

P R O J E C T M A N U A L

FOR THE

EXTERIOR RESURFACING

of the

RIVERWALK RECREATION CENTER

400 Riverwalk Dr.
Carlsbad, New Mexico 88220

FOR THE

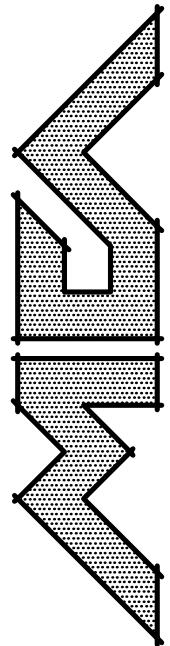
CITY OF CARLSBAD

101 N. Halagueno St.
Carlsbad, New Mexico 88220

CITY BID NUMBER 2023-03

PROJECT NUMBER 23.01

JANUARY 2023



Mitchell & Cruse Architecture

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January 16, 2023

SUPPLEMENTAL DIRECTIVE

Exterior Resurfacing of the Riverwalk Recreation Center

for the
City of Carlsbad

City Bid No.: 2023-03

Project No.: 23.01

1. **Pre-Bid Meeting:** There will be a *mandatory* Pre-Bid Meeting for all prime contractors and subcontractors at the job site (Riverwalk Recreation Center, 400 Riverwalk Drive, Carlsbad, NM) February 7, 2023, 2:00 p.m.
2. **Bid Date:** The bid date will be February 14, 2023, 2:00 p.m. at the City of Carlsbad Municipal Building, 101 N. Halagueno St., Carlsbad, NM)
3. **Base Bid “A” – Entire Exterior Surface (Areas One, Two, and Three):** - Resurface exterior surfaces and install faux vigas.
4. **Base Bid “B” – Area One Only:** - Resurface exterior surfaces and install faux vigas.
5. **Base Bid “C” – Areas One and Two:** - Resurface exterior surfaces and install faux vigas.
6. **Alternate #1:** Paint Handrails and Guardrails at Patio and Ramp.
7. **Alternate #2:** Replace select windows in Areas One, Two, and Three.
8. **Contractor’s Qualifications:** The general contractor and sub-contractors shall be experienced and qualified to perform the duties required for a complete installation and appropriately operational product. All parties are required to submit a Contractor’s Qualification Statement to the Architect prior to the Pre-Bid Meeting. Refer to the following document.

Contractor's Qualification Statement

The undersigned certifies under oath that the information provided herein is true and sufficiently complete so as not to be misleading.

Date:

Submitted To:

Mitchell & Cruse Architecture, LLC
102 N. Canyon
Carlsbad, NM 88220

Submitted By:

Mailing Address:

Phone Number:

Email Address:

Principal Office:

Name of Project:

Type of Work: General Contractor: ☐

Sub-contractor: ☐

Consultant: ☐

Other: _____ ☐

1. Organization:

1.1 ó How many years has your organization been in business?

1.2 - How many years has your organization been in business with its present name?

1.3 ó Under what other business name has your organization worked as?

--

1.4 ó If your organization is a corporation? Answer the following:

- Date of Corporation:
- State of Incorporation:
- Tax Identification #:

- President Name:
- Vice President Name:
- Treasurer Name:
- Secretary Name:

1.5 ó If your organization is a partnership, answer the following questions:

- Date of Organization:
- Type of Partnership:
- Name(s) of general partner(s):

1.6 ó If your organization is individually owned, answer the following questions:

- Date of Organization
- Name of Owner:

1.7 - If your organization is other than what is listed above, please describe it and name the principals:

2. Licensing & Insurance:

2.1 ó List jurisdictions and trade categories in which your organization is legally qualified to do business and indicate registration and license numbers, if applicable:

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2.2 - List general liability insurance and workers compensation insurer's name, policy number, and expiration dates:

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3. Experience:

3.1 ó List the categories of work that your organization normally performs with its own forces.

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3.2 ó Claims & Suits: (If any answer below is yes, please attach details)

- Has your organization ever failed to completed work it has been awarded?
- Are there any judgments, claims, arbitration proceedings or suits pending or outstanding against your organization or its officers?
- Has your organization filed any claims, lawsuits or requested arbitration with regards to construction contracts within the last five years?

3.3 ó Within the last five years, has any officer or principal of your organization ever been an officer or a principal of another organization when it failed to complete a construction contract?

3.4 ó On a separate sheet, please list major projects your organization has in progress, giving the name of the project, architect, contractual amount and date of completion

- State total worth of work in progress under a contract agreement.

3.5 ó On a separate sheet, list the major projects your organization has completed in the past five years, giving project name, builder, contractual amount and date of completion.

- State the average annual amount of work performed over the past five years.

4. References:

4.1 - Trade References:

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4.2 ó Bank References:

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4.3 - Surety (Bonding Company & Agent):
Bonding Company:
Agent's Name:
Agent's Address:

5. Financing

5.1 Financial Statement:

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6. Signature of Approval:

6.1 - Dated at - List name of organization:

List any further information regarding your organization in the box below.

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_____ being duly sworn deposes and says that the information provided herein is true and sufficiently complete as to not be misleading

_____, of _____ personally appeared before me, the undersigned notary public, and provided satisfactory identification to be the person who signed this document in my presence and swore or affirmed that the contents of this document are true and accurate to his/her knowledge.

Notarized Date:

--

Subscribed and sworn before this _____ day of _____

Notary Public:

My Commission Expires:

Signature: _____

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## NOTICE OF INVITATION FOR BID

Competitively sealed bids will be received by the Owner, City of Carlsbad for IFB No. N/A

Project: Exterior Resurfacing of the Riverwalk Recreation Center

**Project No.: 23.01**      **City Bid No.: 2023-03**      **Grant No. Not Applicable**

at 101 N. Halagueno St., Room 204, Carlsbad, NM 88220 until February 14, 2023, 2:00p.m.

at which time bids will be opened and publicly read aloud.

Complete sets of the bidding documents may be obtained at the office of the Architect of Record Mitchell and Cruse Architecture, LLC 102 N. Canyon, Carlsbad, NM 88220. Documents may be obtained for a deposit of \$200.00 for each set. Checks should be made payable to Mitchell and Cruse Architecture.

PURCHASING AGENT: \_\_\_\_\_

Date:

(for Owner's Use Only)

Newspaper: \_\_\_\_\_ Publish: \_\_\_\_\_

Newspaper: \_\_\_\_\_ Publish: \_\_\_\_\_

Newspaper: \_\_\_\_\_ Publish: \_\_\_\_\_

(Note: This Notice is issued pursuant to the requirements of §13-1-104 NMSA 1978)

## **FORM OF PROPOSAL**

### **Exterior Resurfacing of the Riverwalk Recreation Center**

City Council  
City of Carlsbad  
Carlsbad, New Mexico

Bid Date: February 14, 2023  
Time: 2:00 p.m.  
Project No.: 23.01  
City Bid No.: 2023-03

The Undersigned in compliance with your Invitation for Bids for Exterior Resurfacing of the Riverwalk Recreation Center, Carlsbad, New Mexico, having examined the plans and specifications with related documents and the site of the proposed project, will contract to provide all necessary tools, apparatus and implements, do all the work, and furnish all materials and items called for by the contract, plans and specifications, and to complete the entire work in accordance with the contract documents in \_\_\_\_\_ days for the sum stated below. This sum is to cover all expenses incurred to perform the work as required by the contract documents of which this proposal is a part.

**BASE BID "A" – ENTIRE EXTERIOR SURFACE (AREAS ONE, TWO, AND THREE):** For the Exterior Resurfacing of the Riverwalk Recreation Center Entire Exterior Surface as specified and in accordance with all drawings and specifications, covering the work, the sum of:

\_\_\_\_\_ ( \_\_\_\_\_ )

The above Base Bid does include New Mexico Sales Tax in the amount of \$\_\_\_\_\_  
At the current rate of 7.5208%. It is understood that if the sales tax increases or decreases during the time of construction, that amount will be added or credited to the bid documents.

\_\_\_\_\_

**BASE BID "B" – AREA ONE ONLY:** For the Exterior Resurfacing of the Riverwalk Recreation Center, Area One Only as specified and in accordance with all drawings and specifications, covering the work, the sum of:

\_\_\_\_\_ ( \_\_\_\_\_ )

The above Base Bid does include New Mexico Sales Tax in the amount of \$\_\_\_\_\_  
At the current rate of 7.5208%. It is understood that if the sales tax increases or decreases during the time of construction, that amount will be added or credited to the bid documents.

\_\_\_\_\_

**BASE BID “C” – AREAS ONE & TWO:** For the Exterior Resurfacing of the Riverwalk Recreation Center, Areas One & Two as specified and in accordance with all drawings and specifications, covering the work, the sum of:

\_\_\_\_\_ ( \_\_\_\_\_ )

The above Base Bid does include New Mexico Sales Tax in the amount of \$\_\_\_\_\_  
At the current rate of 7.5208%. It is understood that if the sales tax increases or decreases during the time of construction, that amount will be added or credited to the bid documents.

\_\_\_\_\_

**Alternate #1 – Painting Handrails and Guardrails:** In the event the owner elects to add the painting of the Handrails and Guardrails ADD the sum of:

\_\_\_\_\_

The above Alternate Bid does include New Mexico Sales Tax in the amount of \$\_\_\_\_\_  
At the current rate of 7.5208%. It is understood that if the sales tax increases or decreases during the time of construction, that amount will be added or credited to the bid documents.

**Alternate #2 – Install Translucent Windows:** In the event the owner elects to add the installation of translucent windows in areas One, Two, and Three ADD the sum of:

\_\_\_\_\_

The above Alternate Bid does include New Mexico Sales Tax in the amount of \$\_\_\_\_\_  
At the current rate of 7.5208%. It is understood that if the sales tax increases or decreases during the time of construction, that amount will be added or credited to the bid documents.

**Allowance:** Refer to Division 1, Section 01020, 3.3 and include \$60,000.00 Contingency Allowance.

The bidders agree that:

A. The above prices shall include all labor, materials, removal, overhead, profit, insurance, (excluding applicable taxes), etc. to cover the finished work of the several kinds called for. Changes shall be processed in accordance with The Contract Documents.

B. It is understood that the Owner reserves the right to reject any or all Bids and to waive any technical irregularities in the bidding.

C. This bid will remain subject to acceptance for a period of **60 days** after the bid opening.

\_\_\_\_\_

The undersigned acknowledges receipt of the following addenda:

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CONTRACTOR

BY:

---

ADDRESS

TITLE

---

NEW MEXICO CONTRACTOR'S LICENSE NO.

---

WORKFORCE SOLUTIONS DEPARTMENT REGISTRATION NO.

LIST AND ADDRESSES OF SUB-CONTRACTORS.  
INCLUDE THEIR WORKFORCE NUMBER IF THEIR CONTRACT IS IN EXCESS  
OF \$60,000.00

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PAINTING CONTRACTOR

---

OTHER

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OTHER

## CAMPAIGN CONTRIBUTION DISCLOSURE FORM

Pursuant to the Procurement Code, Sections 13-1-28, et seq., NMSA 1978 and NMSA 1978, § 13-1-191.1 (2006), as amended by Laws of 2007, Chapter 234, any prospective contractor seeking to enter into a contract with any state agency or local public body **for professional services, a design and build project delivery system, or the design and installation of measures the primary purpose of which is to conserve natural resources** must file this form with that state agency or local public body. This form must be filed even if the contract qualifies as a small purchase or a sole source contract. The prospective contractor must disclose whether they, a family member or a representative of the prospective contractor has made a campaign contribution to an applicable public official of the state or a local public body during the two years prior to the date on which the contractor submits a proposal or, in the case of a sole source or small purchase contract, the two years prior to the date the contractor signs the contract, if the aggregate total of contributions given by the prospective contractor, a family member or a representative of the prospective contractor to the public official exceeds two hundred and fifty dollars (\$250) over the two year period.

Furthermore, the state agency or local public body may cancel a solicitation or proposed award for a proposed contract pursuant to Section 13-1-181 NMSA 1978 or a contract that is executed may be ratified or terminated pursuant to Section 13-1-182 NMSA 1978 of the Procurement Code if: 1) a prospective contractor, a family member of the prospective contractor, or a representative of the prospective contractor gives a campaign contribution or other thing of value to an applicable public official or the applicable public official's employees during the pendency of the procurement process or 2) a prospective contractor fails to submit a fully completed disclosure statement pursuant to the law.

The state agency or local public body that procures the services or items of tangible personal property shall indicate on the form the name or names of every applicable public official, if any, for which disclosure is required by a prospective contractor.

**THIS FORM MUST BE INCLUDED IN THE REQUEST FOR PROPOSALS AND MUST BE FILED BY ANY PROSPECTIVE CONTRACTOR WHETHER OR NOT THEY, THEIR FAMILY MEMBER, OR THEIR REPRESENTATIVE HAS MADE ANY CONTRIBUTIONS SUBJECT TO DISCLOSURE.**

The following definitions apply:

**“Applicable public official”** means a person elected to an office or a person appointed to complete a term of an elected office, who has the authority to award or influence the award of the contract for which the prospective contractor is submitting a competitive sealed proposal or who has the authority to negotiate a sole source or small purchase contract that may be awarded without submission of a sealed competitive proposal.

**“Campaign Contribution”** means a gift, subscription, loan, advance or deposit of money or other thing of value, including the estimated value of an in-kind contribution, that is made to or received by an applicable public official or any person authorized to raise, collect or expend contributions on that official’s behalf for the purpose of electing the official to statewide or local office. “Campaign Contribution” includes the payment of a debt incurred in an election campaign, but does not include the value of services provided without compensation or unreimbursed travel or other personal expenses of individuals who volunteer a portion or all of their time on behalf of a candidate or political committee, nor does it include the administrative or solicitation expenses of a political committee that are paid by an organization that sponsors the committee.

**“Family member”** means spouse, father, mother, child, father-in-law, mother-in-law, daughter-in-law or son-in-law of (a) a prospective contractor, if the prospective contractor is a natural person; or (b) an owner of a prospective contractor.

**“Pendency of the procurement process”** means the time period commencing with the public notice of the request for proposals and ending with the award of the contract or the cancellation of the request for proposals.

**“Prospective contractor”** means a person or business that is subject to the competitive sealed proposal process set forth in the Procurement Code or is not required to submit a competitive sealed proposal because that person or business qualifies for a sole source or a small purchase contract.

**“Representative of a prospective contractor”** means an officer or director of a corporation, a member or manager of a limited liability corporation, a partner of a partnership or a trustee of a trust of the prospective contractor.

Name(s) of Applicable Public Official(s) if any:

Mayor Dale Janway  
Councilwoman Lisa A. Anaya-Flores  
Councilman Edward Rodriguez  
Councilman Jeff Forrest  
Councilman J.J. Chavez  
Councilwoman Karla Hamel Niemeier  
Councilwoman Judy Waters  
Councilman Mark Walterscheid  
Councilman Wes Carter

DISCLOSURE OF CONTRIBUTIONS BY PROSPECTIVE CONTRACTOR:

Contribution Made By: \_\_\_\_\_

Relation to Prospective Contractor: \_\_\_\_\_

Date Contribution(s) Made: \_\_\_\_\_  
\_\_\_\_\_

Amount(s) of Contribution(s) \_\_\_\_\_  
\_\_\_\_\_

Nature of Contribution(s) \_\_\_\_\_  
\_\_\_\_\_

Purpose of Contribution(s) \_\_\_\_\_  
\_\_\_\_\_

(Attach extra pages if necessary)

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Title (position)

**--OR--**

**NO CONTRIBUTIONS IN THE AGGREGATE TOTAL OVER TWO HUNDRED FIFTY DOLLARS (\$250) WERE MADE** to an applicable public official by me, a family member or representative.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Title (Position)

## STANDARD A.I.A. FORMS

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1. The following standard A.I.A. forms applicable to this Contract are included herein by reference. The Forms are available to Bidders from the Architect's Office upon written request.
  - 1.1 Form of Instruction to Bidders  
  
A.I.A. Form, A701, Instruction to Bidders, 1987 Edition.
  - 1.2 Form of Agreement  
  
A.I.A. Form A107, Abbreviated Form of Agreement Between Owner and Contractor, 1987 Edition.
  - 1.3 Form of Bid Bond  
  
A.I.A. Form A310, Bid Bond, 1987 Edition.
  - 1.4 Form of Performance Bond  
  
A.I.A. Form A311, Performance Bond, Labor and Material Payment Bond, 1987 Edition.
  - 1.5 General Conditions  
  
A.I.A. Form A-201 General Conditions, 1997 Edition.
  - 1.6 Form of Application & Certificate for Payment  
  
A.I.A. Form G702 and G703, Application and Certificate for Payment, 1983 Edition.
- 2.0 Other A.I.A. forms and/or Documents that may be considered by the Owner and the Contractor for mutual beneficial use and application.

**END OF STANDARD A.I.A. FORMS**

## **SUPPLEMENTARY CONDITIONS**

**A. EXAMINATION OF SITE:** Contractor shall familiarize itself with each site, in order to anticipate unseen problems that may develop as the job progresses. Failure to have visited the site before bidding shall in no way relieve the Contractor from furnishing any materials or performing any work required to complete the project in accordance with the specifications without additional cost to the Owner.

**B. NOTICE TO PROCEED:** The Contractor shall not begin work on the project until all contract documents are signed by both Owner and Contractor and Notice to Proceed has been issued to the Contractor.

**C. SAFETY REQUIREMENTS:** Contractor shall provide for the safety of workmen, Owner's personnel, and the public and comply with the requirements of public health and safety, OSHA rules and regulations, and comply with all applicable safety laws and regulations. Contractor shall provide temporary enclosures or barricades at excavations and the removable sites of hazardous materials.

**D. LICENSED CONTRACTORS:** All Contractors and sub-contractors required to be licensed by the State of New Mexico shall be so currently licensed. They shall have a license which covers the work called for in the contract.

**E. PREQUALIFICATION OF BIDDERS:** In an effort to ensure that all prospective bidders have adequate financial resources, production facilities, personnel, reputation, and experience to accomplish the project, bidders shall submit such information and data upon request. If requested to do so, please comply. Contractors who have obtained plans or information from one of the Plan Rooms or other services are to notify the Architect of their intent to bid the project in order to be included on the List of Plan Holders, List of Bidders, Bid Tab, and if necessary, provide pre-qualification information.

## **F. MEASUREMENT AND PAYMENT**

### **1.0 GENERAL:**

**1.1 Progress Schedule:** The Contractor shall submit a progress schedule to the Architect after receipt of the Notice to Proceed to show the term of the construction for the completed project. The schedule shall show the dates for commencement and completion of the various categories of work and the percentage of scheduled completion at the end of each month for each category. The Contractor shall submit three copies of the Progress Schedule with each Certificate for Payment, showing the actual commencement and percentage of completion for each category of the work, at the end of that particular month.

**1.2 Stored Materials:** Progress payments will include materials and equipment suitably stored on the construction site or at some other location agreed upon in writing.

## **2.0 MATERIALS:**

**2.1 Progress Payment:** Monthly payments in triplicate shall be initiated by the Contractor on AIA Documents G702 and G703A, Application and Certificate for Payment, and submitted to the Architect for approval.

**2.2 Change Orders:** When required, shall be issued by the Architect on the standard AIA Form G701, April 1970. With each proposal for a change in the amount of the Contract, the Contractor shall submit a detailed breakdown indicating all costs for the change, and the Contractor's overhead liability insurance, profit and taxes.

## **3.0 EXECUTION:**

**3.1 Retention of Percentage of Contract:** Five percent (5%) of the final contract amount shall be assigned as the value of final closeout documents including but not limited to, all release of liens, consent of surety, punch list completions, record documents, owner's manuals, and any and all warranties pertaining to this project. This amount shall be withheld until all closeout documents, and punch list items are completed.

## **G. SPECIAL PROJECT PROCEDURES**

**1.0 GENERAL:** On all types of Insurance as called for in Par. 1.1, 1.2, 1.3, & 1.4 below the coverage is to name the General Contractor & in addition shall name the owner, the architect, and all Sub-Contractors as their interest may appear. The coverage will hold each of the additional insured harmless and waive any subrogation rights.

**1.1 Property Insurance:** **The Contractor shall effect and maintain "All Risk" Coverage Insurance** upon the new work on which the work of this Contract is to be done to one-hundred percent (100%) of the insurable value thereof, including items of labor and materials connected therewith whether in or adjacent to the structure insured, materials place to be used as a part of the permanent construction, including surplus materials, shanties, protective fences, bridges, temporary structures, miscellaneous materials and supplies incidental to the work and such scaffoldings, staging, towers, forms and equipment as are not owned or rented by the Contractor, the cost of which is included in the cost of the work. **Note:** Contractor is responsible to insure contractor's tools and equipment. Transit limit is \$250,000.00

The Certificate of Insurance is to list all types of insurance, amounts, parties covered and list any exclusions.

