



ALAMO  
COLLEGES  
DISTRICT

*PURCHASING AND CONTRACT ADMINISTRATION*

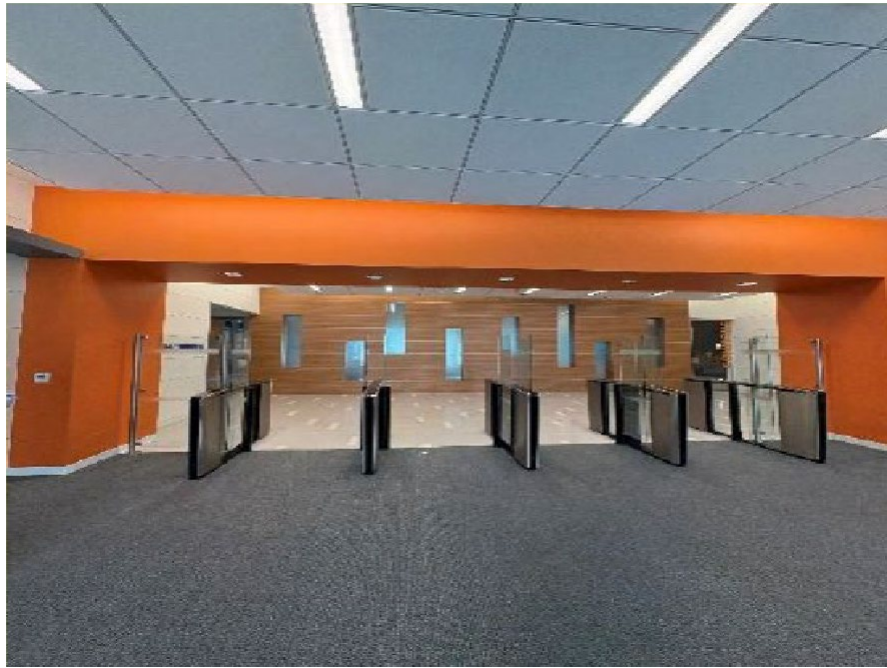
October 20, 2025

## **ADDENDUM II**

### **PURCHASE OF CONSTRUCTION SERVICES FOR SUNDANCE RENOVATION AT NORTHEAST LAKEVIEW COLLEGE RFP 2026-0080**

- I. **QUESTION:** We received an invitation for Sundance Renovation at Northeast Lakeview College. We have registered as a vendor but do not have access to the eBidding Portal. What do we need to do to register?  
**ANSWER:** If you are registered, you should be able to see the RFP in the portal if you are unable to view it, please go to the Alamo College Website.  
<https://www.alamo.edu/about-us/offices-departments/departments/purchasing/>
- II. **QUESTION:** Where are the Bid Documents for Sundance Renovation at Northeast Lakeview College?  
**ANSWER:** E-portal through invitation & Alamo College Website  
<https://www.alamo.edu/about-us/offices-departments/departments/purchasing/>
- III. **QUESTION:** What is the estimated construction budget?  
**ANSWER:** \$5,000,000 to \$10,000,000
- IV. **QUESTION:** Do you have Union Requirements?  
**ANSWER:** No
- V. **QUESTION:** Can we get a free electronic copy of the bidding documents (plans/specs) for our plan room.  
**ANSWER:** Bid documents on the Alamo Colleges Website  
<https://www.alamo.edu/about-us/offices-departments/departments/purchasing/>
- VI. **QUESTION:** Is it possible to get a set emailed or mailed to us?  
**ANSWER:** No, we cannot email

- VII. **QUESTION:** Sheet A-901 notes for contractors to provide moisture mitigation. 09 05 61 (Common Work Results for Flooring) only provides specification for floor prep. Please provide clarification on the moisture mitigation to be used under new flooring.
- ANSWER:** Basis of Design product to be Sherwin Williams, Resuprime MVB. Specification 09 05 61 updated.
- VIII. **QUESTION:** AD201 Notes for damaged ceiling tiles to be replaced. Please provide clarification on the percentage that needs to be replaced or an allowance to be carried for replacement of damaged tiles.
- ANSWER:** Ceiling tile replacement in the areas as noted in the drawings is approximately 10%.
- IX. **QUESTION:** Please provide clarification on Alternate #3: Building Envelope Deferred Maintenance. The items listed in spec section 01 23 00 are not referenced as an alternate in the drawings. Please also confirm if the expansion joint work it to be base bid or included with Alternate #3.
- ANSWER:** Alternate #3 verbiage updated, refer to G-001.
- X. **QUESTION:** Alternate #5 pertains to work in the C wing. Please clarify if this includes all MEP work shown in this area.
- ANSWER:** Alternate 05 notes on sheets MD-101C, M-101C, M-102, E-101C, E-201C, E-301, PU-101C, P-101, TF-101C, and TN-101C describe the scope of this deductive alternate. For Mechanical, ceiling and return air grilles in the affected area to be demolished. Existing ductwork, fan powered boxes, supply air grilles, and controls to remain in the shell space. Existing supply air grilles to remain shall be suspended from structure with guy wire. For Electrical, all lighting, lighting controls, lighting circuits, wall furniture feeds, and raceways to be demolished. All circuits for the demolished systems to be demolished back to associated panel. Existing power for fan powered boxes and all power and lighting shown to remain in this area to remain. For Plumbing, no trenching or new work would be installed. For Technology, all demo work indicated on plans shall be performed. All new work for all trades in the space and on the roof would be deducted.
- XI. **QUESTION:** The existing lobby has (5) entry gates that are to be demoed. The E and T demo drawings do not reference the condition of existing power or data that is to be removed with the gates. Please confirm if there are conditions that need to be accounted for once the gates are removed.
- ANSWER:** Existing conduit for power and conduit for communications to be demolished with removal of gates. Demolish back to source.



- XII. **QUESTION:** L0.00 and L1.01 (Demolition Note #6) asks that the contractor provide unit pricing. Please confirm if this information is to be provided by the awarded contractor or is due at the time of the bid. Also please confirm this is for Landscape demo items only.

**ANSWER:** Contractor provided unit pricing noted on L0.00 and L0.01 is due at the time of bid and is only to include landscape demo items. Alternate demo items should be identified separately. Any revisions to demolition items or unit pricing that occur after the bidding process will be issued as a change proposal request subject to approval by the LA and Owner.

- XIII. **QUESTION:** AD101 notes All Existing Window Shades To Remain. Specifications include 122113 Horizontal Louver Blinds. Are any new window shades or blinds required? If so, please provide locations.

**ANSWER:** No new window shades or blinds. Specification section has been removed. Where new partitions meet existing window mullions, existing window shades will have to be modified.

- XIV. **QUESTION:** In reference to Alternate #1, the small sf of the fiber cement and metal panels will make the elevation more costly. A cost-effective method would be to utilize one material. Please advise if the elevations shown are to remain as is.

**ANSWER:** Elevations are to remain as shown.

- XV. **QUESTION:** Please advise if there is a basis-of-design for the Fiber Cement Siding?

**ANSWER:** Basis of Design is Nichiha, Vintagewood. Specification section 07 46 46 has been updated.

XVI. **QUESTION:** Please advise if the “Flush Metal Wall Panel” shown for Alternate #1 is to also be DP1? Also please provide the finish desired for DP1.

**ANSWER:** DP1 Keynote and Keynote Legend removed.

XVII. **QUESTION:** Please confirm if the film to be installed at S119-S123 are (2) layers of F1. It has also been brought to our attention that Llummar no longer manufactures Acid Etch film. Please advise on the material to be used to F1 or if a substitution request will need to be submitted. SOLYX Acid Etch is an equal product.

**ANSWER:** Design intent is for S119-S123 to match existing glazing in the core areas (Library, Conference, etc.), so (2) sections of F1 to be installed. Specification section 08 80 00 updated to reflect acceptable manufacturers.

XVIII. **QUESTION:** Please confirm if perimeter walls are to be demoed to studs with new gyp to be added?

**ANSWER:** Perimeter walls to remain.

XIX. **QUESTION:** Opening 129.3 is listed in the door schedule but does not appear in the drawings. Please advise if this opening is required.

**ANSWER:** Opening E129.3 has been removed. Door schedule has been updated.

**XX. PLEASE REVIEW THE REVISED DRAWINGS AND SPECIFICATIONS:**

(SEE ATTACHED DRAWINGS ADDENDUM 2 PREPARED BY PBK ARCHITECTS, INC. Starting on page 5 - 52) Items in RED are the changes.

**REMINDER:** If you are unable to access or download the proposal through the e-sourcing portal please deliver hardcopy and a flash drive by the deadline to

**The deadline for submittal of responses for this project is 2:00pm (CT), October 31, 2025.**

Alamo Colleges District  
Purchasing and Contract Administration  
Re: Purchase of Construction Services for Sundance Renovations  
at Northeast Lakeview College.  
RFP # 2025-0080  
Reception Desk  
2222 N. Alamo St.  
San Antonio, Texas 78215

# Addendum 02

October 17, 2025

To Drawings and Specifications dated September 24, 2025

**Alamo Colleges District – Northeast Lakeview College**  
**Sundance Renovation**  
**2049 Sundance Parkway**  
**New Braunfels, TX 78130**

Prepared by: PBK Architects, Inc.  
601 NW Loop 410, Suite 400  
San Antonio, Texas 78216

PBK Project No.: 25003301



10/17/2025

Notice to Proposers:

- A. This Addendum forms part of the Contract documents for the above referenced project and shall be incorporated integrally therewith.
- B. Where provisions of the following supplemental data differ from those of the original Contract Documents, this Addendum shall govern.

## **SUMMARY OF CHANGE:**

This Addendum contains revisions to the drawings and specifications to: Address Pre-proposal RFI questions from the IFB Drawing set.

Project No. 25003301 – Addendum 02

## **SPECIFICATIONS**

### **Architectural**

1. 00 01 10 – Table of Contents
  - a. Table of Contents updated.
2. 01 23 00 – Alternates
  - a. Verbiage for Alternate 3 updated.
3. 07 46 46 – Fiber Cement Siding
  - a. Basis of Design updated.
4. 07 95 13 – Expansion Joint Cover Assembly
  - a. Section updated.
5. 08 80 00 - Glazing
  - a. F1 manufacturers updated.
6. 09 05 61 – Moisture Vapor Barrier
  - a. Basis of Design added.
7. 12 21 13 – Horizontal Louver Blinds
  - a. Section removed.

## **DRAWINGS**

### **Architectural General:**

1. G-001 - GENERAL PROJECT INFORMATION
  - a. Updated sheet index.
  - b. Updated Alternate 3 verbiage.

### **Architectural:**

1. AS401A – ENLARGED SITE PLANS - ALTERNATE
  - a. Enlarged plan of Signage Details added.
  - b. Keynote Legend removed.
2. AS404A – SIGNAGE DETAILS - ALTERNATE
  - a. Added a sheet.
3. A-322 – ROOF DETAILS
  - a. Updated detail titles.
4. A-701 – PLAN DETAILS
  - a. Notes added to details for roller shades.
5. A-811 – DOOR SCHEDULE – PANEL & FRAME TYPES
  - a. Opening E129.3 removed from Door Schedule.

**END OF ADDENDUM II**

## **SECTION 00 01 10 - TABLE OF CONTENTS**

### **GENERAL**

#### **RESPONSIBILITY**

Each section is the responsibility of the discipline indicated by the letter in parenthesis following the section name as indicated in Section 00 01 07 - Seals Page with the following exceptions:

(O): Section provided by Owner.

