clip groups of feeder conductors at distribution centers, pull boxes, and wireways.
- C. Provide copper grounding conductors and straps. A ground wire shall be pulled through conduits and used as the equipment grounding conductor.
- D. Install wire and cable in code conforming raceway.
- E. Use wire pulling lubricant for pulling No. 4 AWG and larger wire. UL approved type only.
- F. Install wire in conduit runs after concrete and masonry work is complete and after moisture is swabbed from conduits.
- G. Splice only in accessible junction or outlet boxes. Splice in feeders and services not permitted. Splices or taps in branch circuits permitted only in junction boxes where circuits divide.
- H. Color code conductors to designate neutral, phase, and ground as follows:

CONDUCTOR	120/208 OR 120/240	277/480
Phase A	Black	Brown
Phase B	Red	Orange
Phase C	Blue	Yellow
Neutral	White	Gray
Ground	Green	Green
Switchlegs	Pink or Tan	Pink or Tan
Travelers	Purple	Purple
Fire Alarm	Red	
Intercom/Clock/Bell	Grey	
Security	Orange	
HVAC Control	Green	

Data/Telecom White (CAT6)

- I. Wires shall be factory color coded by integral pigmentation. Colored plastic tape permitted on No. 6 and larger where integral pigmentation impractical. Apply tape in spiral half-lap over exposed portions in manholes, boxes, panels, switchboards and other enclosures.
- J. All circuit conductors shall be identified with circuit number at all terminals, intermediate outlets, disconnect switches, circuit breakers, motor control centers, etc. Both ends of a given conductor shall be identified alike.
- K. DO NOT install wires of different voltage systems in same raceway, box, gutter or other enclosure.
- L. Radius of cable bends shall not be less than 10 times the outer diameter of the cable.

3.2 CONNECTIONS AND SPLICES

- A. Follow manufacturer's instructions using manufacturers recommended tools.
- B. Stripping Insulation: Carefully strip, avoid nicking conductor. No "ringing."
- C. Design: Connectors shall be designed and approved for the purpose used. Connectors between aluminum and copper shall be listed "AL/CU" for the purpose of preventing electrolytic action.
- D. Bare Connectors and Conductor Free Ends: Wrap with insulating rubber or friction tape to equivalent insulation of wire.
- E. Ground Continuity to Metallic Surfaces: Remove any paint coating and polish surface beneath connection.
- F. Copper conductors may be terminated in any approved compression or mechanical connector, including set screws.
- G. No splices or taps permitted in feeder or branch circuit terminating in a single outlet.
- H. Branch circuit splices and taps in junction and outlet boxes: Twist-on connectors.
- I. Conductor and cable copper shall not be reduced at the terminal for making connections.
- J. Slack shall be left at equipment, pullboxes, or outlet boxes to allow for a neat termination.

END OF SECTION 260519

1 PART 1 - GENERAL

2  
3  
4 1.1 WORK INCLUDED

- 5  
6 A. Electric and power system grounding  
7  
8 B. Communication system grounding  
9

10  
11 1.2 REQUIREMENTS OF REGULATORY AGENCIES

- 12  
13 A. Provide grounds in accordance with National Electrical Code and additional requirements as  
14 required herein.  
15  
16 B. NEC references below are based on the 2011 edition.  
17

18  
19 PART 2 - PRODUCTS

20  
21  
22 2.1 GROUNDING CONDUCTORS

- 23  
24 A. Size: Equipment grounding conductor: Table 250-122.  
25  
26 B. Material: Copper.  
27  
28 C. Protection: Conductors not in raceway or concealed shall be insulated. Provide conduit where  
29 shown or required for physical protection.  
30  
31 D. Bonding Jumpers: Same requirements.  
32

33  
34 PART 3 - EXECUTION

35  
36  
37 3.1 POWER SYSTEM GROUNDING

- 38  
39 A. Circuit Grounding: Install grounding bushings, studs, and jumpers at distribution centers,  
40 pullboxes, motor control centers, panelboards, and junction boxes.  
41  
42 B. Ground Connections: Clean surfaces thoroughly before applying ground lugs or clamps. If surface  
43 is coated, the coating must be removed down to the bare metal. After the coating has been  
44 removed, apply a noncorrosive approved compound to cleaned surface and install lugs or clamps.  
45 Where galvanizing is removed from metal, it shall be painted or touched up.  
46  
47

- 1 C. Conduit Systems:
  - 2 1. Ground all metallic conduit systems.
  - 3 2. Non-metallic conduit systems shall contain a grounding conductor.
  - 4 3. Conduit provided for mechanical protection containing only a grounding conductor, bond to
  - 5 that conductor at the entrance and exit from the conduit.
  - 6
- 7 D. Feeders and Branch Circuits: Install green grounding conductors with feeders and branch circuits
- 8 as follows:
  - 9 1. Feeders.
  - 10 2. Circuits serving preparation and kitchen equipment.
  - 11 3. Receptacle outlets.
  - 12 4. Directly connected laboratory equipment.
  - 13 5. Motors and motor controllers.
  - 14 6. Fixed equipment and appliances.
  - 15 7. Items of equipment where the final connection is made with flexible metal conduit shall
  - 16 have a grounding wire.
  - 17 8. Additional locations and systems as shown.
  - 18
- 19 E. Ground lighting fixtures to the green grounding conductor of the wiring system when the green
- 20 ground is provided; otherwise, ground the fixtures through the conduit systems. Fixtures connected
- 21 with flexible conduit shall have a green ground wire included with the power wires from the fixture
- 22 through the flexible conduit to the first outlet box.
- 23
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END OF SECTION 260526

1 PART 1 - GENERAL

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3  
4 1.1 WORK INCLUDED

- 5  
6 A. Raceway Supports  
7

8 PART 2 - PRODUCTS

9  
10  
11 2.1 RACEWAY SUPPORTS

- 12  
13 A. Single Runs: Steel rod hangers, galvanized single hole conduit straps, or ring bolt type hangers with  
14 specialty spring clips. Plumbers perforated tape or "J-nails" not acceptable.  
15  
16 B. Multiple Runs: Conduit rack with 25 percent spare capacity. Maximum width per manufacturer's  
17 recommendations.  
18  
19 C. Vertical Runs: Channel support with conduit fittings.  
20  
21 D. All hardware such as inserts, straps, bolts, nuts, screws and washers shall be galvanized or  
22 cadmium-plated steel.  
23

24  
25 2.2 ANCHOR METHODS

- 26  
27 A. Hollow Masonry and Framed Walls: Toggle bolts or spider type expansion anchors.  
28  
29 B. Solid Masonry: Lead expansion anchors or preset inserts.  
30  
31 C. Metal Surfaces: Machine screws, bolts, or welded studs.  
32  
33 D. Wood Surfaces: Wood screws.  
34  
35 E. Concrete Surfaces: Self-drilling anchors or powder-driven studs.  
36

37 PART 3 - EXECUTION

38  
39  
40 3.1 INSTALLATION

- 41  
42 A. Layout to maintain headroom, neat mechanical appearance, and to support equipment loads  
43 required.  
44

- 1 B. Exact location and spacing between supports per manufacturer's recommendations and NEC
- 2 requirements as minimum.
- 3
- 4 C. Conduit shall be installed in such a manner as to prevent the collection of trapped condensation. All
- 5 runs of conduit shall be arranged so as to be devoid of traps wherever possible.
- 6
- 7
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10 END OF SECTION 260529

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1 PART 1 - GENERAL

2  
3  
4 1.1 WORK INCLUDED

- 5
- 6 A. Conduit, Tubing, and Fittings
- 7
- 8 B. Flexible Conduit
- 9
- 10 C. Electrical boxes and fittings as required for a complete installation
- 11
- 12

13 1.2 REFERENCE STANDARDS

- 14
- 15 A. National Fire Protection Association (NFPA).
- 16 1. NFPA 70 National Electrical Code--Chapter 3.
- 17
- 18

19 PART 2 - PRODUCTS

20  
21  
22 2.1 MATERIALS AND COMPONENTS

- 23
- 24 A. Conduit and Tubing: Galvanized steel rigid threaded conduit, electrical metallic tubing, intermediate metallic conduit.
- 25
- 26
- 27 B. Flexible Conduit: Steel armor, flexible plastic jacketed type with liquidtight connectors (liquidtight flexible metallic conduit).
- 28
- 29
- 30 C. Fittings:
  - 31 1. General: Approved for purpose. Water, concrete tight where required.
  - 32 2. Galvanized Rigid Steel Conduit (GRC): Threaded - no pressure type. Bushings with factory insulated throat.
  - 33
  - 34 3. Electrical Metallic Tubing (EMT): Connectors and couplings to be case steel. Preinsulated connectors and couplings shall be compression, setscrew type. All connectors shall have insulated throats.
  - 35
  - 36
  - 37 4. Flexible Metallic Conduit: Clamp type, galvanized malleable iron with insulated throat.
  - 38 5. Liquidtight Flexible Metallic Conduit: Continuous copper ground in core; approved watertight.
  - 39
  - 40
- 41 D. Expansion Joints: Offset or sliding type with bending straps and clamps. Approved for purpose.
- 42
- 43

44 2.2 TYPE

- 45
- 46 A. Utilize GRC or IMC in concrete with concrete-tight connectors or exterior with watertight connectors.
- 47
- 48

- 1 B. Utilize electrical metallic tubing concealed in interior spaces or exposed in unfinished, interior  
2 where not subject to physical damage.
- 3
- 4 C. Utilize surface metal raceways for exposed runs in finished areas. Paint to match wall finish.
- 5
- 6 D. Make connections to motors and equipment with flexible metallic conduit or liquidtight flexible  
7 metallic conduit. Use liquidtight type in damp locations. Minimum size 1/2-inch for motor  
8 connections. Use 3/8-inch only for fixture and control wiring. Provide sufficient length of flexible  
9 conduit to avoid transmission of vibration. Sizes not noted on the Drawings shall be as required by  
10 the NEC.
- 11
- 12

13 2.3 OUTLET BOXES

- 14
- 15 A. Minimum Box: 4-inch box, 1-1/2-inches deep. Provide raised covers on bracket surface mounted  
16 outlets, plaster rings on flush outlets.
- 17
- 18 B. Provide galvanized steel interior outlet wiring boxes, of the type, shape and size, including depth of  
19 box, to suit each respective location and installation; constructed with stamped knockouts in back  
20 and sides, and with threaded holes with screws for securing box covers or wiring devices.
- 21
- 22 C. Provide outlet box accessories as required for each installation, including mounting brackets,  
23 wallboard hangers, extension rings, fixture studs, cable clamps and metal straps for supporting  
24 outlet boxes, compatible with outlet boxes being used and meeting requirements of individual  
25 wiring situations. Choice of accessories is Installer's option.
- 26
- 27 D. Outlet Box Plate Covers:
  - 28 1. Flush Mounting: Bevelled, pressure formed, type 302 stainless steel, match device installed.
  - 29 2. Surface Mounting: Bevelled, steel, pressure formed.
- 30
- 31

32 2.4 WEATHERPROOF OUTLET BOXES

- 33
- 34 A. Provide corrosion-resistant cast metal weatherproof outlet wiring boxes, of the type, shape and size,  
35 including depth of box, with threaded conduit ends, cast metal face plate with spring-hinged  
36 waterproof cap suitably configured for each application, including face plate gasket and corrosion  
37 proof fasteners.
- 38
- 39 B. Weatherproof boxes to be constructed to have smooth sides, gray finish.
- 40
- 41 C. Boxes used in contact with soil shall be cast iron alloy with gasketed screw cover and water-tight  
42 hubs.
- 43
- 44 D. Weatherproof Plates: Cast metal, gasketed, for switches and receptacles provide spring loaded  
45 doors.
- 46

1  
2 2.5 WEATHERPROOF JUNCTION AND PULL BOXES  
3

- 4 A. Provide galvanized sheet steel junction and pull boxes, with screw-on covers; of the type, shape and
- 
- 5 size, to suit each respective location and installation; with welded seams and equipped with stainless
- 
- 6 steel nuts, bolts, screws and washers.
- 
- 7

8  
9 2.6 PULLBOXES  
10

- 11 A. Pullboxes and Junction Boxes: Sheet metal (indoors) or cast metal (exterior or damp locations)
- 
- 12 construction, conforming to National Electrical Code, with screw-on cover.
- 
- 13
- 
- 14 B. Flush Mounted Pullboxes: Provide overlapping covers with flush-head retaining screws, finished in
- 
- 15 light gray enamel.
- 
- 16
- 
- 17 C. Box volumes shall meet NEC for size and number of entering conduits.
- 
- 18

19  
20 PART 3 - EXECUTION  
2122  
23 3.1 RACEWAY INSTALLATION  
24

- 25 A. Install conduit concealed in all areas excluding mechanical and electrical rooms, connections to
- 
- 26 motors, connections to surface cabinets, underfloor spaces, and above suspended ceilings.
- 
- 27
- 
- 28 B. For exposed runs, attach surface mounted conduit with clamps.
- 
- 29
- 
- 30 C. Install conduit free from dents and bruises. Plug ends to prevent entry of dirt or moisture.
- 
- 31
- 
- 32 D. Clean out conduit before installation of conductor.
- 
- 33
- 
- 34 E. Alter conduit routing to avoid structural obstructions, minimizing crossovers. Bends and offsets
- 
- 35 shall be avoided where possible, but when necessary shall be made with an approved hickey or
- 
- 36 conduit bending machine. The use of a pipe tee or a vise for bending conduit will not be permitted.
- 
- 37
- 
- 38 F. Provide UL approved expansion fittings complete with grounding jumpers where conduits cross
- 
- 39 building expansion joints and for long runs where conduit expansion may be excessive. Provide
- 
- 40 bends or offsets in conduit adjacent to building expansion joints where conduit is installed above
- 
- 41 suspended ceilings.
- 
- 42
- 
- 43 G. Route all exposed conduits parallel or perpendicular to building lines.
- 
- 44
- 
- 45 H. Vertical Runs: Straight and plumb.
- 
- 46
- 
- 47 I. Raceways Running in Groups: Run at same relative elevation, properly spaced and supported.
- 
- 48

- 1 J. Dissimilar Metals: Avoid contact with pipe runs of other systems.
- 2
- 3 K. Lengths and Bends: Maximum number of bends in any run shall be the equivalent of four quarter
- 4 bends (360 degrees total). Maximum length of any run shall be 300 feet, less 50 feet for each
- 5 equivalent quarter bend. Junction and pull boxes shall be provided to maintain these limits.
- 6
- 7 L. Provide waterproof seal for all exterior wall and underground raceway penetrations.
- 8
- 9 M. All empty raceways shall be provided with pull string or #12 conductor.

10  
11

12 3.2 BOX INSTALLATION

13  
14

- 14 A. Locate outlet boxes flush in areas other than mechanical rooms, electrical rooms, and above
- 15 suspended ceilings.
- 16
- 17 B. For boxes mounted in exterior walls make sure that there is insulation behind outlet boxes to
- 18 prevent condensation in boxes.
- 19
- 20 C. Locate pullboxes and junction boxes above suspended ceilings or in electrical rooms, utility rooms,
- 21 or storage areas.
- 22
- 23 D. Support: Secure boxes independent of entering conduits, by attaching directly to structure with bar
- 24 hanger, blocking or flat side bracket.
- 25
- 26 E. Identify each junction and pullbox with system description including branch circuit numbers of
- 27 enclosed circuits.
- 28
- 29 F. Conduit shall be securely fastened to all sheet metal outlet, junction, and pullboxes with galvanized
- 30 locknuts, and bushing.

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36 END OF SECTION 260533

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1 PART 1 - GENERAL  
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4 1.1 WORK INCLUDED  
5

- 6 A. Permanent Identification of all electrical system components.  
7  
8

9 1.2 REQUIREMENTS OF REGULATORY AGENCIES  
10

- 11 A. Identification shall conform to the latest edition of the National Electrical Code (NEC), Articles  
12 110-21 and as a minimum requirement.  
13  
14

15 PART 2 – PRODUCTS  
16  
17

18 2.1 MATERIALS  
19

- 20 A. Laminated Plastic:

- 21 1. Three layer, black front and back with white core.  
22 2. Engraved through outer layer to show white characters on black background.  
23 3. Beveled edges.  
24 4. Other colors as specified.  
25

- 26 B. Panelboard Directory Card: Fiberboard neatly typed for newly installed panels. Circuit changes to  
27 existing panels shall be noted on the directory card by hand printing in ink. When more than five  
28 changes have been made on the directory card, a new card shall be typed.  
29  
30

31 PART 3 – EXECUTION  
32  
33

34 3.1 ITEMS TO BE IDENTIFIED  
35

- 36 A. Motor starters, power panels, lighting panels and the disconnecting devices contained therein.  
37  
38 B. Disconnecting devices that are located in the area and not part of the items listed in 3.01 (A).  
39  
40 C. Control panels, starters, pushbutton stations, pilot lights and other control devices.  
41  
42 D. Transformers.  
43  
44 E. Remote control devices.  
45  
46 F. Conductors at both device and terminal strip terminations for control and instrumentation cables  
47 and conductors.  
48

1 G. Other items as specified or noted.  
2  
3

4 3.2 USE OF NAMEPLATES AND TAGS  
5

6 A. Panel designations, as described in paragraph 3.04 (A), and disconnecting devices in motor control  
7 centers shall be identified by nameplates that are engraved or etched. Nameplates that are engraved  
8 or etched shall have a black background with white letters. Letters for panel designations shall be a  
9 minimum of 1/2 inch high and letters for disconnect devices, mentioned in this paragraph, shall be  
10 smaller than the panel designation but have a minimum height of 3/8 inch.  
11

12 B. Disconnect devices in lighting panels and power panels shall be identified on the panelboard  
13 directory card.  
14

15 C. All wiring shall be identified with self-laminating, machine made thermal transfer labels.  
16  
17

18 3.3 APPLYING NAMEPLATES AND TAGS  
19

20 A. Nameplates that are engraved or etched, shall be attached with screws.  
21

22 B. Panelboard directory cards shall be placed in holders, provided for this purpose, located inside the  
23 panel doors.  
24  
25

26 3.4 IDENTIFICATION ON NAMEPLATES AND TAGS  
27

28 A. The voltage designation shall also be shown on the nameplate.  
29

30 B. Nameplates for disconnecting devices contained in panels and motor control centers shall show the  
31 equipment name and location by floor and column number. Voltage designation shall not be  
32 included when the voltage is the same as for the panel or motor control center.  
33

34 C. Nameplates on disconnect devices located in the area but not part of a panel or motor control center  
35 shall have the equipment name, power source identification, and voltage designation. Nameplates  
36 for disconnect devices located remotely from the equipment shall also show the equipment location  
37 by floor and column number.  
38

39 D. Nameplates on items listed in paragraph 3.01 (C) shall have the equipment name while the  
40 individual switches and lights shall have the function (such as start, stop, on, off, etc.).  
41

42 E. Panelboard directory cards shall list the circuit numbers and show the equipment name and location  
43 supplied by the circuits. Equipment locations shall be shown by floor and column numbers or by  
44 room numbers.  
45  
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48

END OF SECTION 260553

1 PART 1 - GENERAL

2  
3  
4 1.1 WORK INCLUDED

5  
6 A. Circuit Breakers

7  
8  
9 1.2 APPLICABLE REGULATIONS

10  
11 A. Underwriters' Laboratories (UL).