**1.2 Workman's Compensation - Employers' Liability Insurance:** Coverage is to be provided as required by law for the State of New Mexico and Employer's Liability Coverage in the amount of \$100,000/\$500,000/\$100,000 Basic Limits.

1.3 Comprehensive General Liability: To include the following:

| <b>TYPE</b>                  |                               | <b>EACH TYPE TO INCLUDE THE FOLLOWING:</b> |
|------------------------------|-------------------------------|--------------------------------------------|
| Commercial General Liability | General Aggregate             | \$3,000,000.00                             |
|                              | Products-Comp/OP Aggr.        | \$1,000,000.00                             |
|                              | Personal & Adv. Injury        | \$1,000,000.00                             |
|                              | Each Occurrence               | \$1,000,000.00                             |
|                              | Fire Damage (Any one Fire)    | \$ 50,000.00                               |
|                              | Med. Expense (Any one person) | \$ 5,000.00                                |
| Umbrella<br>Excess Liability | Each Occurrence               | \$ 1,000,000.00                            |
|                              | Aggregate                     | \$ 1,000,000.00                            |
|                              | With 25,000 retention         |                                            |
| WORKER'S COMPENSATION &      | Statutory Limits              | \$ 1,000,000.00                            |
| EMPLOYER'S LIABILITY         | Each Accident                 | \$ 1,000,000.00                            |
|                              | Disease-Policy Limit          | \$ 1,000,000.00                            |
|                              | Disease-Each Employee         | \$ 1,000,000.00                            |

1.4 Comprehensive Automobile Liability: To include the following:

| <b>TYPE</b>          |                       | <b>EACH TYPE TO INCLUDE THE FOLLOWING:</b> |
|----------------------|-----------------------|--------------------------------------------|
| Automobile Liability |                       |                                            |
| Any Auto             | Combined Single Limit | \$ 1,000,000.00                            |
| Scheduled Autos      | Bodily Injury         |                                            |
| Hired Autos          | (Per person)          | \$ 1,000,000.00                            |
| Non-owned Autos      | (Per accident)        | \$ 1,000,000.00                            |
|                      | Property Damage       | \$ 1,000,000.00                            |

1.5 Special Conditions: If the job is a remodel or add-on to an existing building the General Contractor shall, when feasible, obtain all insurance coverage from the same carrier that the owner then has in effect.

1.6 Cancellation: In the event that any of the insurance set forth in Par. 1.1. thru 1.4 is cancelled the issuing company shall give 30 days written notice to all parties.

1.7 Form of Agreement between Owner & Contractor: AIA Document A101 shall be executed in triplicate with the successful bidder.

1.8 Bidders License Number on Bid Form: Bidder's attention is directed to the requirements of New Mexico Construction Industries Licensing Act, Section 67-35-15. The Bidder's license number and classification shall be shown in the space provided on the Bid Form and shall be posted at job site.

1.9 Addenda: Addenda issued during the time of bidding shall be included in the Proposal, and in closing a Contract, they will become a part thereof. The Bidder shall acknowledge the receipt of all Addenda on the Bid Form.

1.10 Guarantee: The Contractor shall guarantee all the work covered by the Contract Documents against failure caused by omission of materials, defective materials or poor workmanship for a period of one year from the date of acceptance by the Owner. The guarantee shall include all labor, materials, equipment and appliances against failure, as were required to complete the mechanical, electrical, structural and architectural work for the construction of the project.

The guarantee shall include all costs of replacement or repair.

**2.0 MATERIALS:** Immediately upon Notification of Award, the Contractor is to furnish three (3) copies of bond and insurance as outlined above to Architect's office.

**3.0 EXECUTION:** Upon receipt of bond, insurance, list of subcontractors and suppliers and after all contracts are signed by Contractor and Owner - one copy of the contract will be returned to Contractor.

## **H. BACKGROUND CHECKS**

**1.0 GENERAL:** Section 1. Section 22-10-3.3 NMSA 1978 (being Laws 1997, Chapter 238, Section 1) is amended to read:

**2.0 REQUIREMENT:** **ALL** Contractors or Contractor's employees with unsupervised access to students are required to have a background check.

**3.0 BACKGROUND CHECKS:** An applicant for initial certification shall be fingerprinted and shall provide two fingerprint cards or the equivalent electronic fingerprints to the Department of Education to obtain the applicant's Federal Bureau of Investigation record. Convictions of felonies or misdemeanors contained in the Federal Bureau of Investigation record shall be used in accordance with the Criminal Offender Employment Act. Other information contained in the Federal Bureau of Investigation record, if supported by independent evidence, may form the basis for the denial, suspension or revocation of a certificate for good and just cause. Records and any related information shall be privileged and shall not be disclosed to a person not directly involved in the certification or employment decisions affecting the specific applicant. The applicant for initial certification shall pay for the cost of obtaining the Federal Bureau of Investigation record.

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# **DIVISION 1                      GENERAL REQUIREMENTS**

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| 01631          | SUBSTITUTIONS                                   | 45              |
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## **01010 SUMMARY OF WORK**

### **1.0 GENERAL:**

**1.1 RELATED DOCUMENTS:** Drawings and general provision of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections apply to this Section.

### **1.2 WORK COVERED BY CONTRACT DOCUMENTS**

**1.2.1:** The Project consists of furnishing all labor, materials and equipment and of performing all operations for Phase Four Rehabilitation at the Cavern Theatre in Carlsbad, New Mexico.

- a) Project Location: 400 Riverwalk Dr, Carlsbad, New Mexico
- b) Owner: City of Carlsbad  
P.O. Box 1569  
Carlsbad, New Mexico 88221-1569
- c) Contract Documents were prepared in the office of Mitchell and Cruse Architecture, LLC, 102 N. Canyon St., Carlsbad, NM 88220  
Telephone: (575) 689-8400
- d) The Work consists of patching and painting and installing vigas.
- e) The Work will be constructed under a single prime contract.

### **1.3 WORK SEQUENCE**

**1.3.1:** The Work will be conducted in one phase.

### **1.4 CONTRACTOR USE OF PREMISES**

**1.4.1. General:** During the construction period the Contractor shall have full use of the premises for construction operations, including use of the site. The Contractor's use of the premises are limited only by the Owner's right to perform work or to retain other contractors on portions of the Project.

- a) Use of the Site: Limit use of the premises to work in areas indicated. Confine operations to areas within contract limits indicated. Do not disturb portions of the site beyond the areas in which the Work is indicated.
  - 1. Owner Occupancy: Allow for Owner occupancy.
  - 2. Driveways and Entrances: Keep driveways and entrances serving the premises clear and available to the Owner, the Owner's employees, and emergency vehicles at all times. Schedule deliveries to minimize space and time requirements

### **1.5 OCCUPANCY REQUIREMENTS**

**1.5.1 Owner Occupancy:** The Owner will not occupy the site and existing building during the entire construction period. However, cooperate with the Owner during construction operations to minimize conflicts and facilitate owner usage. Perform the Work so as not to interfere with the Owner's operations.

**2.0 MATERIALS:** Not Used.

**3.0 EXECUTION:** Not Used.

END OF SECTION 01010

## **01020 - ALLOWANCES**

### **1.0 GENERAL**

#### **1.1 RELATED DOCUMENTS**

1.1.1: 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**

1.2.1: This Section includes administrative and procedural requirements governing allowances.

- a) Selected materials and equipment are specified in the Contract Documents by allowances. In some cases, these allowances include installation. Allowances have been established in lieu of additional requirements and to defer selection of actual materials and equipment to a later date when additional information is available for evaluation. If necessary, additional requirements will be issued by Change Order.

1.2.2: Types of allowances include the following:

- a) Lump-sum allowances.
- b) Contingency allowances.

1.2.3: Related Sections: The following Sections contain requirements that relate to this Section:

- a) Division 1 Section "Modification Procedures" specifies procedures for submitting and handling Change Orders.
- b) Division 1 Section "Quality Control Services" specifies procedures governing the use of allowances for inspection and testing.

#### **1.3 SELECTION AND PURCHASE**

1.3.1: At the earliest practical date after award of the Contract, advise the Architect of the date when the final selection and purchase of each product or system described by an allowance must be completed to avoid delaying the Work.

1.3.2: Purchase products and systems selected by the Architect from the designated supplier.

#### **1.4 SUBMITTALS**

1.4.1: Submit proposals for purchase of products or systems included in allowances, in the form specified for Change Orders.

1.4.2: Submit invoices or delivery slips to show the actual quantities of materials delivered to the site for use in fulfillment of each allowance.

## 1.5 CONTINGENCY ALLOWANCES

1.5.1: Use the contingency allowance only as directed for the Owner's purposes and only by Change Orders that indicate amounts to be charged to the allowance.

1.5.2: Change Orders authorizing use of funds from the contingency allowance will include Contractor's related costs and reasonable overhead and profit margins.

1.5.3: At Project closeout, credit unused amounts remaining in the contingency allowance to the Owner by Change Order.

## 1.6 UNUSED MATERIALS

1.6.1: Return unused materials to the manufacturer or supplier for credit to the Owner, after installation has been completed and accepted.

- a) When requested by the Architect, prepare unused material for storage by Owner where it is not economically practical to return the material for credit. When directed by the Architect, deliver unused material to the Owner's storage space. Otherwise, disposal of unused material is the Contractor's responsibility.

## **2.0 PRODUCTS (Not Applicable)**

## **3.0 EXECUTION**

### 3.1 EXAMINATION

3.1.1: Examine products covered by an allowance promptly upon delivery for damage or defects.

### 3.2: PREPARATION

3.2.1: Coordinate materials and their installation for each allowance with related materials and installations to ensure that each allowance item is completely integrated and interfaced with related work.

### 3.3 SCHEDULE OF ALLOWANCES:

3.3.1: The Contractor shall include in his Base Bid an allowance of Sixty Thousand Dollars (\$60,000.00) Contingency Miscellaneous Fund, to be used if and when authorized by the Owner, and as recommended by the Architect, in a duly executed Change Order. Any of the above sum not used will be credited to the Owner at the time of final payment. Any funds required in excess of the above sum will require the same authorization.

END OF SECTION 01020

## **01027 - APPLICATIONS FOR PAYMENT**

### **1.0 GENERAL**

#### **1.1 RELATED DOCUMENTS**

1.1.1: 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**

1.2.1: This Section specifies administrative and procedural requirements governing the Contractor's Applications for Payment.

1.2.2: This Section specifies administrative and procedural requirements governing each prime contractor's Applications for Payment.

- a) Coordinate the Schedule of Values and Applications for Payment with the Contractor's Construction Schedule, Submittal Schedule, and List of Subcontracts.

1.2.3 Related Sections: The following Sections contain requirements that relate to this .

- a) Schedules: The Contractor's Construction Schedule and Submittal Schedule are specified in Division 1 Section "Submittals."

#### **1.3 SCHEDULE OF VALUES**

1.3.1 Coordination: Coordinate preparation of the Schedule of Values with preparation of the Contractor's Construction Schedule.

1.3.2 Coordination: Each prime Contractor shall coordinate preparation of its Schedule of Values for its part of the Work with preparation of the Contractors' Construction Schedule.

- 1) Correlate line items in the Schedule of Values with other required administrative schedules and forms, including:
  - a. Contractor's Construction Schedule.
  - b. Application for Payment forms, including Continuation Sheets.
  - c. List of subcontractors.
  - d. Schedule of allowances.
  - e. Schedule of alternates.
  - f. List of products.
  - g. List of principal suppliers and fabricators.
  - h. Schedule of submittals.
- 2) Submit the Schedule of Values to the Architect at the earliest possible date but no later than 7 days before the date scheduled for submittal of the initial Applications for Payment.

1.3.3 Format and Content: Use the Project Manual table of contents as a guide to establish the format for the Schedule of Values. Provide at least one-line item for each Specification Section.

- 1) Identification: Include the following Project identification on the Schedule of Values:
  - a. Project name and location.
  - b. Name of the Architect.
  - c. Project number.
  - d. Contractor's name and address.
  - e. Date of submittal.
- 2) Arrange the Schedule of Values in tabular form with separate columns to indicate the following for each item listed:
  - a. Related Specification Section or Division.
  - b. Description of Work.
  - c. Name of subcontractor.
  - d. Name of manufacturer or fabricator.
  - e. Name of supplier.
  - f. Change Orders (numbers) that affect value.
  - g. Dollar value.
  - h. Percentage of Contract Sum to nearest one-hundredth percent, adjusted to total 100 percent.
- 3) Provide a breakdown of the Contract Sum in sufficient detail to facilitate continued evaluation of Applications for Payment and progress reports. Coordinate with the Project Manual table of contents. Break principal subcontract amounts down into several line items.
- 4) Round amounts to nearest whole dollar; the 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.

Differentiate between items stored on-site and items stored off-site. Include requirements for insurance and bonded warehousing, if required.
- 6) Provide separate line items on the Schedule of Values for initial cost of the materials, for each subsequent stage of completion, and for total installed value of that part of the Work.
- 7) Margins of Cost: Show line items for indirect costs and margins on actual costs only when such items are listed individually in Applications for Payment. Each item in the Schedule of Values and Applications for Payment shall be complete. Include the total cost and proportionate share of general overhead and profit margin 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 the Contractor's option.
- 8) Schedule Updating: Update and resubmit the Schedule of Values prior to the next Applications for Payment when Change Orders or Construction Change Directives result in a change in the Contract Sum.

1.4 APPLICATIONS FOR PAYMENT: Use AIA Document G702 and Continuation Sheets G703 as the form for Applications for Payment.

1.4.1: No later than the 25<sup>th</sup> of each month, the Contractor shall submit to the Architect an itemized Application for Payment for operations completed in accordance with the schedule of values for that month. Such application shall be supported by such data substantiating the Contractor's right to payment as the Owner or Architect may require, such copies of requisitions from Subcontractors and material suppliers, and reflecting retainage if provided for in the Contract Documents. No Applications for Payment will be processed until the schedule of values is received and approved by Architect with concurrence from the Owner.

1.4.2: No Application for Payment may include more than:

1. Ninety-five percent (95%) of the scheduled value of any work requiring testing prior to testing and verification of testing by the Architect/Engineer to meeting requirements of the Contract Documents;
2. Ninety percent (90%) of the scheduled value for systems that include testing or balancing including, but not limited to, mechanical heating, air-conditioning and electrical distribution until testing, balancing or other verification required by the Contract Documents has been completed and verified as acceptable by the Architect/Engineer.

1.4.3: Such applications may not include requests for payment for portions of the Work for which the Contractor does not intend to pay to a Subcontractor or material supplier, unless such Work has been performed by others whom the Contractor intends to pay.

1.4.4: 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 into the Work. Any payments for such materials or equipment shall be conditioned upon the Contractor's demonstration that they are adequately protected from weather, damage, vandalism and theft and that such materials or equipment have been inventoried and stored in accordance with procedures established by or approved by the Owner. 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 and with sufficient Contractor provided insurance against loss, and with Owner named as co-insured, to cover the value of stored materials and their transport to the project.

1.4.5: 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 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, material suppliers and equipment relating to the Work. The Contractor additionally warrants that all As-Built drawings, inclusive of all trades, are accurate and current with completed Work covered by an Application for Payment.

## 1.5 CERTIFICATES FOR PAYMENT

1.5.1: Applications for Payment must be submitted to the Architect no later than the 25<sup>th</sup> of the month for which the application is being made. The Architect will review 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 reasons for withholding certification in whole or in part as provided in Subparagraph 1.6.1. In no event will the Owner accept or process a Certification for Payment after the 10<sup>th</sup> of the month following the month for which the application is being made. Certifications for Payment received after the 10<sup>th</sup> of the month "owner-cut-off-date" will be processed along with the following month's applications and will not be considered in default of Subparagraph 1.5.3.

1.5.2: 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 the Work has progressed to the point indicated and that, to the best of the Architect's knowledge, information and belief, the quality of the Work is in accordance with the Contract Documents and that As-Built drawings are current to actual Work completed. 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 Design Professional. The issuance of a Certificate for Payment will further constitute a representation that the Contractor is entitled to payment in the amount certified.

1.5.3: The Owner will issue payment to the Contractor in the amount certified in the approved Certificate for Payment within twenty-one (21) days from the end of the progress payment period which shall be the end of the month for which the Certificate of Payment is made. The seven (7) days allowed the Architect for review in Subparagraph 1.1.5 are partially included in the twenty-one (21) day period.

## 1.6 DECISIONS TO WITHHOLD CERTIFICATION

1.6.1: The Architect may withhold a Certificate for Payment and may assess Liquidated Damages in accordance with terms as set forth in the Bid Form, 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 Subparagraph 1.5.2 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 Subparagraph 1.5.

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 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 previously because of:

1. Defective Work not remedied;
2. Third party claims filed or reasonable evidence indicting 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 another contractor;
6. Reasonable evidence that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay; or
7. Persistent failure to carry out the Work in accordance with the Contract Documents.

1.6.2: When the above reasons for withholding certification are removed, certification will be made for amounts previously withheld.

1.7 PROGRESS PAYMENT: 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.

1.8 FINAL PAYMENT APPLICATION: Administrative actions and submittals that must precede or coincide with submittal of the final Application for Payment include the following:

1. Completion of Project closeout requirements.
2. Completion of items specified for completion after Substantial Completion.
3. Ensure that unsettled claims will be settled.
4. Ensure that incomplete Work is not accepted and will be completed without undue delay.
5. Transmittal of required Project construction records to the Owner.
6. Certified property survey.
7. Proof that taxes, fees, and similar obligations were paid.
8. Removal of temporary facilities and services.
9. Removal of surplus materials, rubbish, and similar elements.
10. Change of door locks to Owner's access.

## **2.0 PRODUCTS (Not Applicable)**

## **3.0 EXECUTION (Not Applicable)**

END OF SECTION 01027

## **01035 - MODIFICATION PROCEDURES**

### **1.0 GENERAL**

**1.1 RELATED DOCUMENTS:** 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**

**1.2.1:** This Section specifies administrative and procedural requirements for handling and processing contract modifications.

1. Multiple Prime Contracts: Provisions of this Section apply to the work of each prime contractor.

**1.2.2 Related Sections:** The following Sections contain requirements that relate to this Section:

1. Division 1 Section "Allowances" for procedural requirements governing the handling and processing of allowances.
2. Division 1 Section "Submittals" for requirements for the Contractor's Construction Schedule.
3. Division 1 Section "Applications for Payment" for administrative procedures governing Applications for Payment.
4. Division 1 Section "Product Substitutions" for administrative procedures for handling requests for substitutions made after award of the Contract.

**1.3 MINOR CHANGES IN THE WORK:** The Architect will issue supplemental instructions authorizing minor changes in the Work, not involving adjustment to the Contract Sum or Contract Time, on AIA Form G710, Architect's Supplemental Instructions.

### **1.4 CHANGE ORDER PROPOSAL REQUESTS**

**1.4.1 Owner-Initiated Proposal Requests:** The Architect will issue a detailed description of proposed changes in the Work that will require adjustment to the Contract Sum or Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications.

1. Proposal requests issued by the Architect are for information only. Do not consider them as an instruction either to stop work in progress or to execute the proposed change.
2. Within 20 days of receipt of a proposal request, submit an estimate of cost necessary to execute the change to the Architect for the Owner's review.
  - a. Include a list of quantities of products required and unit costs, with the total amount of purchases to be made. Where requested, furnish survey data to substantiate quantities.
  - b. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
  - c. Include a statement indicating the effect the proposed change in the Work will have on the Contract Time.

1.4.2 Contractor-Initiated Proposals: When latent or unforeseen conditions require modifications to the Contract, the Contractor may propose changes by submitting a request for a change to the Architect.

1. Include a statement outlining the 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 Contract Time.
2. Include a list of quantities of products required with the total amount of purchases to be made.
3. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
4. Comply with requirements in Section "Product Substitutions" if the proposed change requires substitution of one product or system for a product or system specified.

1.4.3 Proposal Request Form: Use AIA Document G709 for Change Order Proposal Requests.

1.4.4 Proposal Request Form: Use forms provided by the Owner for Change Order Proposals. Sample copies are included at the end of this Section.

## 1.5 ALLOWANCES

1.5.1 Allowance Adjustment: For allowance-cost adjustment, base each Change Order Proposal on the difference between the actual purchase amount and the allowance, multiplied by the final measurement of work-in-place. Where applicable, include reasonable allowances for cutting losses, tolerances, mixing wastes, normal product imperfections, and similar margins.

1. Include installation costs in the purchase amount only where indicated as part of the allowance.
2. When requested, prepare explanations and documentation to substantiate the margins claimed.
3. The Owner reserves the right to establish the actual quantity of work-in-place by independent quantity survey, measure, or count.