#### **DIVISION 00 - PROCUREMENT AND CONTRACTING REQUIREMENTS**

- 00 01 02 - Project Information (A)
- 00 01 07 - Seals Page (A)
- 00 01 10 - Table of Contents (A)
- 00 31 00 - Available Project Information (A)
- 00 40 13 - Affidavit of Non-Discriminatory Employment (A)
- 00 40 14 - Affidavit of Non-Asbestos, Lead, and PCB Use (A)
- 00 40 17 - Certification of Criminal History Record Information Review (A)
- 00 45 19 - Non-Collusion Affidavit (A)
- 00 50 00 - Texas Statutory Performance Bond (A)
- 00 50 01 - Texas Statutory Payment Bond (A)
- 00 65 19.16 - Affidavit of Release of Liens Form (A)
- 00 73 43 - Wage Rate Requirements (Texas) (A)
- 00 73 46 - Wage Determination Schedule (A)

#### **DIVISION 01 - GENERAL CONDITIONS**

##### **01 23 00 - Alternates (A)**

- 01 25 13.01 - Request for Substitution Form (A)
- 01 26 00 - Contract Modification Procedures (A)
- 01 29 00 - Payment Procedures (A)
- 01 40 00 - Quality Requirements (A)
- 01 41 00 - Regulatory Requirements (A)
- 01 50 00 - Temporary Facilities and Controls (A)
- 01 55 00 - Vehicular Access and Parking (A)
- 01 56 00 - Temporary Barriers and Enclosures (A)
- 01 56 39 - Tree Pruning Fertilizing and Protection (L)
- 01 60 00 - Product Requirements (A)
- 01 61 16 - Volatile Organic Compound (VOC) Content Restrictions (A)
- 01 73 00 - Execution (A)
- 01 73 29 - Cutting and Patching (A)
- 01 74 19 - Construction Waste Management and Disposal (A)
- 01 77 00 - Closeout Procedures (A)
- 01 77 01 - Closeout Form A - Subcontractor's Affidavit of Release of Lien (A)
- 01 77 02 - Closeout Form B - Subcontractor Hazardous Material Certificate (A)

01 77 03 - Closeout Form C - Subcontractor Warranty (A)

01 91 13 - General Commissioning Requirements (A)

**DIVISION 02 - EXISTING CONDITIONS**

02 41 00 - Demolition (A)

**DIVISION 03 - CONCRETE**

03 35 00 - Concrete Finishing (A)

03 54 00 - Cast Underlayment (A)

03 35 23 - Exposed Aggregate Concrete Finish (L) (L)

**DIVISION 04 - MASONRY**

NOT USED

**DIVISION 05 - METALS**

05 50 00 - Metal Fabrications (A)

05 75 00 - Decorative Formed Metal (A)

**DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES**

06 10 00 - Rough Carpentry (A)

06 16 00 - Sheathing (A)

06 20 00 - Finish Carpentry (A)

**DIVISION 07 - THERMAL AND MOISTURE PROTECTION**

07 05 43 - Cladding Support Systems (A)

07 21 00 - Thermal Insulation (A)

07 25 00 - Weather Barriers (A R)

07 46 19 - Steel Siding (A)

07 46 46 - Fiber-Cement Siding (A)

07 54 19 - Fully Adhered (TPO) Membrane Roofing (A R)

07 62 00 - Roof Related Sheet Metal (A R)

07 71 23 - Manufactured Gutters and Downspouts (A)

07 72 00 - Roof Accessories (A R)

07 84 13 - Penetration Firestopping (A)

07 84 43 - Joint Firestopping (A)

07 92 00 - Joint Sealants (A)

07 95 13 - Expansion Joint Cover Assemblies (A)

**DIVISION 08 - OPENINGS**

08 11 13 - Hollow Metal Doors and Frames (A)

08 11 16 - Aluminum Doors and Frames (A)

08 13 16 - Aluminum Doors (A)

08 14 16 - Flush Wood Doors (A)

08 31 00 - Access Doors and Panels (A)

08 42 43 - Intensive Care Unit / Critical Care Unit Entrances (A)

08 43 13 - Aluminum-Framed Storefronts (A)



08 63 00 - Metal-Framed Skylights (A)

08 71 00 - Door Hardware (H)

08 71 13 - Power Door Operators (A)

08 80 00 - Glazing (A)

#### **DIVISION 09 - FINISHES**

09 05 00 - Common Work Results for Finishes (A)

09 05 61 - Common Work Results for Flooring Preparation (A)

09 21 16 - Gypsum Board Assemblies (A)

09 24 00 - Cement Plastering (A)

09 30 00 - Tiling (A)

09 51 00 - Acoustical Ceilings (A)

09 65 00 - Resilient Flooring (A)

09 65 13 - Resilient Base and Accessories (A)

09 67 00 - Fluid-Applied Flooring (A)

09 81 00 - Acoustic Insulation (A)

09 84 00 - Acoustic Room Components (A)

09 90 00 - Painting and Coating (A)

09 97 23 - Concrete and Masonry Coatings (A)

#### **DIVISION 10 - SPECIALTIES**

10 11 00 - Visual Display Units (A)

10 14 00 - Signage (A)

10 21 23 - Cubicle Curtains and Track (A)

10 22 19 - Demountable Partitions (A)

10 26 00 - Wall and Door Protection (A)

10 28 00 - Toilet, Bath, and Laundry Accessories (A)

10 43 00 - Emergency Aid Specialties (A)

10 44 00 - Fire Protection Specialties (A)

10 51 26 - Plastic Lockers (A)

10 55 00 - Postal Specialties (A)

10 56 13 - Metal Storage Shelving (A)

10 56 17 - Wall-Mounted Standards and Shelving (A)

10 73 16.13 - Metal Canopies (A)

10 75 00 - Flagpoles (A)

10 81 13 - Bird Control Devices (A)

10 82 13 - Exterior Grilles and Screens (A)

#### **DIVISION 11 - EQUIPMENT**

11 30 13 - Residential Appliances (A)

11 46 83 - Ice Machines (A)

11 53 00 - Laboratory Equipment (A)

- 11 53 13 - Laboratory Fume Hoods (A)
- 11 70 00 - Healthcare Equipment (A)
- 11 81 29 - Facility Fall Protection (A)
- 11 90 00 - Miscellaneous Equipment (A)

**DIVISION 12 - FURNISHINGS**

- 12 11 13 - Photo Murals (A)
- ~~12 21 13 - Horizontal Louver Blinds (A)~~
- 12 35 53.19 - Wood Laboratory Casework (A)
- 12 36 00 - Countertops (A)

**DIVISION 13 - SPECIAL CONSTRUCTION**

- 13 34 19 - Metal Building Systems (A)

**DIVISION 14 - CONVEYING EQUIPMENT**

NOT USED

**DIVISION 21 - FIRE SUPPRESSION**

- 21 05 00 - Common Work Results for Fire Suppression (P)

**DIVISION 22 - PLUMBING**

- 22 05 00 - Common Work Results for Plumbing (P)
- 22 05 10 - Sanitary Pipe Testing (P)
- 22 05 12 - Water Pipe Testing (P)
- 22 05 16 - Expansion Fittings and Loops for Plumbing Piping (P)
- 22 05 29 - Hangers and Supports for Plumbing Piping and Equipment (P)
- 22 05 48.13 - Vibration Controls for Plumbing Piping and Equipment (P)
- 22 08 00 - Commissioning of Plumbing (P)
- 22 11 16 - Domestic Water Piping (P)
- 22 13 16 - Sanitary Waste and Vent Piping (P)
- 22 13 21 - Acid Waste And Vent Systems (P)
- 22 15 13 - Compressed-Air Piping (P)
- 22 20 23 - Gas Piping (P)
- 22 30 00 - Plumbing Equipment (P)
- 22 40 00 - Plumbing Fixtures (P)
- 22 51 00 - Laboratory Safety Device System (P)
- 22 60 53 - Laboratory Vacuum And Gas Piping (P)
- 22 61 13 - Compressed-Air Piping for Laboratory and Healthcare Facilities (P)
- 22 67 13 - High Purity Water Systems (P)

**DIVISION 23 - HEATING, VENTILATING, AND AIR CONDITIONING (HVAC)**

- 23 05 00 - Common Work Results for HVAC (M)
- 23 05 13 - Common Motor Requirements for HVAC Equipment (M)
- 23 05 29 - Hangers and Supports for HVAC Piping and Equipment (M)
- 23 05 53 - Identification for HVAC Piping and Equipment (M)

- 23 05 93 - Testing, Adjusting, and Balancing for HVAC (M)
- 23 07 13 - Duct Insulation (M)
- 23 08 00 - Commissioning of HVAC (M)
- 23 09 23 - Direct-Digital Control System for HVAC (M)
- 23 09 93 - Sequence of Operations for HVAC Controls (M)
- 23 31 13 - Metal Ducts (M)
- 23 33 00 - Air Duct Accessories (M)
- 23 34 00 - HVAC Fans (M)
- 23 34 23 - High Plume Blower Systems (M)
- 23 34 39 - High-Volume, Low-Speed Propeller Fans (A)
- 23 37 13 - Diffusers, Registers, and Grilles (M)
- 23 74 13 - Packaged, Outdoor, Central-Station Air-Handling Units (M)
- 23 81 26 - Ductless Mini-Split-System Air-Conditioners (M)

#### **DIVISION 25 - INTEGRATED AUTOMATION**

NOT USED

#### **DIVISION 26 - ELECTRICAL**

- 26 05 00 - Common Work Results for Electrical (E)
- 26 05 19 - Low-Voltage Electrical Power Conductors and Cables (E)
- 26 05 26 - Grounding and Bonding for Electrical Systems (E)
- 26 05 29 - Hangers and Supports for Electrical Systems (E)
- 26 05 33 - Raceway and Boxes for Electrical Systems (E)
- 26 05 53 - Identification for Electrical Systems (E)
- 26 08 00 - Commissioning of Electrical Systems (E)
- 26 09 14 - Electrical Controls (E)
- 26 09 23 - Lighting Control Devices (E)
- 26 20 00 - Electrical Distribution Equipment (E)
- 26 27 26 - Wiring Devices (E)
- 26 43 00 - Surge Protective Devices (E)
- 26 50 00 - Lighting (E)

#### **DIVISION 27 - COMMUNICATIONS**

- 27 00 00 - Basic Materials And Methods (T)
- 27 10 00 - Structured Cabling (T)
- 27 41 13 - Audio Visual Systems (T)
- 27 60 00 - Physical Security General Requirements (T)

#### **DIVISION 28 - SAFETY AND SECURITY**

- 28 05 00 - General Electronic Safety Systems Requirements (T)
- 28 05 44 - Emergency Responder Radio Antenna System (T)
- 28 10 00 - Access Control (T)
- 28 16 00 - Intrusion Detection System (T)

28 23 00 - Security Camera Surveillance System (T)

28 31 00 - Fire Alarm System (T)

**DIVISION 31 - EARTHWORK**

NOT USED

**DIVISION 32 - EXTERIOR IMPROVEMENTS**

32 13 14 - Pedestrian Concrete Paving (L)

32 15 40 - Gravel Paving (L)

32 31 13 - Chain Link Fences and Gates (A)

32 31 19 - Decorative Metal Fences and Gates (A)

32 33 00 - Site Furnishings (L)

32 33 13 - Site Bicycle Racks (A)

32 91 13 - Soil Preparation (L)

32 93 00 - Plants (L)

32 94 00 - Landscape Grounds Maintenance for Ninety (90) Days (L)

**DIVISION 33 - UTILITIES**

NOT USED

**DIVISION 34 - TRANSPORTATION**

NOT USED

**DIVISION 35 - WATERWAY AND MARINE CONSTRUCTION**

NOT USED

**DIVISION 40 - PROCESS INTEGRATION**

NOT USED

**DIVISION 41 - MATERIAL PROCESSING AND HANDLING EQUIPMENT**

NOT USED

**DIVISION 42 - PROCESS HEATING, COOLING, AND DRYING EQUIPMENT**

NOT USED

**DIVISION 43 - PROCESS GAS AND LIQUID HANDLING, PURIFICATION, AND STORAGE EQUIPMENT**

NOT USED

**DIVISION 44 - POLLUTION CONTROL EQUIPMENT**

NOT USED

**DIVISION 45 - INDUSTRY-SPECIFIC MANUFACTURING EQUIPMENT**

NOT USED

**DIVISION 46 - WATER AND WASTEWATER EQUIPMENT**

NOT USED

**DIVISION 48 ELECTRICAL POWER GENERATION**

NOT USED

**END OF SECTION**

## SECTION 01 23 00 - ALTERNATES

### PART 1 GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section includes:
  - 1. Description of Alternates.
  - 2. Procedures for pricing Alternates.
  - 3. Documentation of changes to Contract Price and Contract Time.

#### 1.3 DEFINITIONS

- A. Refer to Section 01 42 16 - Definitions for the following terms:
  - 1. Alternate

#### 1.4 ADMINISTRATIVE REQUIREMENTS

- A. The Alternates listed in this Section take precedence over those listed elsewhere in the Contract Documents. In case of conflicting requirements, the requirements listed herein shall govern.

#### 1.5 ACCEPTANCE OF ALTERNATES

- A. Alternates quoted on Bid Forms will be reviewed and accepted or rejected at Owner's option. Accepted alternates will be identified in the Owner-Contractor Agreement.
- B. Coordinate related work and modify surrounding work to integrate the Work of each alternate.