- 12 1. UL 489-72 Molded Case Circuit Breakers and Circuit Breaker Enclosures.  
13 2. UL 198 E Class R Fuses.  
14 3. UL 198.2 High Interrupting - Capacity Fuses, Current Limiting Type.  
15 4. UL 869 Service Disconnects.

16  
17 B. National Fire Protection Association (NFPA).

- 18 1. NFPA 70 National Electrical Code.  
19  
20

21 PART 2 - PRODUCTS

22  
23  
24 2.1 MOLDED CASE CIRCUIT BREAKERS

25  
26 A. Circuit Breakers:

- 27 1. Connection to Bus: Bolt-on.  
28 2. Thermal-magnetic, molded case, with inverse time current overload and instantaneous  
29 magnetic tripping unless otherwise shown.  
30 3. Quick-make, quick-break, with tripped indication clearly shown by breaker handle taking a  
31 position between ON and OFF.  
32 4. Multi-pole breakers shall have a common internal trip. No handle ties between single pole  
33 breakers.  
34 5. Contacts: T-rated, for heavy duty switching applications.  
35 6. Breakers feeding convenience outlets shall have sensitive instantaneous trip settings of not  
36 more than 10 times the breaker trip rating to prevent repeated arcing shorts resulting from  
37 frayed appliance cords.  
38 7. Additions to existing panelboards and switchboards shall match or be compatible with  
39 existing.  
40 8. Where used as service disconnects, breakers shall be listed for use as service entrance  
41 equipment.  
42  
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PART 3 - EXECUTION

3.1 CIRCUIT BREAKER INSTALLATION

- A. Label each breaker located in switchboard or separate enclosure to indicate load served.
- B. Adjust settings on breakers to operate properly under actual field conditions and to provide selective system coordination.
- C. Update directory in panelboards which have new breakers installed.

END OF SECTION 262816

1 PART 1 - GENERAL

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1.1 WORK INCLUDED

- A. This Section includes supply and installation of luminaires, supports and accessories; and supply of plaster frames, trim rings and backboxes for plaster, tile, drywall or concrete ceilings.
- B. Provide and install lamps in all light fixtures. Refer to lighting fixture schedule.

1.2 REFERENCE STANDARDS

- A. National Electrical Manufacturer's Association (NEMA).
  - 1. NEMA LE1: Fluorescent Luminaires.

1.3 COORDINATION

- A. Confirm compatibility and interface of other materials with luminaire and ceiling system. Report discrepancies to the Engineer/Architect, and defer ordering until clarified.
- B. Supply plaster frames, trim rings and backboxes to other trades.
- C. Coordinate with Division 23 to avoid conflicts between luminaires, supports, fittings, and mechanical equipment.

28 PART 2 - PRODUCTS

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2.1 ACCEPTABLE MANUFACTURERS

- A. Refer to Drawings.

2.2 BALLASTS

- A. Linear Fluorescent Electronic Ballast
  - 1. Program start, universal voltage, extreme system
  - 2. THD < 10%
  - 3. Ballast Power Factor > 99%
  - 4. 0 degree F minimum lamp starting temperature
  - 5. Operating input voltage +/- 20%
  - 6. Operating input frequency 50/60 Hz
  - 7. Audible noise rating "A" or better
  - 8. Output frequency > 40 KHz with no visible flicker
  - 9. Lamp current crest factor < 1.5

- 1 10. Constant light output for line voltage variation of +/- 10%
- 2 11. Ballast factor 0.71
- 3 12. No PCBs
- 4 13. 5 year warranty + \$15.00 labor allowance.
- 5 14. Meets FCC Class A specifications for EMI/RFI
- 6 15. Meets ANSI C62.41 Cat A for transient protection
- 7 16. UL listed
- 8 17. Acceptable product: Osram Sylvania Xtreme System Low Ballast Factor, Advance, or
- 9 approved.

10

11 B. Compact Fluorescent Electronic Ballast

- 12 1. Program rapid start
- 13 2. THD < 10%
- 14 3. Ballast Power Factor > 99%
- 15 4. 0 degree F minimum lamp starting temperature
- 16 5. Operating input voltage +/- 10%
- 17 6. Operating input frequency 50/60 Hz
- 18 7. Audible noise rating "A" or better
- 19 8. Output frequency > 25 KHz with no visible flicker
- 20 9. Lamp current crest factor < 1.5
- 21 10. Constant light output for line voltage variation of +/- 10%
- 22 11. Ballast factor > 0.95
- 23 12. No PCBs
- 24 13. 5 year warranty + \$10.00 labor allowance
- 25 14. Meets ANSI C62.41 Cat A for transient protection
- 26 15. UL listed (Osram/Sylvania)
- 27 16. Acceptable product: Sylvania Quicktronic Professional or approved

28

29

30 2.3 FLUORESCENT LUMINAIRES

31

32 A. Prime coat and finish in high reflectance baked white enamel, two coats minimum on exposed and  
 33 reflective surfaces, giving reflectance of 85 percent. Paint after fabrication.

34

35 B. Reflective plates: 22-gauge (0.80 mm) metal.

36

37 C. Provide 20-gauge (0.90 mm) steel housing.

38

39 D. Provide Hinged Frames with Catches; removable for cleaning without tools. Support lay-in lenses  
 40 on four sides with flip ends on short dimension.

41

42 E. Provide gasketing, stops, and barriers to form light traps and prevent light leaks.

43

44 F. Design luminaire to dissipate ballast and lamp heat.

45

46 G. Use formed or ribbed backplates, endplates, reinforcing channels.

47

48 H. Suitable for mounting on low density ceilings, where applicable.

- 1  
2 2.4 RECESSED LUMINAIRES  
3  
4 A. Recessed Incandescent Luminaires: Prewired type with junction box forming an integral part of the  
5 assembly.  
6  
7 B. Supply recessed luminaire complete with trim type required for ceiling system installed.  
8  
9 C. Before ordering, confirm ceiling construction details and architectural finish for each area.  
10  
11  
12 2.5 PENDANTS/CABLE HANGERS  
13  
14 A. Swivel sockets permitting normal fixture motion and self-adjustment. Adjustable to provide fixture  
15 height alignment.  
16  
17 B. One piece, white finish, with matching canopies.  
18  
19 C. Fixtures shall be factory counter-weighted and balanced to provide level hanging. Weights shall not  
20 be visible.  
21  
22 D. Cable hangers shall be adjustable for a minimum of 18".  
23  
24  
25 2.6 LAMP TYPE AND COLOR  
26  
27 A. Refer to Lighting Fixture Schedule.  
28  
29 B. All lamps of each type and color shall be by the same manufacturer.  
30  
31  
32 2.7 LINEAR FLUORESCENT LAMPS  
33  
34 A. Low mercury, TCLP compliant, 85 CRI, 5000K color temperature.  
35  
36 B. Minimum of 3000 Initial Lumens.  
37  
38 C. Acceptable manufacturers: Osram Sylvania F032/850/XP/ECO, GE, Philips.  
39  
40  
41 2.8 COMPACT FLUORESCENT LAMPS  
42  
43 A. Low mercury, TCLP compliant 81 CRI, 4100K color temperature.  
44  
45 B. Acceptable manufacturers: GE, Philips, Osram Sylvania.  
46

1 PART 3 - EXECUTION

2  
3  
4 3.1 COORDINATION

- 5  
6 A. Refer to Architectural Plans for exact locations with respect to ceiling construction.  
7  
8 B. Consult Finish Schedule for ceiling and wall construction and finish.  
9  
10 C. Prior to ordering lighting fixtures, coordinate style of mounting with ceiling construction and trim  
11 details for ceiling system finally selected.  
12  
13

14 3.2 SURFACE MOUNTING

- 15  
16 A. Attach with means that will draw fixtures snugly to finished surface without bending or tipping.  
17 Twist-on clips with studs not allowed on exposed "T" grid ceilings, except where specified.  
18 Support from channel above ceiling framing members with bolt at each corner of fixture.  
19  
20

21 3.3 PENDANTS

- 22  
23 A. Support from structure per paragraph titled "SUPPORT".  
24  
25 B. Provide steel, stranded safety cable between fixture and structure to support fixture in the event of a  
26 pendant breakage.  
27  
28

29 3.4 SUPPORT

- 30  
31 A. Suspended ceiling:  
32 1. Positively attach all light fixtures to the suspended ceiling system. The attachment device  
33 shall have a capacity of 150% of the lighting fixture weight acting in any direction.  
34 2. Support grid with No. 12 minimum gage hangers attached to the grid members within 3  
35 inches of the corner of each fixture, attached to structure above.  
36 3. Attach two No. 12 minimum hangers from the fixture housing to the structure above.  
37 These wires may be slack.  
38 4. Where suspended fixtures do not align with grid, provide "bridging" above grid and  
39 support from structure.  
40 5. Support pendant-hung lighting fixtures directly from the structure above with No. 9  
41 minimum wire or approved alternate support.  
42  
43 B. Support all other fixtures from structure by method rated at least five times support weight.  
44  
45  
46  
47  
48

1  
2 3.5 ACCESS  
3

- 4 A. Recessed fixtures shall have code accessible supply. Use reach-through type fixtures in non-
- 
- 5 accessible ceilings or other suitable means. Coordinate with ceiling installer.
- 
- 6

7  
8 3.6 FIRE RATED CEILINGS  
9

- 10 A. Where a ceiling carries a fire rating, recessed fixtures shall carry UL rating for use in protective
- 
- 11 enclosures. Coordinate installation of protective enclosures to provide sufficient air space for heat
- 
- 12 dissipation. 3 inch minimum all around.
- 
- 13

14  
15 3.7 CLEAN-UP  
16

- 17 A. At time of acceptance, fixtures and lamps shall be clean, with visible labels removed. Touch-up any
- 
- 18 blemishes.
- 
- 19

- 20 B. Remove ballast leakage and dispose of cleaning materials in accordance with EPA regulations.
- 
- 21

22  
23 3.8 FIXTURES AS RACEWAYS  
24

- 25 A. Code Reference: NEC 410-31.
- 
- 26

- 27 B. Through-Wiring: In continuous rows of fluorescent lighting, a connection to a single point in the
- 
- 28 row indicates that the branch circuit conductors are to be routed through the fixture wiring
- 
- 29 compartments and a connection made to each ballast.
- 
- 30

31  
32 3.9 LAMP INSTALLATION  
33

- 34 A. Install lamps in accordance with manufacturer's instructions.
- 
- 35
- 
- 36

37 3.10 EXTRA STOCK  
38

- 39 A. Provide extra lamps of all types, based on initial lamping quantity: Incandescent 25%, all others
- 
- 40 10%. Where a fraction occurs, round up to next larger integer.
- 
- 41

42  
43 3.11 BURNOUT REPLACEMENT  
44

- 45 A. Make replacements from extra stock as required until 90 days after Substantial Completion date.
- 
- 46 Deliver remaining lamps to Owner.
- 
- 47

48  
END OF SECTION 265113

1 PART 1 - GENERAL

2  
3  
4 1.1 SUMMARY

5  
6 A. This Section includes the following:

- 7  
8 1. Preparing subgrades for slabs-on-grade, walks, fill transitions, lawns and grasses.  
9 2. Drainage course for slabs-on-grade.

10  
11  
12 1.2 DEFINITIONS

13  
14 A. Backfill: Soil material used to fill an excavation.

- 15  
16 1. Initial Backfill: Backfill placed beside and over pipe in a trench, including haunches to  
17 support sides of pipe.  
18 2. Final Backfill: Backfill placed over initial backfill to fill a trench.

19  
20 B. Base Course: Course placed between the subbase course and hot-mix asphalt paving.

21  
22 C. Borrow Soil: Satisfactory soil imported from off-site for use as fill or backfill.

23  
24 D. Drainage Course: Course supporting the slab-on-grade that also minimizes upward capillary  
25 flow of pore water.

26  
27 E. Excavation: Removal of material encountered above subgrade elevations and to lines and  
28 dimensions indicated.

- 29  
30 1. Authorized Additional Excavation: Excavation below subgrade elevations or beyond  
31 indicated lines and dimensions as directed by Architect. Authorized additional  
32 excavation and replacement material will be paid for according to Contract provisions  
33 changes in the Work.  
34 2. Unauthorized Excavation: Excavation below subgrade elevations or beyond indicated  
35 lines and dimensions without direction by Architect. Unauthorized excavation, as well  
36 as remedial work directed by Architect, shall be without additional compensation.

37  
38 F. Fill: Soil materials used to raise existing grades.

39  
40 G. Structures: Buildings, footings, foundations, retaining walls, slabs, tanks, curbs, mechanical  
41 and electrical appurtenances, or other man-made stationary features constructed above or  
42 below the ground surface.

- 1 H. Subgrade: Surface or elevation remaining after completing excavation, or top surface of a fill  
2 or backfill immediately below subbase, drainage fill, or topsoil materials.  
3
- 4 I. Utilities: On-site underground pipes, conduits, ducts, and cables, as well as underground  
5 services within buildings.  
6

7

8 1.3 PROJECT CONDITIONS  
9

- 10 A. Existing Utilities: Do not interrupt utilities serving facilities occupied by Owner or others  
11 unless permitted in writing by Architect and then only after arranging to provide temporary  
12 utility services according to requirements indicated.  
13

14

15 PART 2 - PRODUCTS  
16

17

18 2.1 SOIL MATERIALS  
19

- 20 A. General: Provide borrow soil materials when sufficient satisfactory soil materials are not  
21 available from excavations.  
22
- 23 B. Satisfactory Soils: ASTM D 2487 Soil Classification Groups GW, GP, GM, SW, SP, and SM,  
24 or a combination of these groups; free of rock or gravel larger than 3 inches in any dimension,  
25 debris, waste, frozen materials, vegetation, and other deleterious matter.  
26
- 27 C. Unsatisfactory Soils: Soil Classification Groups GC, SC, CL, ML, OL, CH, MH, OH, and PT  
28 according to ASTM D 2487, or a combination of these groups.  
29
- 30 1. Unsatisfactory soils also include satisfactory soils not maintained within 2 percent of  
31 optimum moisture content at time of compaction.  
32
- 33 D. Engineered Fill: Imported structural fill, well graded granular material, free of organics and  
34 debris and meeting the requirements of the 2002 ODOT Standard Specifications for  
35 Construction for Granular Structural Backfill, Section 00510.13.  
36
- 37 E. Granular Fill Course: Well graded gravel or crushed rock with a maximum nominal size of  
38 3/4 inch having less than 5% by weight passing the No. 200 sieve, 6 inches thick unless noted  
39 otherwise.  
40
- 41 F. Topsoil: Native surface sandy topsoil, clean of roots, plants, stones, clods, clay lumps,  
42 construction debris, and other extraneous materials.  
43
- 44 G. Lawn Seed: 100 percent turf type Ryegrass Blend, "JB Instant Lawn Sod or Seed" or approved.  
45

1  
2  
3 PART 3 - EXECUTION  
4  
5

6 3.1 PREPARATION  
7

- 8 A. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by  
9 settlement, lateral movement, undermining, washout, and other hazards created by earthwork  
10 operations.  
11

12  
13 3.2 EXCAVATION  
14

- 15 A. Unclassified Excavation: Excavate to subgrade elevations regardless of the character of  
16 surface and subsurface conditions encountered. Unclassified excavated materials may include  
17 rock, soil materials, and obstructions. No changes in the Contract Sum or the Contract Time  
18 will be authorized for rock excavation or removal of obstructions.  
19

- 20 1. If excavated materials intended for fill and backfill include unsatisfactory soil materials  
21 and rock, replace with satisfactory soil materials.  
22  
23

24 3.3 EXCAVATION FOR STRUCTURES  
25

- 26 A. Excavate to indicated elevations and dimensions within a tolerance of plus or minus 1 inch.  
27 If applicable, extend excavations a sufficient distance from structures for placing and removing  
28 concrete formwork, for installing services and other construction, and for inspections.  
29

- 30 1. Excavations for Footings and Foundations: Do not disturb bottom of excavation.  
31 Excavate by hand to final grade just before placing concrete reinforcement. Trim  
32 bottoms to required lines and grades to leave solid base to receive other work.  
33  
34

35 3.4 EXCAVATION FOR WALKS AND PAVEMENTS  
36

- 37 A. Excavate surfaces under walks and pavements to indicated lines, cross sections, elevations, and  
38 subgrades.  
39

40  
41 3.5 SUBGRADE INSPECTION  
42

- 43 A. Proof-roll subgrade below the building slabs and pavements with heavy pneumatic-tired  
44 equipment to identify soft pockets and areas of excess yielding. Do not proof-roll wet or  
45 saturated subgrades.