1.5.2: Submit claims for increased costs because of a change in scope or nature of the allowance described in the Contract Documents, whether for the purchase order amount or the Contractor's handling, labor, installation, overhead, and profit. Submit claims within 21 days of receipt of the Change Order or Construction Change Directive authorizing work to proceed. The Owner will reject claims submitted later than 21 days.

1. Do not include the Contractor's or subcontractor's indirect expense in the Change Order cost amount unless it is clearly shown that the nature or extent of work has changed from what could have been foreseen from information in Contract Documents.

2. No change to the Contractor's indirect expense is permitted for selection of higher or lower-priced materials or systems of the same scope and nature as originally indicated.

1.6 CHANGE ORDER PROCEDURES: Upon the Owner's approval of a Proposal Request, the Architect will issue a Change Order for signatures of the Owner and the Contractor on AIA Form G701.

**2.0 PRODUCTS** (Not Applicable)

**3.0 EXECUTION** (Not Applicable)

END OF SECTION 01035

## **01040 - COORDINATION**

### **1.0 GENERAL**

**1.1 RELATED DOCUMENTS:** 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**

**1.2.1:** This Section includes administrative and supervisory requirements necessary for coordinating construction operations including, but not necessarily limited to, the following:

1. General project coordination procedures.
2. Conservation.
3. Coordination Drawings.
4. Administrative and supervisory personnel.
5. Cleaning and protection.

**1.2.2 Related Sections:** The following Sections contain requirements that relate to this Section:

1. Division 1 Section "Project Meetings" for progress meetings, coordination meetings, and preinstallation conferences.
2. Division 1 Section "Submittals" for preparing and submitting the Contractor's Construction Schedule.
3. Division 1 Section "Materials and Equipment" for coordinating general installation.
4. Division 1 Section "Contract Closeout" for coordinating contract closeout.

### **1.3 COORDINATION**

**1.3.1:** Coordinate construction operations included in various Sections of these Specifications to assure efficient and orderly installation of each part of the Work. Coordinate construction operations included under different Sections that depend on each other for proper installation, connection, and operation.

1. Schedule construction operations in the sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
2. Coordinate installation of different components to assure maximum accessibility for required maintenance, service, and repair.
3. Make provisions to accommodate items scheduled for later installation.

**1.3.2:** Where necessary, prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and attendance at meetings.

1. Prepare similar memoranda for the Owner and separate contractors where coordination of their work is required.

1.3.3 Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and assure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:

1. Preparation of schedules.
2. Installation and removal of temporary facilities.
3. Delivery and processing of submittals.
4. Progress meetings.
5. Project closeout activities.

## 1.4 SUBMITTALS

1.4.1 Coordination Drawings: Prepare coordination drawings where careful coordination is needed for installation of products and materials fabricated by separate entities. Prepare coordination drawings where limited space availability necessitates maximum utilization of space for efficient installation of different components.

1. Show the relationship of components shown on separate Shop Drawings.
2. Indicate required installation sequences.
3. Comply with requirements contained in Section "Submittals."

1.4.2 Staff Names: Within 15 days of commencement of construction operations, submit a list of the Contractor's principal staff assignments, including the superintendent and other personnel in attendance at the Project Site. Identify individuals and their duties and responsibilities. List their addresses and telephone numbers.

1. Post copies of the list in the Project meeting room, the temporary field office, and each temporary telephone.

## **2.0 PRODUCTS (Not Applicable)**

## **3.0 EXECUTION**

### 3.1 GENERAL COORDINATION PROVISIONS

3.1.1 Inspection of Conditions: Require the Installer of each major component to inspect both the substrate and conditions under which Work is to be performed. Do not proceed until unsatisfactory conditions have been corrected in an acceptable manner.

3.1.2: Coordinate temporary enclosures with required inspections and tests to minimize the necessity of uncovering completed construction for that purpose.

### 3.2 CLEANING AND PROTECTION

3.2.1: Clean and protect construction in progress and adjoining materials in place, during handling and installation. Apply protective covering where required to assure protection from damage or deterioration at Substantial Completion.

3.2.2: Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to assure operability without damaging effects.

3.2.3 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.

END OF SECTION 01040

## **01200 - PROJECT MEETINGS**

### **1.0 GENERAL**

**1.1 RELATED DOCUMENTS:** 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**

**1.2.1:** This Section specifies administrative and procedural requirements for project meetings, including, but not limited to, the following:

1. Preconstruction conferences.
2. Preinstallation conferences.
3. Progress meetings.
4. Coordination meetings.

**1.2.2 Related Sections:** The following Sections contain requirements that relate to this Section:

1. Division 1 Section "Coordination" for procedures for coordinating project meetings with other construction activities.
2. Division 1 Section "Submittals" for submitting the Contractor's Construction Schedule.

### **1.3 PRECONSTRUCTION CONFERENCE**

**1.3.1:** Schedule a preconstruction conference before starting construction, at a time convenient to the Owner and the Architect, but no later than 15 days after execution of the Agreement. Hold the conference at the Project Site or another convenient location. Conduct the meeting to review responsibilities and personnel assignments.

**1.3.2 Attendees:** Authorized representatives of the Owner, Architect, and their consultants; the Contractor and its superintendent; major subcontractors; manufacturers; suppliers; and other concerned parties shall attend the conference. All participants at the conference shall be familiar with the Project and authorized to conclude matters relating to the Work.

**1.3.3 Agenda:** Discuss items of significance that could affect progress, including the following:

1. Tentative construction schedule.
2. Critical work sequencing.
3. Designation of responsible personnel.
4. Procedures for processing field decisions and Change Orders.
5. Procedures for processing Applications for Payment.
6. Distribution of Contract Documents.
7. Submittal of Shop Drawings, Product Data, and Samples.
8. Preparation of record documents.
9. Use of the premises.
10. Parking availability.

11. Office, work, and storage areas.
12. Equipment deliveries and priorities.
13. Safety procedures.
14. First aid.
15. Security.
16. Housekeeping.
17. Working hours.

#### 1.4 PROGRESS MEETINGS

1.4.1: Conduct progress meetings at the Project Site at regular intervals. Notify the Owner and the Architect of scheduled meeting dates. Coordinate dates of meetings with preparation of the payment request.

1.4.2 Attendees: In addition to representatives of the Owner and the Architect, each subcontractor, supplier, or 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 the Project and authorized to conclude matters relating to the Work.

1.4.3 Agenda: Review and correct or approve minutes of the previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to the status of the Project.

1. Contractor's Construction Schedule: Review progress since the last meeting. Determine where each activity is in relation to the Contractor's Construction Schedule, whether on time or ahead or behind schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to insure that current and subsequent activities will be completed within the Contract Time.
2. Review the present and future needs of each entity present, including the following:
  - a. Interface requirements.
  - b. Time.
  - c. Sequences.
  - d. Status of submittals
  - e. Deliveries.
  - f. Off-site fabrication problems.
  - g. Access.
  - h. Site utilization.
  - i. Temporary facilities and services.
  - j. Hours of work.
  - k. Hazards and risks.
  - l. Housekeeping.
  - m. Quality and work standards.
  - n. Change Orders.
  - o. Documentation of information for payment requests.

1.4.4 Reporting: No later than 3 days after each meeting, distribute minutes of the meeting to each party present and to parties who should have been present. Include a brief summary, in narrative form, of progress since the previous meeting and report.

1. Schedule Updating: Revise the Contractor's Construction Schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue the revised schedule concurrently with the report of each meeting.

## 1.5 COORDINATION MEETINGS

1.5.1: Conduct project coordination meetings at regular intervals convenient for all parties involved. Project coordination meetings are in addition to specific meetings held for other purposes, such as regular progress meetings and special preinstallation meetings.

1.5.2: Request representation at each meeting by every party currently involved in coordination or planning for the construction activities involved.

1.5.3: Record meeting results and distribute copies to everyone in attendance and to others affected by decisions or actions resulting from each meeting.

## 2.0 - PRODUCTS (Not Applicable)

## 3.0 - EXECUTION (Not Applicable)

END OF SECTION 01200

## **01300 - SUBMITTALS**

### **1.0 GENERAL**

**1.1 RELATED DOCUMENTS:** 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**

**1.2.1 Requirements:** This Section includes administrative and procedural requirements for submittals required for performance of the Work, including the following:

1. Contractor's construction schedule.
2. Submittal schedule.
3. Daily construction reports.
4. Shop Drawings.
5. Product Data.
6. Samples.
7. Quality assurance submittals.

**1.2.2 Administrative Submittals:** Refer to other Division 1 Sections and other Contract Documents for requirements for administrative submittals. Such submittals include, but are not limited to, the following:

1. Permits.
2. Applications for Payment.
3. Performance and payment bonds.
4. Insurance certificates.
5. List of subcontractors.

**1.2.3 Related Sections:** The following Sections contain requirements that relate to this Section:

1. Division 1 Section "Applications for Payment" specifies requirements for submittal of the Schedule of Values.
2. Division 1 Section "Coordination" specifies requirements governing preparation and submittal of required Coordination Drawings.
3. Division 1 Section "Project Meetings" specifies requirements for submittal and distribution of meeting and conference minutes.
4. Division 1 Section "Quality Control" specifies requirements for submittal of inspection and test reports.
5. Division 1 Section "Contract Closeout" specifies requirements for submittal of Project Record Documents and warranties at project closeout.

### 1.3 DEFINITIONS

1.3.1: Coordination Drawings show the relationship and integration of different construction elements that require careful coordination during fabrication or installation to fit in the space provided or to function as intended.

1. Preparation of Coordination Drawings is specified in Division 1 Section "Coordination" and may include components previously shown in detail on Shop Drawings or Product Data.

1.3.2 Samples: Field samples are full-size physical examples erected on-site to illustrate finishes, coatings, or finish materials. Field samples are used to establish the standard by which the Work will be judged.

1.3.3 Mockups: Mockups are full-size assemblies for review of construction, coordination, testing, or operation; they are not Samples.

### 1.4 SUBMITTAL PROCEDURES

1.4.1 Coordination: Coordinate preparation and processing of submittals with performance of construction activities. Transmit each submittal sufficiently in advance of performance of related construction activities to avoid delay.

1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
2. Coordinate transmittal of different types of submittals for related elements of the Work so processing will not be delayed by the need to review submittals concurrently for coordination.
  - a. The Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until all related submittals are received.

1.4.2 Processing: To avoid the need to delay installation as a result of the time required to process submittals, allow sufficient time for submittal review, including time for resubmittals.

1. Allow 2 weeks for initial review. Allow additional time if the Architect must delay processing to permit coordination with subsequent submittals.
2. If an intermediate submittal is necessary, process the same as the initial submittal.
3. Allow 2 weeks for reprocessing each submittal.
4. No extension of Contract Time will be authorized because of failure to transmit submittals to the Architect sufficiently in advance of the Work to permit processing.

1.4.3 Submittal Preparation: Place a permanent label or title block on each submittal for identification. Indicate the name of the entity that prepared each submittal on the label or title block.

1. Provide a space approximately 4 by 5 inches on the label or beside the title block on Shop Drawings to record the Contractor's review and approval markings and the action taken.
2. Include the following information on the label for processing and recording action taken.
  - a. Project name.
  - b. Date.
  - c. Name and address of the Architect.
  - d. Name and address of the Contractor.
  - e. Name and address of the subcontractor.
  - f. Name and address of the supplier.
  - g. Name of the manufacturer.
  - h. Number and title of appropriate Specification Section.
  - i. Drawing number and detail references, as appropriate.

1.4.4 Submittal Transmittal: Package each submittal appropriately for transmittal and handling. Transmit each submittal from the Contractor to the Architect using a transmittal form. The Architect will not accept submittals received from sources other than the Contractor.

1. On the transmittal, record relevant information and requests for data. On the form, or separate sheet, record deviations from Contract Document requirements, including variations and limitations. Include Contractor's certification that information complies with Contract Document requirements.
2. Transmittal Form: Use AIA Document G810.
3. Transmittal Form: Use the sample form at the end of this Section for transmittal of submittals.

## 1.5 CONTRACTOR'S CONSTRUCTION SCHEDULE

1.5.1 Bar-Chart Schedule: Prepare a fully developed, horizontal bar-chart-type, contractor's construction schedule. Submit within 30 days after the date established for "Commencement of the Work."

1. Provide a separate time bar for each significant construction activity. Provide a continuous vertical line to identify the first working day of each week. Use the same breakdown of units of the Work as indicated in the "Schedule of Values."
2. Within each time bar, indicate estimated completion percentage in 10 percent increments. As Work progresses, place a contrasting mark in each bar to indicate Actual Completion.
3. Prepare the schedule on a sheet, or series of sheets, of stable transparency, or other reproducible media, of sufficient width to show data for the entire construction period.

4. Secure time commitments for performing critical elements of the Work from parties involved. Coordinate each element on the schedule with other construction activities; include minor elements involved in the sequence of the Work. Show each activity in proper sequence. Indicate graphically the sequences necessary for completion of related portions of the Work.
5. Coordinate the Contractor's Construction Schedule with the Schedule of Values, list of subcontracts, Submittal Schedule, progress reports, payment requests, and other schedules.
6. Indicate completion in advance of the date established for Substantial Completion. Indicate Substantial Completion on the schedule to allow time for the Architect's procedures necessary for certification of Substantial Completion.

1.5.2 Phasing: On the schedule, show how requirements for phased completion to permit Work by separate Contractors and partial occupancy by the Owner affect the sequence of Work.

1.5.3 Work Stages: Indicate important stages of construction for each major portion of the Work, including submittal review, testing, and installation.

1.5.4 Area Separations: Provide a separate time bar to identify each major construction area for each major portion of the Work. Indicate where each element in an area must be sequenced or integrated with other activities.

1.5.5 Cost Correlation: At the head of the schedule, provide a cost correlation line, indicating planned and actual costs. On the line, show dollar volume of Work performed as of the dates used for preparation of payment requests.

1. Refer to Division 1 Section "Applications for Payment" for cost reporting and payment procedures.

1.5.6 Distribution: Following response to the initial submittal, print and distribute copies to the Architect, Owner, subcontractors, and other parties required to comply with scheduled dates. Post copies in the Project meeting room and temporary field office.

1. When revisions are made, distribute 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 construction activities.

1.5.7 Schedule Updating: Revise the schedule after each meeting, event, or activity where revisions have been recognized or made. Issue the updated schedule concurrently with the report of each meeting.

## 1.6 SUBMITTAL SCHEDULE

1.6.1 Schedule: After development and acceptance of the Contractor's Construction Schedule, prepare a complete schedule of submittals. Submit the schedule within 10 days of the date required for submittal of the Contractor's Construction Schedule.

1. Coordinate Submittal Schedule with the list of subcontracts, Schedule of Values, and the list of products as well as the Contractor's Construction Schedule.

2. Prepare the schedule in chronological order. Provide the following information:

- a. Scheduled date for the first submittal.
- b. Related Section number.
- c. Submittal category (Shop Drawings, Product Data, or Samples).
- d. Name of the subcontractor.
- e. Description of the part of the Work covered.
- f. Scheduled date for resubmittal.
- g. Scheduled date for the Architect's final release or approval.

1.6.2 Distribution: Following response to the initial submittal, print and distribute copies to the Architect, Owner, subcontractors, and other parties required to comply with submittal dates indicated. Post copies in the Project meeting room and field office.

1. When revisions are made, distribute 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 construction activities.

1.6.3 Schedule Updating: Revise the schedule after each meeting or activity where revisions have been recognized or made. Issue the updated schedule concurrently with the report of each meeting.

## 1.7 DAILY CONSTRUCTION REPORTS

1.7.1 Report: Prepare a daily construction report recording the following information concerning events at the site, and submit copy to the Architect at weekly intervals:

1. List of subcontractors at the site.
2. Approximate count of personnel at the site.
3. High and low temperatures, general weather conditions.
4. Accidents and unusual events.
5. Meetings and significant decisions.
6. Stoppages, delays, shortages, and losses.
7. Meter readings and similar recordings.
8. Emergency procedures.
9. Orders and requests of governing authorities.
10. Change Orders received, implemented.
11. Services connected, disconnected.
12. Equipment or system tests and startups.
13. Partial Completions, occupancies.
14. Substantial Completions authorized.

## 1.8 SHOP DRAWINGS

1.8.1 Submittal: Submit newly prepared information drawn accurately to scale. Highlight, encircle, or otherwise indicate deviations from the Contract Documents. Do not reproduce Contract Documents or copy standard information as the basis of Shop Drawings. Standard information prepared without specific reference to the Project is not a Shop Drawing.

1.8.2 Requirements: Shop Drawings include fabrication and installation Drawings, setting diagrams, schedules, patterns, templates and similar Drawings. Include the following information:

1. Dimensions.
2. Identification of products and materials included by sheet and detail number.
3. Compliance with specified standards.
4. Notation of coordination requirements.
5. Notation of dimensions established by field measurement.
6. 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 36 by 48 inches.
7. Initial Submittal: Submit one correctable, translucent, reproducible print and one blue- or black-line print for the Architect's review. The Architect will return the reproducible print.
8. Final Submittal: Submit 6 blue- or black-line prints. The Architect will retain 2 prints and return the remainder.
  - a. One of the prints returned shall be marked up and maintained as a "Record Document."
9. Do not use Shop Drawings without an appropriate final stamp indicating action taken.

## 1.9 PRODUCT DATA

1.9.1 Data: Collect Product Data into a single submittal for each element of construction or system. Product Data includes printed information, such as manufacturer's installation instructions, catalog cuts, standard color charts, roughing-in diagrams and templates, standard wiring diagrams, and performance curves.

1. Mark each copy to show applicable choices and options. Where printed Product Data includes information on several products that are not required, mark copies to indicate the applicable information. Include the following information:
  - a. Manufacturer's printed recommendations.
  - b. Compliance with trade association standards.
  - c. Compliance with recognized testing agency standards.
  - d. Application of testing agency labels and seals.
  - e. Notation of dimensions verified by field measurement.
  - f. Notation of coordination requirements.

1.9.2 Compliance: Do not submit Product Data until compliance with requirements of the Contract Documents has been confirmed.

1.9.3 Preliminary Submittal: Submit a preliminary single copy of Product Data where selection of options is required.

1.9.4 Submittals: Submit 6 copies of each required submittal. The Architect will retain two and will return the other marked with action taken and corrections or modifications required.

1.9.5 Distribution: Furnish copies of final submittal to installers, subcontractors, suppliers, manufacturers, fabricators, and others required for performance of construction activities. Show distribution on transmittal forms.

- a. Do not proceed with installation until a copy of Product Data is in the Installer's possession.
- b. Do not permit use of unmarked copies of Product Data in connection with construction.

## 1.10 SAMPLES

1.10.1 Requirements: Submit Samples for review of size, kind, color, pattern, and texture. Submit Samples for a final check of these characteristics with other elements and a comparison of these characteristics between the final submittal and the actual component as delivered and installed.

- a. Where variation in color, pattern, texture, or other characteristic is inherent in the material or product represented, submit at least 3 multiple units that show approximate limits of the variations.
- b. Refer to other Specification Sections for requirements for Samples that illustrate workmanship, fabrication techniques, details of assembly, connections, operation, and similar construction characteristics.
- c. Refer to other Sections for Samples to be returned to the Contractor for incorporation in the Work. Such Samples must be undamaged at time of use. On the transmittal, indicate special requests regarding disposition of Sample submittals.
- d. Samples not incorporated into the Work, or otherwise designated as the Owner's property, are the property of the Contractor and shall be removed from the site prior to Substantial Completion.

1.10.2 Preliminary Submittals: Submit a full set of choices where Samples are submitted for selection of color, pattern, texture, or similar characteristics from a range of standard choices.

- a. The Architect will review and return preliminary submittals with the Architect's notation, indicating selection and other action.

1.10.3 Submittals: Except for Samples illustrating assembly details, workmanship, fabrication techniques, connections, operation, and similar characteristics, submit 3 sets. The Architect will return one set marked with the action taken.

1.10.4 Samples: Maintain sets of Samples, as returned, at the Project Site, for quality comparisons throughout the course of construction.

- a. Unless noncompliance with Contract Document provisions is observed, the submittal may serve as the final submittal.
- b. Sample sets may be used to obtain final acceptance of the construction associated with each set.

1.10.5 Distribution of Samples: Prepare and distribute additional sets to subcontractors, manufacturers, fabricators, suppliers, installers, and others as required for performance of the Work. Show distribution on transmittal forms.

1. Field samples are full-size examples erected on-site to illustrate finishes, coatings, or finish materials and to establish the Project standard.
  - a. Comply with submittal requirements to the fullest extent possible. Process transmittal forms to provide a record of activity.