#### 1.6 SCHEDULE OF ALTERNATES

- A. Alternate No. 01: Front Entry:
  - 1. Base Bid Item: Demolish front entry storefront system with revolving doors. Canopy and concrete paving to remain unchanged.
  - 2. Alternate Item: Remodel front entry including addition of higher facade, canopy, concrete paving, and landscape as shown in drawings.
- B. Alternate No. 02: Paint Building Exterior:
  - 1. Base Bid Item: Exterior building paint to remain unchanged.
  - 2. Alternate Item: Paint all building exterior facades.
- C. Alternate No. 03: Building Envelope Deferred Maintenance Scope:
  - 1. Base Bid Item: Building envelope and roof to remain unchanged.
  - 2. Alternate Item: ~~Repair/replace building sealants, roof sealants, spalling concrete, tilt-wall penetrations, door weather stripping components, and site sealant as shown in drawings. Provide overflow scuppers as shown in the drawings.~~
    - a. Replace building sealants, roof sealants, and expansion joint sealants with Dowsil 795 Silicone Building Sealant or approved equal.
    - b. Seal tilt-wall penetrations with Dowsil 795 Silicone Building Sealant or approved equal. C. Repair concrete spalls with SikaRepair-223 or approved equal.
    - c. Repair/replace door weather stripping components with like and kind components.
    - d. Provide overflow scuppers as shown in the drawings.
- D. Alternate No. 04: Ceiling Heights:
  - 1. Base Bid Item: Existing ceiling heights to remain.
  - 2. Alternate Item: Change ceiling heights.
- E. Alternate No. 05: Area C (Engineering Wing):
  - 1. Base Bid Item: Area C (Engineering Wing) to be built out as shown in drawings

2. Alternate Item: Area C (Engineering Wing) to be shell space.
- F. Alternate No. 06: Area A, B & C (Early Completion):
  1. Base Bid Item: Provide substantial completion by September 4, 2026.
  2. Alternate Item: Provide substantial completion by July 24, 2026 (Early Completion).
    - a. Alternate No. 06.01 – Front Entry (Early Completion):
    - b. Alternate No. 06.02 – Paint Building Exterior (Early Completion):
    - c. Alternate No. 06.03 – Building Envelope Deferred Maintenance Scope (Early Completion):
    - d. Alternate No. 06.04 – Ceiling Heights (Early Completion):
    - e. Alternate No. 06.05. – Area C (Engineering Wing) to be Shell Space (Early Completion):

**PART 2 PRODUCTS**

**NOT USED**

**PART 3 EXECUTION**

**NOT USED**

**END OF SECTION**

## SECTION 07 46 46 - FIBER-CEMENT SIDING

### PART 1 GENERAL

#### 1.1 RELATED DOCUMENTS

- A. The provisions of the General Conditions, Supplementary Conditions, Drawings, Specifications, and the Sections included under Division 01 General Requirements and References, are included as a part of this Section as though bound herein.

#### 1.2 SUMMARY

- A. Section Includes:
  - 1. Fiber-cement siding.
    - ~~Lap siding.~~
    - a. Panel siding.
      - ~~Plank siding.~~
      - ~~Shingle panels.~~
      - ~~Shingles.~~
      - ~~Simulated masonry panels.~~
      - ~~Soffit panels.~~
      - ~~Accessories.~~
- B. Related Requirements:
  - 1. Section 07 27 26 - Fluid Applied Air Barrier System: Water-resistive barrier under siding.
  - 2. Section 07 92 00 - Joint Sealants: Sealing joints between siding and adjacent construction and fixtures.
  - ~~Section 09 90 00 - Painting and Coating: Field painting.~~

#### 1.3 REFERENCE STANDARDS

- A. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2023.
- B. ASTM C1186 - Standard Specification for Flat Fiber-Cement Sheets; 2022, with Editorial Revision (2023).
  - ~~ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2024.~~
  - ~~ASTM E136 - Standard Test Method for Assessing Combustibility of Materials Using a Vertical Tube Furnace at 750 Degrees C; 2024e.~~
  - ~~NFPA 285 - Standard Fire Test Method for Evaluation of Fire Propagation Characteristics of Exterior Wall Assemblies Containing Combustible Components; 2025.~~

#### 1.4 SUBMITTALS

- A. Refer to Section 01 33 00 - Submittal Procedures for submittal procedures.
- B. Product Data: Submit manufacturer's data sheets on each product to be used, including:
  - 1. Manufacturer's requirements for related materials to be installed by others.
  - 2. Preparation instructions and recommendations.
  - 3. Storage and handling requirements and recommendations.
  - 4. Installation methods, including nail patterns.
- C. Test Report: Applicable model code authority evaluation report (e.g. ICC-ES).
- D. Manufacturer's qualification statement.
- E. Maintenance Instructions: Periodic inspection recommendations and maintenance procedures.
- F. Warranty: Submit copy of manufacturer's warranty, made out in Owner's name, showing that it has been registered with manufacturer.

- G. Warranty Documentation for Installation of Building Rainscreen Assembly: Submit installer warranty and ensure that forms have been completed in Owner's name and registered with installer.

## **1.5 QUALITY ASSURANCE**

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section, with not less than five years of documented experience.
- B. Installer Qualifications: Company specializing in performing work of type specified in this section with not less than three years of experience.

## **1.6 DELIVERY, STORAGE, AND HANDLING**

- A. Refer to Section 01 74 19 - Construction Waste Management and Disposal for packaging waste requirements.
- B. Deliver and store materials in manufacturer's unopened packaging, with labels intact, until ready for installation.
- C. Store materials under dry and waterproof cover, well ventilated, and elevated above grade on a flat surface.
- D. Protect materials from harmful environmental elements, construction dust, and other potentially detrimental conditions.

## **1.7 FIELD CONDITIONS**

- A. Do not install panels when air temperature or relative humidity are outside manufacturer's limits.

## **1.8 WARRANTY**

- A. Refer to Section 01 77 00 - Closeout Procedures for additional warranty requirements.
- B. Extended Correction Period: Correct defective work within 2-year period commencing on Date of Substantial Completion.
- C. Manufacturer Warranty: Provide manufacturer warranty for years as indicated under Fiber-Cement Siding article sub-headings for "Warranty". Complete forms in Owner's name and register with manufacturer.

# **PART 2 PRODUCTS**

## **2.1 MANUFACTURERS**

- A. Subject to compliance with specification requirements, products by the listed manufacturers or fabricators may be submitted for use in the Work.
  - 1. Siding:
    - a. [Allura, a division of Plycem USA, Inc: www.allurausa.com.](http://www.allurausa.com)
    - b. [exo Surfaces: www.exo-surfaces.com.](http://www.exo-surfaces.com)
    - c. [GAF WeatherSide Fiber-Cement Siding:www.gaf.com.](http://www.gaf.com)
    - d. [James Hardie Building Products, Inc: www.jameshardie.com.](http://www.jameshardie.com)
    - e. [Nichiha USA, Inc: www.nichiha.com.](http://www.nichiha.com)
  - 2. Accessories:
    - a. Northern Facades: [www.northernfacades.com](http://www.northernfacades.com).
- B. Substitutions: Refer to Section 01 25 13 - Product Substitution Procedures.
  - 1. Manufacturers and fabricators not listed must have a minimum of 5 years' experience manufacturing products meeting or exceeding the specifications and comply with Division 01 requirements regarding substitutions to be considered. Submit as a substitution

## **2.2 DESCRIPTION**

- A. Regulatory Requirements:
  - 1. Code Standards:



- a. Refer to specification Section 01 41 00 - Regulatory Requirements for code requirements and code standards applicable to all materials and work necessary to complete the scope of work.

## 2.3 FIBER-CEMENT SIDING

~~Lap Siding: Individual horizontal boards made of cement and cellulose fiber formed under high pressure with integral surface texture, complying with ASTM C1186, Type A, Grade II; with machined edges, for nail attachment.~~

~~Style: Standard lap style.~~

~~Texture: Smooth.~~

~~Length: 12 feet (3.7 m), nominal.~~

~~Width (Height): 5-1/4 inches (133 mm).~~

~~Thickness: 5/16 inch (8 mm), nominal.~~

~~Finish: Paint.~~

~~Color: As indicated on Drawings.~~

~~Warranty: 50 year limited; transferable.~~

~~Basis of Design Product(s):~~

- A. Panel Siding: Vertically oriented panels made of cement and cellulose fiber formed under high pressure with integral surface texture, complying with ASTM C1186, Type A, Grade II; with machined edges, for nail attachment.
  1. Texture: ~~Smooth~~Simulated cedar grain.
  2. Length (Height): ~~96 inches (2400 mm)~~120 inches (3000 mm), nominal.
  3. Width: ~~48 inches (1220 mm)~~17-7/8 inches.
  4. Thickness: ~~5/16 inch (8 mm)~~, 5/8-inch nominal.
  5. Finish: ~~Paint~~Wood Grain.
    - a. Color: ~~As indicated on Drawings.~~ As selected by Architect from manufacturer's full option range.
  6. Warranty: 50 year limited; transferable.
  7. Basis of Design Product(s):
    - a. VintageWood manufactured by Nichiha USA, Inc.

~~Plank Siding: Plank boards comprised of cement, mineral fillers, cellulose, and nontoxic fibers, with through-colored construction, complying with ASTM E84, ASTM E136 and NFPA 285, Type A; with both face fastening and concealed mechanical fastening systems.~~

~~Texture: Blast.~~

~~Length (Height): 96 inches (2400 mm), nominal.~~

~~Width: 48 inches (1220 mm).~~

~~Finish: Paint.~~

~~Color: As indicated on Drawings.~~

~~Warranty: 10 years.~~

~~Basis of Design Product(s):~~

~~Shingle Panels: Panels giving appearance of multiple shingles made of cement and cellulose fiber formed under high pressure with integral surface texture, complying with ASTM C1186, Type A, Grade II; with machined edges, for nail attachment.~~

~~Style: Random width, straight edge.~~

~~Texture: Smooth.~~

~~Length: 48 inches (1220 mm).~~

~~Width (Height): 7 inches (178 mm).~~

~~Thickness: 1/4 inch (6 mm), nominal.~~

~~Finish: Paint.~~

~~Color: As indicated on Drawings.~~

~~Warranty: 50 year limited; transferable.~~

**Basis of Design Product(s):**

~~Shingles: Individual simulated wood shingles made of cement and cellulose fiber formed under high pressure with integral surface texture, complying with ASTM C1186, Type A, Grade II; with machined edges, for nail attachment.~~

~~Style: Straight edged.~~

~~Texture: Simulated cedar grain.~~

~~Length (Height): 18 inches (455 mm), nominal.~~

~~Thickness: 1/4 inch (6.4 mm), nominal.~~

~~Finish: Paint.~~

~~Color: As indicated on Drawings.~~

~~Warranty: 30 year limited; transferable.~~

**Basis of Design Product(s):**

~~Shingles: Individual "wide" shingles made of cement and cellulose fiber formed under high pressure with integral surface texture, complying with ASTM C1186, Type A, Grade II; with machined edges, for nail attachment.~~

~~Style: Straight edged with light wood grain texture.~~

~~Width: Wider than height; manufacturer's standard.~~

~~Height: 12 inches (305 mm), nominal.~~

~~Thickness: 11/64 inch (4.4 mm).~~

~~Finish: Paint.~~

~~Color: As indicated on Drawings.~~

~~Warranty: 25 year limited; transferable.~~

**Basis of Design Product(s):**

~~Simulated Masonry Panels: Wall panels made of cement and cellulose fiber formed under high pressure with integral surface texture, complying with ASTM C1186, Type A, Grade II; with shiplapped machined edges, for concealed clip attachment.~~

~~Style: Simulated brick appearance.~~

~~Height: 18 inches (457 mm).~~

~~Width (Length): 72 inches (1828 mm).~~

~~Thickness: 3/4 inch (19 mm).~~

~~Warranty: 50 year limited; transferable.~~

**Basis of Design Product(s):**

~~Soffit Panels: Panels made of cement and cellulose fiber formed under high pressure with integral surface texture, complying with ASTM C1186, Type A, Grade II; with machined edges, for nail attachment.~~

~~Texture: Smooth.~~

~~Length: 96 inches (2440 mm), nominal.~~

~~Width: 48 inches (1220 mm).~~

~~Thickness: 5/16 inch (7.9 mm), nominal.~~

~~Finish: Paint.~~

~~Color: As indicated on Drawings.~~

~~Manufacturer: Same as siding.~~

## 2.4 ACCESSORIES

- A. Support for Cladding and Continuous Insulation: Thermal clips.
  - 1. Thermally-broken clips that provide attachment support for girts, angles, channels, and other cladding support framing.
  - 2. Clip Depth: As required for thickness of insulation.
  - 3. Fasteners: As recommended by clip manufacturer.
  - 4. Basis of Design Product(s):
    - a. ISO Clip manufactured by Northern Facades.