- 1  
2 B. Reconstruct subgrades damaged by freezing temperatures, frost, rain, accumulated water, or  
3 construction activities, as directed by Architect, without additional compensation.  
4  
5  
6 3.6 UNAUTHORIZED EXCAVATION  
7  
8 A. Fill unauthorized excavation under foundations or wall footings by extending bottom elevation  
9 of concrete foundation or footing to excavation bottom, without altering top elevation. Lean  
10 concrete fill, with 28-day compressive strength of 2500 psi, may be used when approved by  
11 Architect.  
12 1. Fill unauthorized excavations under other construction or utility pipe as directed by  
13 Architect.  
14  
15  
16 3.7 STORAGE OF SOIL MATERIALS  
17  
18 A. Stockpile borrow soil materials, topsoil, and excavated satisfactory soil materials without  
19 intermixing. Place, grade, and shape stockpiles to drain surface water. Cover to prevent  
20 windblown dust.  
21 1. Stockpile soil materials away from edge of excavations. Do not store within drip line  
22 of remaining trees.  
23  
24  
25 3.8 SOIL FILL  
26  
27 A. Plow, scarify, bench, or break up sloped surfaces steeper than 1 vertical to 4 horizontal so fill  
28 material will bond with existing material.  
29  
30 B. Place and compact fill material in layers to required elevations as follows:  
31 1. Under areas to be planted and areas which will be re-seeded, use topsoil material.  
32 2. Under walks, use satisfactory soil material, with 6 inch granular fill course.  
33 3. Under steps and ramps, use granular fill over engineered fill.  
34  
35 C. Where sub-base or base rock fills such as crushed gravel, heavy clay, or similar material occurs  
36 in plant beds, remove to a minimum depth of 18" below finish grade, or to undisturbed native  
37 sandy soil, and fill with native sandy topsoil.  
38  
39  
40 3.9 SOIL MOISTURE CONTROL  
41  
42 A. Uniformly moisten or aerate subgrade and each subsequent fill or backfill soil layer before  
43 compaction to within 2 percent of optimum moisture content.  
44

- 1 1. Do not place backfill or fill soil material on surfaces that are muddy, frozen, or contain
- 2 frost or ice.
- 3 2. Remove and replace, or scarify and air dry otherwise satisfactory soil material that
- 4 exceeds optimum moisture content by 2 percent and is too wet to compact to specified
- 5 dry unit weight.
- 6
- 7

### 8 3.10 COMPACTION OF SOIL BACKFILLS AND FILLS

9

- 10 A. Place backfill and fill soil materials in layers not more than 8 inches in loose depth for material
- 11 compacted by heavy compaction equipment, and not more than 4 inches in loose depth for
- 12 material compacted by hand-operated tampers.
- 13
- 14 B. Place backfill and fill soil materials evenly on all sides of structures to required elevations, and
- 15 uniformly along the full length of each structure.
- 16
- 17 C. Compact soil materials to not less than the following percentages of maximum dry unit weight
- 18 according to ASTM D 698:
- 19
- 20 1. Under structures, building slabs, and steps, remove all loose material, then compact each
- 21 layer of backfill material at 95 percent.
- 22 2. Under walkways, scarify and recompact top 6 inches below subgrade and compact each
- 23 layer of backfill or fill soil material at 92 percent.
- 24 3. Under lawn or unpaved areas, scarify and recompact top 6 inches below subgrade and
- 25 compact each layer of backfill or fill soil material at 85 percent.
- 26
- 27

### 28 3.11 GRADING

29

- 30 A. General: Uniformly grade areas to a smooth surface, free of irregular surface changes.
- 31 Comply with compaction requirements and grade to cross sections, lines, and elevations
- 32 indicated.
- 33
- 34 B. Site Grading: Slope grades to direct water away from buildings and to prevent ponding. Finish
- 35 subgrades to required elevations within the following tolerances:
- 36
- 37 1. Lawn or Unpaved Areas: Plus or minus 1 inch.
- 38 2. Walks: Plus or minus 1 inch.
- 39 3. Pavements: Plus or minus 1/2 inch.
- 40
- 41

### 42 3.12 DRAINAGE COURSE

43

- 44 A. Place drainage course on subgrades free of mud, frost, snow, or ice.
- 45

- 1 B. On prepared subgrade, place and compact drainage course under cast-in-place concrete  
2 slabs-on-grade as follows:  
3  
4 1. Place drainage course that exceeds 6 inches in compacted thickness in layers of equal  
5 thickness, with no compacted layer more than 6 inches thick or less than 3 inches thick.  
6 2. Compact each layer of drainage course to required cross sections and thicknesses to not  
7 less than 95 percent of maximum dry unit weight according to ASTM D 698.  
8  
9

10 3.13 FIELD QUALITY CONTROL  
11

- 12 A. Testing Agency: Owner will engage a qualified independent geotechnical engineering testing  
13 agency to perform field quality-control testing.  
14  
15 B. Allow testing agency to inspect and test subgrades and each fill or backfill layer. Proceed with  
16 subsequent earthwork only after test results for previously completed work comply with  
17 requirements.  
18  
19 C. Testing agency will test compaction of soils in place according to ASTM D 1556,  
20 ASTM D 2167, ASTM D 2922, and ASTM D 2937, as applicable.  
21  
22 D. When testing agency reports that subgrades, fills, or backfills have not achieved degree of  
23 compaction specified, scarify and moisten or aerate, or remove and replace soil to depth  
24 required; recompact and retest until specified compaction is obtained.  
25  
26

27 3.14 SEEDING  
28

- 29 A. Remove unwanted vegetation, rock, and debris from top 3 inches of soil.  
30  
31 B. Apply half of seed in one direction and remaining at right angles to first seeding, at the rate of  
32 8 lbs. per 1000 sq. ft. Comply with manufacturer's directions, except maintain this specified  
33 rate.  
34  
35 C. Lightly rake to cover seed, roll and water with a fine spray.  
36  
37 D. Uniformly apply thin layer of mulch over seeded area. Roll and water to set mulch to a smooth  
38 surface.  
39  
40 E. Provide 5 lbs. additional seed to Owner.  
41  
42  
43  
44  
45

## 1 3.15 PROTECTION

2

3 A. Protecting Graded Areas: Protect newly graded areas from traffic, freezing, and erosion. Keep  
4 free of trash and debris.

5

6 B. Repair and reestablish grades to specified tolerances where completed or partially completed  
7 surfaces become eroded, rutted, settled, or where they lose compaction due to subsequent  
8 construction operations or weather conditions.

9

10 C. Where sub-base or base rock fills such as crushed gravel or similar material occurs in plant  
11 beds, remove to a minimum depth of 18" below finish grade, or to undisturbed native sandy  
12 soil, and fill with native sandy topsoil. Where settling occurs before Project correction period  
13 elapses, remove finished surfacing, backfill with additional soil material, compact, and  
14 reconstruct surfacing.

15

16 1. Restore appearance, quality, and condition of finished surfacing to match adjacent work,  
17 and eliminate evidence of restoration to greatest extent possible.

18

19

## 20 3.16 DISPOSAL OF SURPLUS AND WASTE MATERIALS

21

22 A. Disposal: Remove surplus satisfactory soil and waste material, including unsatisfactory soil,  
23 trash, and debris, and legally dispose of it off Owner's property.

24

25

26

27

28

29

30

31

32

33

34

35

36

37

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39

40

41

42

43

END OF SECTION 312000

1 PART 1 - GENERAL

2 1.1 SUMMARY

- 3 A. Section includes decorative fences and swing gates.

4 1.2 PERFORMANCE REQUIREMENTS

- 5 A. Delegated Design: Design decorative steel fences and gates, including comprehensive  
6 engineering analysis by a qualified professional engineer, using performance requirements and  
7 design criteria indicated.

- 8 B. Structural Performance: Chain-link fence and gate framework shall withstand the effects of  
9 gravity loads and the following loads and stresses within limits and under conditions indicated  
10 according to ASCE/SEI 7:

- 11 1. Minimum Post Size: Determine according to ASTM F 1043 for framework up to 6 feet  
12 high, and post spacing not to exceed 10 feet for steel members.

- 13 a. Wind Loads: 80MPH.  
14 b. Exposure Category: D.  
15 c. Fence Height: 6 feet.  
16 d. Material Group: ASTM A 653, galvanized steel.

17 1.3 ACTION SUBMITTALS

- 18 A. Product Data: For each type of product indicated

- 19 B. Shop Drawings: Include plans, elevations, sections, details, and attachments to other work.

- 20 C. Samples: For each polymer-coated product and for each color and texture specified, in 6-inch  
21 lengths for components and on full-sized units for accessories.

- 22 D. Delegated-Design Submittal: For chain-link fences and gate framework indicated to comply  
23 with performance requirements and design criteria, including analysis data signed and sealed by  
24 the qualified professional engineer responsible for their preparation.

25 1.4 CLOSEOUT SUBMITTALS

- 26 A. Operation and maintenance data.

27 1.5 WARRANTY

- 28 A. Special Warranty: Manufacturer's standard form in which **manufacturer** agrees to repair or  
29 replace components of fences and gates that fail in materials or workmanship within specified  
30 warranty period.

- 1 1. Failures include, but are not limited to, deterioration of metals, metal finishes, and other
- 2 materials beyond normal weathering.
- 3 2. Warranty Period: 20 years from date of Substantial Completion.

#### 4 PART 2 - PRODUCTS

##### 5 2.1 FENCE FRAMING

- 6 A. Posts and Rails: Comply with ASTM 653 for framing, including rails, braces, and line;
- 7 terminal; and corner posts. Provide members with minimum dimensions and wall thickness
- 8 based on the following:
  - 9 1. Fence System: Montage Plus
  - 10 2. Fence Height: 72 inches.
  - 11 3. Strength: Material conforming to ASTM A 653, with a minimum yield strength of
  - 12 45,000 psi and a minimum zinc coating weight of 0.60 oz/sq. ft., Coating Designation G-
  - 13 60.
    - 14 a. Posts: 2-1/2" x 16 gauge tubing, with capped tops.
    - 15 b. Pickets: 3/4" square x 18 gauge tubing.
    - 16 c. Rails: 1.5" x 1.4375" x 14 gauge, with picket holes for 4" air space.
  - 17 4. Horizontal Framework Members: Steel channel rails, 1.5" x 1.4375" x 14 gauge,
  - 18 complying with ASTM A 653.
  - 19 5. Metallic Coating for Steel Framing:
    - 20 a. Type A zinc coating.
    - 21 b. Type B zinc with organic overcoat.
    - 22 c. External, Type B zinc with organic overcoat and internal, Type D zinc-pigmented
    - 23 coating.
    - 24 d. Type C, Zn-5-Al-MM alloy coating.
    - 25 e. Coatings: Any coating above.
  - 26 6. Polymer coating over metallic coating.
    - 27 a. Color: Black, complying with ASTM F 934.

##### 28 2.2 SWING GATES

- 29 A. General: Comply with ASTM F 900 for gate posts and single and double swing gate types.
  - 30 1. Gate Leaf Width: As shown on drawings.
  - 31 2. Gate Height: 72 inches.
  - 32 3. Provide additional 16 gauge steel security plating as indicated at hardware installations.
- 33 B. Pipe and Tubing:
  - 34 1. Zinc-Coated Steel: 1-3/4" square x 14 gauge.
  - 35 2. Gate Posts: Rectangular tubular steel.

- 1           3.    Gate Frames and Bracing: Rectangular tubular steel.
- 2           C.    Frame Corner Construction: Welded.
- 3           D.    Hardware:
- 4           1.    Hinges: 180-degree inward or outward swing, as indicated on drawings.
- 5           2.    Latches permitting operation from both sides of gate with provision for padlocking
- 6           accessible from both sides of gate.
- 7           3.    Padlock and Chain: By Owner.
- 8           4.    Lock: By Owner at vehicle gates. Panic hardware at person gates.
- 9           5.    Closer: Self-closing hinges, Heavy-duty Tru-Close, by D&D Technologies.

10   2.3    GROUT AND ANCHORING CEMENT

- 11        A.    Nonshrink, Nonmetallic Grout: Premixed, factory-packaged, nonstaining, noncorrosive,
- 12        nongaseous grout complying with ASTM C 1107. Provide grout, recommended in writing by
- 13        manufacturer, for exterior applications.
- 14        B.    Erosion-Resistant Anchoring Cement: Factory-packaged, nonshrink, nonstaining, hydraulic-
- 15        controlled expansion cement formulation for mixing with potable water at Project site to create
- 16        pourable anchoring, patching, and grouting compound. Provide formulation that is resistant to
- 17        erosion from water exposure without needing protection by a sealer or waterproof coating and
- 18        that is recommended in writing by manufacturer, for exterior applications.

19   PART 3 - EXECUTION

20   3.1    INSTALLATION

- 21        A.    Examine areas and conditions, with Installer present, for compliance with requirements for site
- 22        clearing, earthwork, pavement work, and other conditions affecting performance of the Work.
- 23           1.    Do not begin installation before final grading is completed unless otherwise permitted by
- 24           Architect.
- 25        B.    Proceed with installation only after unsatisfactory conditions have been corrected.
- 26        C.    Stake locations of fence lines, gates, and terminal posts. Do not exceed intervals of 500 feet in
- 27        line of sight between stakes. Indicate locations of utilities, lawn sprinkler system, underground
- 28        structures, benchmarks, and property monuments.
- 29        D.    Install fencing to comply with ASTM F 567 and more stringent requirements indicated.
- 30        E.    Post Excavation: Drill or hand-excavate holes for posts to diameters and spacings indicated, in
- 31        firm, undisturbed soil.
- 32        F.    Post Setting: Set posts in concrete or with mechanical anchors at indicated spacing into firm,
- 33        undisturbed soil.

- 1           1.    Verify that posts are set plumb, aligned, and at correct height and spacing, and hold in  
2           position during setting with concrete or mechanical devices.  
3           2.    Concrete Fill: Place concrete around posts to dimensions indicated and vibrate or tamp  
4           for consolidation. Protect aboveground portion of posts from concrete splatter.
- 5                a.    Exposed Concrete: Flush with grade; shape and smooth to shed water.  
6                b.    Posts Set into Voids in Concrete: Form or core drill holes not less than 5 inches  
7                deep and 3/4 inch larger than OD of post. Clean holes of loose material, insert  
8                posts, and fill annular space between post and concrete with nonshrink,  
9                nonmetallic grout or anchoring cement, mixed and placed to comply with  
10              anchoring material manufacturer's written instructions, and finished sloped to drain  
11              water away from post.
- 12        G.    Line Posts: Space line posts uniformly at 96 inches o.c.
- 13        H.    Install gates according to manufacturer's written instructions, level, plumb, and secure for full  
14           opening without interference. Attach fabric as for fencing. Attach hardware using tamper-  
15           resistant or concealed means. Install ground-set items in concrete for anchorage. Adjust  
16           hardware for smooth operation and lubricate where necessary.
- 17        I.    Gates: Adjust gates to operate smoothly, easily, and quietly, free of binding, warp, excessive  
18           deflection, distortion, nonalignment, misplacement, disruption, or malfunction, throughout  
19           entire operational range. Confirm that latches and locks engage accurately and securely without  
20           forcing or binding.

21

22

END OF SECTION 323113

# DOOR AND FRAME SCHEDULE

## ABBREVIATIONS

ALUM	ALUMINUM	STL	STEEL	I-X-X	INTERIOR PAINT SYSTEM
HM	HOLLOW METAL	SS	STAINLESS STEEL	FACT	FACTORY FINISH
SCW	SOLID CORE WOOD	E-X-X	EXTERIOR PAINT SYSTEM		

## GENERAL NOTES

- SEE DOOR TYPE SCHEDULE FOR DOOR TYPES
- SEE FRAME TYPE SCHEDULE FOR FRAME TYPES
- "S" INCLUDED WITH A DETAIL NUMBER INDICATES SIMILAR CONDITION
- 

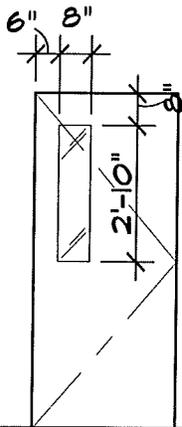
## KEY NOTES

- DECORATIVE METAL FENCE GATE WITH STEEL PLATE AT HARDWARE MOUNTING, SEE DETAIL A/505.

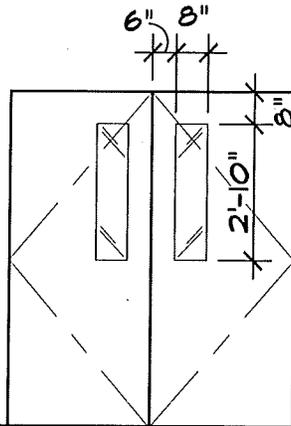
DOOR NO.	DOOR				FRAME				HW GROUP	FIRE RATING	KEY NOTES			
	DIMENSIONS	MAT.	TYPE	GLAZE	FIN.	MAT.	TYPE	FIN.				H	LJ	RJ
<b>SOUTH EUGENE HIGH SCHOOL</b>														
A/500	EXISTING DOOR	-	-	-	-	-	-	-	-	-	-	-	SE1	
A/522	EXISTING PAIR	-	-	-	-	-	-	-	-	-	-	-	SE2	
B/522	EXISTING PAIR	-	-	-	-	-	-	-	-	-	-	-	SE3	
A/524	3'-0"x7'-0"	SCW	A	YES		HM	A		B/801S	B/801	B/801	-	SE4	
B/524	3'-0"x7'-0"	SCW	A	YES		HM	A		B/801S	B/801	B/801	-	SE4	
A/BND	EXISTING DOOR	-	-	-	-	-	-	-	-	-	-	-	SE5	
A/AUD	EXISTING PAIR	-	-	-	-	-	-	-	-	-	-	-	SE6	
A/LIB	EXISTING PAIR	-	-	-	-	-	-	-	-	-	-	-	SE7	
B/LIB	EXISTING PAIR	-	-	-	-	-	-	-	-	-	-	-	SE8	
A/TR	EXISTING DOOR	-	-	-	-	-	-	-	-	-	-	-	SE13	
B/TR	EXISTING DOOR	-	-	-	-	-	-	-	-	-	-	-	SE13	
A/WT	EXISTING PAIR	-	-	-	-	-	-	-	-	-	-	-	SE2	
B/WT	EXISTING DOOR	-	-	-	-	-	-	-	-	-	-	-	SE9	
C/WT	EXISTING DOOR	-	-	-	-	-	-	-	-	-	-	-	SE9	
A/GYM	3'-0"x7'-0" PAIR	SCW	B	YES		HM	B		A/802S	A/802	A/802	-	SE10	
B/GYM	3'-0"x7'-0" PAIR	SCW	B	YES		HM	B		B/801S	B/801	B/801	-	SE11	
A/GATE	3'-0"x7'-0" PAIR	GATE	-	NO		-	-		-	-	-	-	SE12	1

DOOR NO.	DOOR			FRAME			HW GROUP	FIRE RATING	KEY NOTES					
	DIMENSIONS	MAT.	TYPE	GLAZE	FIN.	MAT.				TYPE	FIN.	H	LJ	RJ
<b>NORTH EUGENE HIGH SCHOOL</b>														
A/510	EXISTING DOOR	-	-	-	-	-	-	-	-	-	-	-	NE1	
<b>SHELDON HIGH SCHOOL</b>														
A/F-3	EXISTING PAIR	-	-	-	-	-	-	-	-	-	-	-	S1	
A/G-1	EXISTING DOOR	-	-	-	-	-	-	-	-	-	-	-	S2	
B/G-1	EXISTING DOOR	-	-	-	-	-	-	-	-	-	-	-	S2	
C/LIB	EXISTING PAIR	-	-	-	-	-	-	-	-	-	-	-	S3	
<b>CHURCHILL HIGH SCHOOL</b>														
A/C9	EXISTING PAIR												C1	
B/C9	EXISTING DOOR												C2	
A/D2	EXISTING PAIR												C3	
B/D2	EXISTING PAIR												C4	
C/TR	EXISTING DOOR												C5	
D/TR	EXISTING DOOR												C5	
A/E3	EXISTING PAIR												C6	
B/E3	EXISTING PAIR												C6	
C/E3	EXISTING PAIR												C6	
D/E3	EXISTING PAIR												C6	
A/E4	EXISTING PAIR												C7	
B/E4	EXISTING PAIR												C8	
C/E4	EXISTING PAIR												C8	
D/E4	EXISTING PAIR												C9	
E/E4	EXISTING PAIR												C10	
A/F36	EXISTING DOOR												C2	
A/F49	EXISTING DOOR												C2	
B/F49	EXISTING DOOR												C2	

# DOOR TYPES



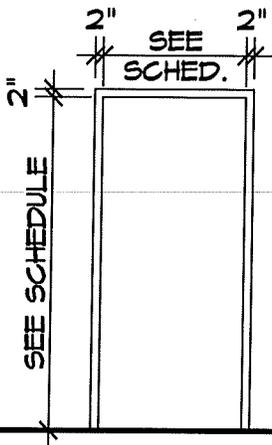
**A** FLUSH SINGLE WITH QUARTER LITES



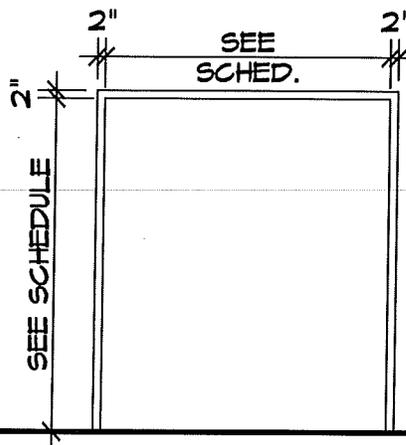
**B** FLUSH PAIR WITH QUARTER LITES

PROVIDE SAFETY GLAZING AT ALL LITES

# FRAME TYPES



**A** DOOR FRAME



**B** DOUBLE DOOR FRAME

	<p>DOOR AND FRAME TYPES</p>		<p>REGISTERED ARCHITECT TRACE A. WARD EUGENE, OREGON STATE OF OREGON</p>
<p><b>gLas</b> Architects, LLC</p>	<p>FIRE &amp; LIFE SAFETY IMPROVEMENTS - 2014 EUGENE SCHOOL DISTRICT 4J</p>	<p>11041 03/13/14</p>	