## 1.11 QUALITY ASSURANCE SUBMITTALS

1.11.1 Submit quality-control submittals: including design data, certifications, manufacturer's instructions, manufacturer's field reports, and other quality-control submittals as required under other Sections of the Specifications.

1.11.2 Certifications: Where other Sections of the Specifications require certification that a product, material, or installation complies with specified requirements, submit a notarized certification from the manufacturer certifying compliance with specified requirements.

1. Signature: Certification shall be signed by an officer of the manufacturer or other individual authorized to sign documents on behalf of the company.

1.11.3 Inspection and Test Reports: Requirements for submittal of inspection and test reports from independent testing agencies are specified in Division 1 Section "Quality Control."

## 1.12 ARCHITECT'S ACTION

1.12.1 Record: Except for submittals for the record or information, where action and return is required, the Architect will review each submittal, mark to indicate action taken, and return promptly.

1. Compliance with specified characteristics is the Contractor's responsibility.

1.12.2 Action Form: The Architect will mark each submittal with a uniform, action form. The Architect will mark the form appropriately to indicate the action taken, as follows:

1. Final Unrestricted Release: When the Architect marks a submittal "Approved," the Work covered by the submittal may proceed provided it complies with requirements of the Contract Documents. Final payment depends on that compliance.
2. Final-But-Restricted Release: When the Architect marks a submittal "Approved as Noted," the Work covered by the submittal may proceed provided it complies with notations or corrections on the submittal and requirements of the Contract Documents. Final payment depends on that compliance.

3. Returned for Resubmittal: When the Architect marks a submittal "Not Approved, Revise and Resubmit," do not proceed with Work covered by the submittal, including purchasing, fabrication, delivery, or other activity. Revise or prepare a new submittal according to the notations; resubmit without delay. Repeat if necessary to obtain different action mark.

a. Do not use, or allow others to use, submittals marked "Not Approved, Revise and Resubmit" at the Project Site or elsewhere where Work is in progress.

4. Other Action: Where a submittal is for information or record purposes or special processing or other activity, the Architect will return the submittal marked "Action Not Required."

1.12.3 Unsolicited Submittals: The Architect will return unsolicited submittals to the sender without action.

## **2.0 PRODUCTS (Not Applicable)**

## **3.0 EXECUTION (Not Applicable)**

END OF SECTION 01300

## **01400 - QUALITY CONTROL**

### **1.0 GENERAL**

**1.1 RELATED DOCUMENTS:** 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**

**1.2.1 Administration:** This Section includes administrative and procedural requirements for quality-control services.

**1.2.2 Inspection:** Quality-control services include inspections, tests, and related actions, including reports performed by Contractor, by independent agencies, and by governing authorities. They do not include contract enforcement activities performed by Architect.

**1.2.3 Testing:** Inspection and testing services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with Contract Document requirements.

**1.2.4 Requirements:** Requirements of this Section relate to customized fabrication and installation procedures, not production of standard products.

1. Specific quality-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 inspections, tests, and related actions do not limit Contractor's quality-control procedures that facilitate compliance with Contract Document requirements.
3. Requirements for Contractor to provide quality-control services required by Architect, Owner, or authorities having jurisdiction are not limited by provisions of this Section.

**1.2.5 Related Sections:** The following Sections contain requirements that relate to this Section:

1. Division 1 Section "Cutting and Patching" specifies requirements for repair and restoration of construction disturbed by inspection and testing activities.
2. Division 1 Section "Submittals" specifies requirements for development of a schedule of required tests and inspections.

### 1.3 RESPONSIBILITIES

1.3.1 Contractor Responsibilities: Unless otherwise indicated as the responsibility of another identified entity, Contractor shall provide inspections, tests, and other quality-control services specified elsewhere in the Contract Documents and required by authorities having jurisdiction. Costs for these services are included in the Contract Sum.

1. Where individual Sections specifically indicate that certain inspections, tests, and other quality-control services are the Contractor's responsibility, the Contractor shall employ and pay a qualified independent testing agency to perform quality-control services. Costs for these services are included in the Contract Sum.
2. Where individual Sections specifically indicate that certain inspections, tests, and other quality-control services are the Owner's responsibility, the Owner will employ and pay a qualified independent testing agency to perform those services.
3. Where individual Sections specifically indicate that certain inspections, tests, and other quality-control services are the Owner's responsibility, the Owner will engage the services of a qualified independent testing agency to perform those services.
  - a. Where the Owner has engaged a testing agency for testing and inspecting part of the Work, and the Contractor is also required to engage an entity for the same or related element, the Contractor shall not employ the entity engaged by the Owner, unless agreed to in writing by the Owner.

1.3.2 Retesting: The Contractor is responsible for retesting where results of inspections, tests, or other quality-control services prove unsatisfactory and indicate noncompliance with Contract Document requirements, regardless of whether the original test was Contractor's responsibility.

1. The cost of retesting construction, revised or replaced by the Contractor, is the Contractor's responsibility where required tests performed on original construction indicated noncompliance with Contract Document requirements.

1.3.3 Associated Services: Cooperate with agencies performing required inspections, tests, and similar services, and provide reasonable auxiliary services as requested. Notify the agency sufficiently in advance of operations to permit assignment of personnel. Auxiliary services required include, but are not limited to, the following:

1. Provide access to the Work.
2. Furnish incidental labor and facilities necessary to facilitate inspections and tests.
3. Take adequate quantities of representative samples of materials that require testing or assist the agency in taking samples.
4. Provide facilities for storage and curing of test samples.
5. Deliver samples to testing laboratories.
6. Provide the agency with a preliminary design mix proposed for use for materials mixes that require control by the testing agency.
7. Provide security and protection of samples and test equipment at the Project Site.

1.3.4 Duties of the Testing Agency: The independent agency engaged to perform inspections, sampling, and testing of materials and construction specified in individual Sections shall cooperate with the Architect and the Contractor in performance of the agency's duties. The testing agency shall provide qualified personnel to perform required inspections and tests.

1. The agency shall notify the Architect and the Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
2. The agency is not authorized to release, revoke, alter, or enlarge requirements of the Contract Documents or approve or accept any portion of the Work.
3. The agency shall not perform any duties of the Contractor.

1.3.5 Coordination: Coordinate the sequence of activities to accommodate required services with a minimum of delay. Coordinate activities to avoid the necessity of removing and replacing construction to accommodate inspections and tests.

1. The Contractor is responsible for scheduling times for inspections, tests, taking samples, and similar activities.

## 1.4 SUBMITTALS

1.4.1 Report: Unless the Contractor is responsible for this service, the independent testing agency shall submit a certified written report, in duplicate, of each inspection, test, or similar service to the Architect. If the Contractor is responsible for the service, submit a certified written report, in duplicate, of each inspection, test, or similar service through the Contractor.

1. Submit additional copies of each written report directly to the governing authority, when the authority so directs.
2. Report Data: Written reports of each inspection, test, or similar service include, but are not limited to, the following:
  - a. Date of issue.
  - b. Project title and number.
  - c. Name, address, and telephone number of testing agency.
  - d. Dates and locations of samples and tests or inspections.
  - e. Names of individuals making the inspection or test.
  - f. Designation of the Work and test method.
  - g. Identification of product and Specification Section.
  - h. Complete inspection or test data.
  - i. Test results and an interpretation of test results.
  - j. Ambient conditions at the time of sample taking and testing.
  - k. Comments or professional opinion on whether inspected or tested Work complies with Contract Document requirements.
  - l. Name and signature of laboratory inspector.
  - m. Recommendations on retesting.

**1.5 QUALITY ASSURANCE:** Qualifications for Service Agencies: Engage inspection and testing service agencies, including independent testing laboratories, that are prequalified as complying with the American Council of Independent Laboratories' "Recommended Requirements for Independent Laboratory Qualification" and that specialize in the types of inspections and tests to be performed.

1. Each independent inspection and testing agency engaged on the Project shall be authorized by authorities having jurisdiction to operate in the state where the Project is located.

## **2.0 PRODUCTS (Not Applicable)**

## **3.0 EXECUTION**

### **3.1 REPAIR AND PROTECTION**

**3.1.1 General:** Upon completion of inspection, testing, sample taking and similar services, repair damaged construction and restore substrates and finishes. Comply with Contract Document requirements for Division 1 Section "Cutting and Patching."

**3.1.2 Protection:** Protect construction exposed by or for quality-control service activities, and protect repaired construction.

**3.1.3 Repair and protection:** Contractor's responsibility, regardless of the assignment of responsibility for inspection, testing, or similar services.

END OF SECTION 01400

## **01500 - CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS**

### **1.0 GENERAL**

**1.1 RELATED DOCUMENTS:** 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**

**1.2.1 Requirements:** This Section includes requirements for construction facilities and temporary controls, including temporary utilities, support facilities, and security and protection.

**1.2.2 Temporary utilities include, but are not limited to, the following:**

1. Water service and distribution.
2. Temporary electric power and light.
3. Temporary heat.
4. Ventilation.
5. Telephone service.
6. Sanitary facilities, including drinking water.
7. Storm and sanitary sewer.

**1.2.3 Support facilities include, but are not limited to, the following:**

1. Field offices and storage sheds.
2. Temporary roads and paving.
3. Temporary enclosures.
4. Hoists and temporary elevator use.
5. Temporary project identification signs and bulletin boards.
6. Waste disposal services.
7. Rodent and pest control.
8. Construction aids and miscellaneous services and facilities.

**1.2.4 Security and protection facilities include, but are not limited to, the following:**

1. Temporary fire protection.
2. Barricades, warning signs, and lights.
3. Enclosure fence for the site.
4. Environmental protection.

### **1.3 SUBMITTALS**

**1.3.1 Temporary Utilities:** Submit reports of tests, inspections, meter readings, and similar procedures performed on temporary utilities.

**1.3.2 Implementation and Termination Schedule:** Within 15 days of the date established for commencement of the Work, submit a schedule indicating implementation and termination of each temporary utility.

## 1.4 QUALITY ASSURANCE

1.4.1 Regulations: Comply with industry standards and applicable laws and regulations of authorities having jurisdiction including, but not limited to, the following:

1. Building code requirements.
2. Health and safety regulations.
3. Utility company regulations.
4. Police, fire department, and rescue squad rules.
5. Environmental protection regulations.

1.4.2 Standards: Comply with NFPA 241 "Standard for Safeguarding Construction, Alterations, and Demolition Operations," ANSI A10 Series standards for "Safety Requirements for Construction and Demolition," and NECA Electrical Design Library "Temporary Electrical Facilities."

1. Electrical Service: Comply with NEMA, NECA, and UL standards and regulations for temporary electric service. Install service in compliance with NFPA 70 "National Electric Code."

1.4.3 Inspections: Arrange for authorities having jurisdiction to inspect and test each temporary utility before use. Obtain required certifications and permits.

## 1.5 PROJECT CONDITIONS

1.5.1 Temporary Utilities: Prepare a schedule indicating dates for implementation and termination of each temporary utility. At the earliest feasible time, when acceptable to the Owner, change over from use of temporary service to use of permanent service.

1.5.2 Conditions of Use: Keep temporary services and facilities clean and neat in appearance. Operate in a safe and efficient manner. Relocate temporary services and facilities as the Work progresses. Do not overload facilities or permit them to interfere with progress. Take necessary fire-prevention measures. Do not allow hazardous, dangerous, or unsanitary conditions, or public nuisances to develop or persist on-site.

## 2.0 PRODUCTS

### 2.1 MATERIALS

2.1.1 General: Provide new materials. If acceptable to the Architect, the Contractor may use undamaged, previously used materials in serviceable condition. Provide materials suitable for use intended.

2.1.2 Lumber and Plywood: Comply with requirements in Division 6 Section "Rough Carpentry."

2.1.3 Gypsum Wallboard: Provide gypsum wallboard on interior walls of temporary offices.

2.1.4 Roofing Materials: Provide UL Class A standard-weight asphalt shingles or UL Class C mineral-surfaced roll roofing on roofs of job-built temporary offices, shops, and sheds.

2.1.5 Paint: Comply with requirements of Division 9 Section "Painting."

2.1.6 Tarpaulins: Provide waterproof, fire-resistant, UL-labeled tarpaulins with flame-spread rating of 15 or less. For temporary enclosures, provide translucent, nylon-reinforced, laminated polyethylene or polyvinyl chloride, fire-retardant tarpaulins.

2.1.7 Water: Provide potable water approved by local health authorities.

2.1.8 Open-Mesh Fencing: Provide 0.120-inch- (3-mm-) thick, galvanized 2-inch (50-mm) chain link fabric fencing 6 feet (2 m) high with galvanized barbed-wire top strand and galvanized steel pipe posts, 1-1/2 inches (38 mm) I.D. for line posts and 2-1/2 inches (64 mm) I.D. for corner posts.

## 2.2 EQUIPMENT

2.2.1 General: Provide new equipment. If acceptable to the Architect, the Contractor may use undamaged, previously used equipment in serviceable condition. Provide equipment suitable for use intended.

2.2.2 Water Hoses: Provide 3/4-inch (19-mm), heavy-duty, abrasion-resistant, flexible rubber hoses 100 feet (30 m) long, with pressure rating greater than the maximum pressure of the water distribution system. Provide adjustable shutoff nozzles at hose discharge.

2.2.3 Electrical Outlets: Provide properly configured, NEMA-polarized outlets to prevent insertion of 110- to 120-Volt plugs into higher voltage outlets. Provide receptacle outlets equipped with ground-fault circuit interrupters, reset button, and pilot light for connection of power tools and equipment.

2.2.4 Electrical Power Cords: Provide grounded extension cords. Use hard-service cords where exposed to abrasion and traffic. Provide waterproof connectors to connect separate lengths of electric cords if single lengths will not reach areas where construction activities are in progress. Do not exceed safe length-voltage ratio.

2.2.5 Lamps and Light Fixtures: Provide general service incandescent lamps of wattage required for adequate illumination. Provide guard cages or tempered-glass enclosures where exposed to breakage. Provide exterior fixtures where exposed to moisture.

2.2.6 Heating Units: Provide temporary heating units that have been tested and labeled by UL, FM, or another recognized trade association related to the type of fuel being consumed.

2.2.7 Temporary Offices: Provide prefabricated or mobile units or similar job-built construction with lockable entrances, operable windows, and serviceable finishes. Provide heated and air-conditioned units on foundations adequate for normal loading.

2.2.8 Temporary Toilet Units: Provide self-contained, single-occupant toilet units of the chemical, aerated recirculation, or combustion type. Provide units properly vented and fully enclosed with a glass-fiber-reinforced polyester shell or similar nonabsorbent material.

2.2.9 Fire Extinguishers: Provide hand-carried, portable, UL-rated, Class A fire extinguishers for temporary offices and similar spaces. In other locations, provide hand-carried, portable, UL-rated, Class ABC, dry-chemical extinguishers or a combination of extinguishers of NFPA-recommended classes for the exposures.

1. Comply with NFPA 10 and NFPA 241 for classification, extinguishing agent, and size required by location and class of fire exposure.

### **3.0 EXECUTION**

#### **3.1 INSTALLATION**

3.1.1 Use qualified personnel for installation of temporary facilities. Locate facilities where they will serve the Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required.

3.1.2 Provide each facility ready for use when needed to avoid delay. Maintain and modify as required. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

#### **3.2 TEMPORARY UTILITY INSTALLATION**

3.2.1 General: Engage the appropriate local utility company to install temporary service or connect to existing service. Where company provides only part of the service, provide the remainder with matching, compatible materials and equipment. Comply with company recommendations.

1. Use Charges: Cost or use charges for temporary facilities are not chargeable to the Owner or Architect. Neither the Owner nor Architect will accept cost or use charges as a basis of claims for Change Orders.

3.2.2 Water Service: Install water service and distribution piping of sizes and pressures adequate for construction until permanent water service is in use.

1. Sterilization: Sterilize temporary water piping prior to use.

3.2.3 Temporary Electric Power Service: Provide weatherproof, grounded electric power service and distribution system of sufficient size, capacity, and power characteristics during construction period. Include meters, transformers, overload-protected disconnects, automatic ground-fault interrupters, and main distribution switch gear.

3.2.4 Temporary Lighting: When overhead floor or roof deck has been installed, provide temporary lighting with local switching.

1. Install and operate temporary lighting that will fulfill security and protection requirements without operating the entire system. Provide temporary lighting that will provide adequate illumination for construction operations and traffic conditions.

3.2.5 Temporary Heat: Provide temporary heat required by construction activities for curing or drying of completed installations or for protection of installed construction from adverse effects of low temperatures or high humidity. Select safe equipment that will not have a harmful effect on completed installations or elements being installed. Coordinate ventilation requirements to produce the ambient condition required and minimize consumption of energy.

3.2.6 Heating Facilities: Except where the Owner authorizes use of the permanent system, provide vented, self-contained, LP-gas or fuel-oil heaters with individual space thermostatic control.

1. Use of gasoline-burning space heaters, open flame, or salamander heating units is prohibited.

3.2.7 Temporary Telephones: Provide temporary telephone service throughout the construction period for all personnel engaged in construction activities.

3.2.8 Facilities: Sanitary facilities include temporary toilets, wash facilities, and drinking-water fixtures. Comply with regulations and health codes for the type, number, location, operation, and maintenance of fixtures and facilities. Install where facilities will best serve the Project's needs.

1. Provide toilet tissue, paper towels, paper cups, and similar disposable materials for each facility. Provide covered waste containers for used material.

3.2.9 Toilets: Install self-contained toilet units. Shield toilets to ensure privacy. Use of pit-type privies will not be permitted. Provide separate facilities for male and female personnel.

3.2.10 Drinking-Water Facilities: Provide containerized, tap-dispenser, bottled-water drinking-water units, including paper supply.

3.2.11 Barriers: Provide earthen embankments and similar barriers in and around excavations and subgrade construction, sufficient to prevent flooding by runoff of storm water from heavy rains.

### 3.3 SUPPORT FACILITIES INSTALLATION

3.3.1 Location: Locate field offices, storage sheds, and other temporary construction and support facilities for easy access.

1. Maintain support facilities until near Substantial Completion. Remove prior to Substantial Completion. Personnel remaining after Substantial Completion will be permitted to use permanent facilities, under conditions acceptable to the Owner.

3.3.2 Field Offices: Provide insulated, weathertight temporary offices of sufficient size to accommodate required office personnel at the Project Site. Keep the office clean and orderly for use for small progress meetings. Furnish and equip offices as follows:

1. Furnish with a desk and chairs, a 4-drawer file cabinet, plan table, plan rack.

3.3.3 Project Identification and Temporary Signs: Prepare project identification and other signs of size indicated. Install signs where indicated to inform the public and persons seeking entrance to the Project. Support on posts or framing of preservative-treated wood or steel. Do not permit installation of unauthorized signs.

1. Project Identification Signs: Engage an experienced sign painter to apply graphics. Comply with details indicated.
2. Temporary Signs: Prepare signs to provide directional information to construction personnel and visitors.

3.3.4 Temporary Exterior Lighting: Install exterior yard and sign lights so signs are visible when Work is being performed.

3.3.5 Collection and Disposal of Waste: Collect waste from construction areas and elsewhere daily. Comply with requirements of NFPA 241 for removal of combustible waste material and debris. Enforce requirements strictly. Do not hold materials more than 7 days during normal weather or 3 days when the temperature is expected to rise above 80 deg F (27 deg C). Handle hazardous, dangerous, or unsanitary waste materials separately from other waste by containerizing properly. Dispose of material lawfully.

3.3.6 Rodent and Pest Control: Before deep foundation work has been completed, retain a local exterminator or pest control company to recommend practices to minimize attraction and harboring of rodents, roaches, and other pests. Employ this service to perform extermination and control procedures at regular intervals so the Project will be free of pests and their residues at Substantial Completion. Perform control operations lawfully, using environmentally safe materials.

## 3.4 SECURITY AND PROTECTION FACILITIES INSTALLATION

3.4.1 Temporary Facilities: Except for use of permanent fire protection as soon as available, do not change over from use of temporary security and protection facilities to permanent facilities until Substantial Completion, or longer, as requested by the Architect.

3.4.2 Barricades, Warning Signs, and Lights: Comply with standards and code requirements for erection of structurally adequate barricades. Paint with appropriate colors, graphics, and warning signs to inform personnel and the public of the hazard being protected against. Where appropriate and needed, provide lighting, including flashing red or amber lights.

3.4.3 Enclosure Fence: Before excavation begins, install an enclosure fence with lockable entrance gates. Locate where indicated, or enclose the entire site or the portion determined sufficient to accommodate construction operations. Install in a manner that will prevent people, dogs, and other animals from easily entering the site, except by the entrance gates.