- B. Furring Strips, Metal: Galvanized metal channels.
- C. Trim: Same material and texture as siding.
- D. Fasteners: Galvanized or corrosion resistant; length as required to penetrate, 1-1/4 inches (31.8 mm), minimum.
- E. Exterior Soffit Vents: One piece, perforated, ASTM A653/A653M galvanized steel with G90 coating, with edge suitable for direct application to gypsum board and manufactured especially for soffit application, and provide continuous vent.
- F. Sealant: Elastomeric, polyurethane, or silyl-terminated polyether/polyurethane, capable of being painted. Refer to Section 07 92 00 - Joint Sealants.
- G. Finish Paint: Latex house paint acceptable to siding manufacturer; primer recommended by paint manufacturer. Refer to Section 09 90 00 - Painting and Coating.

## **PART 3 EXECUTION**

### **3.1 EXAMINATION**

- A. Examine substrate, clean and repair as required to eliminate conditions that would be detrimental to proper installation.
- B. Verify that water-resistant barrier has been installed over substrate completely and correctly; refer to Section 07 27 26 - Fluid Applied Air Barrier System.
- C. Do not begin until unacceptable conditions have been corrected.
- D. If substrate preparation is responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

### **3.2 PREPARATION**

- A. Protect surrounding areas and adjacent surfaces during execution of this work.
- B. Install Sheet Metal Flashing:

### **3.3 INSTALLATION**

- A. Orientation: Install in orientation indicated on Drawings.
- B. Drainage Mats: Install in accordance with manufacturer's instructions and recommendations.
  - 1. Place mat against exterior wall with fabric side facing out.
  - 2. Mechanically fasten with one fastener per square foot of mat.
    - a. Do not allow fasteners to damage flashing.
  - 3. Seal seams with 2-inch (50.8 mm) wide selvage edge overlap.
    - a. Shingle joints so selvage edge is at bottom.
- C. Install siding in accordance with manufacturer's instructions and recommendations.
  - 1. Read warranty and comply with terms necessary to maintain warranty coverage.
  - 2. Install in accordance with conditions stated in model code evaluation report applicable to location of project.
  - 3. Use trim details as indicated on drawings.
  - 4. Touch up field cut edges before installing.
  - 5. Pre-drill nail holes if necessary to prevent breakage.

~~Simulated Masonry Panels: Install with manufacturer's recommended clips leaving no fasteners visible.~~

- D. Over Steel Studs: Use hot-dipped galvanized self-tapping screws, with the points of at least three screws penetrating each stud the panel crosses and at panel ends.
- E. Allow space for thermal movement between both ends of siding panels that butt against trim; seal joint between panel and trim with specified sealant.

~~Joints in Horizontal Siding: Avoid joints in lap siding except at corners; where joints are inevitable stagger joints between successive courses.~~

- F. Joints in Vertical Siding: Install Z-flashing in horizontal joints between successive courses of vertical siding.
- G. Do not install siding less than 6 inches (152 mm) from ground surface, or closer than 1 inch (25.4 mm) to roofs, patios, porches, and other surfaces where water may collect.

~~Exterior Soffit Vents: Install in accordance with manufacturer's written instructions and at locations indicated on drawings; provide vent area as indicated on drawings.~~

- H. After installation, seal joints except lap joints of lap siding; seal around penetrations, and paint exposed cut edges.

~~Finish Painting: Refer to Section 09 90 00—Painting and Coating.~~

### **3.4 CLEANING**

- A. Refer to Section 01 77 00 - Closeout Procedures for additional requirements.
- B. Clean faced panels in accordance with manufacturer's maintenance instructions, using cleaning materials and methods acceptable to manufacturer.

### **3.5 PROTECTION**

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

**END OF SECTION**

## **SECTION 07 95 13 - EXPANSION JOINT COVER ASSEMBLIES**

### **PART 1 GENERAL**

#### **1.1 RELATED DOCUMENTS**

- A. The provisions of the General Conditions, Supplementary Conditions, Drawings, Specifications, and the Sections included under Division 01 General Requirements and References, are included as a part of this Section as though bound herein.

#### **1.2 SUMMARY**

- A. Section Includes:
  - 1. Expansion joint cover assemblies for ~~floor, wall, ceiling, and soffit~~ floor, wall, and ceiling surfaces.
- B. Related Sections:
  - 1. Section 07 92 00 - Joint Sealants: Sealing expansion and control joints using gunnable and pourable sealants.
  - 2. Section 09 21 16 - Gypsum Board Assemblies: Gypsum board control joint trim.
  - 3. Section 09 21 16 - Gypsum Board Assemblies: Placement of expansion joint assemblies in gypsum board walls and ceilings.
  - 4. Section 09 51 00 - Acoustical Ceilings: Expansion joint assemblies in suspended ceiling grids.

#### **1.3 REFERENCE STANDARDS**

- A. ASTM B221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes; 2021.
- B. ASTM B221M - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes (Metric); 2021.
- C. ASTM B308/B308M - Standard Specification for Aluminum-Alloy 6061-T6 Standard Structural Profiles; 2020.
- D. ASTM B455/B455M - Standard Specification for Copper-Zinc-Lead Alloy (Leaded-Brass) Extruded Shapes; 2020.
- E. ASTM E1966 - Standard Test Method for Fire-Resistive Joint Systems; 2024.
- F. ITS (DIR) - Directory of Listed Products; Current Edition.
- G. UL (DIR) - Online Certifications Directory; Current Edition.
- H. UL 2079 - Standard for Tests for Fire Resistance of Building Joint Systems; Current Edition, Including All Revisions.

#### **1.4 ADMINISTRATIVE REQUIREMENTS**

- A. Installation Templates: For frames and anchors to be embedded in concrete or masonry, furnish templates to relevant installers; include installation instructions and tolerances.

#### **1.5 SUBMITTALS**

- A. Refer to Section 01 33 00 - Submittal Procedures for submittal procedures.
- B. Product Data: Provide joint assembly profiles, profile dimensions, anchorage devices and available colors and finish.
- C. Shop Drawings: Indicate joint and splice locations, miters, layout of the work, affected adjacent construction and anchorage locations.
- D. Samples: Submit two samples 6-inch long, illustrating profile, dimension, color, and finish selected.

- E. Manufacturer's Installation Instructions: Indicate rough-in sizes and required tolerances for item placement.

## **PART 2 PRODUCTS**

### **2.1 MANUFACTURERS**

- A. Subject to compliance with specification requirements, products by the listed manufacturers or fabricators may be submitted for use in the Work.
1. Balco, Inc.: [www.balcousa.com](http://www.balcousa.com).
  2. Construction Specialties, Inc: [www.c-sgroup.com](http://www.c-sgroup.com).
  3. Watson Bowman Acme Corporation: [www.watsonbowmanacme.com](http://www.watsonbowmanacme.com).
- B. Substitutions: Refer to Section 01 25 13 - Product Substitution Procedures.
1. Manufacturers and fabricators not listed must have a minimum of 5 years' experience manufacturing products meeting or exceeding the specifications and comply with Division 01 requirements regarding substitutions to be considered. Submit as a substitution.

### **2.2 DESCRIPTION**

- A. Regulatory Requirements:
1. Code Standards:
    - a. Refer to specification Section 01 41 00 - Regulatory Requirements for code requirements and code standards applicable to all materials and work necessary to complete the scope of work.

### **2.3 EXPANSION JOINT COVER ASSEMBLY APPLICATIONS**

- A. Interior Floor Joints Subject to Thermal Movement (EJC-1):
1. Basis of Design Manufactuer(s) and Product(s):
    - a. Balco, Inc; No-Bump Floor to Floor System, Aluminum (NBAF).
    - b. Construction Specialties, Inc; Allway Standard Metal Floor Covers.
    - c. Watson Bowman Acme Corporation; Wabo CorridorWrap Floor.

~~Interior Floor Joints Subject to Seismic Movement (EJC-2):~~

~~Basis of Design Manufactuer(s) and Product(s):~~

~~Construction Specialties, Inc; Allway Seismic Metal Floor Covers.~~

~~Watson Bowman Acme Corporation; Wabo Allure.~~

- B. Interior Wall/Ceiling Joints Subject to Thermal Movement (EJC-3):
1. Basis of Design Manufactuer(s) and Product(s):
    - a. Balco, Inc; Wall and Ceiling Snap-On Joint Cover (WD).
    - b. Construction Specialties, Inc; Allway Standard Wall and Ceiling Covers.

~~Interior Non-Fire-Rated Wall/Ceiling Joints Subject to Seismic Movement (EJC-4):~~

~~Basis of Design Manufactuer(s) and Product(s):~~

~~Construction Specialties, Inc; Flush Seismic Wall and Ceiling Covers.~~

### **2.4 EXPANSION JOINT COVER ASSEMBLIES**

- A. Expansion Joint Cover Assemblies - General: Factory-fabricated and assembled; designed to completely fill joint openings, sealed to prevent passage of air, dust, water, smoke; suitable for traffic expected.
1. Joint Dimensions and Configurations: As indicated on drawings.
  2. Joint Cover Sizes: Selected to suit joint width and configuration, based on manufacturer's published recommendations and limitations.
  3. Joint Movement Capability: If not indicated, provide minimum plus/minus 25 percent joint movement capability.
  4. Lengths: Provide covers in full lengths required; avoid splicing wherever possible.
  5. Anchors, Fasteners, and Fittings: Provided by cover manufacturer.

- B. Floor Joint Covers: Coordinate with indicated floor coverings.
  - 1. If floor covering is not indicated, obtain instructions from Architect before proceeding.
  - 2. If style is not indicated, provide extruded aluminum frame both sides, resilient seals, and minimize exposed metal.
- C. Resilient Seal Type Covers: Having flat exposed surface without crevices that could collect dirt; designed to withstand expected movement without extrusion of seal from joint assembly; for floors, provide style that is flush with top of floor covering; for exterior joints, weathertight.
- D. Covers in Gypsum Board Assemblies: Provide style with anchoring wings that can be completely covered by joint compound.

## **2.5 MATERIALS**

- A. Resilient Seals:
  - 1. For Ceilings: Any resilient material, flush, pleated, or hollow gasket.
  - 2. For Pedestrian Traffic Applications: EPDM rubber, Neoprene, or Santoprene; no PVC; Shore A hardness of 40 to 50 Durometer.
  - 3. Color: Gray.
- B. Anchors and Fasteners: As recommended by cover manufacturer.
- C. Ferrous Metal Anchors: Galvanized where embedded in concrete or in contact with cementitious materials.
- D. Threaded Fasteners: Aluminum.
- E. Backing Paint for Aluminum Components in Contact with Cementitious Materials: Asphaltic type.

## **PART 3 EXECUTION**

### **3.1 EXAMINATION**

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

### **3.2 INSTALLATION**

- A. Install components and accessories in accordance with manufacturer's instructions.
- B. Install expansion joints in accordance with TCA publication EJ171.
- C. Align work plumb and level, flush with adjacent surfaces.
- D. Rigidly anchor to substrate to prevent misalignment.

### **3.3 PROTECTION**

- A. Do not permit traffic over unprotected floor joint surfaces.
- B. Provide strippable coating to protect finish surface.

**END OF SECTION**

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## **SECTION 08 80 00 - GLAZING**

### **PART 1 GENERAL**

#### **1.1 RELATED DOCUMENTS**

- A. The provisions of the General Conditions, Supplementary Conditions, Drawings, Specifications, and the Sections included under Division 01 General Requirements and References, are included as a part of this Section as though bound herein.

#### **1.2 SUMMARY**

- A. Section Includes: Requirements including but not limited to:
  - 1. Film Overlay (F).
  - 2. Insulating Glazing Units (GI).
  - 3. Tempered Glass (GT).
  - 4. Metal Infill Panes (MP).
  - 5. Glazing Sealants.
  - 6. Accessories necessary for a complete installation.

#### **1.3 REFERENCE STANDARDS**

- A. ANSI Z97.1 - American National Standard for Safety Glazing Materials Used in Buildings - Safety Performance Specifications and Methods of Test; 2015 (Reaffirmed 2020).
- B. ASTM C920 - Standard Specification for Elastomeric Joint Sealants; 2018 (Reapproved 2024).
- C. ASTM C1021 - Standard Practice for Laboratories Engaged in Testing of Building Sealants; 2008 (Reapproved 2023).
- D. ASTM C1036 - Standard Specification for Flat Glass; 2025.
- E. ASTM C1048 - Standard Specification for Heat-Strengthened and Fully Tempered Flat Glass; 2025.
- F. ASTM C1087 - Standard Test Method for Determining Compatibility of Liquid-Applied Sealants with Accessories Used in Structural Glazing Systems; 2023.
- G. ASTM C1281 - Standard Specification for Preformed Tape Sealants for Glazing Applications; 2016.
- H. 16 CFR 1201 - Safety Standard for Architectural Glazing Materials; Current.
- I. AAMA 800 - Specifications and Test Methods for Sealants; 2016.
- J. ASTM C1330 - Standard Specification for Cylindrical Sealant Backing for Use with Cold Liquid-Applied Sealants; 2023.
- K. ASTM C1651 - Standard Test Method for Measurement of Roll Wave Optical Distortion in Heat-Treated Flat Glass; 2025.
- L. ASTM E1300 - Standard Practice for Determining Load Resistance of Glass in Buildings; 2016.
- M. ASTM E2190 - Standard Specification for Insulating Glass Unit Performance and Evaluation; 2019.
- N. ICC (IECC) - International Energy Conservation Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
- O. NFPA 80 - Standard for Fire Doors and Other Opening Protectives; 2025.
- P. NFPA 252 - Standard Methods of Fire Tests of Door Assemblies; 2022.
- Q. NFRC 100 - Procedure for Determining Fenestration Product U-factors; 2023.
- R. NFRC 200 - Procedure for Determining Fenestration Product Solar Heat Gain Coefficient and Visible Transmittance at Normal Incidence; 2023.