**MANUFACTURERS SPECIFIED:**

PRODUCT SPECIFIED	MANUFACTURER NAME	SYMBOL SPECIFIED	APPROVED EQUAL
BUTTS	IVES	I	STANLEY, MCKINNEY
CYLINDERS	SCHLAGE	SCH	NONE
CLOSERS	LCN	LCN	NONE
RIMM PANICS	VON DUPRIN	VD	NONE
VR PANICS	PRECISION	PHI	NONE
MULLIONS	VON DUPRIN	VD	NONE
KICKPLATES	IVES	I	NONE
WALL MAGS	LCN	LCN	NONE
HARDWARE FILLER PLATE	DO-JO	DJ	NONE
SEALS	STEELCRAFT	STE	NONE

**KEYING:** PROVIDE CONSTRUCTION CORES. FINAL KEYING AS DIRECTED BY ARCHITECT AND OWNER.

**HARDWARE GROUPS:**

**SOUTH EUGENE**

GROUP SE 1

**DOOR A/500**

1	EA	PANIC 98L-2S1	626	VD
1	EA	TRIM 996-L	626	VD
1	EA	COVER KIT 997 IF REQUIRED	626	VD
2	EA	CYLINDER 20-079	626	SCH
2	EA	CORES 20-030 VERIFY KEYWAY	626	SCH
1	EA	CLOSER EXISTING		
1	EA	KICK STOP EXISTING		
1	EA	LATCHBOLT FILLER IF REQUIRED	600	DJ
1	EA	ASA FRAME FILLER IF REQUIRED	600	DJ

GROUP SE 2

DOOR A/522, A/WT

1	EA	PANIC 98NL	626	VD
1	EA	PULL 990NL	626	VD
1	EA	PANIC 98EO	626	VD
1	EA	TRIM 990EO BLANK TRIM	626	VD
2	EA	COVER KIT 997 IF REQUIRED	626	VD
1	EA	CYLINDER 20-079	626	SCH
1	EA	CORES 20-030 VERIFY KEYWAY	626	SCH
1	EA	MULLION KR4954	ALUM	VD
1	EA	CYLINDER 20-059	626	SCH
1	EA	CORES 20-030 VERIFY KEYWAY	626	SCH
2	EA	CLOSER 4111 SHCNS	ALUM	LCN
2	EA	WALLSTOPS 407.5	630	I
2	SET	SEALS PS074	BLACK	STE
2	EA	FLUSH BOLT FILLER IF REQUIRED	600	DJ
1	EA	LATCHBOLT FILLER IF REQUIRED	600	DJ
1	EA	LOCKSET COVER IF REQUIRED		
		REMOVE FLUSH BOLTS, LOCKSET, DUMMY TRIM		

GROUP SE 3

DOOR B/522

1	EA	PANIC 98NL	626	VD
1	EA	PULL 990NL	626	VD
1	EA	PANIC 98EO	626	VD
1	EA	TRIM 990EO BLANK TRIM	626	VD
2	EA	COVER KIT 997 IF REQUIRED	626	VD
1	EA	CYLINDER 20-079	626	SCH
1	EA	CORES 20-030 VERIFY KEYWAY	626	SCH
1	EA	MULLION KR4954	ALUM	VD
1	EA	CYLINDER 20-059	626	SCH
1	EA	CORES 20-030 VERIFY KEYWAY	626	SCH
2	EA	CLOSER 4111 SHCNS	ALUM	LCN
2	SET	SEALS PS074	BLACK	STE
2	EA	FLUSH BOLT FILLER IF REQUIRED	600	DJ
1	EA	LATCHBOLT FILLER IF REQUIRED	600	DJ
1	EA	LOCKSET COVER IF REQUIRED		
		REMOVE FLUSH BOLTS, LOCKSET, DUMMY TRIM		
		REMOVE ASTAGAL FILL SCREW HOLES IN DOOR		

GROUP SE 4

DOOR A/524, B/524

3	EA	BUTTS 5BB1HW 4.5 X 4.5 NRP	626	I
1	EA	PANIC 98NL	626	VD
1	EA	PULL 990NL	626	VD
1	EA	CYLINDER 20-079	626	SCH
1	EA	CORES 20-030 VERIFY KEYWAY	626	SCH
1	EA	CLOSER 4111 SHCNS	ALUM	LCN
1	EA	KICKPLATE 10 X 2LDW	630	I
1	EA	WALLSTOPS 407.5	630	I
1	SET	SEALS PS074	BLACK	STE

GROUP SE 5

DOOR A/BND

1	EA	PANIC 98NL	626	VD
1	EA	TRIM 990NL	626	VD
1	EA	COVER KIT 997 IF REQUIRED	626	VD
1	EA	CYLINDER 20-079	626	SCH
1	EA	CORES 20-030 VERIFY KEYWAY	626	SCH
1	EA	CLOSER 4111 SCNS IF REQUIRED	ALUM	LCN
1	EA	WALLSTOPS 407.5	630	I
1	SET	SEALS PS074	BLACK	STE
1	EA	LATCHBOLT FILLER IF REQUIRED	600	DJ
1	EA	LOCKSET COVER IF REQUIRED		
1	EA	ASA FILLER IF REQUIRED		
		REMOVE LOCKSET		

GROUP SE 6

DOOR A/AUD

1	EA	PANIC 98NL	626	VD
1	EA	PULL 990NL	626	VD
1	EA	PANIC 98EO	626	VD
1	EA	TRIM 990EO BLANK TRIM	626	VD
1	EA	CYLINDER 20-079	626	SCH
1	EA	CORES 20-030 VERIFY KEYWAY	626	SCH
1	EA	MULLION KR4954	ALUM	VD
1	EA	CYLINDER 20-059	626	SCH
1	EA	CORES 20-030 VERIFY KEYWAY	626	SCH
2	EA	CLOSER 4111 SHCNS	ALUM	LCN
1	EA	WALLSTOPS 407.5	630	I
2	SET	SEALS PS074	BLACK	STE
1	EA	DEADBOLT FILLER IF REQUIRED	600	DJ
2	EA	FLUSH BOLT FILLER IF REQUIRED	600	DJ
1	EA	STRIKE FILLER IF REQUIRED	600	DJ
1	EA	DEADBOLT COVER IF REQUIRED		
		REMOVE FLUSH BOLTS, DEADLOCK, PUSH AND PULL PLATES		
		FILL ALL EXISTING HOLES		
		REMOVE ASTAGAL FILL SCREW HOLES IN DOOR		

GROUP SE 7

DOOR A/LIB

1	EA	PANIC 98NL	626	VD
1	EA	PULL 990NL	626	VD
1	EA	PANIC 98EO	626	VD
1	EA	TRIM 990EO BLANK TRIM	626	VD
2	EA	COVER KIT 997 IF REQUIRED	626	VD
1	EA	CYLINDER 20-079	626	SCH
1	EA	CORES 20-030 VERIFY KEYWAY	626	SCH
1	EA	MULLION KR4954	ALUM	VD
1	EA	CYLINDER 20-059	626	SCH
1	EA	CORES 20-030 VERIFY KEYWAY	626	SCH
1	EA	CLOSER 4111 EXISTING		
1	EA	OPERATOR EXISTING		
2	SET	SEALS PS074	BLACK	STE
1	EA	DEADBOLT FILLER IF REQUIRED	600	DJ
2	EA	FLUSH BOLT FILLER IF REQUIRED	600	DJ
1	EA	STRIKE FILLER IF REQUIRED	600	DJ
1	EA	DEADBOLT COVER IF REQUIRED		
		REMOVE FLUSH BOLTS, DEADLOCK, PUSH AND PULL PLATES		
		FILL ALL EXISTING HOLES		

GROUP SE 8

DOOR B/LIB

1	EA	PANIC 98NL	626	VD
1	EA	PULL 990NL	626	VD
1	EA	PANIC 98EO	626	VD
1	EA	TRIM 990EO BLANK TRIM	626	VD
2	EA	COVER KIT 997 IF REQUIRED	626	VD
1	EA	CYLINDER 20-079	626	SCH
1	EA	CORES 20-030 VERIFY KEYWAY	626	SCH
1	EA	MULLION KR4954	ALUM	VD
1	EA	CYLINDER 20-059	626	SCH
1	EA	CORES 20-030 VERIFY KEYWAY	626	SCH
2	EA	CLOSER 4111 EDA	689	SCH
2	EA	WALLSTOPS 407.5	630	I
2	SET	SEALS PS074	BLACK	STE
1	EA	DEADBOLT FILLER IF REQUIRED	600	DJ
2	EA	FLUSH BOLT FILLER IF REQUIRED	600	DJ
1	EA	STRIKE FILLER IF REQUIRED	600	DJ
1	EA	DEADBOLT COVER IF REQUIRED		
		REMOVE FLUSH BOLTS, DEADLOCK, PUSH AND PULL PLATES		
		FILL ALL EXISTING HOLES		
		REMOVE ASTRAGAL, FILL HOLES		

GROUP SE 9

DOOR B/WT, C/WT

1	EA	PANIC 98NL	626	VD
1	EA	PULL 990NL	626	VD
1	EA	CYLINDER 20-079	626	SCH
1	EA	CORES 20-030 VERIFY KEYWAY	626	SCH
1	EA	CLOSER 4111 EDA	ALUM	LCN
1	EA	KICKPLATE 10 X 2LDW	630	I
1	EA	WALLSTOPS 407.5	630	I
1	SET	SEALS PS074	BLACK	STE
1	EA	LATCHBOLT FILLER IF REQUIRED	600	DJ
1	EA	LOCKSET COVER IF REQUIRED		
1	EA	ASA FILLER IF REQUIRED		
		REMOVE LOCKSET		

GROUP SE 10

DOOR A/GYM

6	EA	BUTTS 5BB1HW 4.5 X 4.5 NRP	626	I
1	EA	PANIC 98NL	626	VD
1	EA	PULL 990NL	626	VD
1	EA	PANIC 98EO	626	VD
1	EA	TRIM 990EO BLANK TRIM	626	VD
2	EA	COVER KIT 997 IF REQUIRED	626	VD
1	EA	CYLINDER 20-079	626	SCH
1	EA	CORES 20-030 VERIFY KEYWAY	626	SCH
1	EA	MULLION KR4954	ALUM	VD
1	EA	CYLINDER 20-059	626	SCH
1	EA	CORES 20-030 VERIFY KEYWAY	626	SCH
2	EA	CLOSER 4111 EDA	689	SCH
2	EA	WALLSTOPS 407.5	630	I
2	SET	SEALS PS074	BLACK	STE

GROUP SE 11

DOOR B/GYM

6	EA	BUTTS 5BB1HW 4.5 X 4.5 NRP	626	I
1	EA	PANIC 98LF-2S1	626	VD
1	EA	TRIM 996-L	626	VD
1	EA	PANIC 98EOF	626	VD
1	EA	TRIM 990EO BLANK TRIM	626	VD
2	EA	COVER KIT 997 IF REQUIRED	626	VD
1	EA	CYLINDER 20-079	626	SCH
1	EA	CORES 20-030 VERIFY KEYWAY	626	SCH
1	EA	MULLION KR9854	ALUM	VD
1	EA	CYLINDER 20-059	626	SCH
1	EA	CORES 20-030 VERIFY KEYWAY	626	SCH
2	EA	CLOSER 4111 EDA	689	SCH
2	EA	WALLMAGS FM998	689	RIX
2	SET	SEALS PS074	BLACK	STE

GROUP SE 12

DOOR A/GATE

	EA	HINGES OR PIVOTS BY OTHERS		
1	EA	PANIC 98NL	626	VD
1	EA	PULL 990NL	626	VD
1	EA	PANIC 98EO	626	VD
1	EA	TRIM 990EO BLANK TRIM	626	VD
1	EA	CYLINDER 20-079	626	SCH
1	EA	CORES 20-030 VERIFY KEYWAY	626	SCH

GROUP SE 13

DOOR A/TR, B/TR

1	EA	LOCKSET L9462P 06A	626	SCH
1	EA	CYLINDER 30-016	626	SCH
1	EA	CORES 20-030 VERIFY KEYWAY	626	SCH
1	EA	DEADBOLT FILLER IF REQUIRED	600	DJ
1	EA	STRIKE FILLER IF REQUIRED	600	DJ
1	EA	DEADBOLT COVER IF REQUIRED		
		REMOVE DEADLOCK		
		REMOVE PULLS		
		FILL ALL EXISTING HOLES		

NORTH EUGENE

GROUP NE 1

DOOR A/510

1	EA	PANIC EXISTING		
1	SET	AUTO FLUSH BOLTS FB31P	626	GJ
1	EA	CORDINATOR COR-00	628	GJ
2	EA	MOUNTING BRACKETS VERIFY TYPE	600	GJ
		REMOVE MANUAL FLUSH BOLTS, FIX DAMAGED DOOR		
		INSTALL NEW AUTOMATIC FLUSHBOLTS AND REMOUNT		
		COLSERS IF REQUIRED.		

**SHELDON****GROUP S 1****DOOR A/F-3**

1	EA	PANIC 98NL	626	VD
1	EA	PULL 990NL	626	VD
1	EA	PANIC 98EO	626	VD
1	EA	TRIM 990EO BLANK TRIM	626	VD
1	EA	CYLINDER 20-079	626	SCH
1	EA	CORES 20-030 VERIFY KEYWAY	626	SCH
1	EA	MULLION KR4954	ALUM	VD
1	EA	CYLINDER 20-059	626	SCH
1	EA	CORES 20-030 VERIFY KEYWAY	626	SCH
2	EA	CLOSER 4111 SHCNS IF REQUIRED	ALUM	LCN
1	EA	WALLSTOPS 407.5	630	I
2	SET	SEALS PS074	BLACK	STE
1	EA	DEADBOLT FILLER IF REQUIRED	600	DJ
2	EA	FLUSH BOLT FILLER IF REQUIRED	600	DJ
1	EA	STRIKE FILLER IF REQUIRED	600	DJ
1	EA	DEADBOLT COVER IF REQUIRED		
		REMOVE FLUSH BOLTS, DEADLOCK, PUSH AND PULL PLATES		
		FILL ALL EXISTING HOLES		

**GROUP S 2****DOOR A/G-1, B/G-1**

1	EA	PANIC 98NL	626	VD
1	EA	TRIM 990NL	626	VD
1	EA	COVER KIT 997 IF REQUIRED	626	VD
1	EA	CYLINDER 20-079	626	SCH
1	EA	CORES 20-030 VERIFY KEYWAY	626	SCH
1	EA	CLOSER 4111 SCNS IF REQUIRED	ALUM	LCN
1	EA	WALLSTOPS 407.5	630	I
1	SET	SEALS PS074	BLACK	STE
1	EA	LATCHBOLT FILLER IF REQUIRED	600	DJ
1	EA	LOCKSET COVER IF REQUIRED		
1	EA	ASA FILLER IF REQUIRED		
		REMOVE LOCKSET		

GROUP S 3

DOOR C/LIB

1	EA	PANIC 98NL	626	VD
1	EA	PULL 990NL	626	VD
1	EA	PANIC 98EO	626	VD
1	EA	TRIM 990EO BLANK TRIM	626	VD
2	EA	COVER KIT 997 IF REQUIRED	626	VD
1	EA	CYLINDER 20-079	626	SCH
1	EA	CORES 20-030 VERIFY KEYWAY	626	SCH
1	EA	MULLION KR4954	ALUM	VD
1	EA	CYLINDER 20-059	626	SCH
1	EA	CORES 20-030 VERIFY KEYWAY	626	SCH
1	EA	CLOSER EXISTING		
1	EA	OPERATOR EXISTING		
2	SET	SEALS PS074	BLACK	STE
1	EA	DEADBOLT FILLER IF REQUIRED	600	DJ
2	EA	FLUSH BOLT FILLER IF REQUIRED	600	DJ
1	EA	STRIKE FILLER IF REQUIRED	600	DJ
1	EA	DEADBOLT COVER IF REQUIRED		
		REMOVE FLUSH BOLTS, DEADLOCK, PUSH AND PULL PLATES		
		FILL ALL EXISTING HOLES		

CHURCHILL

GROUP C 1

DOOR A/C9

1	EA	PANIC 98NL	626	VD
1	EA	TRIM 990NL	626	VD
1	EA	COVER KIT 997 IF REQUIRED	626	VD
1	EA	CYLINDER 20-079	626	SCH
1	EA	CORES 20-030 VERIFY KEYWAY	626	SCH
1	EA	CLOSER 4111 SCNS IF REQUIRED	ALUM	LCN
1	EA	WALLSTOPS 407.5	630	I
1	SET	SEALS PS074	BLACK	STE
1	EA	LATCHBOLT FILLER IF REQUIRED	600	DJ
1	EA	LOCKSET COVER IF REQUIRED		
1	EA	ASA FILLER IF REQUIRED		
		REMOVE LOCKSET		

GROUP C 2

DOOR B/C9, A/F36, A/F49

1	EA	PANIC 98L-2S1	626	VD
1	EA	TRIM 996-L	626	VD
1	EA	COVER KIT 997 IF REQUIRED	626	VD
2	EA	CYLINDER 20-079	626	SCH
2	EA	CORES 20-030 VERIFY KEYWAY	626	SCH
1	EA	CLOSER EXISTING		
1	EA	KICK STOP EXISTING		
1	EA	LATCHBOLT FILLER IF REQUIRED	600	DJ
1	EA	ASA FRAME FILLER IF REQUIRED	600	DJ

GROUP C 3

DOOR A/D2

1	EA	PANIC 98NL	626	VD
1	EA	PULL 990NL	626	VD
1	EA	PANIC 98EO	626	VD
1	EA	TRIM 990EO BLANK TRIM	626	VD
2	EA	COVER KIT 997 IF REQUIRED	626	VD
1	EA	CYLINDER 20-079	626	SCH
1	EA	CORES 20-030 VERIFY KEYWAY	626	SCH
1	EA	MULLION KR4954	ALUM	VD
1	EA	CYLINDER 20-059	626	SCH
1	EA	CORES 20-030 VERIFY KEYWAY	626	SCH
2	EA	CLOSER 4111 SHCNS	ALUM	LCN
2	SET	SEALS PS074	BLACK	STE
2	EA	FLUSH BOLT FILLER IF REQUIRED	600	DJ
1	EA	LATCHBOLT FILLER IF REQUIRED	600	DJ
1	EA	LOCKSET COVER IF REQUIRED		
		REMOVE FLUSH BOLTS, LOCKSET, DUMMY TRIM		
		REMOVE ASTAGAL FILL SCREW HOLES IN DOOR		