1. Provide open-mesh, chain link fencing with posts set in a compacted mixture of gravel and earth.

3.4.4 Environmental Protection: Provide protection, operate temporary facilities, and conduct construction in ways and by methods that comply with environmental regulations, and minimize the possibility that air, waterways, and subsoil might be contaminated or polluted or that other undesirable effects might result. Avoid use of tools and equipment that produce harmful noise. Restrict use of noise-making tools and equipment to hours that will minimize complaints from persons or firms near the site.

### 3.5 OPERATION, TERMINATION, AND REMOVAL

3.5.1 Supervision: Enforce strict discipline in use of temporary facilities. Limit availability of temporary facilities to essential and intended uses to minimize waste and abuse.

3.5.2 Maintenance: Maintain facilities in good operating condition until removal. Protect from damage by freezing temperatures and similar elements.

3.5.3 Termination and Removal: Unless the Architect requests that it be maintained longer, remove each temporary facility when the need has ended, when 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 the temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.

END OF SECTION 01500

## **01600 - MATERIALS AND EQUIPMENT**

### **1.0 GENERAL**

**1.1 RELATED DOCUMENTS:** 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**

**1.2.1 Requirements:** This Section includes administrative and procedural requirements governing the Contractor's selection of products for use in the Project.

1. Multiple Prime Contracts: Provisions of this Section apply to the construction activities of each prime contractor.

**1.2.2 Related Sections:** The following Sections contain requirements that relate to this Section:

1. Division 1 Section "Reference Standards and Definitions" specifies the applicability of industry standards to products specified.
2. Division 1 Section "Submittals" specifies requirements for submittal of the Contractor's Construction Schedule and the Submittal Schedule.
3. Division 1 Section "Substitutions" specifies administrative procedures for handling requests for substitutions made after award of the Contract.

### **1.3 DEFINITIONS**

**1.3.1 Wording:** Definitions used in this Article are not intended to change the meaning of other terms used in the Contract Documents, such as "specialties," "systems," "structure," "finishes," "accessories," and similar terms. Such terms are self-explanatory and have well-recognized meanings in the construction industry.

1. "Products" are items purchased for incorporation in the Work, whether purchased for the Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
  - a. "Named Products" are items identified by the manufacturer's product name, including make or model number or other designation, shown or listed in the manufacturer's published product literature, that is current as of the date of the Contract Documents.
  - b. "Foreign Products," as distinguished from "domestic products," are items substantially manufactured (50 percent or more of value) outside the United States and its possessions. Products produced or supplied by entities substantially owned (more than 50 percent) by persons who are not citizens of, nor living within, the United States and its possessions are also considered to be foreign products.
2. "Materials" are products substantially shaped, cut, worked, mixed, finished, refined or otherwise fabricated, processed, or installed to form a part of the work.
3. "Equipment" is a product with operational parts, whether motorized or manually operated, that requires service connections, such as wiring or piping.

## 1.4 SUBMITTALS

1.4.1 Product List: A list of products required is included at the end of this Section. Prepare a schedule in tabular form showing each product listed. Include the manufacturer's name and proprietary product names for each item listed.

1.4.2 Product List: Prepare a list showing products specified in tabular form acceptable to the Architect. Include generic names of products required. Include the manufacturer's name and proprietary product names for each item listed.

1. Coordinate product list with the Contractor's Construction Schedule and the Schedule of Submittals.
2. Form: Prepare product list with information on each item tabulated under the following column headings:
  - a. Related Specification Section number.
  - b. Generic name used in Contract Documents.
  - c. Proprietary name, model number, and similar designations.
  - d. Manufacturer's name and address.
  - e. Supplier's name and address.
  - f. Installer's name and address.
  - g. Projected delivery date or time span of delivery period.
3. Initial Submittal: Within 30 days after date of commencement of the Work, submit 3 copies of an initial product list. Provide a written explanation for omissions of data and for known variations from Contract requirements.
  - a. At the Contractor's option, the initial submittal may be limited to product selections and designations that must be established early in the Contract period.
4. Completed List: Within 60 days after date of commencement of the Work, submit three (3) copies of the completed product list. Provide a written explanation for omissions of data and for known variations from Contract requirements.
5. Architect's Action: The Architect will respond in writing to Contractor within 2 weeks of receipt of the completed product list. No response within this period constitutes no objection to listed manufacturers or products but does not constitute a waiver of the requirement that products comply with Contract Documents. The Architect's response will include a list of unacceptable product selections, containing a brief explanation of reasons for this action.

## 1.5 QUALITY ASSURANCE

1.5.1 Source Limitations: To the fullest extent possible, provide products of the same kind from a single source.

1. When specified products are available only from sources that do not, or cannot, produce a quantity adequate to complete project requirements in a timely manner, consult with the Architect to determine the most important product qualities before proceeding. Qualities may include attributes, such as visual appearance, strength, durability, or compatibility. When a determination has been made, select products from sources producing products that possess these qualities, to the fullest extent possible.

1.5.2 Compatibility of Options: When the Contractor is given the option of selecting between 2 or more products for use on the Project, the product selected shall be compatible with products previously selected, even if previously selected products were also options.

1. Each prime contractor is responsible for providing products and construction methods that are compatible with products and construction methods of other prime or separate contractors.
2. If a dispute arises between prime contractors over concurrently selectable, but incompatible products, the Architect will determine which products shall be retained and which are incompatible and must be replaced.

1.5.3 Foreign Product Limitations: Except under one or more of the following conditions, provide domestic products, not foreign products, for inclusion in the Work:

1. No available domestic product complies with the Contract Documents.
2. Domestic products that comply with the Contract Documents are available only at prices or terms substantially higher than foreign products that comply with the Contract Documents.

1.5.4 Nameplates: Except for required labels and operating data, do not attach or imprint manufacturer's or producer's nameplates or trademarks on exposed surfaces of products that will be exposed to view in occupied spaces or on the exterior.

1. Labels: Locate required product labels and stamps on concealed surfaces or, where required for observation after installation, on accessible surfaces that are not conspicuous.
2. Equipment Nameplates: Provide a permanent nameplate on each item of service-connected or power-operated equipment. Locate on an easily accessible surface that is inconspicuous in occupied spaces. The nameplate shall contain the following information and other essential operating data:
  - a. Name of product and manufacturer.
  - b. Model and serial number.
  - c. Capacity.
  - d. Speed.
  - e. Ratings.

**1.6 PRODUCT DELIVERY, STORAGE, AND HANDLING:** Deliver, store, and handle products according to the manufacturer's recommendations, using means and methods that will prevent damage, deterioration, and loss, including theft.

1. Schedule delivery to minimize long-term storage at the site and to prevent overcrowding of construction spaces.
2. Coordinate delivery with installation time to assure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
3. Deliver products to the site in an undamaged condition in the manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
4. Inspect products upon delivery to ensure compliance with the Contract Documents and to ensure that products are undamaged and properly protected.
5. Store products at the site in a manner that will facilitate inspection and measurement of quantity or counting of units.
6. Store heavy materials away from the Project structure in a manner that will not endanger the supporting construction.
7. Store products subject to damage by the elements above ground, under cover in a weathertight enclosure, with ventilation adequate to prevent condensation. Maintain temperature and humidity within range required by manufacturer's instructions.

## **2.0 PRODUCTS**

### **2.1 PRODUCT SELECTION**

**2.1.1 General Product Requirements:** Provide products that comply with the Contract Documents, that are undamaged and, unless otherwise indicated, new at the time of installation.

1. Provide products complete with accessories, trim, finish, safety guards, and other devices and details needed for a complete installation and the intended use and effect.
2. Standard Products: Where available, provide standard products of types that have been produced and used successfully in similar situations on other projects.

**2.1.2 Product Selection Procedures:** The Contract Documents and governing regulations govern product selection. Procedures governing product selection include the following:

1. Proprietary Specification Requirements: Where Specifications name only a single product or manufacturer, provide the product indicated. No substitutions will be permitted.
2. Semipropriety Specification Requirements: Where Specifications name 2 or more products or manufacturers, provide 1 of the products indicated. No substitutions will be permitted.
  - a. Where Specifications specify products or manufacturers by name, accompanied by the term "or equal" or "or approved equal," comply with the Contract Document provisions concerning "substitutions" to obtain approval for use of an unnamed product.

3. Nonproprietary Specifications: When Specifications list products or manufacturers that are available and may be incorporated in the Work, but do not restrict the Contractor to use of these products only, the Contractor may propose any available product that complies with Contract requirements. Comply with Contract Document provisions concerning "substitutions" to obtain approval for use of an unnamed product.
4. Descriptive Specification Requirements: Where Specifications describe a product or assembly, listing exact characteristics required, with or without use of a brand or trade name, provide a product or assembly that provides the characteristics and otherwise complies with Contract requirements.
5. Performance Specification Requirements: Where Specifications require compliance with performance requirements, provide products that comply with these requirements and are recommended by the manufacturer for the application indicated.
  - a. Manufacturer's recommendations may be contained in published product literature or by the manufacturer's certification of performance.
6. Compliance with Standards, Codes, and Regulations: Where Specifications only require compliance with an imposed code, standard, or regulation, select a product that complies with the standards, codes, or regulations specified.
7. Visual Matching: Where Specifications require matching an established Sample, the Architect's decision will be final on whether a proposed product matches satisfactorily.
  - a. Where no product available within the specified category matches satisfactorily and complies with other specified requirements, comply with provisions of the Contract Documents concerning "substitutions" for selection of a matching product in another product category.
7. Visual Selection: Where specified product requirements include the phrase "... as selected from manufacturer's standard colors, patterns, textures ..." or a similar phrase, select a product and manufacturer that complies with other specified requirements. The Architect will select the color, pattern, and texture from the product line selected.

### **3.0 EXECUTION**

**3.1 INSTALLATION OF PRODUCTS:** Comply with manufacturer's instructions and recommendations for installation of products in the applications indicated. Anchor each product securely in place, accurately located and aligned with other Work.

1. Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.

END OF SECTION 01600

## **01631 - SUBSTITUTIONS**

### **1.0 - GENERAL**

**1.1 RELATED DOCUMENTS:** 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**

**1.2.1 Requirements:** This Section includes administrative and procedural requirements for handling requests for substitutions made after award of the Contract.

1. Multiple Prime Contracts: Provisions of this Section apply to the construction activities of each prime contractor.

**1.2.2 Related Sections:** The following Sections contain requirements that relate to this Section:

1. Division 1 Section "Reference Standards and Definitions" specifies the applicability of industry standards to products specified.
2. Division 1 Section "Submittals" specifies requirements for submitting the Contractor's Construction Schedule and the Submittal Schedule.
3. Division 1 Section "Materials and Equipment" specifies requirements governing the Contractor's selection of products and product options.

**1.3 DEFINITIONS:** Definitions in this Article do not change or modify the meaning of other terms used in the Contract Documents.

**1.3.1 Substitutions:** Changes in products, materials, equipment, and methods of construction required by the Contract Documents proposed by the Contractor after award of the Contract are considered to be requests for substitutions. The following are not considered to be requests for substitutions:

1. Substitutions requested during the bidding period, and accepted by Addendum prior to award of the Contract, are included in the Contract Documents and are not subject to requirements specified in this Section for substitutions.
2. Revisions to the Contract Documents requested by the Owner or Architect.
3. Specified options of products and construction methods included in the Contract Documents.
4. The Contractor's determination of and compliance with governing regulations and orders issued by governing authorities.

**1.4 SUBMITTALS:** Substitution Request Submittal: The Architect will consider requests for substitution if received within 7 days after commencement of the Work. Requests received more than 7 days after commencement of the Work may be considered or rejected at the discretion of the Architect.

**1.4.1:** Submit 3 copies of each request for substitution for consideration. Submit requests in the form and according to procedures required for change-order proposals.

1.4.2: Identify the product or the fabrication or installation method to be replaced in each request. Include related Specification Section and Drawing numbers.

1.4.3: Provide complete documentation showing compliance with the requirements for substitutions, and the following information, as appropriate:

1. Coordination information, including a list of changes or modifications needed to other parts of the Work and to construction performed by the Owner and separate contractors, that will be necessary to accommodate the proposed substitution.
2. A detailed comparison of significant qualities of the proposed substitution with those of the Work specified. Significant qualities may include elements, such as performance, weight, size, durability, and visual effect.
3. Product Data, including Drawings and descriptions of products and fabrication and installation procedures.
4. Samples, where applicable or requested.
5. A statement indicating the substitution's effect on the Contractor's Construction Schedule compared to the schedule without approval of the substitution. Indicate the effect of the proposed substitution on overall Contract Time.
6. Cost information, including a proposal of the net change, if any in the Contract Sum.
7. The Contractor's certification that the proposed substitution conforms to requirements in the Contract Documents in every respect and is appropriate for the applications indicated.
8. The Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of the failure of the substitution to perform adequately.

1.4.4 Architect's Action: If necessary, the Architect will request additional information or documentation for evaluation within one week of receipt of a request for substitution. The Architect will notify the Contractor of acceptance or rejection of the substitution within 2 weeks of receipt of the request, or one week of receipt of additional information or documentation, whichever is later. Acceptance will be in the form of a change order.

1. Use the product specified if the Architect cannot make a decision on the use of a proposed substitute within the time allocated.

## **2.0 PRODUCTS**

### **2.1 SUBSTITUTIONS**

2.1.1 Conditions: The Architect will receive and consider the Contractor's request for substitution when one or more of the following conditions are satisfied, as determined by the Architect. If the following conditions are not satisfied, the Architect will return the requests without action except to record noncompliance with these requirements.

1. Extensive revisions to the Contract Documents are not required.
2. Proposed changes are in keeping with the general intent of the Contract Documents.
3. The request is timely, fully documented, and properly submitted.

4. The specified product or method of construction cannot be provided within the Contract Time. The Architect will not consider the request if the product or method cannot be provided as a result of failure to pursue the Work promptly or coordinate activities properly.
5. The request is directly related to an "or-equal" clause or similar language in the Contract Documents.
6. The requested substitution offers the Owner a substantial advantage, in cost, time, energy conservation, or other considerations, after deducting additional responsibilities the Owner must assume. The Owner's additional responsibilities may include compensation to the Architect for redesign and evaluation services, increased cost of other construction by the Owner, and similar considerations.
7. The specified product or method of construction cannot receive necessary approval by a governing authority, and the requested substitution can be approved.
8. The specified product or method of construction cannot be provided in a manner that is compatible with other materials and where the Contractor certifies that the substitution will overcome the incompatibility.
9. The specified product or method of construction cannot be coordinated with other materials and where the Contractor certifies that the proposed substitution can be coordinated.
10. The specified product or method of construction cannot provide a warranty required by the Contract Documents and where the Contractor certifies that the proposed substitution provides the required warranty.
11. Where a proposed substitution involves more than one prime contractor, each contractor shall cooperate with the other contractors involved to coordinate the Work, provide uniformity and consistency, and assure compatibility of products.

2.2.2 The Contractor's submittal and the Architect's acceptance of Shop Drawings: Product Data, or Samples for construction activities not complying with the Contract Documents do not constitute an acceptable or valid request for substitution, nor do they constitute approval.

### **3.0 EXECUTION (Not Applicable)**

END OF SECTION 01631

## **01700 - CONTRACT CLOSEOUT**

### **1.0 GENERAL**

**1.1 RELATED DOCUMENTS:** 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**

**1.2.1:** This Section includes administrative and procedural requirements for contract closeout including, but not limited to, the following:

1. Inspection procedures.
2. Project record document submittal.
3. Operation and maintenance manual submittal.
4. Submittal of warranties.
5. Final cleaning.

**1.2.2:** Closeout requirements for specific construction activities are included in the appropriate Sections in Divisions 2 through 16.

### **1.3 SUBSTANTIAL COMPLETION**

**1.3.1 Preliminary Procedures:** Before requesting inspection for certification of Substantial Completion, complete the following.

1. In the Application for Payment that coincides with, the date Substantial Completion is claimed, show 100 percent completion for the portion of the Work claimed as substantially complete.
  - a. Include supporting documentation for completion as indicated in these Contract Documents and a statement showing an accounting of changes to the Contract Sum.
  - b. If 100 percent completion cannot be shown, include a list of incomplete items, the value of incomplete construction, and reasons the Work is not complete.
2. Advise the Owner of pending insurance changeover requirements.
3. Submit specific warranties, workmanship bonds, maintenance agreements, final certifications, and similar documents.
4. Obtain and submit releases enabling the Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
5. Submit record drawings, maintenance manuals, final project photographs, damage or settlement surveys, property surveys, and similar final record information.
6. Deliver tools, spare parts, extra stock, and similar items.
7. Make final changeover of permanent locks and transmit keys to the Owner. Advise the Owner's personnel of changeover in security provisions.

8. Complete startup testing of systems and instruction of the Owner's operation and maintenance personnel. Discontinue and remove temporary facilities from the site, along with mockups, construction tools, and similar elements.
9. Complete final cleanup requirements, including touchup painting.
10. Touch up and otherwise repair and restore marred, exposed finishes.

1.3.2 Inspection Procedures: On receipt of a request for inspection, the Architect will either proceed with inspection or advise the Contractor of unfilled requirements. The Architect will prepare the Certificate of Substantial Completion following inspection or advise the Contractor of construction that must be completed or corrected before the certificate will be issued.

1. The Architect will repeat inspection when requested and assured that the Work is substantially complete.
2. Results of the completed inspection will form the basis of requirements for final acceptance.

#### 1.4 FINAL ACCEPTANCE

1.4.1 Preliminary Procedures: Before requesting final inspection for certification of final acceptance and final payment, complete the following.

1. Submit the final payment request with releases and supporting documentation not previously submitted and accepted. Include insurance certificates for products and completed operations where required.
2. Submit an updated final statement, accounting for final additional changes to the Contract Sum.
3. Submit a certified copy of the Architect's final inspection list of items to be completed or corrected, endorsed and dated by the Architect. The certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance and shall be endorsed and dated by the Architect.
4. Submit consent of surety to final payment.
5. Submit a final liquidated damages settlement statement.
6. Submit evidence of final, continuing insurance coverage complying with insurance requirements.

1.4.2 Reinspection Procedure: The Architect will reinspect the Work upon receipt of notice that the Work, including inspection list items from earlier inspections, has been completed, except for items whose completion is delayed under circumstances acceptable to the Architect.

1. Upon completion of reinspection, the Architect will prepare a certificate of final acceptance. If the Work is incomplete, the Architect will advise the Contractor of Work that is incomplete or of obligations that have not been fulfilled but are required for final acceptance.
2. If necessary, reinspection will be repeated.

#### 1.5 RECORD DOCUMENT SUBMITTALS

1.5.1 General: Do not use record documents for construction purposes. Protect record documents from deterioration and loss in a secure, fire-resistant location. Provide access to record documents for the Architect's reference during normal working hours.

1.5.2 Record Drawings: Maintain a clean, undamaged set of blue line white-prints of Contract Drawings and Shop Drawings. Mark the set to show the actual installation where the installation varies substantially from the Work as originally shown.

1. Mark record sets with red erasable pencil.
2. Mark new information that is important to the Owner but was not shown on Contract Drawings or Shop Drawings.
3. Note related change-order numbers where applicable.
4. Organize record drawing sheets into manageable sets. Bind sets with durable-paper cover sheets; print suitable titles, dates, and other identification on the cover of each set.

1.5.3 Record Specifications: Maintain one complete copy of the Project Manual, including addenda. Include with the Project Manual one copy of other written construction documents, such as Change Orders and modifications issued in printed form during construction.

1. Mark these documents to show substantial variations in actual Work performed in comparison with the text of the Specifications and modifications.
2. Give particular attention to substitutions and selection of options and information on concealed construction that cannot otherwise be readily discerned later by direct observation.
3. Note related record drawing information and Product Data.
4. Upon completion of the Work, submit record Specifications to the Architect for the Owner's records.

1.5.4 Record Product Data: Maintain one copy of each Product Data submittal. Note related Change Orders and markup of record drawings and Specifications.

1. Mark these documents to show significant variations in actual Work performed in comparison with information submitted. Include variations in products delivered to the site and from the manufacturer's installation instructions and recommendations.
2. Give particular attention to concealed products and portions of the Work that cannot otherwise be readily discerned later by direct observation.
3. Upon completion of markup, submit complete set of record Product Data to the Architect for the Owner's records.

1.5.5 Record Sample Submitted: Immediately prior to Substantial Completion, the Contractor shall meet with the Architect and the Owner's personnel at the Project Site to determine which Samples are to be transmitted to the Owner for record purposes. Comply with the Owner's instructions regarding delivery to the Owner's Sample storage area.

1.5.6 Miscellaneous Record Submittals: Refer to other Specification Sections for requirements of miscellaneous record keeping and submittals in connection with actual performance of the Work. Immediately prior to the date or dates of Substantial Completion, complete miscellaneous records and place in good order. Identify miscellaneous records properly and bind or file, ready for continued use and reference. Submit to the Architect for the Owner's records.