- S. NFRC 300 - Test Method for Determining the Solar Optical Properties of Glazing Materials and Systems; 2023.

#### **1.4 DEFINITIONS**

- A. Glass Thickness: Indicated by thickness designations in millimeters according to ASTM C1036.  
B. Interspace: Space between lites of an insulating glass unit.

#### **1.5 PERFORMANCE REQUIREMENTS**

- A. Delegated Design: Design glass panels including comprehensive engineering analysis by a qualified professional engineer lawfully licensed in the State in which the Project is located, using performance requirements and design criteria indicated.
- B. Installed Glazing: Design glazing systems to withstand normal thermal movement and wind and impact loads (where applicable) without failure, including loss or glass breakage attributable to the following: defective manufacture, fabrication, or installation; failure of sealants or gaskets to remain watertight and airtight; deterioration of glazing materials; or other defects in construction.
- C. Structural Performance: Glazing shall withstand the following design loads within limits and under conditions indicated determined according to the BIBC and ASTM E1300.
1. Design Wind Pressures: As indicated on Structural Drawings.
  2. Design Wind Pressures: Determine design wind pressures applicable to Project according to ASCE/SEI 7, based on heights above grade indicated on Drawings.
    - a. Wind Design Data: As indicated on Structural Drawings.
    - b. Basic Wind Speed: As indicated on Structural Drawings.
    - c. Importance Factor: As indicated on Structural Drawings.
  3. Exposure Category: As indicated on Structural Drawings.
  4. Design Snow Loads: As indicated on Structural Drawings.
  5. Thickness of Patterned Glass: Base design of patterned glass on thickness at thinnest part of the glass.
  6. Probability of Breakage for Sloped Glazing: For glass surfaces sloped more than 15 degrees from vertical, design glass for a probability of breakage not greater than 0.001.
  7. Maximum Lateral Deflection: For glass supported on all four edges, limit center of glass deflection at design wind pressure to not more than 1/50 times the short side length or 1 inch (25 mm), whichever is less.
- D. Safety Glazing: Where safety glazing is indicated, provide glazing that complies with 16 CFR 1201, Category II
- E. Thermal and Optical Performance Properties: Provide glass with performance properties specified, as indicated in manufacturer's published test data, based on procedures indicated below:
1. For monolithic glass lites, properties are based on units with lites 6 mm thick.
  2. For laminated glass lites, properties are based on products of construction indicated.
  3. For insulating glass units, properties are based on units of thickness indicated for overall unit and for each lite.
  4. U-Factors: Center of glazing values, according to NFRC 100 and based on LBL's WINDOW 5.2 computer program, expressed as Btu/sq. ft. x h x deg F (W/sq. m x K).
  5. Solar Heat Gain Coefficient and Visible Transmittance: Center of glazing values, according to NFRC 200 and based on LBL's WINDOW 5.2 computer program.
  6. Visible Reflectance: Center-of-glazing values, according to NFRC 300.

#### **1.6 SUBMITTALS**

- A. Product Data: Technical data for each type of product including recommended installation and cleaning procedures.

- B. Glass Samples: For each type of glass required. Prepare samples from same material to be used for Work.
- C. Glazing Schedule: List glass types and thickness for each size opening and location. Use same designations indicated on Drawings.
- D. Delegated Design Submittal: For glass indicated to comply with performance requirements and design criteria, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.
- E. Designer's Qualification Statement.
- F. Product Certificates: Submit glass product certificates required by Code.
  - 1. Glass Manufacturer Certificate: The glass manufacturer shall submit a letter certifying it has reviewed the glazing details proposed for the project, including the use of gaskets and sealants, and that each product furnished is recommended for the application shown and compliance with the Code.
- G. Thermal Stress and Wind Load Analyses: Submit the following from the glass manufacturer:
  - 1. Thermal stress analysis for each exterior glass unit type, each building elevation. The analysis shall clearly indicate the expected service temperature ranges and the effects of partial and full shading on the glass.
    - a. Attach to the thermal stress analysis a statement from the glass manufacturer that based upon this analysis that the resulting thermal stresses will not reduce the specified statistical probability of breakage.
  - 2. Wind load analysis for each glass unit type, each building elevation. The analysis shall indicate the statistical probability of breakage at the design wind pressure does not exceed the specified statistical probability of breakage.
- H. Product Test Reports: Submit test reports for insulating glass and glazing sealants, for tests performed by a qualified testing agency.
  - 1. Glazing Sealants: Provide test reports based on testing current sealant formulations within previous 36 month period.
  - 2. Glazing Sealants: Preconstruction adhesion and compatibility test report.

## 1.7 QUALITY ASSURANCE

- A. Regulatory Requirements:
  - 1. Building Code: Comply with applicable requirements of the IBC for glazing.
  - 2. Safety Glazing Labeling: Where safety glazing is indicated, permanently mark glazing with certification label of the SGCC or manufacturer. Label shall indicate manufacturer's name, type of glass, thickness, and safety glazing standard with which glass complies.
    - a. As a minimum provide Category II materials complying with testing requirements in 16 CFR 1201 16 CFR 1201 (Consumer Product Safety Commission Safety Standard for Architectural Glazing Materials, published in the Code of Federal Regulations) and ANSI Z97.1.
    - b. Permanently mark safety glass with certification label of Safety Glazing Certification Council.
  - 3. Insulating Glass Certification Program: Permanently marked either on spacers or on at least one component lite of units with appropriate certification label of IGCC.
  - 4. Glazing Publications: Comply with published recommendations of glass product organizations
    - a. GANA: Glazing Manual.
    - b. IGMA: SIGMA TM-3000 Vertical Glazing Guidelines.
    - c. GANA: Laminated Glazing Reference Manual.
    - d. AAMA: AAMA GD SG-1 Glass Design for Sloped Glazing.
    - e. AAMA: TIR A7 Sloped Glazing Guidelines.
    - f. IGMA for Sloped Glazing: IGMA TB-3001 Guidelines for Sloped Glazing.

- g. IGMA for Insulating Glass: SIGMA TM-3000 North American Glazing Guidelines for Sealed Insulating Glass Units for Commercial and Residential Use.
  - 5. Fire Rated Door Assemblies: Assemblies complying with NFPA 80 listed and labeled by UL for fire ratings indicated, based on testing according to NFPA 252.
  - 6. Thickness: Where glass thickness is indicated, it is a minimum. Provide glass that complies with performance requirements and is not less than the thickness indicated.
    - a. Minimum Glass Thickness for Exterior Lites: 1/4 inch (6 mm).
    - b. Thickness of Tinted Glass: Provide same thickness for each tint color indicated.
  - 7. Strength: Where annealed float glass is indicated, provide annealed float glass, heat strengthened float glass, or fully tempered float glass necessary to comply with performance requirements.
    - a. Where heat strengthened float glass is indicated, provide heat strengthened float glass or fully tempered float glass necessary to comply with performance requirements.
    - b. Where fully tempered float glass is indicated, provide fully tempered float glass.
- B. Manufacturer Qualifications for Insulating Glass Units with Sputter Coated, Low E Coatings: Insulating glass manufacturer who is approved and certified by coated glass manufacturer.
- C. Fabricator Qualifications:
- D. Installer Qualifications, Glazer: Experience entity having minimum 5 years documented experience and who employs glass installers certified under the National Glass Association's Certified Glass Installer Program.
- E. Installer Qualifications, Decorative Film: Experience entity having minimum 5 years documented experience in the installation of glass films.
- F. Source Limitations for Glass and Glass Accessories: Obtain each type of glass and glass accessories from a single source.
- G. Glass Testing Agency Qualifications: A qualified independent testing agency accredited according to the NFRC CAP 1 Certification Agency Program.
- H. Sealant Testing Agency Qualifications: An independent testing agency qualified according to ASTM C1021 to conduct the testing indicated.
- I. Mockups: Build mockups to demonstrate aesthetic effects and to set quality standards for materials and execution.
- J. Install glazing in mockups specified in to match glazing systems required for Project, including glazing methods.
  - 1. Subject to compliance with requirements, approved mockups may become part of the completed work if undisturbed at time of Substantial Completion.
- K. Pre-Construction Adhesion and Compatibility Testing: Test each glass product, tape sealant, gasket, glazing accessory, and glass framing member for adhesion to and compatibility with elastomeric glazing sealants.
  - 1. Testing is not required if data are submitted based on previous testing of current sealant products and glazing materials matching those submitted.
  - 2. Use ASTM C1087 to determine whether priming and other specific joint-preparation techniques are required to obtain rapid, optimum adhesion of glazing sealants to glass, tape sealants, gaskets, and glazing channel substrates.
  - 3. Test no fewer than eight Samples of each type of material, including joint substrates, shims, sealant backings, secondary seals, and miscellaneous materials.
  - 4. Schedule enough time for testing and analyzing results to prevent delaying the Work.
  - 5. For materials failing tests, submit sealant manufacturer's written instructions for corrective measures including the use of specially formulated primers.
- L. Pre-Installation Conference: Conduct conference at site.

## **1.8 DELIVERY, STORAGE, AND HANDLING**

- A. Protect glazing materials according to manufacturer's written instructions. Prevent damage to glass and glazing materials from condensation, temperature changes, direct exposure to sun, or other causes.
- B. Delivery: Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.
- C. Storage and Protection: Store materials protected from exposure to harmful environmental conditions and at temperature and humidity conditions recommended by manufacturer.
- D. Exercise exceptional care to prevent edge damage to glass, and damage/deterioration to coating on glass.
- E. Comply with insulating glass manufacturer's written instructions for venting and sealing units to avoid hermetic seal ruptures due to altitude change.

## **1.9 FIELD CONDITIONS**

- A. Environmental Limitations: Do not proceed with glazing when ambient and substrate temperature conditions are outside limits permitted by glazing material manufacturers and when glazing channel substrates are wet from rain, frost, condensation, or other causes.
  - 1. Do not install glazing sealants when ambient and substrate temperature conditions are outside limits permitted by sealant manufacturer or are below 40 degrees F (4.4 degrees C).
- B. Field Measurements: Verify actual dimensions of openings and construction contiguous with decorative glass by field measurements before fabrication.

## **1.10 COORDINATION**

- A. Coordinate glazing channel dimensions to provide necessary bite on glass, minimum edge and face clearances, and adequate sealant thicknesses, with reasonable tolerances.

## **1.11 WARRANTY**

- A. Coated Glass Products: Written warranty signed by manufacturer in which glass manufacturer agrees to replace coated glass units that deteriorate within specified warranty period. Deterioration of coated glass is defined as defects developed from normal use that are not attributed to glass breakage or to maintaining and cleaning coated glass contrary to manufacturer's written instructions. Defects include peeling, cracking, and other indications of deterioration in coating.
  - 1. Warranty Period: Ten (10) years from date of Substantial Completion
- B. Laminated Glass: Written warranty signed by manufacturer in which manufacturer agrees to replace laminated glass units that deteriorate within specified warranty period. Deterioration of laminated glass is defined as defects developed from normal use that are not attributed to glass breakage or to maintaining and cleaning laminated glass contrary to manufacturer's written instructions. Defects include edge separation, delamination materially obstructing vision through glass, and blemishes exceeding those allowed by referenced laminated-glass standard.
  - 1. Warranty Period: Ten (10) years from date of Substantial Completion.
- C. Insulating Glass: Written warranty signed by manufacturer in which manufacturer agrees to replace insulating glass units that deteriorate within specified warranty period. Deterioration of insulating glass is defined as failure of hermetic seal under normal use that is not attributed to glass breakage or to maintaining and cleaning insulating glass contrary to manufacturer's written instructions. Evidence of failure is the obstruction of vision by dust, moisture, or film on interior surfaces of glass.
  - 1. Warranty Period: Ten (10) years from date of Substantial Completion.

- D. Glass Film: Written warranty signed by glass film manufacturer and installer in which manufacturer and installer agree to replace glass film that crack, peel, delaminate, discolor, change appearance, or failure to meet solar criteria within specified warranty period.
  - 1. Warranty Period: Five (5) years from date of Substantial Completion.