GROUP C 4

DOOR B/D2

1	EA	PANIC 98NL	626	VD
1	EA	PULL 990NL	626	VD
1	EA	PANIC 98EO	626	VD
1	EA	TRIM 990EO BLANK TRIM	626	VD
2	EA	COVER KIT 997 IF REQUIRED	626	VD
1	EA	CYLINDER 20-079	626	SCH
1	EA	CORES 20-030 VERIFY KEYWAY	626	SCH
1	EA	MULLION KR4954	ALUM	VD
1	EA	CYLINDER 20-059	626	SCH
1	EA	CORES 20-030 VERIFY KEYWAY	626	SCH
2	EA	CLOSER 4111 SHCNS	ALUM	LCN
2	EA	WALLSTOPS 407.5	630	I
2	SET	SEALS PS074	BLACK	STE
2	EA	FLUSH BOLT FILLER IF REQUIRED	600	DJ
1	EA	LATCHBOLT FILLER IF REQUIRED	600	DJ
1	EA	LOCKSET COVER IF REQUIRED		
		REMOVE FLUSH BOLTS, LOCKSET, DUMMY TRIM		

GROUP C 5

DOOR C/TR, D/TR

1	EA	LOCKSET ND70RD	626	SCH
1	EA	CORES 20-030 VERIFY KEYWAY	626	SCH
1	EA	DEADBOLT FILLER IF REQUIRED	600	DJ
1	EA	STRIKE FILLER IF REQUIRED	600	DJ
1	EA	DEADBOLT COVER IF REQUIRED		
		REMOVE DEADLOCK		
		REMOVE PULLS		
		FILL ALL EXISTING HOLES		

GROUP C 6

DOOR A/E3, B/A3, C/A3, D/E3

2	EA	EXISTING PANICS NO WORK		
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GROUP C 7

DOOR A/E4

1	EA	EXISTING PANIC NO WORK		
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GROUP C 8

DOOR B/E4, C/E4

2	EA	EXISTING PANICS HAVE BEEN REMOVED		
2	EA	PULLS 1017-3	630	TRI
2	EA	PUSH 1001-3	603	TRI
		NO WORK		

GROUP C 9

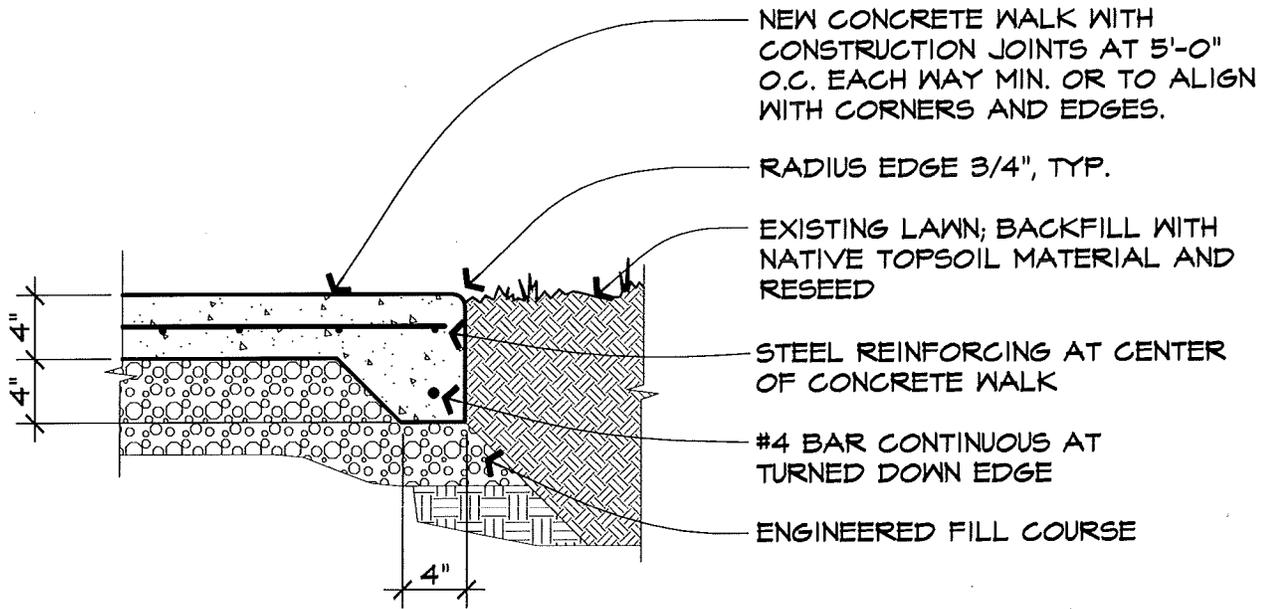
DOOR D/E4

2	EA	EXISTING PANICS NO WORK		
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GROUP C 10

DOOR E/E4

2	EA	EXISTING PANICS NO WORK		
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NEW CONCRETE WALK WITH CONSTRUCTION JOINTS AT 5'-0" O.C. EACH WAY MIN. OR TO ALIGN WITH CORNERS AND EDGES.

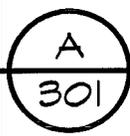
RADIUS EDGE 3/4", TYP.

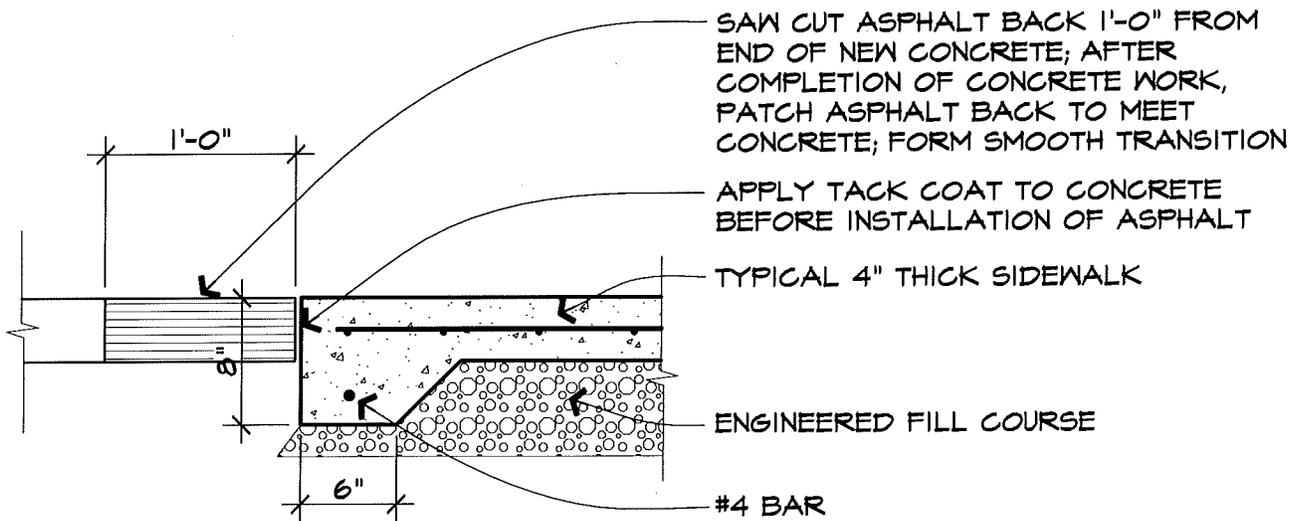
EXISTING LAWN; BACKFILL WITH NATIVE TOPSOIL MATERIAL AND RESEED

STEEL REINFORCING AT CENTER OF CONCRETE WALK

#4 BAR CONTINUOUS AT TURNED DOWN EDGE

ENGINEERED FILL COURSE

	<p>TYPICAL NEW CONCRETE WALK (ADJACENT LAWN AREA)</p>	<p>1" = 1'-0"</p>
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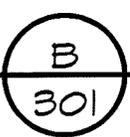
SAW CUT ASPHALT BACK 1'-0" FROM END OF NEW CONCRETE; AFTER COMPLETION OF CONCRETE WORK, PATCH ASPHALT BACK TO MEET CONCRETE; FORM SMOOTH TRANSITION

APPLY TACK COAT TO CONCRETE BEFORE INSTALLATION OF ASPHALT

TYPICAL 4" THICK SIDEWALK

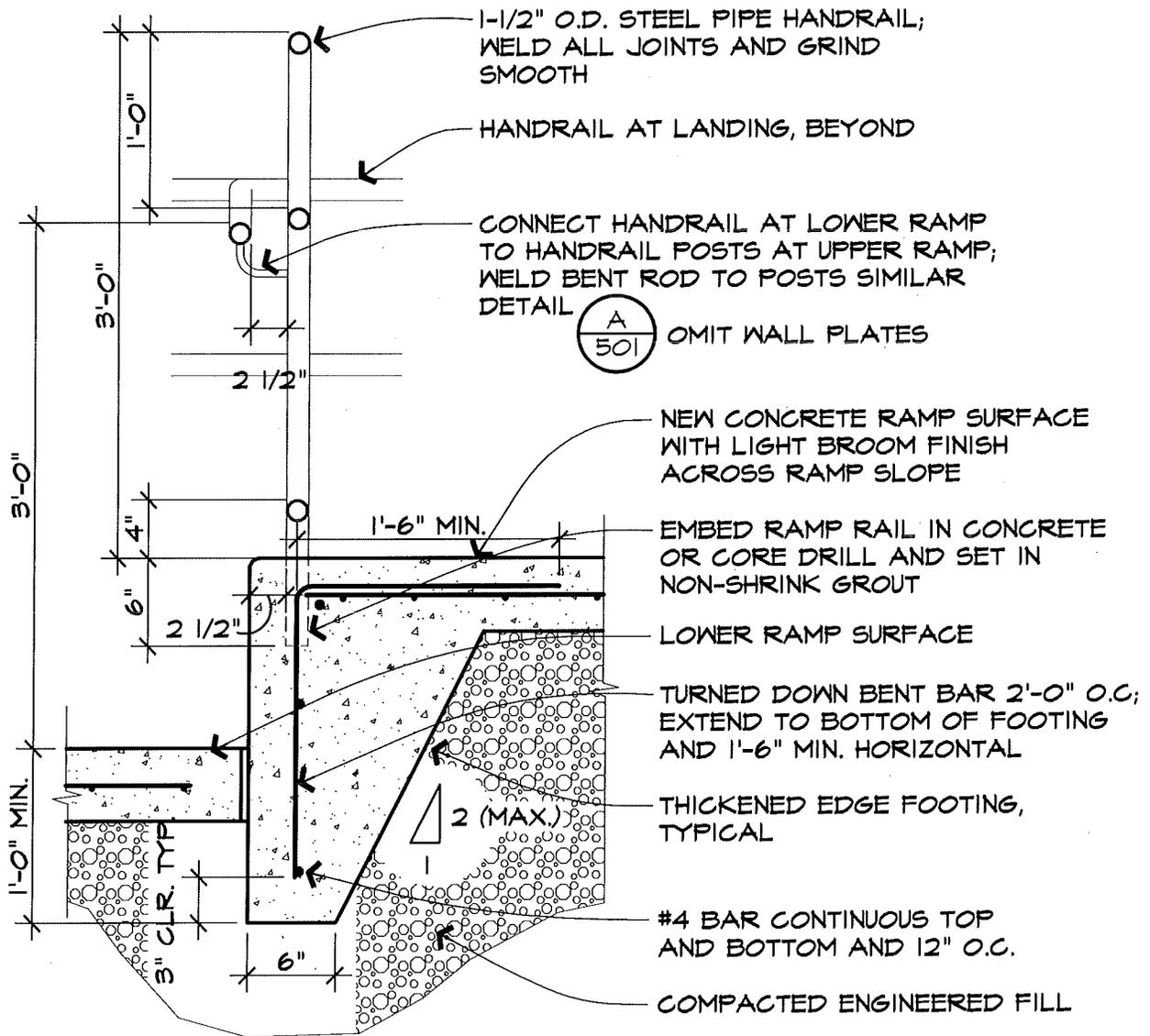
ENGINEERED FILL COURSE

#4 BAR

	<p>TYPICAL NEW CONCRETE WALK (ADJACENT EXISTING ASPHALT)</p>	<p>3" = 1'-0"</p>
<p><b>gLas</b> Architects, LLC</p>	<p>FIRE &amp; LIFE SAFETY IMPROVEMENTS - 2014 EUGENE SCHOOL DISTRICT 4J</p>	<p>11041</p>
	<p>04/01/14</p>	<p>301</p>