**1.5.7 Maintenance Manuals:** Organize operation and maintenance data into suitable sets of manageable size. Bind properly indexed data in individual, heavy-duty, 2-inch (51-mm), 3-ring, vinyl-covered binders, with pocket folders for folded sheet information. Mark appropriate identification on front and spine of each binder. Include the following types of information:

1. Emergency instructions.
2. Spare parts list.
3. Copies of warranties.
4. Wiring diagrams.
5. Recommended "turn-around" cycles.
6. Inspection procedures.
7. Shop Drawings and Product Data.
8. Fixture lamping schedule.

## **2.0 PRODUCTS (Not Applicable)**

## **3.0 EXECUTION**

### **3.1 CLOSEOUT PROCEDURES**

**3.1.1 Operation and Maintenance Instructions:** Arrange for each Installer of equipment that requires regular maintenance to meet with the Owner's personnel to provide instruction in proper operation and maintenance. Provide instruction by manufacturer's representatives if installers are not experienced in operation and maintenance procedures. Include a detailed review of the following items:

1. Maintenance manuals.
2. Record documents.
3. Spare parts and materials.
4. Tools.
5. Lubricants.
6. Fuels.
7. Identification systems.
8. Control sequences.
9. Hazards.
10. Cleaning.
11. Warranties and bonds.
12. Maintenance agreements and similar continuing commitments.

**3.1.2 Demonstrate:** As part of instruction for operating equipment, demonstrate the following procedures:

1. Startup.
2. Shutdown.
3. Emergency operations.
4. Noise and vibration adjustments.
5. Safety procedures.
6. Economy and efficiency adjustments.
7. Effective energy utilization.

## 3.2 FINAL CLEANING

3.2.1 General: The General Conditions require general cleaning during construction. Regular site cleaning is included in Division 1 Section "Construction Facilities and Temporary Controls."

3.2.2 Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to the condition expected in a normal, commercial building cleaning and maintenance program. Comply with manufacturer's instructions.

1. Complete the following cleaning operations before requesting inspection for Certification of Substantial Completion.
  - a. Remove labels that are not permanent labels.
  - b. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other substances that are noticeable vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials.
  - c. Clean exposed exterior and interior hard-surfaced finishes to a dust-free condition, free of stains, films, and similar foreign substances. Restore reflective surfaces to their original condition. Leave concrete floors broom clean. Vacuum carpeted surfaces.
  - d. Wipe surfaces of mechanical and electrical equipment. Remove excess lubrication and other substances. Clean plumbing fixtures to a sanitary condition. Clean light fixtures and lamps.
  - e. Clean the site, including landscape development areas, of rubbish, litter, and other foreign substances. Sweep paved areas broom clean; remove stains, spills, and other foreign deposits. Rake grounds that are neither paved nor planted to a smooth, even-textured surface.

3.2.3 Removal of Protection: Remove temporary protection and facilities installed for protection of the Work during construction.

3.2.4 Compliance: Comply with regulations of authorities having jurisdiction and safety standards for cleaning. Do not burn waste materials. Do not bury debris or excess materials on the Owner's property. Do not discharge volatile, harmful, or dangerous materials into drainage systems. Remove waste materials from the site and dispose of lawfully.

1. Where extra materials of value remain after completion of associated Work, they become the Owner's property. Dispose of these materials as directed by the Owner.

END OF SECTION 01700

## **01740 - WARRANTIES**

### **1.0 GENERAL**

**1.1 RELATED DOCUMENTS:** 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**

**1.2.1 Requirements:** This Section includes administrative and procedural requirements for warranties required by the Contract Documents, including manufacturers standard warranties on products and special warranties.

1. Refer to the General Conditions for terms of the Contractor's period for correction of the Work.

**1.2.2 Related Sections:** The following Sections contain requirements that relate to this Section:

1. Division 1 Section "Submittals" specifies procedures for submitting warranties.
2. Division 1 Section "Contract Closeout" specifies contract closeout procedures.
3. Divisions 2 through 16 Sections for specific requirements for warranties on products and installations specified to be warranted.
4. Certifications and other commitments and agreements for continuing services to Owner are specified elsewhere in the Contract Documents.

**1.2.3 Disclaimers and Limitations:** Manufacturer's disclaimers and limitations on product warranties do not relieve the Contractor of the warranty on the Work that incorporates the products. Manufacturer's disclaimers and limitations on product warranties do not relieve suppliers, manufacturers, and subcontractors required to countersign special warranties with the Contractor.

**1.2.4 Separate Prime Contracts:** Each prime contractor is responsible for warranties related to its own contract.

### **1.3 DEFINITIONS**

**1.3.1 Standard product warranties:** Are to be preprinted written warranties published by individual manufacturers for particular products and are specifically endorsed by the manufacturer to the Owner.

**1.3.2 Special warranties:** Are written warranties required by or incorporated in the Contract Documents, either to extend time limits provided by standard warranties or to provide greater rights for the Owner.

### **1.4 WARRANTY REQUIREMENTS**

**1.4.1 Related Damages and Losses:** When correcting failed or damaged warranted construction, remove and replace construction that has been damaged as a result of such failure or must be removed and replaced to provide access for correction of warranted construction.

1.4.2 Reinstatement of Warranty: When Work covered by a warranty has failed and been corrected by replacement or rebuilding, reinstate the warranty by written endorsement. The reinstated warranty shall be equal to the original warranty with an equitable adjustment for depreciation.

1.4.3 Replacement Cost: Upon determination that Work covered by a warranty has failed, replace or rebuild the Work to an acceptable condition complying with requirements of the Contract Documents. The Contractor is responsible for the cost of replacing or rebuilding defective Work regardless of whether the Owner has benefited from use of the Work through a portion of its anticipated useful service life.

1.4.4 Owner's Recourse: Expressed warranties made to the Owner are in addition to implied warranties and shall not limit the duties, obligations, rights, and remedies otherwise available under the law. Expressed warranty periods shall not be interpreted as limitations on the time in which the Owner can enforce such other duties, obligations, rights, or remedies.

1. Rejection of Warranties: The Owner reserves the right to reject warranties and to limit selection to products with warranties not in conflict with requirements of the Contract Documents.

1.4.5 Special Warranties: Where the Contract Documents require a special warranty, or similar commitment on the Work or part of the Work, the Owner reserves the right to refuse to accept the Work, until the Contractor presents evidence that entities required to countersign such commitments are willing to do so.

## 1.5 SUBMITTALS

1.5.1 Written Warranties: Submit written warranties to the Architect prior to the date certified for Substantial Completion.

1. When a designated portion of the Work is completed and occupied or used by the Owner, by separate agreement with the Contractor during the construction period, submit properly executed warranties to the Architect within 15 days of completion of that designated portion of the Work.

1.5.2 Special Warranties: When the Contract Documents require the Contractor, or the Contractor and a subcontractor, supplier or manufacturer to execute a special warranty, prepare a written document that contains appropriate terms and identification, ready for execution by the required parties. Submit a draft to the Owner, through the Architect, for approval prior to final execution.

1.5.3 Form of Submittal: At Final Completion compile 2 copies of each required warranty properly executed by the Contractor, or by the Contractor, subcontractor, supplier, or manufacturer. Organize the warranty documents into an orderly sequence based on the table of contents of the Project Manual.

1.5.4 Binding: Bind warranties and bonds in heavy-duty, commercial-quality, durable 3-ring, vinyl-covered loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch paper.

1. Provide heavy paper dividers with celluloid covered tabs for each separate warranty. Mark the tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product, and the name, address, and telephone number of the Installer.
2. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project title or name, and name of the Contractor.
3. When warranted construction requires operation and maintenance manuals, provide additional copies of each required warranty, as necessary, for inclusion in each required manual.

## **2.0 PRODUCTS (Not Applicable)**

## **3.0 EXECUTION:**

### **3.1 LIST OF WARRANTIES**

**3.1.1 Schedule:** Provide warranties on products and installations as specified.

END OF SECTION 01740

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# DIVISION 7

# MOISTURE PROTECTION

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## **07010 GENERAL**

**1.0 GENERAL CONDITIONS:** Each item, including all labor, equipment and incidentals shall be provided in accordance therein. Where specific items are called for by name, make, or catalog number, such reference shall be interpreted as establishing a standard quality and not construed as limiting competition; and the Contractor may at his option, use any article, device, product, material, fixture, form or type of construction which in the judgment of the Architect, submitted in writing, is equal to that specified.

**1.1 Scope:** The material and work required under this section consists of all roofing, insulation, waterproofing, roof accessories, sealants, caulking and related items necessary to complete the work indicated on the Drawings and described in the Specifications.

**1.2 Submittals:** Shop drawings and/or samples are required in accordance with Paragraph 1.1, Section 01300 of Division 1. Submit request for all changes in writing and do not proceed until authorized.

**1.3 Tentative Approvals Prior to Bidding:** Prior approvals to be in accordance with Paragraph 1.0, Section 01631 Division 1.

**1.4 Quality Assurance:** The following must be submitted to the architect to determine their acceptability before pre-construction roofing conference.

**1.4.1 Manufacturer's Product Literature:** A copy of the primary roofing manufacturer's current publication applicable to the membrane system proposed for use on this project shall be provided to the architect.

**1.4.2 Other Product Literature:** A copy of other material manufacturer's product literature shall be provided as requested.

**1.4.3 Contractor's Qualifications:** The roofing contractor must show evidence that they are approved applicators by the manufacturers of the roofing materials as specified and are qualified licensed contractors in the state of New Mexico.

**1.4.4 Single Manufacturer:** All materials in so far as practical are to be provided by the membrane manufacturers so as to establish complete single source responsibility.

**1.5 Project Conditions:** The contractor will provide a written detailed method at the pre-construction conference outlining safety procedures and showing designated work areas for hoists, chutes, crane and buckets. Follow all local, state, federal regulations and safety standard codes.

**1.5.1 Storage Areas:** Confine equipment, storage of materials and debris, and the operations and movements of workmen within limits as indicated or as directed by the Architect.

**2.0 MATERIALS:** NOT USED.

**3.0 EXECUTION:** NOT USED.

END OF SECTION 07010

## **07900 JOINT SEALERS**

### **1.0 GENERAL:**

1.1 Scope: Throughout the work, caulk and seal all joints where shown on the Drawings, and elsewhere, as required to provide a positive barrier against passage of moisture.

1.2 Qualifications of Manufacturers: Products used in the work of this Section shall be produced by manufacturers regularly engaged in manufacture of similar items, and with a history of successful production acceptable to the Architect.

1.3 Qualifications of Installers: Proper caulking and proper installation of sealants require that Installers be thoroughly trained and experienced in the necessary skills, and thoroughly familiar with the specified requirements. For caulking and installation of sealants throughout the work, use only personnel who have been specifically trained in such procedures and who are completely familiar with the joint details shown on the Drawings, and the installation requirements called for in this Section.

1.4 Delivery and Storage: Deliver all materials of this Section to the jobsite in the original, unopened containers with all labels intact and legible at time of use. Store only under conditions recommended by the manufacturers. Do not retain on the jobsite any material which has exceeded the shelf life recommended by its manufacturer.

### **2.0 MATERIALS:**

2.1 Sealants: Except as specifically otherwise directed by the Architect, use only the type of sealants described in this Article.

2.1.1 Colors: For exposed materials provide color as indicated, or if not indicated, as selected by Architect from manufacturer's standard colors. For concealed materials, provide the natural color which has the best overall performance characteristics.

2.1.2 Hardness: As recommended by manufacturer for application shown, unless otherwise indicated.

2.1.3 Modulus of Elasticity: Provide the lowest available modulus of elasticity which is consistent with exposure to weathering, indentation, vandalism, abrasion, support of loading and other requirements.

2.1.4 Compatibility: Before purchase of each required material, confirm its compatibility with each other material it will be exposed to in the joint system.

2.1.5 Grade of Sealant: For each application, provide the grade of sealant (non-sag, self-leveling, no track, knife-grade, performed, etc.), as recommended by the manufacturer for the particular conditions of installation (location, joint shape, ambient temperature and similar conditions), to achieve the best possible overall performance. Grades specified herein are for normal conditions of installation.

2.1.6 Exterior Elastomeric Sealants: Silicone rubber sealant, silicone rubber-based, one-part elastomeric sealant, complying with FS TT-S-001543, Class 4; recommended by manufacturer for exterior joints. Provide non-acid type wherever one or both joint faces are masonry, stone, concrete or other porous materials.

Provide acid-type wherever both joint faces are metal, glass, plastic or other non-porous material.

2.1.7 Exterior Polyurethane Sealant: Dymeric, a three-part epoxidized polyurethane Tremco developed sealant, is to be used. Dymeric is a high performance sealant designed for dynamically moving building joints and horizontal joints. It withstands movement up to 40% in extension and 25 % in compression. Formulated from a unique Tremco developed polymer, it exhibits unusual inherent adhesion and adheres to many building materials. It is low modulus; excellent weather resistance; ideal for wide joints.

The caulking is to meet TT-S-00227E, Type 11, Class A, 19-GP-24 Specifications, and is to have a 20 year life expectancy. All surfaces to be dry, sound, and well brushed, free of dust. Where backstop is required, insert an approved material in the joint cavity to the depth required. For caulking and installation of sealants, use only personnel who have been specifically trained in the procedure, and who are completely familiar with joint details shown on the Drawings.

2.1.8 Interior Silicone Rubber Sealant: Silicone rubber-based, one-part elastomeric sealant, complying with FS TT-S-001543, Class A; compounded specifically for mildew resistance and recommended by manufacturer for interior joints in wet areas; acid type for non-porous joint surfaces and non-acid type where one or both joint surfaces are porous.

2.1.9 Caulking Compound: Synthetic resin caulking compound – oil based caulking compound complying with FS TT-C-598, except compounded only with special synthetic resins, non-staining, non-bleeding, paintable.

2.2 Primers: Use only those primers which are non-staining, have been tested for durability on the surfaces to be sealed, and are specifically recommended for this installation by the manufacturer of the sealant used.

2.3 Backup Materials: Use only those backup materials which are specifically recommended for this installation by the manufacturer of the sealant used, and which are non-absorbent and non-staining.

2.3.1 Joint Fillers: Bituminous and fiber joint filler: provide resilient and non-extruding type premolded bituminous impregnated fiberboard units complying with ASTM-D-1751, FS HH-F-341, Type 1 and AASHTO-M-213.

2.3.2 Gaskets: Molded PVC Gasket (MPVCG): Provide flexible extruded polyvinyl gaskets of the profile shown, or if not shown, as required by the joint shape, size and movement characteristics to maintain a watertight and airtight seal, complying with ASTM-D-2287, equal to Progress Unlimited Plasti-Grip #B-3.

2.3.3 Oakum Joint Filler (OHF): Provide untreated hemp or jute fiber rope, free of oil, tar and other compounds which may stain surfaces, contaminate joints, walls, or not be compatible with sealants.

2.3.4 Joint Primer/Sealer: Provide the type of joint primer/sealer recommended by the sealant manufacturer for the joint surfaces to be primed or sealed.

2.3.5 Bond Breaker Tape: Polyethylene tape or other plastic tape as recommended by the sealant manufacturer to be applied to sealant contact surfaces where bond to the substrate or joint filler must be avoided for proper performance of sealant. Provide self-adhesive tape wherever applicable.

### **3.0 EXECUTION:**

3.1 Inspection: Examine the areas and conditions under which work of the Section will be performed. Correct conditions detrimental to the proper and timely completion of the work. Do not proceed until unsatisfactory conditions have been corrected.

#### **3.2 Preparation:**

3.2.1 Concrete and Ceramic Tile Surfaces: All surfaces in contact with sealant shall be dry, sound, well-brushed and wiped free from dust. Use solvent to remove oil and grease, wiping the surfaces with clean rags. Where surfaces have been treated, remove the surface treatment by use of sandblasting or wire brushing. Remove all laitance and mortar from the joint cavity to the depth required.

3.2.2 Steel Surfaces: Steel surfaces in contact with sealant shall be sandblasted, if sandblasting would not be practical or would damage adjacent finish, the metal shall be scrapped or wire-brushed to remove mill scale. Use solvent to remove oil and grease, wiping the surfaces with clean rags. Remove protective coatings on steel by sandblasting or by a solvent that leaves no residue.

3.2.3 Aluminum Surfaces: Aluminum surfaces in contact with sealant shall be cleaned of temporary protective coatings, dirt, oil and grease. When masking tape is used for a protective cover, remove the tape just prior to applying the sealant. Use only such solvents to remove protective coatings as are recommended for that purpose by the manufacturer of the aluminum work, and which are nonstaining.

3.3 Installation of Backup Material: Use only the backup material recommended by the manufacturer of the sealant and approved by the Architect for the particular installation, compressing the backup material 25% to 50% to secure a positive and secure fit. When using backup of tube or rod stock, avoid lengthwise stretching of the material. Do not twist or braid hose or rod backup stock.

3.4 Priming: Use only the primer recommended by the manufacturer of the sealant and approved by the Architect for the particular installation. Apply the primer in strict accordance with the manufacturer's recommendations as approved by the Architect.

3.5 Bond Breaker Installation: Install an approved bond breaker where recommended by the manufacturer of the sealant, and where directed by the Architect, adhering strictly to the installation recommendations as approved by the Architect.

### 3.6 Installation of Sealants:

3.6.1 General: Prior to start of installation in each joint, verify the joint type according to the details in the Drawings, and verify that the required proportion of width of joint to depth of joint has been secured.

3.6.2 Equipment: Apply sealant under pressure with hand or power-actuated gun, or other appropriate means. Guns shall have nozzle of proper size and shall provide sufficient pressure to completely fill joints as designed.

3.6.3 Masking: Thoroughly and completely mask all joints where the appearance of sealant on adjacent surfaces would be objectionable.

3.6.4 Installation of Sealant: Install the sealant in strict accordance with the manufacturer's recommendations as approved by the Architect, thoroughly filling all joints to the recommended depth.

3.6.5 Tooling: Tool all joints to the profile shown on the Details in the Drawings.

3.6.6 Clean-Up: Remove masking tape immediately after joints have been tooled. Clean adjacent surfaces free from sealant as the installation progresses. Use solvent or cleaning agent as recommended by the sealant manufacturer.

3.7 Guarantee: All materials and workmanship furnished by the Sealant and Caulking Contractor shall be guaranteed for a period of one year from completion date, and on written demand by the Architect within this period, any defective materials or workmanship shall be replaced or corrected by Caulking Contractor at his expense.

END OF SECTION 07900

**END OF DIVISION**

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## DIVISION 8

## DOORS, WINDOWS AND GLASS

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### **08010 GENERAL**

**1.0 GENERAL CONDITIONS:** The "General Conditions," Document A201, apply to all work of this section. Each item, including all labor, equipment and incidentals shall be provided in accordance therein. Where specific items are called for by name, make, or catalog number, such reference shall be interpreted as establishing a standard quality and not construed as limiting competition; and the Contractor may at his option, use any article, device, product, material, fixture, form or type of construction which in the judgment of the Architect, submitted in writing, is equal to that specified.

**1.1 Scope:** This section of the Specifications is intended to cover all necessary materials, labor and equipment for the fabrication and installation of all hollow metal frames, hollow metal doors, wood doors, aluminum windows, hardware, weatherstripping, glass glazing and caulking as specified herein.

**1.2 Submittals:** Shop drawings and/or samples are required in accordance with Paragraph 1.1, Section 01300 of Division 1.

**1.3 Tentative Approvals Prior to Bidding:** Prior approvals to be in accordance with Paragraph 1.0, Section 01350 of Division 1.