## **PART 2 PRODUCTS**

### **2.1 MANUFACTURERS**

- A. Subject to compliance with specification requirements, products by the listed manufacturers or fabricators may be submitted for use in the Work.
  - 1. Glass Film:
- B. Substitutions: Refer to Section 01 25 13 - Product Substitution Procedures.
  - 1. Manufacturers and fabricators not listed must have a minimum of 5 years' experience manufacturing products meeting or exceeding the specifications and comply with Division 01 requirements regarding substitutions to be considered. Submit as a substitution.

### **2.2 FABRICATORS**

- A. Manufacturer-certified fabricators.

### **2.3 DESCRIPTION**

- A. Regulatory Requirements:
  - 1. Code Standards:
    - a. Refer to specification Section 01 41 00 - Regulatory Requirements for code requirements and code standards applicable to all materials and work necessary to complete the scope of work.

### **2.4 MATERIALS**

- A. Clear, Annealed, Float Glass: ASTM C1036, Type I, Class 1 (clear), Quality-Q3.
- B. Fully-Tempered Float Glass: ASTM C1048, Kind FT (fully tempered), Condition A (uncoated) unless otherwise indicated, Type I, Class 1 (clear) or Class 2 (tinted) as indicated, Quality-Q3.
  - 1. Fabrication Process: By horizontal (roller hearth) process with roll wave distortion parallel to bottom edge of glass as installed unless otherwise indicated.
  - 2. Optical Distortion Limits: Maximum peak-to-valley wave 0.005 inch (0.127 mm) in the central area of the glazing lie, excluding the leading and trailing 12 inches (305 mm) per ASTM C1651.
  - 3. Maximum center-kink of 0.001 inch (0.025 mm) when roll wave is measured over the surface of the glass perpendicular to the direction of travel through the tempering furnace.
  - 4. Maximum localized bow (warp) per lite shall be 1/32 inch (0.79 mm) per linear foot, one-half of the ASTM C1048 allowance. Maximum overall bow (warp) per lite shall be one-half of the ASTM C1048 allowance.
- C. Glass Film Overlay: Translucent, dimensionally stable, cast PVC film, 2 mil (0.05 mm) minimum thickness, with pressure sensitive, clear adhesive back for adhering to glass and releasable protective backing.

### **2.5 INSULATING GLAZING UNITS**

- A. Insulating Glazing Units: Factory assembled units consisting of sealed lites of glass separated by a dehydrated interspace, qualified according to ASTM E2190.
- B. Sealing System: Dual seal, with polyisobutylene and silicone primary and secondary sealants.
  - 1. Spacer: Aluminum with black, color anodic finish. Thermally broken aluminum
  - 2. Desiccant: Molecular sieve or silica gel, or a blend of both.
  - 3. Performance Properties: Refer to Glazing schedule.
- C. Spandrel Glass:
  - 1. Silicone Coated Spandrel Glass: ASTM C1048, Type I, Condition C, Quality-Q3.

2. Fallout Resistance: Provide spandrel units identical to those passing fallout resistance test for spandrel glass specified in ASTM C1048.

## **2.6 GLASS FILM**

- A. Performance Requirements:
  1. Scratch resistant coating that, after fully cured, facilitates cleaning without damaging or scratching film.
  2. Optical Distortion: When viewed from a distance of 10 feet at angles up to 45 degrees from either side of the glass, there is no discernible distortion.
  3. Edges: Seal edges except when the film is applied with a lacquer that prevents moisture or free water from penetrating between the film and the glass.
- B. Coating: Provide coating with uniform finish, without noticeable pin holes, streaks, thin spots, scratches, or banding.
  1. Light Transmission:
    - a. Maximum Variation across Width and Length: Not to exceed 1 percent.
    - b. Variation in Transmission across Width and Length: Not to exceed 2 percent.
- C. Rate of Change of Total Transmission across Width and Length: Not to exceed 1 percent in 4 inches.

## **2.7 GLAZING ACCESSORIES**

- A. Compatibility: Provide glazing sealants compatible with one another and with other materials in contact, including glass products, seals of insulating glass units, and glazing channel substrates, under conditions of service and application, demonstrated by sealant manufacturer based on testing and field experience.
- B. Suitability: Comply with sealant and glass manufacturers' written instructions for selecting glazing sealants suitable for applications indicated and for conditions existing at time of installation.
- C. Colors of Exposed Glazing Sealants: As selected by the Architect.
- D. Glazing Sealant: Neutral curing silicone glazing sealant complying with ASTM C920, Type S, Grade NS, Class 100/50, Use NT
  1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. Dow Corning Corporation.
      - 1) GE Construction Sealants; Momentive Performance Materials Inc.
      - 2) May National Associates, Inc.; a subsidiary of Sika Corporation.
    - b. Pecora Corporation.
    - c. Sika Corporation.
- E. Glazing Sealant: Neutral curing silicone glazing sealant complying with ASTM C920, Type S, Grade NS, Class 50, Use NT.
  1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. BASF Corporation; Construction Systems.
    - b. Dow Corning Corporation.
    - c. GE Construction Sealants; Momentive Performance Materials Inc.
    - d. May National Associates, Inc.; a subsidiary of Sika Corporation.
    - e. Pecora Corporation.
    - f. Polymeric Systems, Inc.
    - g. Sika Corporation.
- F. Glazing Sealant: Neutral curing silicone glazing sealant complying with ASTM C920, Type S, Grade NS, Class 25, Use NT.

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - a. Bostik, Inc.
  - b. Dow Corning Corporation.
  - c. GE Construction Sealants; Momentive Performance Materials Inc.
  - d. May National Associates, Inc.; a subsidiary of Sika Corporation.
  - e. Polymeric Systems, Inc.
  - f. Schnee-Morehead, Inc., an ITW company.
  - g. Sika Corporation.
- G. Glazing Sealant: Acid curing silicone glazing sealant complying with ASTM C920, Type S, Grade NS, Class 25, Use NT.
  1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. BASF Corporation; Construction Systems.
    - b. Bostik, Inc.
    - c. Dow Corning Corporation.
    - d. GE Construction Sealants; Momentive Performance Materials Inc.
    - e. May National Associates, Inc.; a subsidiary of Sika Corporation.
    - f. Pecora Corporation.
    - g. Polymeric Systems, Inc.
    - h. Schnee-Morehead, Inc., an ITW company.
    - i. Sika Corporation.
- H. Glazing Sealants for Fire-Resistance-Rated Glazing Products: Neutral curing silicone glazing sealant complying with ASTM C920, Type S, Grade NS, Class 50, Use NT. Comply with sealant and glass manufacturers' written instructions for selecting glazing sealants suitable for applications indicated.
  1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. Dow Corning Corporation.
    - b. GE Construction Sealants; Momentive Performance Materials Inc.
  2. Colors of Exposed Glazing Sealants: As selected by Architect.
- I. Back Bedding Mastic Glazing Tapes: Preformed, butyl based, 100 percent solids elastomeric tape; non-staining and non-migrating in contact with nonporous surfaces; with or without spacer rod recommended in writing by tape and glass manufacturers for application indicated; and complying with ASTM C1281 and AAMA 800 for products indicated below:
  1. AAMA 804.3 tape, where indicated.
  2. AAMA 806.3 tape, for glazing applications in which tape is subject to continuous pressure.
  3. AAMA 807.3 tape, for glazing applications in which tape is not subject to continuous pressure.
- J. Expanded Cellular Glazing Tapes: Closed-cell, PVC foam tapes; factory coated with adhesive on both surfaces; and complying with AAMA 800 for the following types:
  1. AAMA 810.1, Type 1, for glazing applications in which tape acts as the primary sealant.
  2. AAMA 810.1, Type 2, for glazing applications in which tape is used in combination with a full bead of liquid sealant.
- K. Miscellaneous Glazing Accessories: Provide products of material, size, and shape complying with referenced glazing standard, with requirements of manufacturers of glass and other glazing materials for application indicated, and with proven record of compatibility with surfaces contacted in installation.
  1. Cleaners, Primers, and Sealers: Types recommended by sealant or gasket manufacturer.



2. Setting Blocks: Silicone, minimum 4 inches long and wide enough to fully support all lites of glazing unit.
3. Spacers: Silicone blocks or continuous extrusions of hardness required by glass manufacturer to maintain glass lites in place for installation indicated.
4. Edge Blocks: Silicone material of hardness needed to limit glass lateral movement (side walking).
5. Cylindrical Glazing Sealant Backing: ASTM C1330, Type O (open-cell material), of size and density to control glazing sealant depth and otherwise produce optimum glazing sealant performance.
6. Perimeter Insulation for Fire Resistant Glazing: Product approved by testing agency listed and labeled fire resistant glazing product with which it is used for application and fire protection rating indicated.

## **2.8 FABRICATION OF GLAZING UNITS**

- A. Fabricate glazing units in sizes required to fit openings indicated for Project, with edge and face clearances, edge and surface conditions, and bite complying with written instructions of product manufacturer and referenced glazing publications, to comply with system performance requirements.
  1. Allow for thermal movements from ambient and surface temperature changes acting on glass framing members and glazing components.
    - a. Temperature Change: 120 degrees F (67 degrees C), ambient; 180 degrees F (100 degrees C), material surfaces.
  2. Edge and Surface Conditions: Comply with the recommendations of AAMA Structural Properties of Glass for clean cut edges, except comply with manufacturer's recommendations.
  3. Exposed Glass Edges and Surface Condition: Finish edges flat with an arrissed edge profile (small bevel of uniform width not exceeding 0.06 inch (1.5 mm) at an angle of approximately 45 degrees to the surface of the glass) with polished (surface is reflective in appearance similar to the major surface of the glass) surface.
- B. Cutting: Wheel cut or sawed edges and seamed at manufacturer's option. For site cut glass, provide glass 2 inches (51 mm) larger than required in both dimensions to facilitate cutting of clean cut edges without the necessity of seaming or nipping. Do not cut, seam, nip or abrade heat treated glass.
- C. Butt Glazing: Clean cut or flat grind vertical edges of butt glazed monolithic lites to produce square edges with slight chamfers at junctions of edges and faces.
  1. Edges: Grind smooth and polish exposed glass edges and corners.

## **PART 3 EXECUTION**

### **3.1 EXAMINATION**

- A. Examine framing, glazing channels, and stops, with Installer present, for compliance with the following:
  1. Manufacturing and installation tolerances, including size, squareness, and offsets at corners.
  2. Presence and functioning of weep systems.
  3. Minimum required face and edge clearances.
  4. Effective sealing between joints of glass-framing members.
- B. Proceed with installation after correcting unsatisfactory conditions.

### **3.2 PREPARATION**

- A. Clean glazing channels and framing members receiving glass immediately before glazing. Remove coatings not firmly bonded to substrates.

1. Comply with manufacturer instructions for wiping of surfaces immediately before application of primers.
  2. Wipe metal surfaces with isopropyl alcohol unless otherwise required by compatibility and adhesion testing results.
- B. Inspect each piece of glass immediately before installation. Do not install pieces improperly sized or with damaged edges, scratches, abrasion, or evidence damage. Remove labels from glass immediately after installation.
- C. Examine glazing units to locate exterior and interior surfaces. Label or mark units so exterior and interior surfaces are readily identifiable. Do not use materials that leave visible marks in the completed Work.
- D. Seal vent (breather or capillary) tubes in insulating glass units in accordance with insulating glass manufacturer written recommendations.
- E. Glass Film Preparation:
1. Remove particulate matter on the glass surface using a scraping blade.
  2. Place an absorbent towel on window sill or sash to absorb moisture generated by the film application.

### **3.3 GLAZING**

- A. Comply with combined written instructions of manufacturers of glass, sealants, gaskets, and glazing materials, unless more stringent requirements are indicated, including those in referenced glazing publications.
- B. Protect glass edges from damage during handling and installation. Remove damaged glass from Project site and legally dispose of off Project site. Damaged glass includes glass with edge damage or other imperfections that, when installed, could weaken glass, impair performance, or impair appearance.
- C. Apply primers to joint surfaces where required for adhesion of sealants, as determined by preconstruction testing.
- D. Install setting blocks in sill rabbets, sized and located to comply with referenced glazing publications, unless otherwise required by glass manufacturer. Set blocks in thin course of compatible sealant suitable for heel bead.
- E. Do not exceed edge pressures stipulated by glass manufacturers for installing glass lites.
- F. Provide spacers for glass lites where length plus width is larger than 50 inches (1270 mm).
1. Locate spacers directly opposite each other on both inside and outside faces of glass. Install correct size and spacing to preserve required face clearances, unless gaskets and glazing tapes are used that have demonstrated ability to maintain required face clearances and to comply with system performance requirements.
  2. Provide 1/8 inch (3 mm) 1/8 inch (3 mm) minimum bite of spacers on glass and use thickness equal to sealant width. With glazing tape, use thickness slightly less than final compressed thickness of tape.
- G. Provide edge blocking where indicated or needed to prevent glass lites from moving sideways in glazing channel, as recommended in writing by glass manufacturer and according to requirements in referenced glazing publications.
- H. Set glass lites in each series with uniform pattern, draw, bow, and similar characteristics.
- I. Set glass lites with proper orientation so that coatings face exterior or interior as specified.
- J. Where wedge shaped gaskets are driven into one side of channel to pressurize sealant or gasket on opposite side, provide adequate anchorage so gasket cannot walk out when installation is subjected to movement.