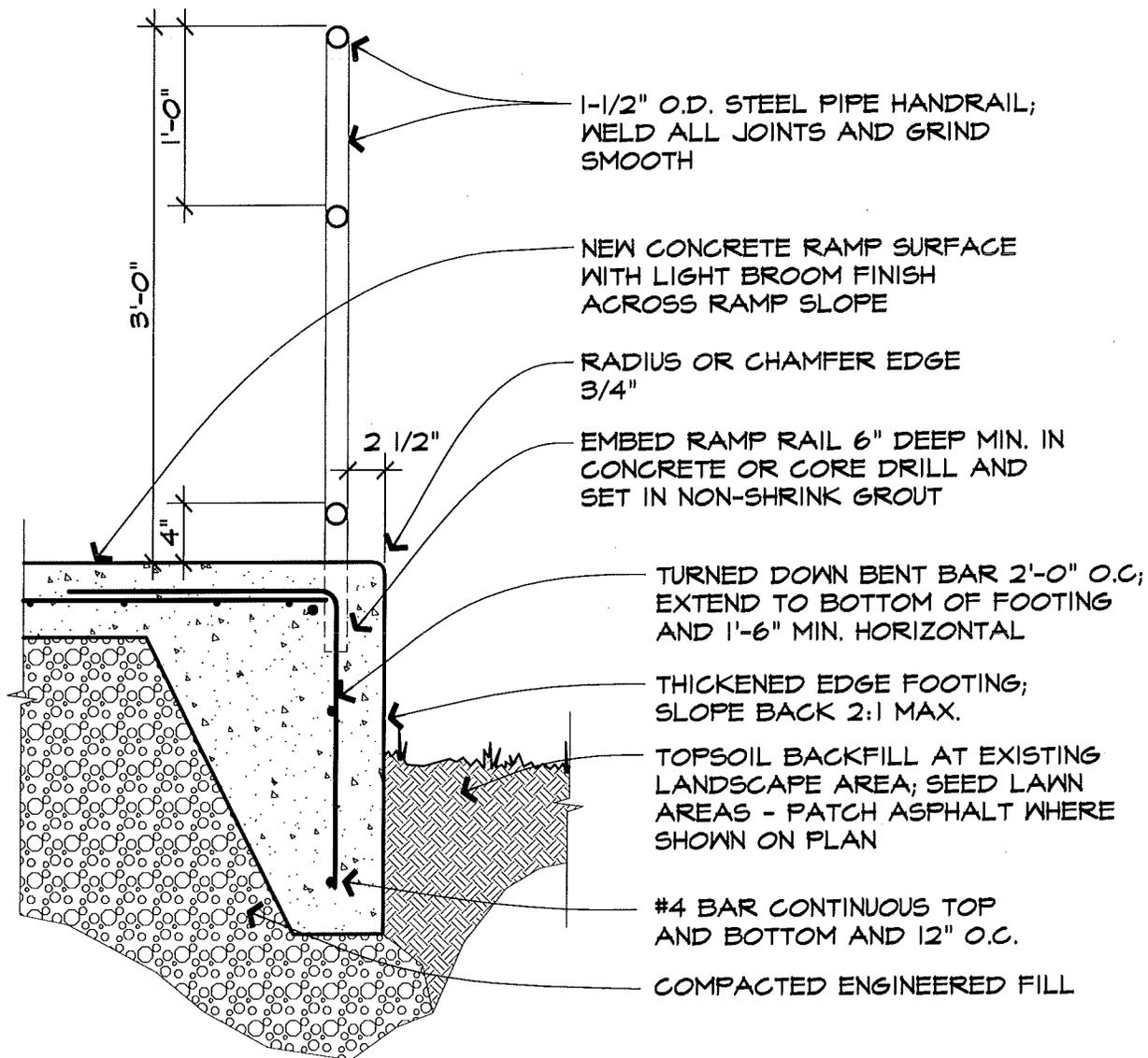
301-WALK-SEHS.DWG





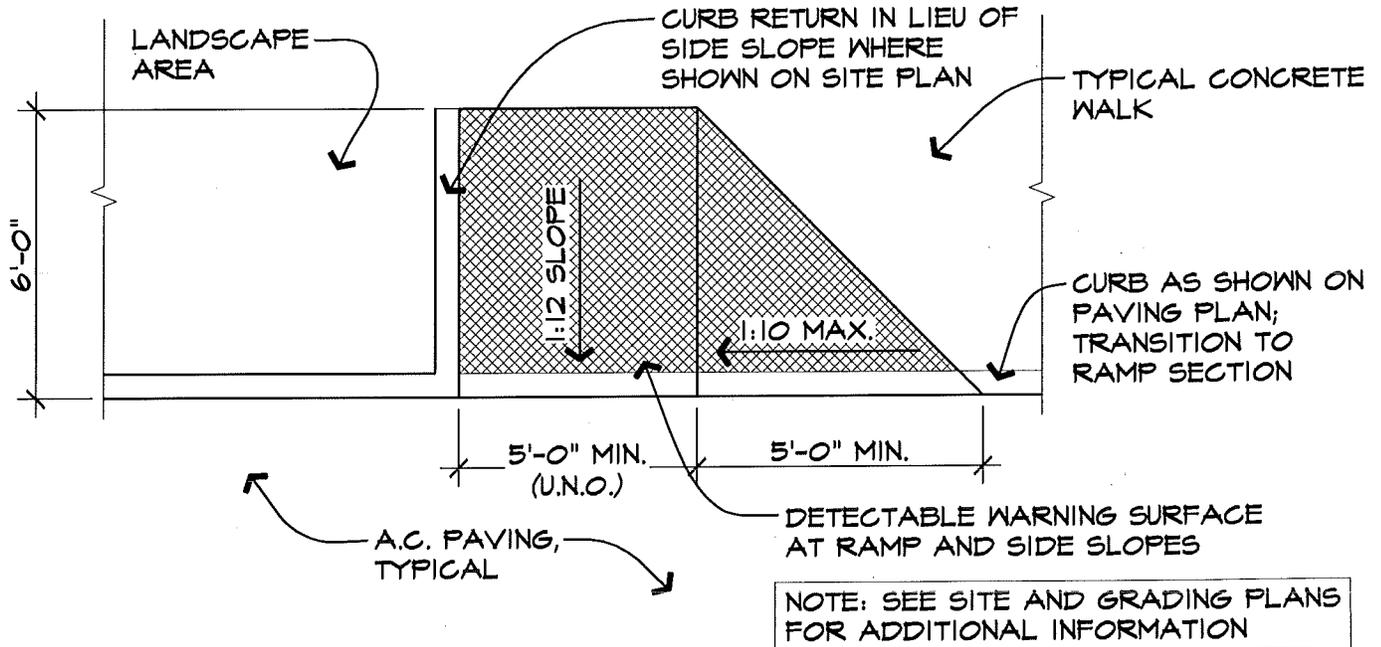
302-RAMP-SEHS.DWG

	RAMP SECTION AT MIDDLE RAIL		
			
	FIRE & LIFE SAFETY IMPROVEMENTS - 2014 EUGENE SCHOOL DISTRICT 4J		302
	11041	04/01/14	

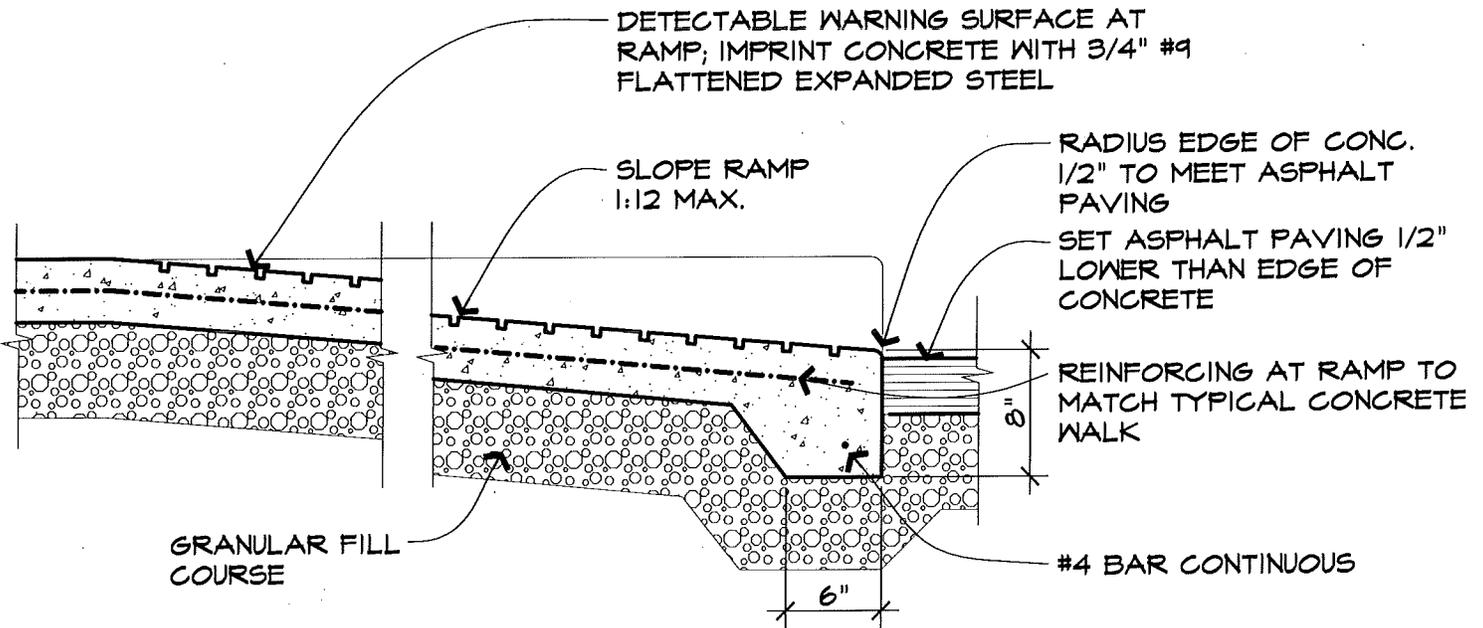


303-RAMP-SEHS.DWG

	EDGE OF RAMP, TYPICAL		
		FIRE & LIFE SAFETY IMPROVEMENTS - 2014 EUGENE SCHOOL DISTRICT 4J	

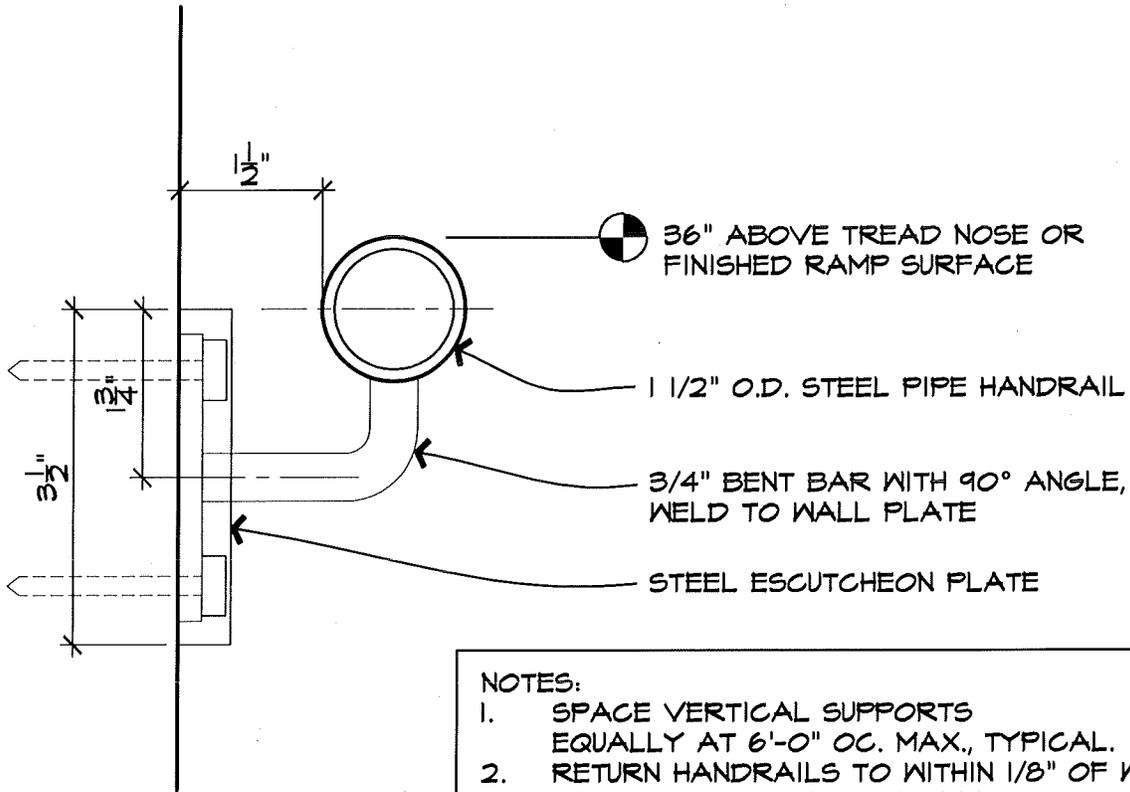


<div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center;"> <div style="border-bottom: 1px solid black; width: 100%; text-align: center;">A</div> <div style="width: 100%; text-align: center;">304</div> </div>	<h2 style="margin: 0;">TYPICAL CURB RAMP PLAN</h2>	<p>1/4" = 1'-0"</p>
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------	---------------------



<div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center;"> <div style="border-bottom: 1px solid black; width: 100%; text-align: center;">B</div> <div style="width: 100%; text-align: center;">304</div> </div>	<h2 style="margin: 0;">CURB RAMP SECTION</h2>	<p>1" = 1'-0"</p>	<div style="border: 1px solid black; border-radius: 50%; padding: 5px; display: inline-block;"> <p style="font-size: small; margin: 0;">REGISTERED ARCHITECT</p> <p style="font-size: x-small; margin: 0;">TRACE A. WARD</p> <p style="font-size: x-small; margin: 0;">EUGENE, OREGON</p> <p style="font-size: x-small; margin: 0;">STATE OF OREGON</p> </div>	
<p><b>gLas</b> Architects, LLC</p>	<p>FIRE &amp; LIFE SAFETY IMPROVEMENTS - 2014 EUGENE SCHOOL DISTRICT 4J</p>	<p>11041</p>	<p>04/01/14</p>	<p>304</p>

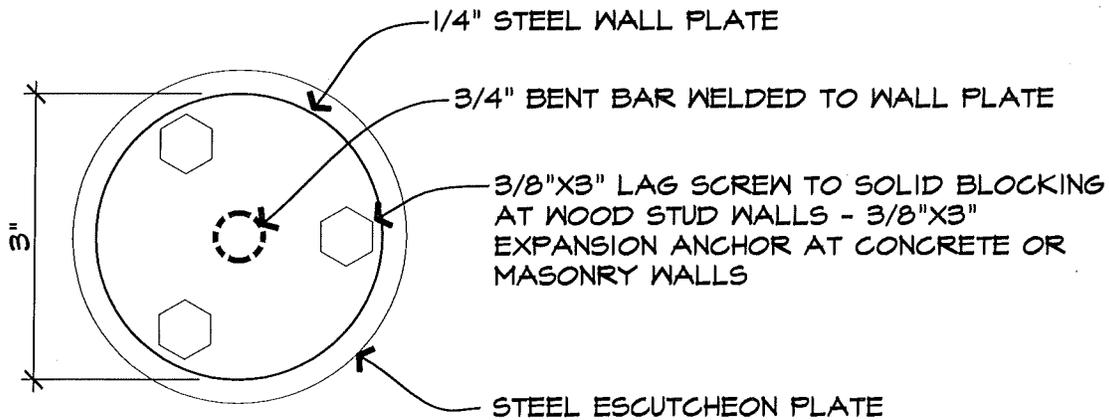
304-CURB RAMP.DWG



SECTION AT HANDRAIL

NOTES:

1. SPACE VERTICAL SUPPORTS EQUALLY AT 6'-0" OC. MAX., TYPICAL.
2. RETURN HANDRAILS TO WITHIN 1/8" OF WALL UNLESS IT RETURNS TO ITSELF.
3. PROVIDE ADDITIONAL BENDS AS SHOWN ON PLAN TO FOLLOW PATH OF TRAVEL.
4. EXTEND HANDRAIL HORIZONTAL 1'-0" BEYOND TOP AND BOTTOM OF RAMP, FOR EXTENSIONS AT STAIRS SEE



PLAN AT WALL PLATE

	TYPICAL HANDRAIL AND BRACKET		
	HALF SCALE		
	FIRE & LIFE SAFETY IMPROVEMENTS - 2014 EUGENE SCHOOL DISTRICT 4J		
	11041	04/01/14	

**NOTE!**  
 RISE/RUN AND NUMBER OF STEPS VARY FROM STAIR TO STAIR AND SITE TO SITE. CONTRACTOR TO VERIFY EACH CONDITION AND ADJUST RAIL PROFILE ACCORDINGLY

1-1/2" O.D. STEEL PIPE  
 HANDRAIL

WHERE OCCURS EXISTING HANDRAILS  
 DO NOT HAVE COMPLYING EXTENSIONS  
 AT TOP AND/OR BOTTOM OF STAIR.  
 REMOVE HANDRAIL AND REPLACE WITH  
 NEW. CAULK/SEAL HOLES AT REMOVED  
 RAIL AND TOUCH UP PAINT.

PROVIDE MOUNTING  
 BRACKETS PER  
 DETAIL

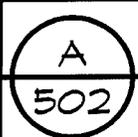


STAIR PROFILE VARIES;  
 VERIFY EXISTING  
 CONDITIONS

RETURN RAIL TO WITHIN  
 1/8" OF WALL, TYP.

SECTION VIEW

PLAN VIEW



TYPICAL WALL-MOUNTED RAIL AT STAIR

SCALE: 1" = 1'-0"