END OF SECTION 08010

## **08450 TRANSLUCENT WALL ASSEMBLIES**

### **1.0 - GENERAL**

#### 1.01 Summary

- A. Section includes the insulated translucent sandwich panel system and accessories, factory unitized, as shown and specified. Work includes providing and installing:
  - 1. Flat factory prefabricated structural insulated translucent sandwich panels
  - 2. Aluminum installation system
  - 3. Aluminum sill flashing
  - 4. Thermal break windows
- B. Related Sections:
  - 1. Sealants: Section 07900
  - 2. Glazing: Section 08800

#### 1.02 Submittals

- A. Submit manufacturer's product data. Include construction details, material descriptions, profiles and finishes of components.
- B. Submit shop drawings. Include elevations and details.
- C. Submit manufacturer's color charts showing the full range of colors available for factory-finished aluminum.
  - 1. When requested, submit samples for each exposed finish required, in same thickness and material indicated for the work and in size indicated below. If finishes involve normal color variations, include sample sets consisting of two or more units showing the full range of variations expected.
    - a. Sandwich panels: 14" x 28" units
    - b. Factory finished aluminum: 5" long sections
- D. Submit Installer Certificate, signed by installer, certifying compliance with project qualification requirements.
- E. Submit product reports from a qualified independent testing agency indicating each type and class of panel system complies with the project performance requirements, based on comprehensive testing of current products. Previously completed reports will be acceptable if for current manufacturer and indicative of products used on this project.
  - 1. Reports required are:
    - a. International Building Code Evaluation Report
    - b. Flame Spread and Smoke Developed (UL 723) – Submit UL Card
    - c. Burn Extent (ASTM D 635)
    - d. Color Difference (ASTM D 2244)
    - e. Impact Strength (UL 972)
    - f. Bond Tensile Strength (ASTM C 297 after aging by ASTM D 1037)
    - g. Bond Shear Strength (ASTM D 1002)
    - h. Beam Bending Strength (ASTM E 72)
    - i. Insulation U-Factor (NFRC 100)
    - j. NFRC System U-Factor Certification (NFRC 700)
    - k. Solar Heat Gain Coefficient (NFRC or Calculations)
    - l. Condensation Resistance Factor (AAMA 1503)
    - m. Air Leakage (ASTM E 283)
    - n. Structural Performance (ASTM E 330)
    - o. Water Penetration (ASTM E 331)

- p. 1200°F Fire Resistance (SWRI)
- q. Daylight simulation prepared by manufacturer

### 1.3 Quality Assurance

#### A. Manufacturer's Qualifications

1. Material and products shall be manufactured by a company continuously and regularly employed in the manufacture of specified materials for a period of at least ten consecutive years and which can show evidence of those materials being satisfactorily used on at least six projects of similar size, scope and location. At least three of the projects shall have been in successful use for ten years or longer.
2. Panel system must be listed by an ANSI accredited Evaluation Service, which requires quality control inspections and fire, structural and water infiltration testing of sandwich panel systems by an accredited agency.
3. Quality control inspections shall be conducted at least once each year and shall include manufacturing facilities, sandwich panel components and production sandwich panels for conformance with AC177 "Translucent Fiberglass Reinforced Plastic (FRP) Faced Panel Wall, Roof and Skylight Systems" as issued by the ICC-ES.

- B. Installer's Qualifications: Installation shall be by an experienced installer, which has been in the business of installing specified panel systems for at least two consecutive years and can show evidence of satisfactory completion of projects of similar size, scope and type.

### 1.4 Performance Requirements

- A. The manufacturer shall be responsible for the configuration and fabrication of the complete unitized panel system.
1. When requested, include structural analysis data signed and sealed by the qualified professional engineer responsible for their preparation.
  2. Standard panel system shall have less than 0.01 cfm/ft<sup>2</sup> air leakage by ASTM E 283 at 6.24 PSF (50 mph) and no water penetration by ASTM E 331 at 15 PSF; and structural testing by ASTM E 330.
  3. Structural Loads; Provide system capable of handling the following loads:
    - a. Positive Wind Load: 13.54 PSF
    - b. Negative Wind Load: -17.3 PSF

### 1.5 Delivery Storage And Handling

- A. Deliver panel system, components and materials in manufacturer's standard protective packaging.
- B. Store panels on the long edge; several inches above the ground, blocked and under cover in accordance with manufacturer's storage and handling instructions.

### 1.6 Warranty

- A. Submit manufacturer's and installer's written warranty agreeing to repair or replace panel system work, which fails in materials or workmanship within five years of the date of delivery. Failure of materials or workmanship shall include leakage, excessive deflection, deterioration of finish on metal in excess of normal weathering, defects in accessories, insulated translucent sandwich panels and other components of the work.

## **2.0 PRODUCTS**

### **2.1 Manufacturer**

- A. The basis for this specification is for products manufactured by Kalwall Corporation. Other manufacturers may bid this project provided they comply with all of the performance requirements of this specification and submit evidence thereof. Listing other manufacturers' names in this specification does not constitute approval of their products or relieve them of compliance with all the performance requirements contained herein.
- B. Kalwall Corporation, Tel: (800) 258-9777 – Fax: (603) 627-7905 – Email: [info@kalwall.com](mailto:info@kalwall.com)

### **2.2 Panel Components**

#### **A. Face Sheets**

- 1. Translucent faces: Manufactured from glass fiber reinforced thermoset resins, formulated specifically for architectural use.
  - a. Thermoplastic (e.g. polycarbonate, acrylic) faces are not acceptable.
  - b. Face sheets shall not deform, deflect or drip when subjected to fire or flame.
- 2. Interior face sheets:
  - a. Flame spread: Underwriters Laboratories (UL) listed, which requires periodic unannounced retesting, with flame spread rating no greater than 50 and smoke developed no greater than 250 when tested in accordance with UL 723.
  - b. Burn extent by ASTM D 635 shall be no greater than 1”.
- 3. Exterior face sheets:
  - a. Color stability: Full thickness of the exterior face sheet shall not change color more than 3 CIE Units DELTA E by ASTM D 2244 after 5 years outdoor South Florida weathering at 5° facing south, determined by the average of at least three white samples with and without a protective film or coating to ensure long-term color stability. Color stability shall be unaffected by abrasion or scratching.
  - b. Strength: Exterior face sheet shall be uniform in strength, impenetrable by handheld pencil and repel an impact minimum of 70ft. lbs. without fracture or tear when impacted by a 3-1/4” diameter, 5 lb. free-falling ball per UL 972.
- 4. Appearance:
  - a. Exterior face sheets: Smooth .070 thick and Crystal in color.
  - b. Interior face sheets: Smooth .045 thick and White in color
  - c. Face sheets shall not vary more than  $\pm 10\%$  in thickness and be uniform in color.

#### **B. Grid Core**

- 1. Thermally broken I-beam grid core shall be of 6063-T6 or 6005-T5 alloy and temper with provisions for mechanical interlocking of muntin-mullion and perimeter. Width of I-beam shall be no less than 7/16”.
- 2. I-beam Thermal break: Minimum 1”, thermoset fiberglass composite.

#### **C. Laminate Adhesive**

- 1. Heat and pressure resin type adhesive engineered for structural sandwich panel use, with minimum 25-years field use. Adhesive shall pass testing requirements specified by the International Code Council “Acceptance Criteria for Sandwich Panel Adhesives”.
- 2. Minimum tensile strength of 750 PSI when the panel assembly is tested by ASTM C 297 after two exposures to six cycles each of the aging conditions prescribed by ASTM D 1037.
- 3. Minimum shear strength of the panel adhesive by ASTM D 1002 after exposure to four separate conditions:
  - a. 50% Relative Humidity at 68° F: 540 PSI

- b. 182° F: 100 PSI
- c. Accelerated Aging by ASTM D 1037 at room temperature: 800 PSI
- d. Accelerated Aging by ASTM D 1037 at 182° F: 250 PSI

### 2.3 Panel Construction

- A. Provide sandwich panels of flat fiberglass reinforced translucent face sheets laminated to a grid core of mechanically interlocking I-beams. The adhesive bonding line shall be straight, cover the entire width of the I-beam and have a neat, sharp edge.
  - 1. Thickness: 2-3/4"
  - 2. Light transmission: 26% or 13% (see elevations).
  - 3. Panel U. value by NFRC certified laboratory 2 3/4" Thermally broken grid of .23 or .14 (see elevations)
  - 4. Complete insulated panel system shall have NFRC certified U-factor of .28 or .19 (see elevations)
  - 5. Grid pattern: Nominal size 12" x 24" pattern Shoji
- B. Standard panels shall deflect no more than 1.9" at 30 PSF in 10' 0" span without a supporting frame by ASTM E 72.
- C. Standard panels shall withstand 1200° F fire for minimum one hour without collapse or exterior flaming.
- D. Thermally broken panels: Minimum Condensation Resistance Factor of 80 by AAMA 1503 measured on the bond line.

### 2.4 Battens and Perimeter Closure System

- A. Closure system: Thermally broken extruded aluminum 6063-T6 and 6063-T5 alloy and temper clamp-tite screw type closure system.
- B. Sealing tape: Manufacturer's standard, pre-applied to closure system at the factory under controlled conditions.
- C. Fasteners: 300 series stainless steel screws for aluminum closures, excluding final fasteners to the building.
- D. Finish:
  - 1. Manufacturer's factory applied finish, which meets the performance requirements of AAMA 2604. Color to be Aluminum N° 79 (selected from manufacturer's standards).

## **3.0 EXECUTION**

### 3.1 Examination

- A. Installer shall examine substrates, supporting structure and installation conditions.
- B. Do not proceed with panel installation until unsatisfactory conditions have been corrected.

### 3.2 Preparation

- A. Metal Protection:
  - 1. Where aluminum will contact dissimilar metals, protect against galvanic action by painting contact surfaces with primer or by applying sealant or tape recommended by manufacturer for this purpose.
  - 2. Where aluminum will contact concrete, masonry or pressure treated wood, protect against corrosion by painting contact surfaces with bituminous paint or method recommended by manufacturer.

### 3.3 Installation

- A. Install the panel system in accordance with the manufacturer's suggested installation recommendations and approved shop drawings.
  - 1. Anchor component parts securely in place by permanent mechanical attachment system.
  - 2. Accommodate thermal and mechanical movements.
  - 3. Set perimeter framing in a full bed of sealant compound, or with joint fillers or gaskets to provide weather-tight construction.
- B. Install joint sealants at perimeter joints and within the panel system in accordance with manufacturer's installation instructions.

### 3.4 Cleaning

- A. Clean the panel system interior and exterior, immediately after installation.
- B. Refer to manufacturer's written recommendations.

END OF SECTION 08450

**END OF DIVISION**

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# DIVISION 9

# FINISHES

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## **09010 GENERAL**

**1.0 GENERAL CONDITIONS:** The "General Conditions," Document A201, apply to all work of this section. Each item, including all labor, equipment and incidentals shall be provided in accordance therein. Where specific items are called for by name, make, or catalog number, such reference shall be interpreted as establishing a standard quality and not construed as limiting competition; and the Contractor may at his option, use any article, device, product, material, fixture, form or type of construction which in the judgment of the Architect, submitted in writing, is equal to that specified.

**1.1 Scope:** The work required under this section consists of all studs, exterior wall and soffit system, drywall, ceramic tile, resilient flooring, painting and related items necessary to complete the work indicated on the Drawings and described in the Specifications.

**1.2 Submittals:** Shop Drawings and/or samples are required in accordance with Paragraph 1.1, Section 01300 of Division 1.

**1.3 Special Conditions:** Portland cement plaster behind ceramic tile walls is to be done by Plaster Contractor.

END OF SECTION 09010

## **09240 STUCCO**

### **1.0 GENERAL**

#### **1.1 Section Includes**

- A. Stucco and accessory products

#### **1.2 Submittals**

- A. Submit under provisions of Section 01300 – Submittals
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
  - a. Mixing and preparation instructions and recommendations.
  - b. Storage and handling requirements and recommendations.
  - c. Installation Methods.
- C. LEED Submittals:
  - a. Product Certificates for Credit MR 5: For products and materials required to comply with requirements for regional materials, certificates indicating location of material manufacturer and point of extraction, harvest, or recovery for each raw material. Include statement indicating distance to Project, cost for each regional material, and fraction by weight that is considered regional.
- D. Test Reports:
  - a. Submit certified test reports showing that the cementitious components of the mortar mix comply with the specified requirements.
  - b. Submit certified test report showing that the mortar complies with the specified requirements.
- E. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors.
- F. Verification Samples: For each finish product specified, two samples, minimum size 6 inches (150 mm) long representing actual product, in color selected.

#### **1.3 Quality Assurance**

- A. Manufacturer Qualifications: Firm specializing in manufacture of masonry materials with minimum 10 years' experience.
- B. Installer Qualifications: Minimum 5-year experience installing similar products.
- C. Mock-up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
  - a. Finish areas designed by Architect.
  - b. Do not proceed with remaining work until workmanship is approved by Architect.
  - c. Refinish mock-up area as required to product acceptable work.

#### 1.4 Pre-Installation Meetings

- A. Pre-Installation Meeting: At least three weeks prior to commencing work conduct a meeting at the project site to discuss contract requirements and job conditions.
- B. Require the attendance of plastering contractor and installers of related materials.
- C. Notify Architect in advance of meeting.

#### 1.5 Delivery, Storage, and Handling

- A. Deliver stucco mix to site in manufacturer's original unopened sealed bags with labels clearly indicating manufacturer and material.
- B. Store materials indoors in an area protected from freezing, excessive heat and damage. Refer to "Store Materials" ASTM C 926.
- C. Deliver all lath, trim accessories and other specified products in original containers. Any damaged materials must be replaced.

#### 1.6 Project Conditions

- A. Do not apply when air or substrate temperature is below 40 degrees F (4 degrees C) or above 90 degrees F (32 degrees C) within 48 hours after application.
  - a. 90 degrees F (32 degrees C) limitation does not apply to AMX 750 – see data sheet for application instructions.
- B. Do not apply to frozen substrate or to substrate containing frost.
- C. Application must comply with referenced standards and manufacturer's published recommendations.
- D. Do not store or apply materials when temperatures are below 40 degrees F (4 degrees C) or above 90 degrees F (32 degrees C).
- E. Protect from uneven and excessive evaporation during dry weather and from strong blasts of air.

#### 1.7 Sequencing

- A. Ensure that product of this section are supplied to affected trades in time to prevent interruption of construction progress.

### **2.0 PRODUCTS**

#### 2.1 Manufacturers

- A. Acceptable Manufacturer: Amerimix.
- B. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 – Product Requirements.

#### 2.2 Materials

- A. Stucco: Portland cement stucco by Amerimix Companies comprised of the following base finish coats:

- a. Base coat: Amerimix AMX 700 SBF Scratch, Brown & Finish Stucco.
  - b. Base Coat: Amerimix AMX 715 PP Premium Plus Stucco.
  - c. Base Coat: Amerimix AMX 740 FSB Fiber Scratch & Brown Stucco.
  - d. Base Coat: Amerimix AMX 750 FBC Fiber Base Coat Stucco.
  - e. Finish Coat: Amerimix AMX 775 C – Colored Stucco
  - f. Finish Coat: Amerimix AMX 780 STF Stucco Texture Finish.
  - g. Finish Coat: Amerimix AMX 790 SST Stucco Sand Texture.
- B. Accessory Products:
- a. Flashing: Corrosion resistant materials.
  - b. Moisture Barrier: Asphalt Saturated Felt – ASTM D 226.
  - c. Building Paper: Federal specification UU-B-790a, Grade B, moderate water vapor permeable or grade D, water vapor permeable.
  - d. Building Wrap: Tyvek Stucco Wrap.
- C. Plater Trim Accessories:
- a. Properly sized for the specified application.
  - b. As specified or as indicated on the drawings.
  - c. With weep holes when used at base of wall.
- D. Lath (conventional stucco systems) Installed per STM C 1063/Lath (one coat stucco system) per ICC-ESR #3529:
- a. Expanded Metal Lath – ASTM C 847, galvanized steel, (2.5 pounds per square yard (1.4 kg/m<sup>2</sup>) 3.4 pounds per square yard (1.8 kg/m<sup>2</sup>) self furring.
  - b. Woven wire lath – ASTM D 1032, galvanized steel.
  - c. Plastic lath – submit manufacturer’s building code compliance report.
- E. Joint Sealants: ASTM C 920, closed cell backer rod compatible with sealants.

## 2.3 Mixing

- A. Mixing Procedure: Follow product mixing instructions from technical data sheets.
- B. Re-tempering: Use cement plaster within 1 hours of initial mixing.
- C. Hot weather: Follow National Concrete Masonry Association recommendations for hot weather construction.
- D. Cold Weather: Follow National Concrete Masonry Association recommendations for cold weather construction.

## **3.0 EXECUTION**

### 3.1 Examination

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

### 3.2 Preparation

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces in accordance with ASTM C 926 and products published information in the technical data sheet.
- C. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

### 3.3 Installation

- A. Install in accordance with manufacturer's instructions and in accordance applicable IBC, IRC, ASTM, ICC and local requirements.

### 3.4 Curing

- A. Cure and provide time between coats in accordance with ASTM C 926 and manufacturer's instructions.
- B. Provide sufficient moisture in the plaster mix by curing to permit continuous hydration of the cementitious material.
- C. Allow sufficient time between coats to permit each coat to cure and develop sufficient strength to resist cracking or other physical damage before the next coat is applied.
- D. Where allowed by local jurisdictions, the IBC 'Alternative Method' may be used as the standard for time between coats and curing.

### 3.5 Field Quality Control

- A. Architect or qualified third party will inspect the application at the following stages to confirm the Amerimix Stucco is being applied and cured as specified – and as indicated on the drawings.
  - a. Completion of substrate installation, preparation, flashing and lathing.
  - b. Completion of base coat application.
  - c. Completion of finish coat application.

### 3.6 Cleaning

- A. Remove and dispose of all temporary materials used to protect adjacent work and surrounding areas.
- B. Remove and clean from surfaces not intended to receive the Amerimix Stucco.

### 3.7 Protection

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION

## **09900 PAINTING**

**1.0 GENERAL:** It is the responsibility of the Painting Sub-Contractor to inspect all surfaces to be painted or finished. The commencing of work, or the absence of the notification in writing, shall be construed as acceptance of the surfaces by the Painting Sub-Contractor. It shall be the responsibility of the Painting Sub-Contractor then to correct any defects appearing in the painting work thereafter. All surfaces shall be broom-clean, dry and free from foreign matter before applying paint.

### **1.1 Related Work Specified in Other Sections:**

#### Section 01010 Summary of Work

**1.1.1 Factory Shop Coat:** Shop coats are required on some, but not all of the items described in other Sections of these Specifications. Carefully study the Drawings and the Specifications and determine the painting requirements as listed. Paint or finish all exposed surfaces of items required to be finished or painted and left unfinished in the work of other trades.

**1.1.2 Caulking:** Where caulking is required beyond the caulking performed by other trades, perform all such caulking in strict accordance with the provisions of these Specifications.

**1.2 Protection:** Take all means necessary to ensure the safe storage and use of paint materials and the prompt and safe disposal of waste.

Take all means necessary to protect paint materials before, during and after installation, and to protect the installed work of other trades. In the event of damage, immediately make all repairs and replacements necessary to the approval of, and at no additional cost to, the Owner.

**1.3 Environmental Conditions:** Take special care to comply with the manufacturer's recommendations as to environmental conditions under which the coatings and coating systems may be applied. Do not apply paint in areas where dust is being generated.

No work shall be done under conditions which are unsuitable for production of good results. Do not apply paint or varnish when temperature is below 50°F. No exterior paint shall be applied in damp rainy weather, nor shall paint be applied on surfaces so hot (direct sun) as to prevent proper drying. Interior areas shall be maintained at a temperature of not less than 70°F, while surfaces are being painted. Either protect or remove all hardware, accessories, fixtures and similar items. Upon completion of painting, reinstall all items removed.

\* Interior Applications may require venting to outside air.

1.4 Painting Not Included: The following categories of work are not included as part of the painter applied finish work, or are included in other Sections of these Specifications, unless otherwise shown or specified.

1.4.1 Shop Priming: Unless otherwise specified, shop priming of ferrous metal items is included under the various sections for structural steel, miscellaneous metal, hollow metal work and similar items. Also, for fabricated components such as architectural woodwork, wood casework and shop fabricated, or factory built mechanical and electrical equipment or accessories. Some items do require two (2) additional coats of paint.

1.4.2 Pre-Finished Items: Unless otherwise indicated, do not include painting when factory finishing or installer finishing is specified for such items as, but not limited to, metal toilet enclosures, acoustic materials, prefinished architectural woodwork and prefinished casework, finished electrical and mechanical equipment including light fixtures, switchgear and distribution cabinets, elevator entrance frames, doors and equipment.

1.4.3 Concealed Surfaces: Unless otherwise indicated, painting is not required on surfaces such as walls or ceilings in concealed areas and inaccessible areas, foundation spaces, furred areas, utility tunnels, pipe spaces, duct shafts and elevator shafts.

1.4.4 Finished Metal Surfaces: Metal surfaces of anodized aluminum, stainless steel, chromium plate, copper, bronze and similar finished materials, will not require finish painting, except as otherwise indicated.

1.4.5 Operating Parts and Labels: Do not paint any moving parts of operating units, mechanical and electrical parts, such as valve and damper operators, linkages, sinkages, sensing devices, motor and fan shafts, unless otherwise indicated.

Do not paint over any code required labels, such as Underwriters Laboratories and Factory Mutual, or any equipment identification, performance rating, name or nomenclature plates.

1.4.6 Single Source Responsibility: To the greatest extent possible, provide all materials by a single manufacturer. Provide top-of-the-line primers and other undercoat paint produced by same manufacturer as finish coats.

1.4.7 Container Identification: Each container shall be labeled as follows:

1. Manufacturer's Name
2. Type of Paint
3. Manufacturer's Stock Number
4. Color
5. Instructions for Reducing, Where Applicable

**2.0 MATERIALS:** Painting Contractor shall submit six (6) sets of color chips and complete description of paints to Architect 30 days prior to starting of painting if he plans to use paint other than as specified.