1. Square cut wedge shaped gaskets at corners and install gaskets as recommended by gasket manufacturer to prevent corners from pulling away; seal corner joints and butt joints with sealant recommended by gasket manufacturer.
- K. Tape Glazing: Position tapes on fixed stops so that, when compressed by glass, the exposed edges are flush with or protrude slightly above sightline of stops.
1. Install tapes continuously, but not necessarily in one continuous length. Do not stretch tapes to make tapes fit opening.
  2. Cover vertical framing joints by applying tapes to heads and sills first, then to jambs. Cover horizontal framing joints by applying tapes to jambs, then to heads and sills.
  3. Place joints in tapes at corners of opening with adjoining lengths butted together, not lapped. Seal joints in tapes with compatible sealant approved by tape manufacturer.
  4. Do not remove release paper from tape until right before each glazing unit is installed.
  5. Apply heel bead of elastomeric sealant.
  6. Center glass lites in openings on setting blocks, and press firmly against tape by inserting dense compression gaskets formed and installed to lock in place against faces of removable stops. Start gasket applications at corners and work toward centers of openings.
  7. Apply cap bead of elastomeric sealant over exposed edge of tape.
- L. Gasket Glazing (Dry): Cut compression gaskets to lengths recommended by gasket manufacturer to fit openings exactly, with allowance for stretch during installation.
1. Insert soft compression gasket between glass and frame or fixed stop so it is securely in place with joints miter cut and bonded together at corners.
  2. Installation with Drive in Wedge Gaskets: Center glass lites in openings on setting blocks, and press firmly against soft compression gasket by inserting dense compression gaskets formed and installed to lock in place against faces of removable stops. Start gasket applications at corners and work toward centers of openings. Compress gaskets to produce a weathertight seal without developing bending stresses in glass. Seal gasket joints with sealant recommended by gasket manufacturer.
  3. Installation with Pressure Glazing Stops: Center glass lites in openings on setting blocks, and press firmly against soft compression gasket. Install dense compression gaskets and pressure glazing stops, applying pressure uniformly to compression gaskets. Compress gaskets to produce a weathertight seal without developing bending stresses in glass. Seal gasket joints with sealant recommended by gasket manufacturer.
  4. Install gaskets to protrude past face of glazing stops.
- M. Sealant Glazing (Wet): Install continuous spacers, or spacers combined with cylindrical sealant backing, between glass lites and glazing stops to maintain glass face clearances and to prevent sealant from extruding into glass channel and blocking weep systems until sealants cure. Secure spacers or spacers and backings in place and in position to control depth of installed sealant relative to edge clearance for optimum sealant performance.
1. Force sealants into glazing channels to eliminate voids and to ensure complete wetting or bond of sealant to glass and channel surfaces.
  2. Tool exposed surfaces of sealants to provide a substantial wash away from glass.
- N. Structurally Glazed Units: Set full height continuous structural gaskets/spacers to vertical mullions. Set glass units with void between edge of units and head/sill channel, but with units fully within head/sill rebate so as to provide a proper bite.
1. Align glass unit edges over vertical mullion continuous structural gasket/spacers and secure with manufacturers recommended temporary cleats.
  2. Structurally seal glass unit to vertical mullions with specified one part structural silicone sealant. Tool structural silicone flush in alignment to mullion face and perpendicular to face of interior glass light; remove excess structural silicone from glass and metal substrates.

3. After full cure of structural silicone sealant remove temporary cleats. Immediately seal holes left in the vertical mullions caused by temporary cleats.
  4. Insert and shape weatherseal joint backer rods, or gaskets, into vertical void between glass units and at a proper depth to receive silicone weatherseal sealant.
  5. Place silicone weatherseal sealant into void and tool flush with adjacent exterior glass light faces; remove excess sealant from glass and metal substrates.
- O. Glass Film Overlay: Apply squarely aligned to glass edges, uniformly smooth, and free from tears, air bubbles, wrinkles, and rough edges, in single sheet completely overlaying in pattern indicated on Drawings to the interior face of clean glass, according to manufacturer's written instructions, using the squeegee technique to remove moisture.
1. Cut film edges neatly and square at a uniform distance of 1/16 inch (1.6 mm) 1/16 inch (1.5 mm) to 1/32 inch (0.79 mm) of the window sealing device. Avoid scoring glass when cutting film.
  2. Clean film and leave free of soap residue and squeegee marks.
- P. Erection Tolerances:
1. Maximum Deviation from Vertical: 1/8 inch (3 mm) in any story and 1/4 inch (6 mm) in any 45 feet (13.7 m) run.
  2. Maximum Deviation from Horizontal: 1/8 inch (3 mm) in any 30 feet (9 m) run.
  3. Maximum Deviation from True Alignment: 1/32 inch (0.79 mm) for any two (2) abutting units. Allow no edge projections.
  4. Maximum Joint Gap: 1/32 inch (0.79 mm).

### 3.4 CLEANING AND PROTECTION

- A. Immediately after installation remove nonpermanent labels and clean surfaces.
- B. Protect glass from contact with contaminating substances resulting from construction operations. Examine glass surfaces adjacent to or below exterior concrete and other masonry surfaces at frequent intervals during construction, but not less than once a month, for buildup of dirt, scum, alkaline deposits, or stains.
1. If contaminating substances come into contact with glass, remove substances immediately as recommended in writing by glass manufacturer. Remove and replace glass that cannot be cleaned without damage to coatings.
- C. Remove and replace glass that is damaged during construction period.
- D. Wash glass on both exposed surfaces not more than four days before date scheduled for inspections that establish date of Substantial Completion. Wash glass as recommended in writing by glass manufacturer.

## PART 4 SCHEDULE

### 4.1 GLAZING SCHEDULE

- A. Film Overlay (F):
1. F1: Privacy Film Overlay: Matte privacy film.
    - a. Basis of Design Product: Match existing.
      - 1) ~~Llumar Decorative Frost Film — Acid Etch manufactured by Eastman, a subsidiary of CPFilms, Inc.~~
- B. Insulating Glazing Units (GI):
1. General
    - a. Minimum Performance Requirements per ICC (IECC):
      - 1) U-Factor: 0.50 (maximum).
      - 2) Solar Heat Gain Coefficient: 0.25 (maximum).
  2. Type GI1:
    - a. Basis of Design: SolarBan 90 on Clear manufactured by Vitro.Architectural Glass.
    - b. Assembly:

- 1) Exterior Lite:
  - (a) Thickness: 1/4 inch (6 mm).
  - (b) Color: Clear.
  - (c) Coatings: Solarban 90 on surface #2.
- 2) Gap:
  - (a) Size: 1/2 inch (13 mm).
  - (b) Gas: Air.
- 3) Interior Lite:
  - (a) Thickness: 1/4 inch (6 mm).
  - (b) Color: Clear.
  - (c) Coatings: Solarban 90 on surface #3.
- c. Performance:
  - 1) Visible Transmittance (%): 51.
  - 2) Winter Night-time U-value: 0.29 (air).
  - 3) Solar Heat Gain Coefficient: 0.23.
  - 4) Light to Solar Gain Ratio (LSG): 2.22.
- C. Tempered Glazing (GT):
  1. Type GT1: 1/4 inch thick glazing quality, clear, tempered float glass.
- D. Metal-Faced Insulated Infill Panels (MP):
  1. Type MP1: 1 inch (25 mm) thick, metal-faced panel, color: As selected by Architect from manufacturer's full line.  
~~Type MP2: 1 inch (25 mm) thick, metal-faced panel, color: As selected by Architect from manufacturer's full line.~~  
~~Type MP3: 1 inch (25 mm) thick, metal-faced panel, color: As selected by Architect from manufacturer's full line.~~

**END OF SECTION**

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## **SECTION 09 05 61 - COMMON WORK RESULTS FOR FLOORING PREPARATION**

### **PART 1 GENERAL**

#### **1.1 RELATED DOCUMENTS**

- A. The provisions of the General Conditions, Supplementary Conditions, Drawings, Specifications, and the Sections included under Division 01 General Requirements and References, are included as a part of this Section as though bound herein.

#### **1.2 SUMMARY**

- A. Section Includes:
  - 1. This section applies to floors identified in Contract Documents that are receiving the following types of floor coverings:
    - a. Resilient tile.
  - 2. Preparation of existing concrete floor slabs for installation of floor coverings.
  - 3. Remediation of concrete floor slabs due to unsatisfactory moisture or alkalinity (pH) conditions.
    - a. The Contractor shall perform all specified remediation of concrete floor slabs. If such remediation is indicated by testing agency's report and is due to a condition not under The Contractor's control or could not have been predicted by examination prior to entering into the contract, a contract modification will be issued.
  - 4. Remedial floor coatings.
  - 5. Remedial floor sheet membrane.
- B. Related Sections:
  - 1. Section 01 40 00 - Quality Requirements: Additional requirements relating to testing agencies and testing.
  - 2. Section 01 74 19 - Construction Waste Management and Disposal: Handling of existing floor coverings removed.
  - 3. Section 02 41 00 - Demolition: Removal of existing flooring.
  - 4. Section 03 54 00 - Cast Underlayment: Self-leveling underlayment applied as remediation treatment.
  - 5. Section 07 95 13 - Expansion Joint Cover Assemblies.
  - 6. Section 09 65 00 - Resilient Flooring.

#### **1.3 REFERENCE STANDARDS**

- A. ASTM F1482 - Standard Practice for Installation and Preparation of Panel Type Underlayments to Receive Resilient Flooring; 2021.

#### **1.4 DEFINITIONS**

- A. Refer to Section 01 42 16 - Definitions for the following terms:
  - 1. Adhesives.
  - 2. Volatile Organic Compound (VOC).

#### **1.5 ADMINISTRATIVE REQUIREMENTS**

- A. Coordinate scheduling of cleaning and testing, so that preliminary cleaning has been completed for at least 24 hours prior to testing.

#### **1.6 SUBMITTALS**

- A. Floor Covering and Adhesive Manufacturers' Product Literature: For each specific combination of substrate, floor covering, and adhesive to be used; showing:
  - 1. Moisture and alkalinity (pH) limits and test methods.
  - 2. Manufacturer's required bond/compatibility test procedure.
- B. Remedial Materials Product Data: Manufacturer's published data on each product to be used for remediation.

1. Manufacturer's qualification statement.
  2. Manufacturer's statement of compatibility with types of flooring applied over remedial product.
  3. Test reports indicating compliance with specified performance requirements, performed by nationally recognized independent testing agency.
  4. Manufacturer's installation instructions.
  5. Specimen Warranty: Copy of warranty to be issued by coating manufacturer and certificate of underwriter's coverage of warranty.
- C. Adhesive Bond and Compatibility Test Report.
- D. Floor Moisture Testing Technician Certificate: International Concrete Repair Institute (ICRI) Concrete Slab Moisture Testing Technician-Grade I certificate.

#### **1.7 PERFORMANCE REQUIREMENTS**

- A. Refer to the following for specific sub-flooring and finish flooring requirements:
1. Section 03 54 00 - Cast Underlayment.
  2. Section 09 65 00 - Resilient Flooring.

#### **1.8 QUALITY ASSURANCE**

- A. The Contractor may perform adhesive and bond test with the Contractor's own personnel or hire a testing agency.
- B. Testing Agency Qualifications: Independent testing agency experienced in the types of testing specified.
1. Submit evidence of experience consisting of at least 3 test reports of the type required, with project Owner's project contact information.
  2. Testing Agencies:
    - a. Testing agencies acceptable to the Owner.
    - b. Substitutions: Submit to the Owner and the Architect.
- C. Floor Moisture Testing Technician Qualifications: International Concrete Repair Institute (ICRI) Concrete Slab Moisture Testing Technician Certification-Grade I.
- D. Remedial Coating Installer Qualifications: Company specializing in performing work of the type specified in this section, trained by or employed by coating manufacturer, and able to provide at least 3 project references showing at least 3 years' experience installing moisture emission coatings.