**gLas**  
 Architects,  
 LLC

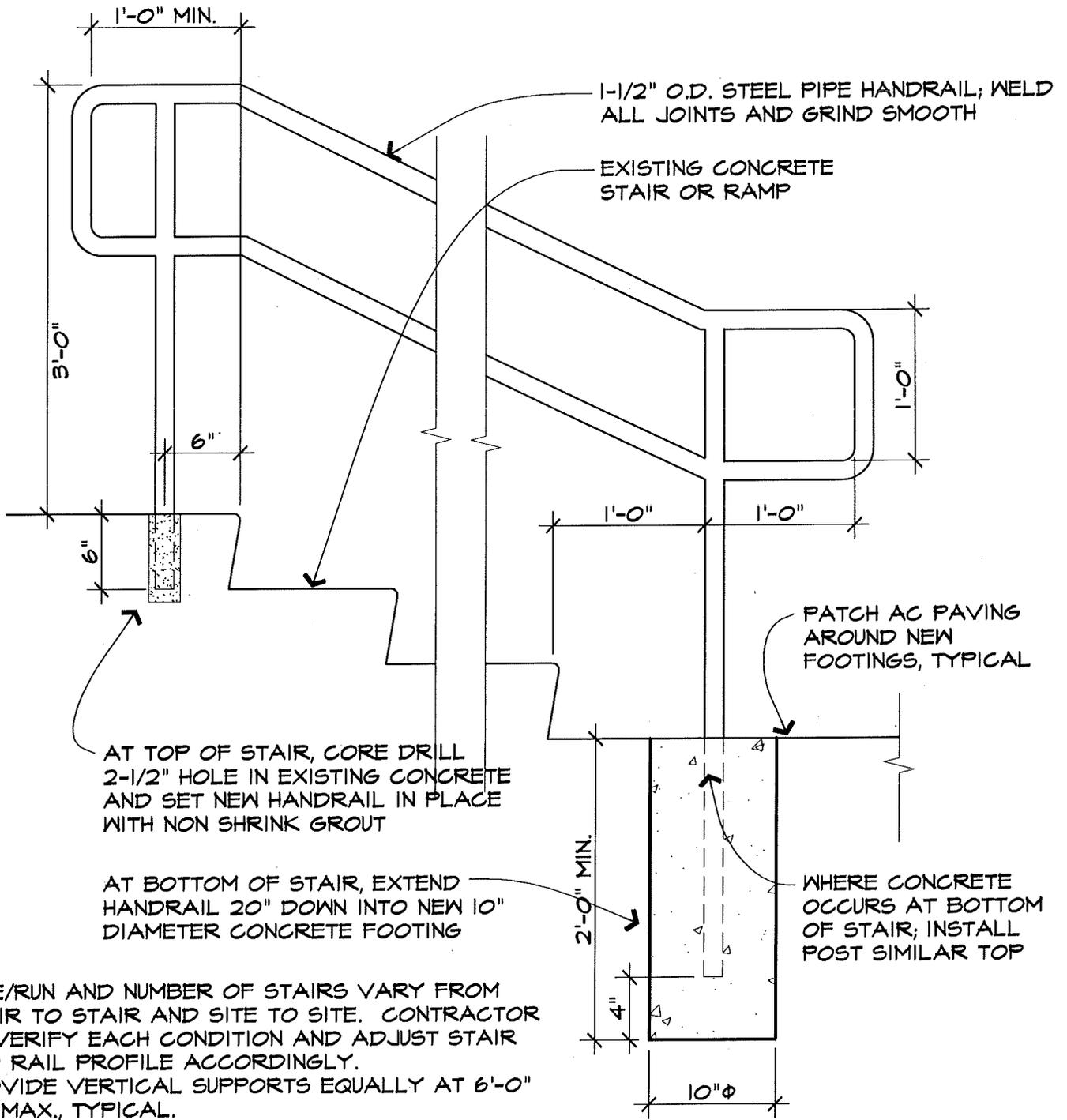
FIRE & LIFE SAFETY IMPROVEMENTS - 2014  
 EUGENE SCHOOL DISTRICT 4J

11041

04/01/14

502

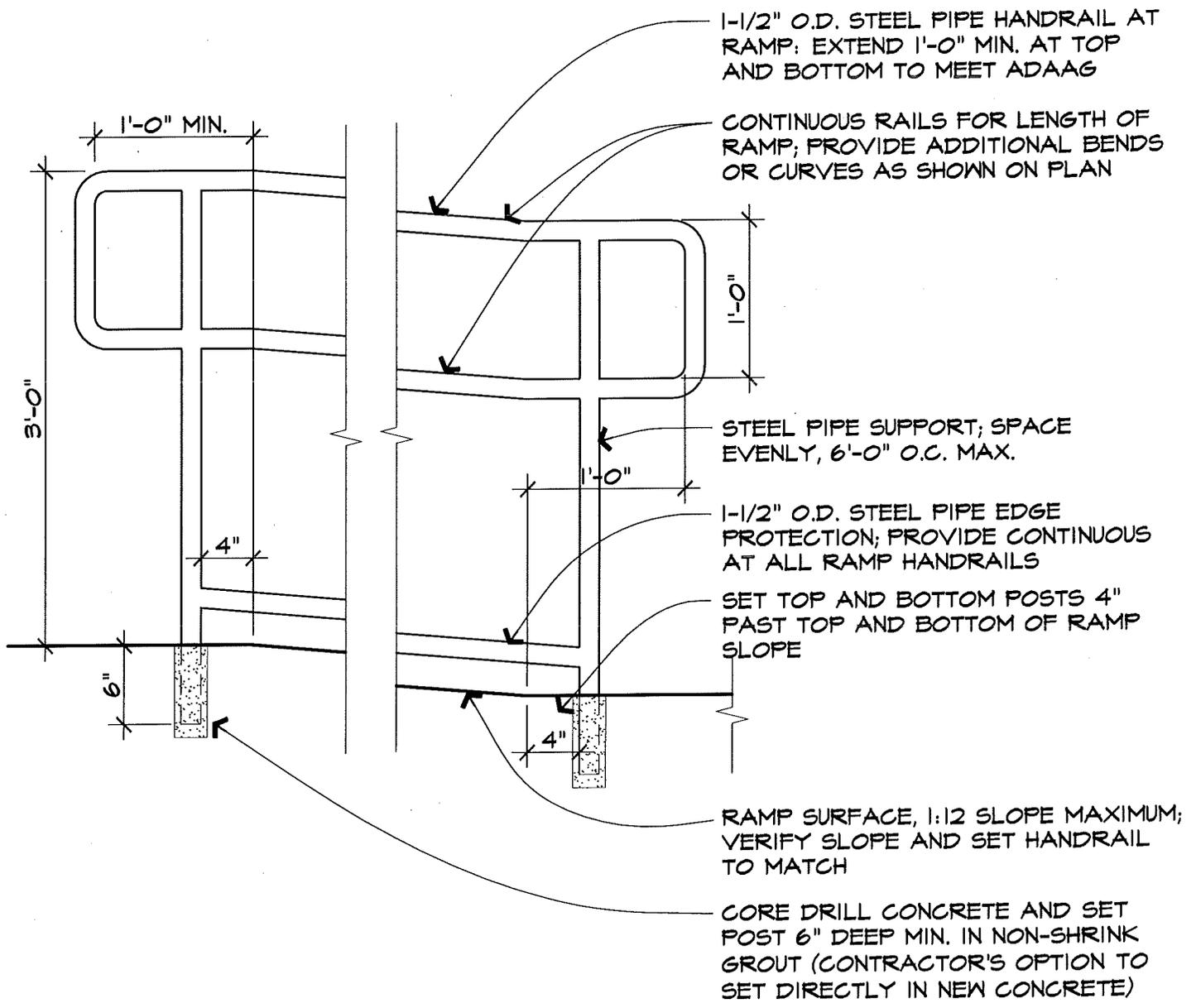




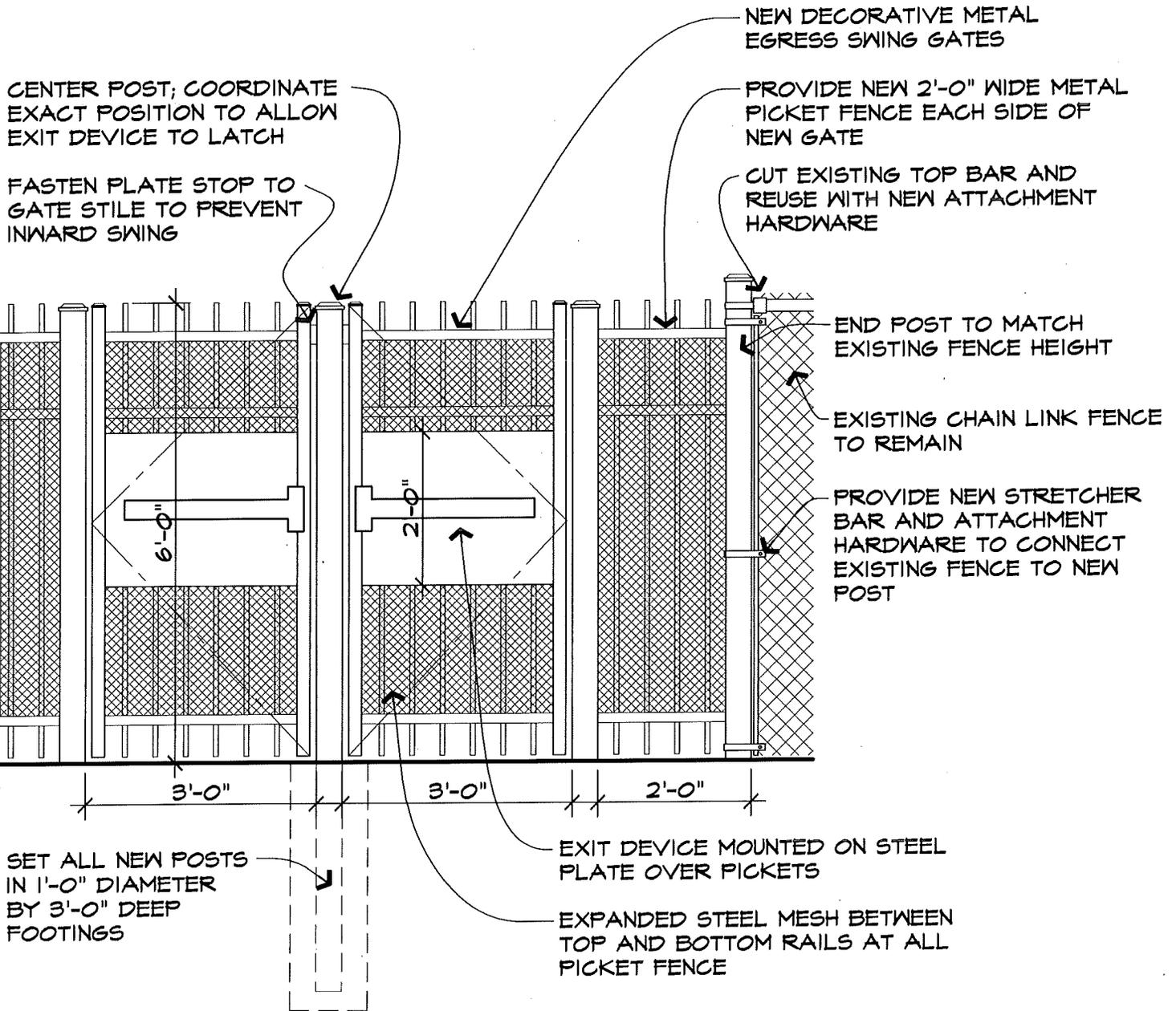
NOTES:

1. RISE/RUN AND NUMBER OF STAIRS VARY FROM STAIR TO STAIR AND SITE TO SITE. CONTRACTOR TO VERIFY EACH CONDITION AND ADJUST STAIR AND RAIL PROFILE ACCORDINGLY.
2. PROVIDE VERTICAL SUPPORTS EQUALLY AT 6'-0" OC. MAX., TYPICAL.
3. PROVIDE ADDITIONAL BENDS AS SHOWN ON PLAN TO FOLLOW PATH OF TRAVEL.
4. IN ADDITION TO EXTENSIONS SHOWN, EXTEND HANDRAIL AT TOP OF STAIR AS SHOWN ON PLANS.

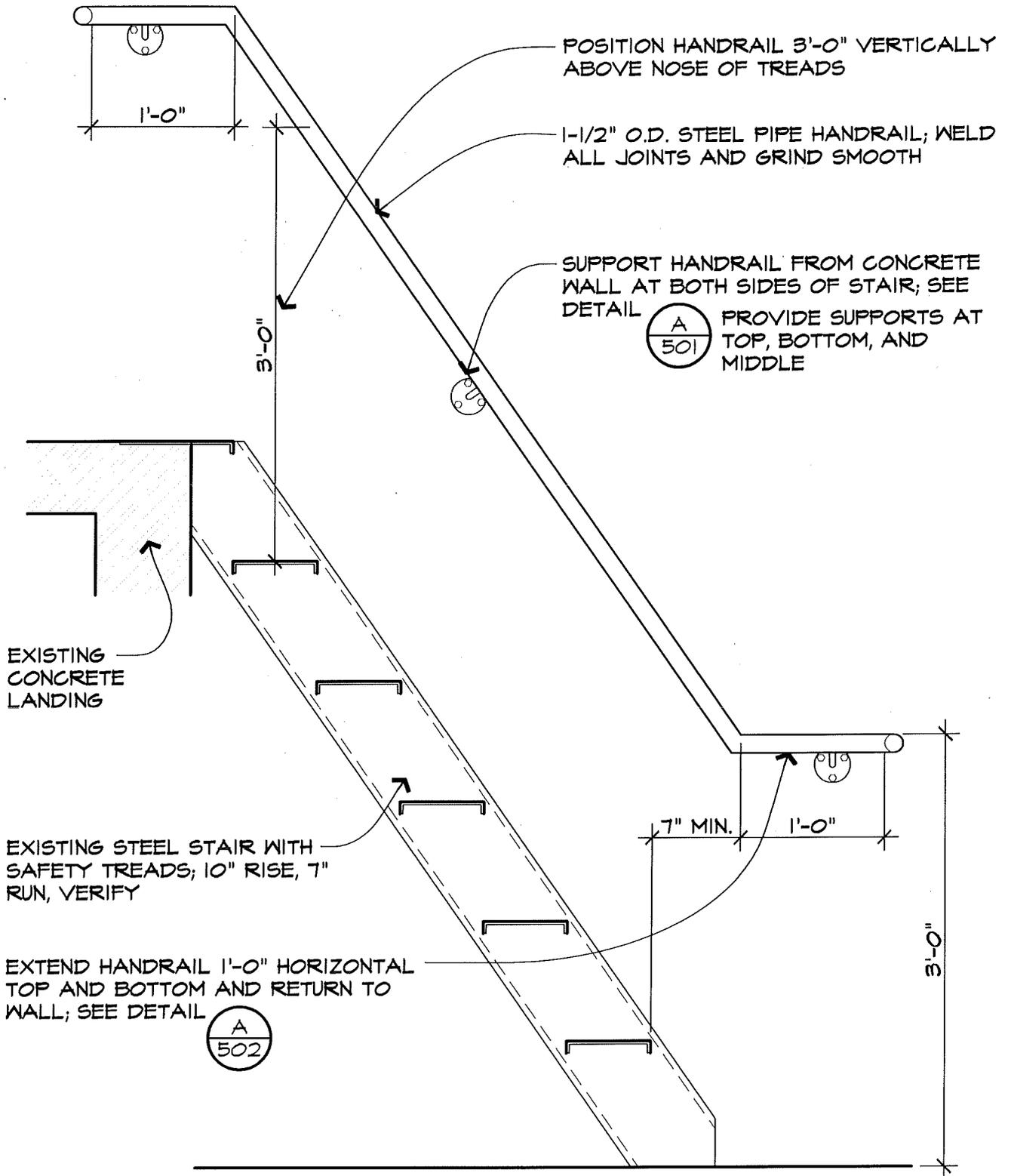
A	NEW FLOOR MOUNTED HANDRAIL AT CONCRETE STAIR		SCALE: 1" = 1'-0"	503	
503					
gLas Architects, LLC	FIRE & LIFE SAFETY IMPROVEMENTS - 2014 EUGENE SCHOOL DISTRICT 4J		11041	503	
			04/01/14		



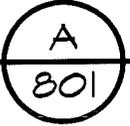
	NEW HANDRAIL AT RAMP		
		FIRE & LIFE SAFETY IMPROVEMENTS - 2014 EUGENE SCHOOL DISTRICT 4J	

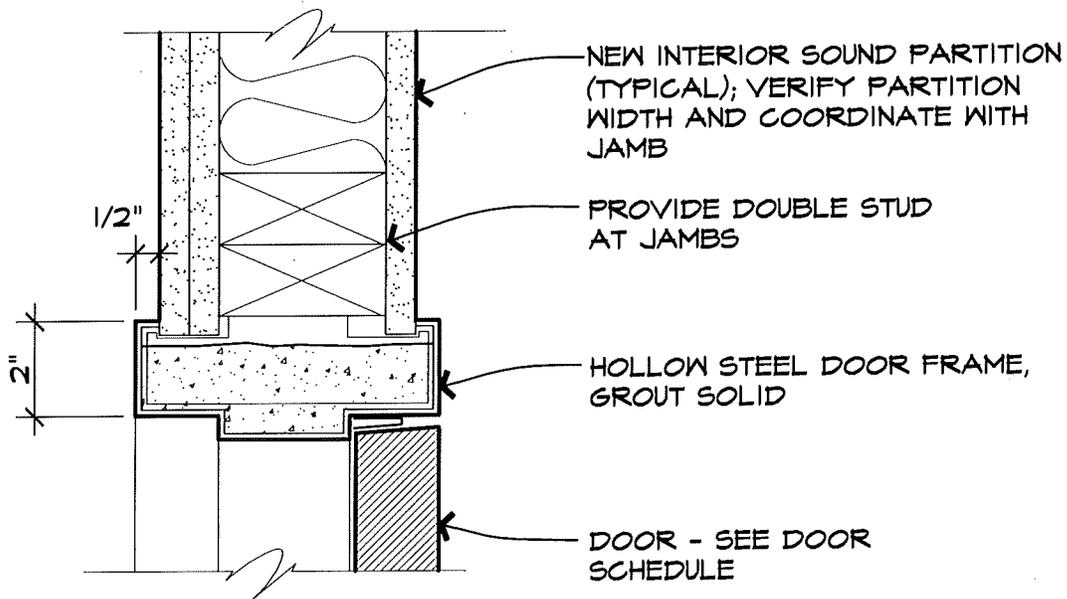


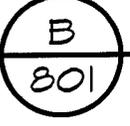
<p style="text-align: center;">A 505</p>	<p style="text-align: center;">NEW DECORATIVE METAL FENCE GATE</p>		<p style="text-align: center;">REGISTERED ARCHITECT TRACE A. WARD EUGENE, OREGON STATE OF OREGON</p>
<p><b>gLas</b> Architects, LLC</p>	<p>FIRE &amp; LIFE SAFETY IMPROVEMENTS - 2014 EUGENE SCHOOL DISTRICT 4J</p>	<p>11041 04/01/14</p>	



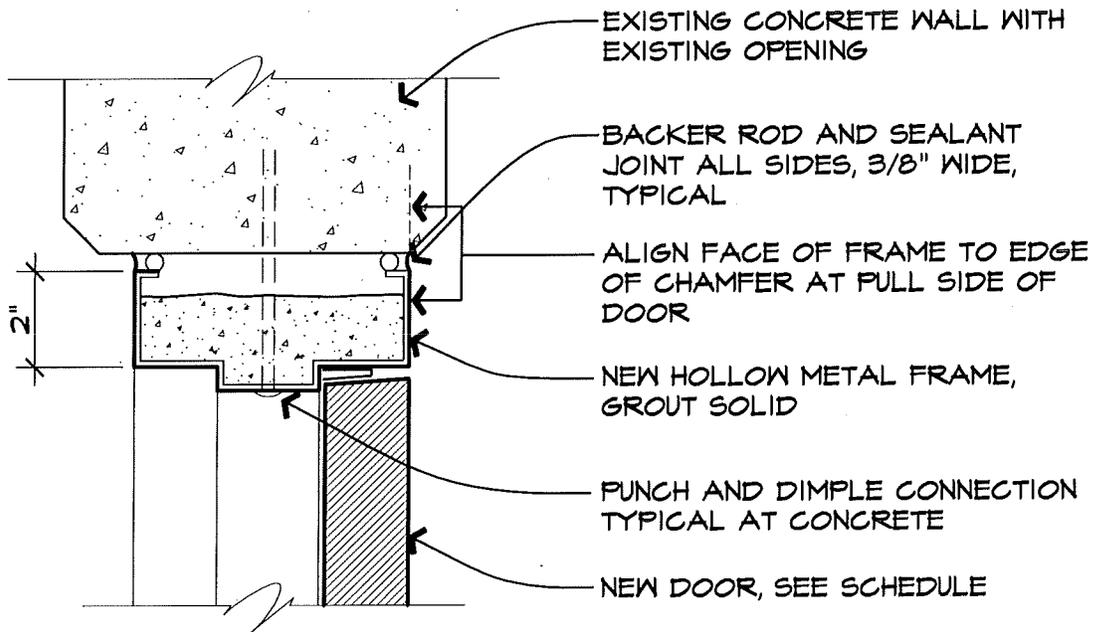
<p>A 506</p>	<p>NEW HANDRAILS AT SHIP'S STAIR (CHURCHILL HIGH SCHOOL)</p>	<p>REGISTERED ARCHITECT TRACE A. WARD EUGENE, OREGON STATE OF OREGON</p>
<p>gLas Architects, LLC</p>	<p>FIRE &amp; LIFE SAFETY IMPROVEMENTS - 2014 EUGENE SCHOOL DISTRICT 4J</p>	<p>SCALE: 1" = 1'-0"</p> <p>11041</p> <p>04/01/14</p> <p>506</p>

	NOT USED	3" = 1'-0"
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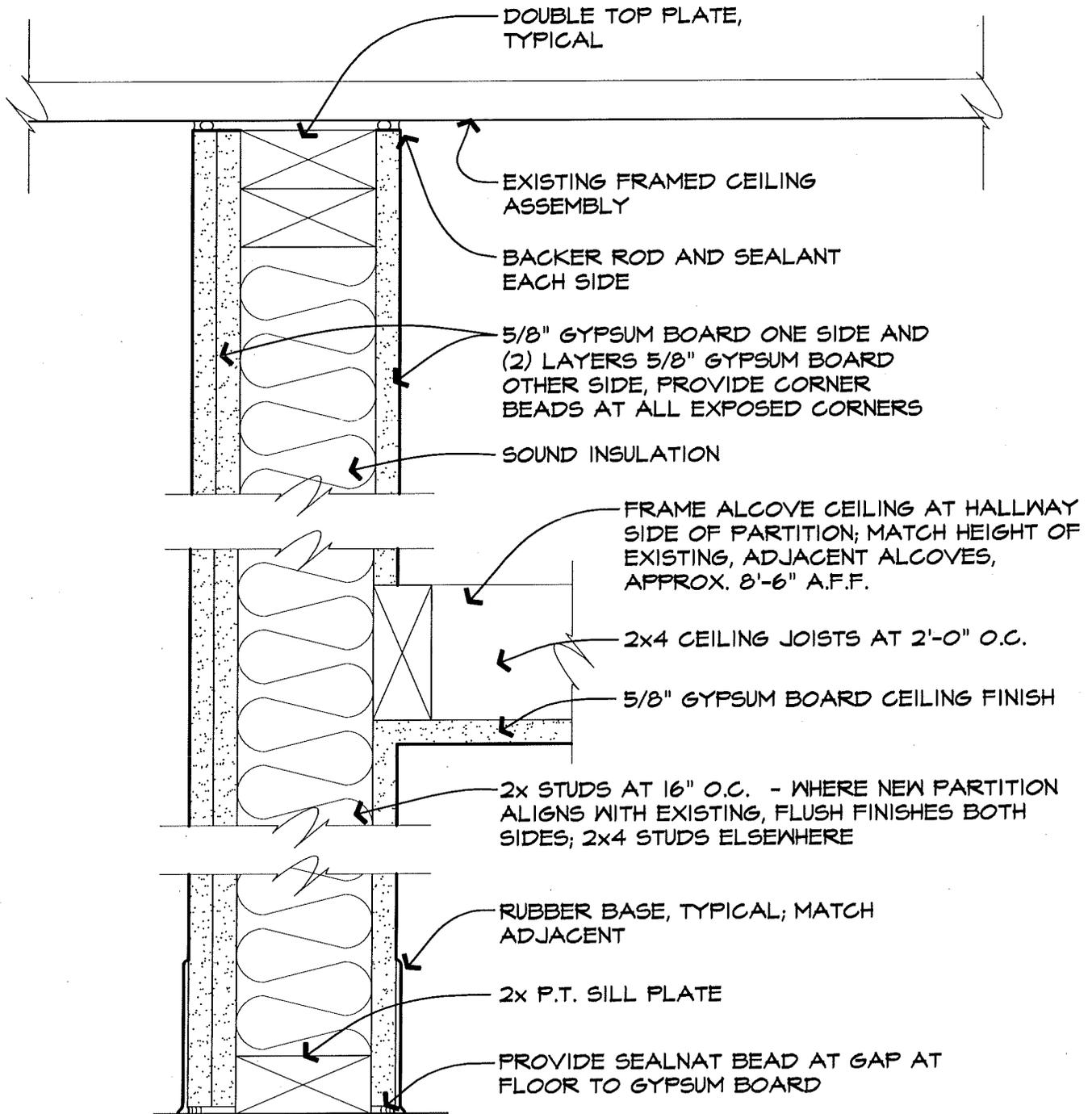
	<b>NEW DOOR JAMB IN NEW PARTITION (HEAD SIMILAR)</b>	3" = 1'-0"		
	FIRE & LIFE SAFETY IMPROVEMENTS - 2014 EUGENE SCHOOL DISTRICT 4J	11041	801	
		04/01/14		