**2.1 First Line Products:** Sherwin Williams first line products shall be used as a standard of quality.

The paint must meet or exceed the following standards as determined by these test methods: Opacity (TT-P-141 #4121), Reflectance (TT-P-141 #6121), and Scrubability (ASTM D2486-70).

| <u>LATEX</u>        | <u>SCRUB CYCLES</u> | <u>OPACITY</u> | <u>REFLECTANCE</u> |
|---------------------|---------------------|----------------|--------------------|
| Interior Flat       | 350                 | 0.975          | 89.0               |
| Interior Semi-Gloss | 800                 | 0.978          | 89.0               |
| Exterior Flat       | 550                 | 0.966          | 89.0               |
| Exterior Semi-Gloss | 800                 | 0.978          | 89.0               |

**ALKYD**

|                     |      |      |      |
|---------------------|------|------|------|
| Interior Semi-Gloss | 1500 | 97.0 | 87.0 |
| Interior Gloss      | 1500 | 97.0 | 89.0 |
| Exterior Semi-Gloss | 1500 | 97.0 | 87.0 |
| Exterior Gloss      | 1500 | 97.0 | 89.0 |

**2.2 Applications/scope:**

- A. High Performance Exterior Paint and Coating Systems:
  - a. Masonry: Concrete masonry units, cinder or concrete block.
- B. Exterior Paint and Coating Systems:
  - a. Concrete: Cementitious siding, flexboard, transite, and shingles; non-roof.

**2.3 Paint Materials General:**

- A. Paints and Coatings:
  - a. Unless otherwise indicated, provide factory-mixed coatings. When required, mix coatings to correct consistency in accordance with manufacturer's instructions before application. Do not reduce, thin or dilute coatings or add materials to coatings unless such procedure is specifically described in manufacturer's product instructions.
  - b. For opaque finishes, tint each coat including primer coat and intermediate coats, one-half shade lighter than succeeding coat, with final finish coat as base color. Or follow manufactures product instructions from optimal color conformance.
- B. Primers: Where the manufacturer offers options on primers for a particular substrate, use primer categorized as "best" by the manufacturer.

- C. Coating Application Accessories: Provide all primers, sealers, cleaning agents, cleaning cloths, sanding materials, and clean-up materials required, per manufacturer's specifications.
- D. Color: Refer to Finish Schedule for paint colors, and as selected.
- E. LEED Requirements: LEED V4 and V4.1 EQ Credit: Indoor Environmental Quality-Low Emitting Materials.

#### 2.4 Exterior Paint and Coating Systems:

- A. Concrete: Cementitious Siding, Flexboard, Transite Board, Non-Roof Shingles, Common Brick, Stucco, Tilt-up, Precast, and Poured-in-place Cement.

- a. Textured Elastomeric System:

- i. Textured Finish:

- 1. 1<sup>st</sup> Coat: S-W Loxon Concrete and Masonry Primer Sealer, LX03W50 (5.3-8.0 mils wet, 2.1-2.3 mils dry)
    - 2. 2<sup>nd</sup> Coat: S-W ConFlex XL Textured Elastomeric High Build Coating, CF11W50 Series (13.0-16.0 mils wet, 9.4-11.0 mils dry per coat).
    - 3. 3<sup>rd</sup> Coat: S-W ConFlex XL Textured Elastomeric High Build Coating, CF15W50 Series (20.0-23.0 mils wet, 9.4-11.0 mils dry per coat).

- a. Finish Texture: Medium

2.5 Unopened Cartons: All paints shall be delivered to jobsite in manufacturer's unbroken sealed containers, bearing their original labels.

2.6 Manufacturer's Recommendations: All materials shall be applied in strict accordance with manufacturer's directions as printed on the container.

2.7 Storage: Materials shall be stored in a well-ventilated area set aside for the purpose. The area shall be heated, if necessary, to prevent freezing. Keep area clean and orderly. Store rags, paint solvents, and similar items in closed metal containers at all times.

2.8 Color Selections: All colors shall be selected by the Architect and submitted to Contractor in schedule form. Different colors may be selected in each room. First coats shall be white, except at varnishes and stains. More than one color may be selected in each room.

**3.0 EXECUTION:** It is intended that this Specification shall cover all painting throughout the building on drywall, wood, metal, masonry, and all other surfaces as required to make a thoroughly complete job in every respect, whether item is herein specifically mentioned or not. Where items are not mentioned, they shall be finished the same as specified for similar work. Enamel and varnishes shall be sanded lightly between coats with #00 sandpaper and dusted

before succeeding coat is applied. Prime all surfaces as quickly after installation as possible. Use primer thinned down according to manufacturer's directions. After priming, putty all nail holes and cracks. Make sure all surfaces are clean, smooth, dry, and free from dust and grit before priming; shellac all pitch knots and streaks.

Rake all control joints and/or other cracks in plaster or stucco work; clean the paint exposed metal surfaces.

All paints must be smooth and have even spread without runs, streaks, sags, brush marks, unfilled patches, or other blemishes. Apply coats of paint in strict accordance with manufacturer's current published Specifications.

Allow exterior paints to dry 72 hours between coats and interior paints to dry 24 hours between coats. All enamels and varnishes to dry 24 hours between coats; if still tacky, allow additional time.

Each coat of paint shall be different shade or color. Each coat shall be inspected by the Architect before the following coat may be applied. Only coats of paint inspected and approved by the Architect will be considered in determining the coats of paint to be applied.

3.1 Special Surface Preparation: Surfaces shall be dry and in sound condition. Remove oil, dust, dirt, loose rust, peeling paint or other contamination to ensure good adhesion.

- A. Prior to attempting to remove mildew, it is recommended to test any cleaner on a small, inconspicuous area prior to use. Bleach and bleaching type cleaners may damage or discolor existing paint films. Bleach alternative cleaning solutions are advised.
- B. Remove mildew before painting by washing with a solution of 1 part liquid household bleach and 3 parts warm water. Apply solution and scrub the mildewed area. Allow solution to remain on the surface for 10 minutes. Rinse thoroughly with clean water and allow surface to dry before painting. Wear protective glasses or goggles, waterproof gloves, and protective clothing. Quickly wash off any of the mixture that comes in contact with your skin. Do not add detergents or ammonia to the bleach/water solution.
- C. Remove items including but not limited to thermostats, electrical outlets, switch covers and similar items prior to painting. After completing painting operations in each space or area, reinstall items removed using workers skilled in the trades involved.
- D. No exterior painting should be done immediately after a rain, during foggy weather, when rain is predicted, or when the temperature is below 50 degrees F (10 degrees C), unless products are designed specifically for these conditions. On large expanses of metal siding, the air, surface and material temperatures must be 50 degrees F (10 degrees C) or higher to use low temperature products.

3.1.1 Ferrous Metal Surfaces: All rust and mill scale shall be removed by power-tool cleaning as specified by the Steel Structures Painting Council. All weld flux shall be power tool cleaned as specified by the Steel Structures Painting Council and washed thoroughly with water to remove all weld flux splatters and alkali contaminants.

3.1.2 Galvanized Metal Surfaces: Wash thoroughly with mineral spirits and etch with a solution of chemical phosphoric metal etch and allow to dry.

3.1.3 Drywall and Concrete Surfaces: Nibs shall be scraped and sanded smooth, cracks shall be spackled, smoothed, and sealed. No paint or sealer shall be applied on plaster when the moisture content exceeds 8%, as determined by a reliable electronic moisture meter.

3.1.4 Wood Surfaces: Sand smooth and apply primer as specified. Holes, splits, and scratches shall be puttied or spackled smooth after applying the prime coat.

### 3.2 Exterior Finishes:

3.2.1 Ferrous Metals: (Examples, but not limited to: Hollow Metal Doors & Frames, Exposed Electric Panels, Stair & Ramp, Rails, etc.)

1st Coat - Rustmaster Metal Primer - Omit if shop primed

2nd Coat - Exterior Semi-Gloss Alkyd Enamel - 4.0 Mils MWF

3rd Coat - Exterior Semi-Gloss Alkyd Enamel - 4.0 Mils MWF

3.2.2 Galvanized Metals: (Examples, but not limited to: Flashing exposed to view, Roof Ductwork and Vents)

1st Coat - Rustmaster Galvanized Metal Primer

2nd Coat - Exterior Semi-Gloss Enamel - 4.0 Mils MWF

3rd Coat - Exterior Semi-Gloss Enamel - 4.0 Mils MWF

3.2.3 Concrete: (Examples, but not limited to: Exposed to view Concrete Stems); Remove Form Oil with Xylol.

1st Coat - Sealer

2nd Coat - Exterior Masonry Paint - 4.0 Mils MWF

3rd Coat - Exterior Masonry Paint - 4.0 Mils MWF

3.2.4 Stucco: Must be clean and free of any loose stucco. If recommended procedures for applying stucco are followed, and normal drying conditions prevail, the surface may be painted in 30 days. The pH of the surface should be between 6 and 9 unless the products are designed to be used in high pH environments such as Lexon.

3.2.5 Miscellaneous Mechanical & Electrical Equipment: All exposed to sight items such as gas meters, gas piping, electrical panels, electric transformers, cooling towers, ductwork, vents, etc. are to be painted as specified under Paragraph 3.2.1. and 3.2.2 above.

### 3.3 Interior Finishes:

3.3.1 C.M.U. Plaster and/or Drywall: Tape, bed and texture in accordance with Section 09250 of Division 9.

1st Coat - Latex Wall Primer

2nd Coat - Semi-Gloss Enamel or Latex - 4.0 Mils MWF

3rd Coat - Flat Enamel - 4.0 Mils MWF

### 3.3.2 Wood - Painted:

1st Coat - Enamel Undercoat - 4.0 Mils MWF

2nd Coat - Semi-Gloss Enamel - 4.0 Mils MWF

3rd Coat - Semi-Gloss Enamel - 4.0 Mils MWF

### 3.3.3 Wood Stained: (Interior Doors)

1st Coat - Filler Stain - Color Selected by Architect

2nd Coat - Flat Varnish - 3.2 Mils MWF

3rd Coat - Flat Varnish - 3.2 Mils MWF

### 3.3.4 Galvanized Metal:

1st Coat - Rustmaster Galvanized Metal Primer - 3.2 Mils MWF

2nd Coat - Semi-Gloss Enamel - 3.6 Mils MWF

3rd Coat - Semi-Gloss Enamel - 3.6 Mils MWF

### 3.4 Special Conditions:

3.4.1 Inside Millwork: All shelves exposed or behind doors to receive one (1) coat primer and two (2) coats semi-gloss enamel or comparable coats in natural stain finish. All drawers to receive one (1) coat filler and one (1) coat varnish inside.

3.4.2 Miscellaneous Items: Return air-grilles, exposed piping, mechanical equipment, access doors, pipe vents, roof jacks, etc., shall receive paint as specified for areas adjacent to aforementioned areas.

3.5 Caulking: Outside joints at the perimeter of exterior doors, frames, etc., shall be cleaned out to a uniform depth of at least 3/4" and filled solid with an approved elastic caulking compound forced into place with a pressure gun. Caulking compound shall be elastic and waterproof, and shall gradually form a thin, rough skin on exposed surface while remaining plastic indefinitely beneath the surface. It shall be unaffected by exposure to extremes of outside temperatures.

### 3.6 Field Quality Control:

3.6.1 Example: Request review of first finished room by Architect for color texture and workmanship.

3.6.2 Standard: Use first acceptable room as project standard for each successive room or space.

3.6.3 Approval: Obtain approval of each paint coat before application of successive coats. Failure to obtain approval between coats shall result in loss of credit for additional cost applied.

3.6.4 Sample: At any time, the Architect may obtain samples from the products in use at the work sites for analysis and verification of product compliance with the specifications.

3.6.5 Corrective Measures: As required by the Architect at no cost to the Owner.

### 3.7 Installation:

- A. Apply all coatings and materials with the manufacturer's specifications in mind. Mix and thin coatings according to manufacturer's recommendations.
- B. Do not apply to wet or damp surfaces. Wait at least 30 days before applying to new concrete or masonry. Or follow manufacturer's procedures to apply appropriate coatings prior to 30 days. Test new concrete for moisture content. Wait until wood is fully dry after rain or morning fog or dew.
- C. Apply coatings using methods recommended by manufacturer.
- D. Uniformly apply coatings without runs, drips, or sags, without brush marks, and with consistent sheen.
- E. Apply coatings at spreading rate required to achieve the manufacturers recommended dry film thickness.
- F. Regardless of number of coats specified, apply as many coats as necessary for complete hide, and uniform appearance.
- G. Inspection: The coated surface must be inspected and approved by the Architect just prior to the application of each coat.

### 3.8 Cleanup:

3.8.1 Daily Cleanup: During progress of work, remove from site discarded paint materials, rubbish, can and rags at end of each workday.

3.8.2 Clean Glass: Upon completion of paint work, clean window glass and other paint spattered surfaces.

3.8.3 Remove Protective Wrappings: Remove temporary protective wrappings provided for protection of the work.

3.8.4 Remove Spattered Paint: Remove spattered paint by proper methods of washing and scraping, using care not to scratch or otherwise damage finished surfaces.

3.9 Protection:

3.9.1 Protection of Existing Surfaces: Protect existing work and structures, whether to be painted or not.

3.9.2 Overlap: Use care to protect adjacent finishes from overlap of paint, paint smears or other defacement.

3.9.3 Signage: Provide "Wet Paint" signs as required to protect newly painted finishes.

3.9.4 Touch-Up: At completion of work, touch up and restore all damaged or defaced painted surfaces in manner acceptable to the Architect.

3.10 Extra Stock: After completion provide the Owner with one unopened, labeled gallon of each type and color of paint used on this project.

3.11 Guarantee: All materials and workmanship furnished by the Painting Contractor shall be guaranteed for a period of one year from acceptance date, and on written demand by the Architect within this period, any defective materials or workmanship shall be replaced or corrected by Painting Contractor at his expense.

END OF SECTION 09900

## **09975 COLOR SELECTIONS**

### Exterior Paint:

- A. Stucco (Field): #SW-9094 "Playa Arenosa"
- B. Doors / Frames: #SW-6117 "Smokey Topaz"
- C. Heads / Sills / Trim #SW-6117 "Smokey Topaz"
- D. Vigas: #SW-6104 "Kaffee"
- E. Wrought Iron: #SW-6988 "Bohemian Black"

Note: These color selections are provided in an effort to facilitate bidding and reduce approval time. Colors/patterns are subject to change or discontinuation. This list in no way relieves contractors or suppliers from making proper submittals. Substitutions will be considered with prior approval and contingent on the colors available. Verify and coordinate all selections with Owner.

END OF SECTION 09975

**END OF DIVISION**

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## DIVISION 10

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## SPECIALTIES

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### **10010 GENERAL**

**1.0 GENERAL CONDITIONS:** The "General Conditions," Document A201, apply to all work of this section. Each item, including all labor, equipment and incidentals shall be provided in accordance therein. Where specific items are called for by name, make, or catalog number, such reference shall be interpreted as establishing a standard quality and not construed as limiting competition; and the Contractor may at his option, use any article, device, product, material, fixture, form or type of construction which in the judgment of the Architect, submitted in writing, is equal to that specified.

**1.1 Scope:** The work required under this section consists of all furnishing and installing identifying devices, firefighting devices, toilet & bath accessories, and related work indicated on the Drawings and described in the Specifications.

**1.2 Submittals:** Shop Drawings and/or samples are required in accordance with Paragraph 1.1, Section 01300 of Division 1.

**1.3 Tentative Approvals Prior to Bidding:** Prior approvals to be in accordance with Paragraph 1.0, Section 01350 of Division 1.

END OF SECTION 10100

## **10340 MANUFACTURED FAUX VIGAS**

**1.0 GENERAL:** Refer to the floor plans and exterior elevations.

**1.01 Scope:** Provide all labor, materials, masking, tools and equipment necessary to install the manufactured faux vigas.

## **2.0 MATERIALS:**

### **2.1 References:**

- A. All work shall conform to local building codes and other regulations governing work performed at the job site.
- B. All work shall conform to requirements and recommendations of Manufacturer's current installation guides.

### **2.2 Material:**

- A. Volterra HDF is a two-component mixture of urethane resin with a closed cell structure.
- B. Acceptable manufacturer: Volterra Architectural Products LLC, Phoenix, Arizona.
- C. Density requirements shall be a minimum of 8 lbs. per cubic foot for low traffic areas, 12 lbs. per cubic foot for medium traffic areas and 18 lbs. per cubic foot for high traffic areas.
- D. Fire rated material may be used as an option. A Class A fire rated material that meets or exceeds ASTM E84-90 flame spread index.

### **2.3 Submittals:**

- A. The contractor shall make / construct and submit appropriate sample of the proposed material to the architect and/or owner for approval.
  - 1. Submit manufacturer's product information including shop drawings, specifications, warranty and installation instructions are fire testing report if applicable.

### **2.4 Quality Assurance:**

- A. Qualifications
  - 1. Manufacturer shall be Volterra Architectural Products, LLC
  - 2. The Applicator or Contractor shall be licensed in the state which work is required and have a minimum of 5 years' experience installing decorative materials.

### **2.5 Delivery, Storage and Handling**

- A. All materials shall be delivered to the job site in the original, unopened packaging with labels intact. Upon arrival, materials shall be inspected for physical damage. Questionable material shall be discarded and not used.

- B. All materials shall be stored in a dry, covered location out of direct sunlight and protected from rain.

### **3.0 EXECUTION:**

#### **3.1 General:**

- A. All products shall be supplied by Volterra Architectural Products, LLC, or its authorized dealers. Substitutions or additions of other manufacturer's material will void warranty.
- B. Moisture resistance: non water absorbing.
- C. Ultraviolet: if properly painted, no effect.
- D. Solvent Resistance: resistant.
- E. Insulation: higher R-value than fiberglass bat and EPS.

#### **3.2 Job Conditions:**

- A. Existing Conditions
  - 1. The applicator shall have access to electric power, clean potable water, and a clean area at the locations where the Volterra HDF is to be installed.
- B. Environmental Conditions
  - 1. The ambient air temperature shall be determined by the adhesive manufacturer.
- C. Protection
  - 1. Adjacent areas and materials shall be protected from damage, spills and drops.
  - 2. The Volterra HDF adhesive and sealant must be protected from the elements until adhesive is fully cured.

#### **3.3 Maintenance:**

- A. Maintenance and repair shall follow the procedures in the Application Guide.
- B. Volterra HDF was designed to eliminate most all maintenance. However, as all building materials, it will require some periodic cleaning.
- C. Sealants and flashing should be inspected on a regular basis.
- D. Extra materials shall be delivered to owner from the same production run as products installed. Protect and store extra material indoors in a clean, dry area.

#### **3.4 Materials:**

- A. Volterra HDF – decorative urethane elements
  - 1. Minimum solid wall thickness of ¾" for non-solid back truss tails, corbels, brackets, quoins, tile vents, etc.
  - 2. Minimum solid thickness of 1" for product that spans a distance of 10" such as shutters, planking, beams, etc.
- B. Mechanical Fasteners
  - 1. Specified by design professional.

### C. Adhesive

1. PL Premium Urethane Adhesive as manufactured by Chemrex.

### 3.5 Equipment:

- A. Conventional wood working tools such as table saw, miter saw, jig saw, and hand saw as needed.

### 3.6 Inspection:

- A. Examination of substrate: Ensure substrate is suitable for the installation of Volterra HDF. It must be securely fastened, free of contaminants, dry, etc.

### 3.7 Substrate Preparation:

- A. All substrates shall be fastened, attached, cured according to the manufacturer, ASTM, UBC, or local building requirements.
- B. All surfaces must be clean and free of bond-inhibiting materials such as dirt, dust, rust, grease, oil, efflorescence, mildew, fungus, form-release agents, or any other contaminates.
- C. Remove and repair any loose paint, mortar, stucco, concrete, or masonry before installation of Volterra HDF.

### 3.8 Installation:

- A. Install all materials in compliance to Volterra Architectural Products, LLC Installation guidelines.

### 3.9 Quality Control:

- A. The Contractor shall be responsible for the installation of the materials.
- B. Volterra Architectural Products, LLC assumes no responsibility for job site inspections unless otherwise contracted in writing prior to bidding process.

### 3.10 Clean-Up:

- A. All surrounding areas, where the Volterra HDF materials were installed shall be left free of debris and foreign substances resulting from the contractor's work.
- B. Repair and replace all damaged Volterra HDF product.

### 3.11 Protection:

- A. The materials shall be protected from weather and other damage until permanent protection in the form of flashings, sealant, etc. are installed.

END OF SECTION 10340