801-DR-INT-JAMB.dwg



802-DR-INT-JAMB-CONC.dwg

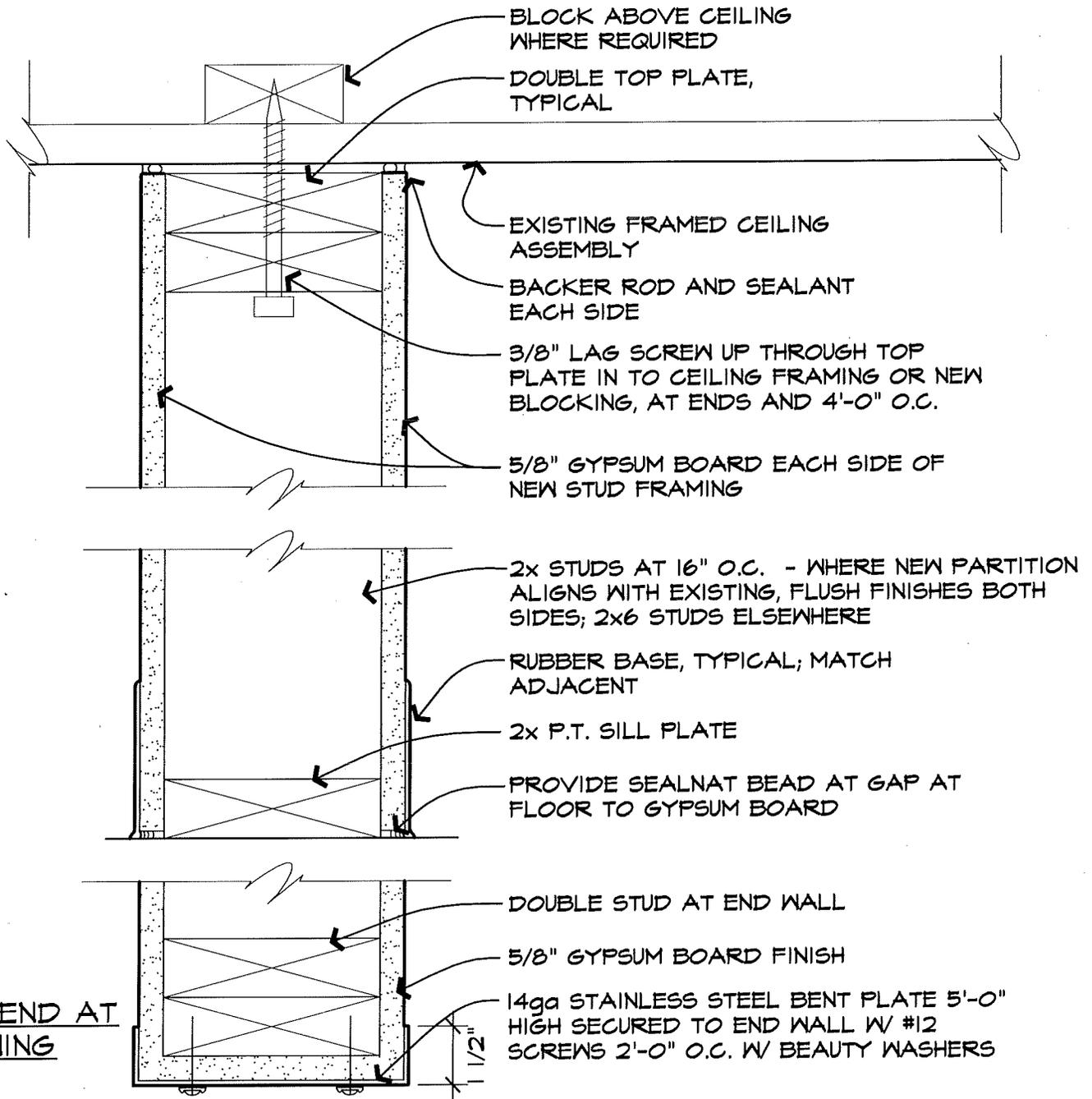
<p>A 802</p>	<p>NEW DOOR JAMB IN CONCRETE WALL (HEAD SIMILAR)</p>		<p>REGISTERED ARCHITECT TRACE A. WARD EUGENE, OREGON STATE OF OREGON</p>
<p>gLas Architects, LLC</p>	<p>FIRE &amp; LIFE SAFETY IMPROVEMENTS - 2014 EUGENE SCHOOL DISTRICT 4J</p>	<p>11041 04/01/14</p>	<p>3" = 1'-0" 802</p>



NOTE: FIT EDGES OF WALL AROUND EXISTING OBSTRUCTIONS INCLUDING CONDUITS, RACEWAYS, CEILING, ETC

901-PART-SOUND.dwg

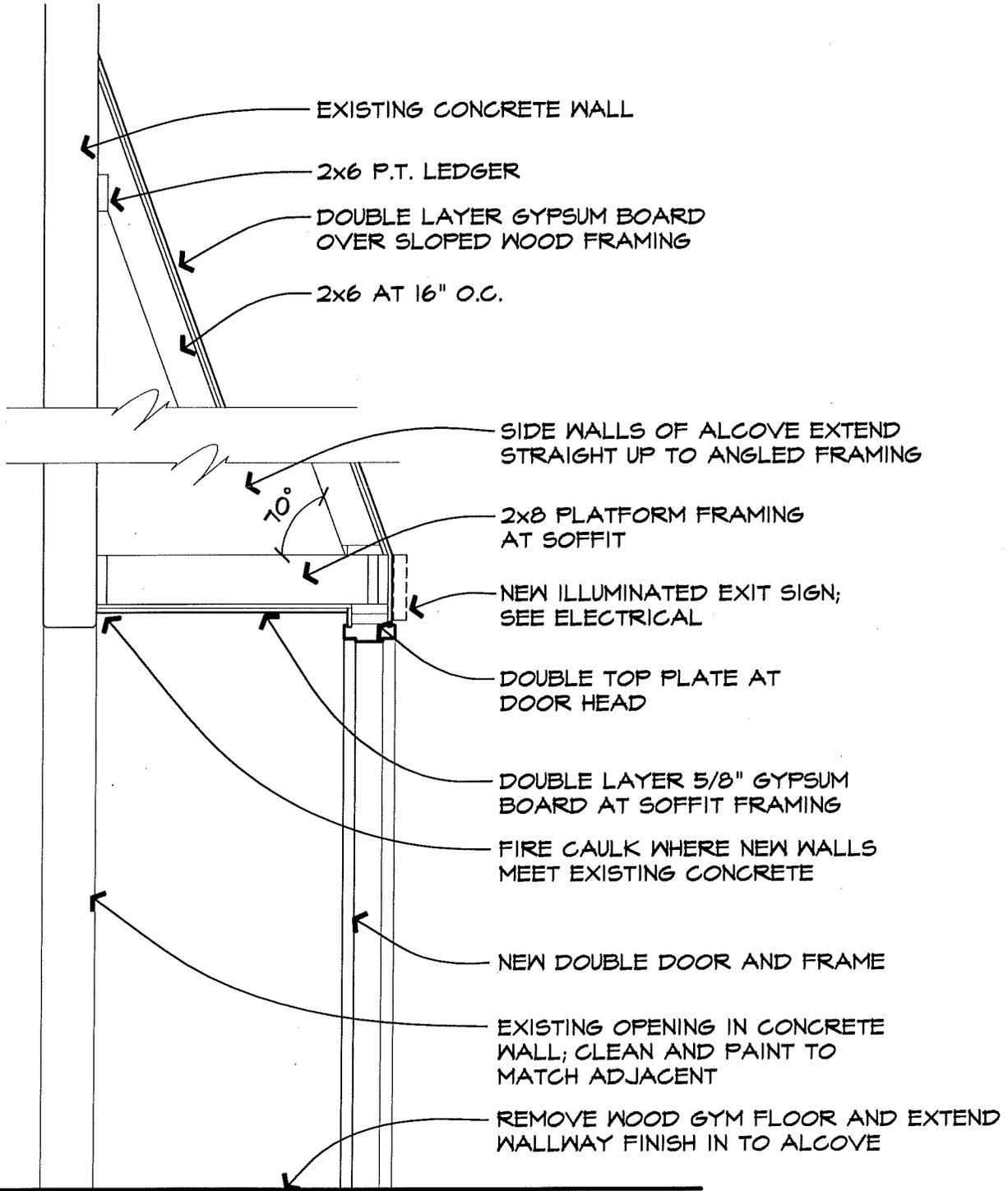
	TYPICAL NEW SOUND PARTITION		
	<p style="text-align: right;">3" = 1'-0"</p>		
	FIRE & LIFE SAFETY IMPROVEMENTS - 2014 EUGENE SCHOOL DISTRICT 4J		<p style="text-align: center;">11041</p> <p style="text-align: center;">04/01/14</p> <p style="text-align: center; font-size: 2em;">901</p>



NOTE: FIT EDGES OF WALL AROUND EXISTING OBSTRUCTIONS INCLUDING CONDUITS, RACEWAYS, CEILING, ETC

902-PART-TYP.dwg

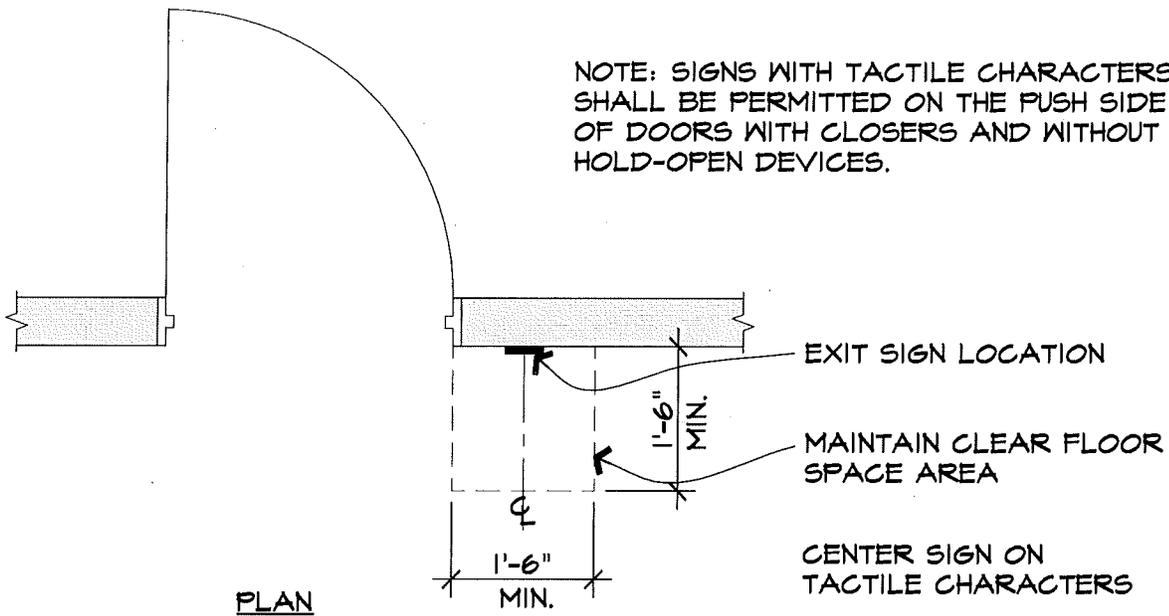
	TYPICAL NEW PARTITION		
	<p style="text-align: right;">3" = 1'-0"</p>		
	FIRE & LIFE SAFETY IMPROVEMENTS - 2014 EUGENE SCHOOL DISTRICT 4J		<p style="text-align: center;">11041</p> <hr/> <p style="text-align: center;">04/01/14</p>



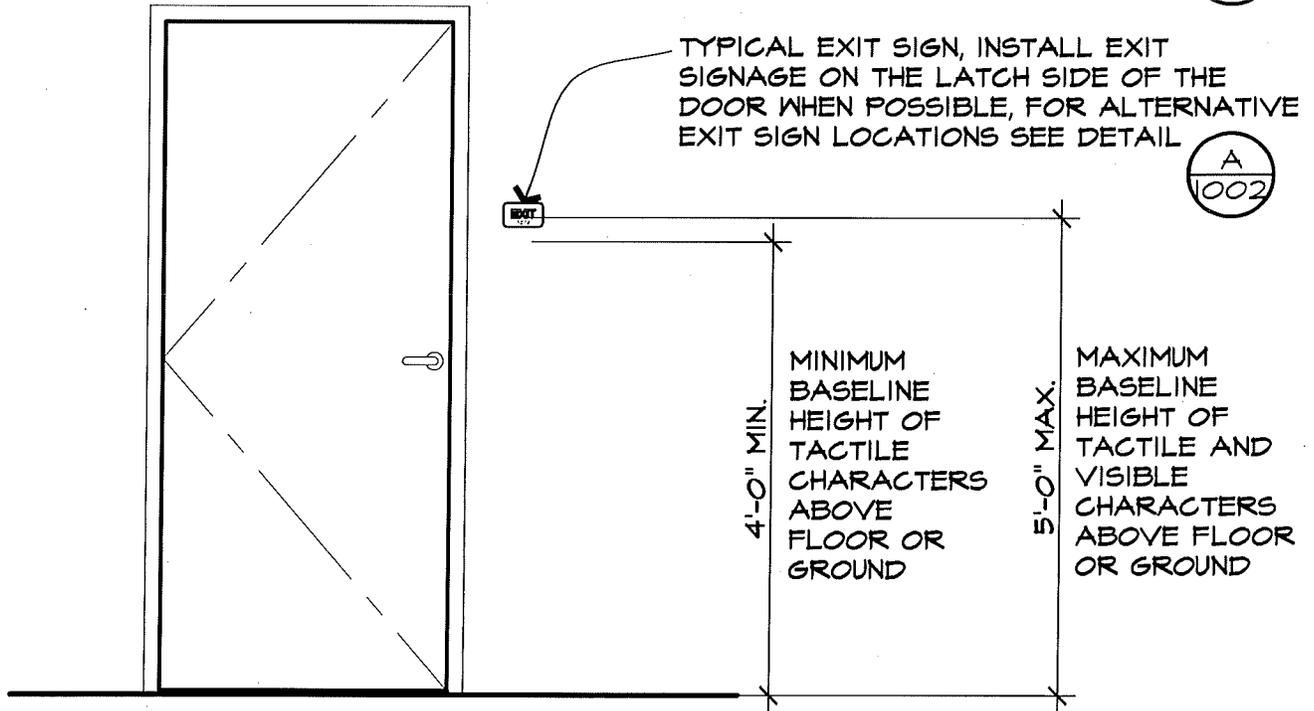
903-GYM-ALCOVE.dwg

<p style="text-align: center;">A 903</p>	<p style="text-align: center;">ALCOVE AT SMALL GYM (SEHS)</p>	<p style="text-align: center;">3" = 1'-0"</p>
<p><b>gLas</b> Architects, LLC</p>	<p>FIRE &amp; LIFE SAFETY IMPROVEMENTS - 2014 EUGENE SCHOOL DISTRICT 4J</p>	

NOTE: SIGNS WITH TACTILE CHARACTERS SHALL BE PERMITTED ON THE PUSH SIDE OF DOORS WITH CLOSERS AND WITHOUT HOLD-OPEN DEVICES.



FOR EXIT SIGN INFORMATION, SEE

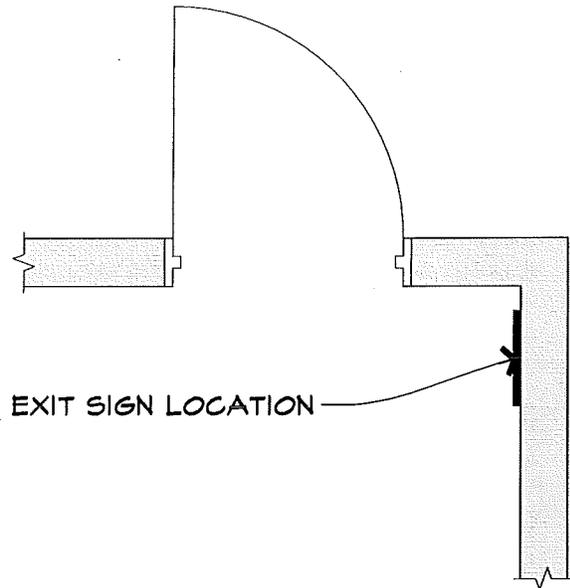


NOTE: TACTILE CHARACTERS ON SIGNS SHALL BE LOCATED 48 INCHES (1220 MM) MINIMUM ABOVE THE FINISH FLOOR OR GROUND SURFACE, MEASURED FROM THE BASELINE OF THE LOWEST TACTILE CHARACTER AND 60 INCHES (1525 MM) MAXIMUM ABOVE THE FINISH FLOOR OR GROUND SURFACE, MEASURED FROM THE BASELINE OF THE HIGHEST TACTILE CHARACTER.

	TACTILE EXIT SIGN LOCATION			
	FIRE & LIFE SAFETY IMPROVEMENTS - 2014 EUGENE SCHOOL DISTRICT 4J	11041 04/01/14		1/2" = 1'-0" 1001

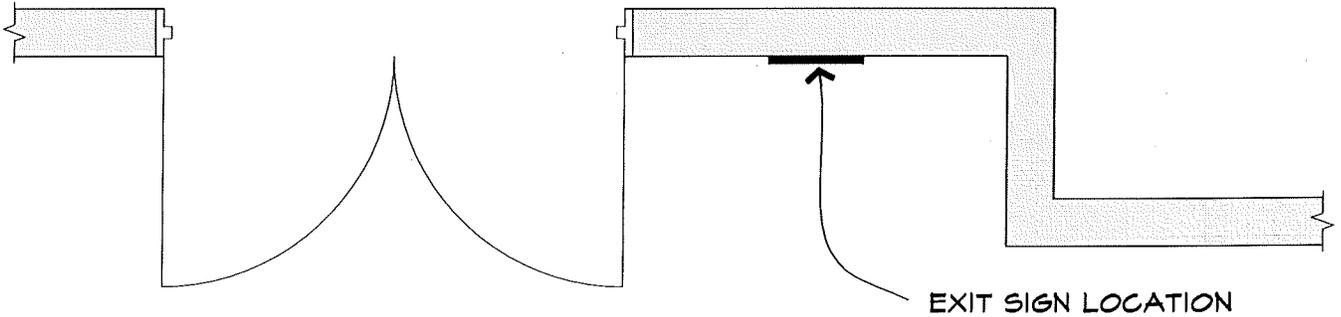
WHEN ADEQUATE WALL SPACE IS NOT AVAILABLE ON THE LATCH SIDE OF THE DOOR/S, SIGNS ARE TO BE LOCATED ON THE ADJACENT WALL.

THE EXCEPTION ALLOWS FOR PLACING TACTILE SIGNS ON THE DOOR IN LIMITED SITUATIONS. WITH THE CLOSURES OPERATING, THE DOOR WILL NEVER BE HELD OPEN, SO THE SIGNAGE WILL ALWAYS BE READABLE.



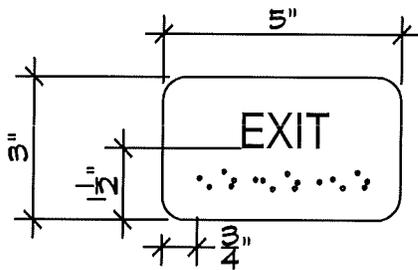
PLAN

FOR EXIT SIGN LOCATION, SEE DETAIL



PLAN

	<p>ALTERNATIVE EXIT SIGN LOCATION</p>		
<p><b>gLas</b> Architects, LLC</p>	<p>FIRE &amp; LIFE SAFETY IMPROVEMENTS - 2014 EUGENE SCHOOL DISTRICT 4J</p>	<p>11041 04/01/14</p>	<p>1/2" = 1'-0" 1002</p>



E  
 EXIT SIGN  
 3/4" HELVETICA LETTERS  
 3" X 5", 1/2" RADIUS CORNERS  
 BRAILLE

	INTERIOR SIGN TYPE		
<b>gLas</b> <i>Architects,</i> LLC	FIRE & LIFE SAFETY IMPROVEMENTS - 2014 EUGENE SCHOOL DISTRICT 4J	11041 04/01/14	