#### **1.9 DELIVERY, STORAGE, AND HANDLING**

- A. Deliver, store, handle, and protect products in accordance with manufacturer's instructions and recommendations.
- B. Deliver materials in manufacturer's packaging; include installation instructions.
- C. Keep materials from freezing.

#### **1.10 FIELD CONDITIONS**

- A. Maintain ambient temperature in spaces where concrete testing is being performed, and for at least 48 hours prior to testing, at not less than 65 degrees F (18 degrees C) or more than 85 degrees F (30 degrees C).
- B. Maintain relative humidity in spaces where concrete testing is being performed, and for at least 48 hours prior to testing, at not less than 40 percent and not more than 60 percent.

#### **1.11 WARRANTY**

- A. Provide Flooring Adhesive Manufacturer's:
1. Material and Workmanship Warranty:



- a. Aerosol (22oz, 18oz) Flooring Adhesive shall be free from defects in material and workmanship for a period of 2 years from date of manufacture when handled, stored and transported per adhesive manufacturer's requirements.
2. Delamination Warranty that there shall be no delamination failure:
  - a. Due to adhesive failure for a period of five (5) years from date of installation when applied to adhere approved flooring materials per Adhesive manufacturer's requirements.

## **PART 2 PRODUCTS**

### **2.1 MANUFACTURERS**

- A. Subject to compliance with specification requirements, products by the listed manufacturers or fabricators may be submitted for use in the Work.
  1. Remedial Floor Coatings:
    - a. Allied Construction Technologies, Inc: [www.actechperforms.com](http://www.actechperforms.com).
    - b. ARDEX Engineered Cements: [www.ardexamericas.com](http://www.ardexamericas.com).
    - c. AVECS, LLC: [www.avecs.build](http://www.avecs.build).
    - d. Crown Polymers, a division of American Polymers Corporation: [www.crownpolymers.com](http://www.crownpolymers.com).
    - e. Custom Building Products, a Quikrete Company: [www.custombuildingproducts.com](http://www.custombuildingproducts.com).
    - f. Floor Seal Technology, Inc: [www.floorseal.com](http://www.floorseal.com).
    - g. GCP Applied Technologies: [www.gcpat.com](http://www.gcpat.com).
    - h. H.B. Fuller Construction Products, Inc: [www.tecspecialty.com](http://www.tecspecialty.com).
    - i. LATICRETE International, Inc: [www.laticrete.com](http://www.laticrete.com).
    - j. Loba-Wakol, LLC: [www.loba-wakol.com](http://www.loba-wakol.com).
    - k. Maxxon Corporation: [www.maxxon.com](http://www.maxxon.com).
    - l. Polycoat Products; Polycoat PC FMB; [www.polycoatusa.com](http://www.polycoatusa.com).
    - m. Proflex Products, Inc: [www.proflex.us](http://www.proflex.us).
    - n. Rust-Oleum Corporation: [www.rustoleum.com](http://www.rustoleum.com).
    - o. Sika Corporation: [www.sikafloorusa.com](http://www.sikafloorusa.com).
    - p. Stauf USA, LLC: [www.staufusa.com](http://www.staufusa.com).
    - q. Tnemec Company, Inc: [www.tnemec.com](http://www.tnemec.com).
    - r. USG Corporation: [www.usg.com](http://www.usg.com).
    - s. UZIN UTZ NORTH AMERICA, INC: [us.uzin.com](http://us.uzin.com).
  2. Remedial Floor Sheet Membrane:
    - a. GCP Applied Technologies: [www.gcpat.com](http://www.gcpat.com).
- B. Substitutions: Refer to Section 01 25 13 - Product Substitution Procedures.
  1. Manufacturers and fabricators not listed must have a minimum of 5 years' experience manufacturing products meeting or exceeding the specifications and comply with Division 01 requirements regarding substitutions to be considered. Submit as a substitution.

### **2.2 DESCRIPTION**

- A. Regulatory Requirements:
  1. Code Standards:
    - a. Refer to specification Section 01 41 00 - Regulatory Requirements for code requirements and code standards applicable to all materials and work necessary to complete the scope of work.

### **2.3 MATERIALS**

- A. Patching Compound: Refer to Section 03 54 00 - Cast Underlayment.
- B. Remedial Floor Coating: Single- or multi-layer coating or coating/overlay combination intended by its manufacturer to resist water vapor transmission to degree sufficient to meet flooring

manufacturer's emission limits, resistant to the level of alkalinity (pH) found, and suitable for adhesion of flooring without further treatment.

1. Basis of Design Product(s):
    - a. AC Tech 2170 manufactured by Allied Construction Technologies, Inc.
    - b. ARDEX MC RAPID manufactured by ARDEX Engineered Cements.
    - c. RE-ACT manufactured by AVECS, LLC.
    - d. CrownShield 8303 MVB manufactured by Crown Polymers.
    - e. TechMVC Moisture Vapor and Alkalinity Barrier manufactured by Custom Building Products.
    - f. MES 100 with Floor Seal FloorCem SLU manufactured by Floor Seal Technology, Inc.
    - g. Kovara AB 300 manufactured by GCP Applied Technologies.
    - h. TEC LiquiDam with TEC Level Set 200 SLU manufactured by H.B. Fuller Construction Products, Inc.
    - i. LATICRETE NXT Vapor Reduction Coating with LATICRETE NXT Level Plus manufactured by LATICRETE International, Inc.
    - j. LATICRETE SUPERCAP Moisture Vapor Control with LATICRETE SUPERCAP Underlayment manufactured by LATICRETE International, Inc.
    - k. WAKOL PU 280 Moisture Barrier manufactured by Loba-Wakol, LLC.
    - l. Aquafin SG2 manufactured by Maxxon Corporation.
    - m. Polycoat PC FMB manufactured by Polycoat Products.
    - n. Moisture Barrier 25 with DPU - Deep Pour Underlayment manufactured by Proflex Products, Inc.
    - o. TVB - Topside Vapor Barrier 100% Solids manufactured by Rust-Oleum Corporation.
    - p. Sikafloor Moisture Tolerance Epoxy Primer and Sikafloor Self-Leveling Moisture Tolerant Resurfacer manufactured by Sika Corporation.
    - q. ERP-270 Perma-Seal manufactured by Stauf USA, LLC.
    - r. Series 208 Epoxoprime MVT manufactured by Themec Company, Inc.
    - s. Durock Brand CST Moisture Vapor Reducer manufactured by USG Corporation.
    - t. UZIN PE 460 with UZIN PE 280 and UZIN NC 170 LevelStar manufactured by UZIN UTZ NORTH AMERICA, INC.
  2. Thickness: As required for application and in accordance with manufacturer's installation instructions, 1/8 inch (3.2 mm), maximum.
  3. Use product recommended by testing agency.
- C. Remedial Floor Sheet Membrane: Pre-formed multi-ply sheet membrane installed over concrete subfloor and intended by its manufacturer to resist water vapor transmission to degree sufficient to meet flooring manufacturer's emission limits, resistant to the level of alkalinity (pH) found, and suitable for adhesion of flooring without further treatment.
1. Basis of Design Product:
    - a. Kovara MBX manufactured by GCP Applied Technologies.
  2. Thickness: 28 mil (0.028 inch) (0.711 mm).
  3. Tape: Types recommended by underlayment manufacturer to install membrane and cover seams.
- D. Moisture Vapor Barrier: Two-part, 100%-solids, liquid-applied epoxy moisture-mitigation coating installed over properly prepared concrete slabs at selected mil thickness, intended to limit vapor transmission and reduce surface alkalinity to levels suitable for floor-covering installation; acceptable for use on concrete meeting ASTM F2170.
1. Basis of Design Product:
    - a. Resuprime MVB Moisture Vapor Barrier as manufactured by Sherwin Williams.
  2. Thickness: As selected by Architect for intended application.

### PART 3 EXECUTION

### **3.1 REMOVAL OF EXISTING FLOOR COVERINGS**

- A. Refer to Section 02 41 00 - Demolition.

### **3.2 CONCRETE SLAB PREPARATION**

- A. Follow recommendations of testing agency.
- B. Perform following operations in the order indicated:
  - 1. Existing concrete slabs (on-grade and elevated) with existing floor coverings:
    - a. Visual observation of existing floor covering, for adhesion, water damage, alkaline deposits, and other defects.
    - b. Removal of existing floor covering in accordance with Section 02 41 00 - Demolition.
  - 2. Existing concrete slabs with coatings or penetrating sealers/hardeners/dustproofers:
    - a. Do not attempt to remove coating or penetrating material.
    - b. Do not abrade surface.
  - 3. Preliminary cleaning.
  - 4. Moisture vapor emission tests; 3 tests in the first 1000 square feet (100 square meters) and one test in each additional 1000 square feet (100 square meters), unless otherwise indicated or required by flooring manufacturer.
  - 5. Internal relative humidity tests; in same locations as moisture vapor emission tests, unless otherwise indicated.
  - 6. Alkalinity (pH) tests; in same locations as moisture vapor emission tests, unless otherwise indicated.
  - 7. Specified remediation, if required.
  - 8. Patching, smoothing, and leveling, as required.
  - 9. Other preparation specified.
  - 10. Adhesive bond and compatibility test.
  - 11. Protection.
- C. Remediations:
  - 1. Active Water Leaks or Continuing Moisture Migration to Surface of Slab: Correct this condition before doing any other remediation; re-test after correction.
  - 2. Excessive Moisture Emission or Relative Humidity: If an adhesive that is resistant to the level of moisture present is available and acceptable to flooring manufacturer, use that adhesive for installation of the flooring; if not, apply remedial floor coating or remedial sheet membrane over entire suspect floor area.
  - 3. Excessive Alkalinity (pH): If remedial floor coating is necessary to address excessive moisture, no additional remediation is required; if not, if an adhesive that is resistant to the level present is available and acceptable to the flooring manufacturer, use that adhesive for installation of the flooring; otherwise, apply a skim coat of specified patching compound over entire suspect floor area.

### **3.3 WOOD SUBFLOORING PREPARATION**

- A. Prepare Wood Substrates and Panel Type Underlayment per ASTM F1482 and floor finish manufacturer's requirements.

### **3.4 PRELIMINARY CLEANING**

- A. Clean floors of dust, solvents, paint, wax, oil, grease, asphalt, residual adhesive, adhesive removers, film-forming curing compounds, sealing compounds, alkaline salts, excessive laitance, mold, mildew, and other materials that might prevent adhesive bond.
- B. Do not use solvents or other chemicals for cleaning.

### **3.5 MOISTURE VAPOR EMISSION TESTING**

- A. Where the floor covering manufacturer's requirements conflict with either the referenced test method or this specification, comply with the manufacturer's requirements.

- B. Where this specification conflicts with the referenced test method, comply with the requirements of this section.
- C. Test in accordance with ASTM F1869 and as follows.
- D. Plastic sheet test and mat bond test may not be substituted for the specified ASTM test method, as those methods do not quantify the moisture content sufficiently.
- E. In the event that test values exceed floor covering manufacturer's limits, perform remediation as indicated. In the absence of manufacturer limits, perform remediation if test values exceed 3 pounds per 1000 square feet (1.4 kg per 93 square meters) per 24 hours.
- F. Report: Report the information required by the test method.

### **3.6 INTERNAL RELATIVE HUMIDITY TESTING**

- A. Where the floor covering manufacturer's requirements conflict with either the referenced test method or this specification, comply with the manufacturer's requirements.
- B. Where this specification conflicts with the referenced test method, comply with the requirements of this section.
- C. Test in accordance with ASTM F2170 Procedure A and as follows.
- D. Testing with electrical impedance or resistance apparatus may not be substituted for the specified ASTM test method, as the values determined are not comparable to the ASTM test values and do not quantify the moisture content sufficiently.
- E. In the event that test values exceed floor covering manufacturer's limits, perform remediation as indicated. In the absence of manufacturer limits, perform remediation if any test value exceeds 75 percent relative humidity.
- F. Report: Report the information required by the test method.

### **3.7 ALKALINITY TESTING**

- A. Where the floor covering manufacturer's requirements conflict with either the referenced test method or this specification, comply with the manufacturer's requirements.
- B. The following procedure is the equivalent of that described in ASTM F710, repeated here for the Contractor's convenience.
  - 1. Use a wide range alkalinity (pH) test paper, its associated chart, and distilled or deionized water.
  - 2. Place several drops of water on a clean surface of concrete, forming a puddle approximately 1 inch (25 mm) in diameter. Allow the puddle to set for approximately 60 seconds, then dip the alkalinity (pH) test paper into the water, remove it, and compare immediately to chart to determine alkalinity (pH) reading.
  - 3. Use of a digital pH meter with probe is acceptable; follow meter manufacturer's instructions.
- C. In the event that test values exceed floor covering manufacturer's limits, perform remediation as indicated. In the absence of manufacturer limits, perform remediation if alkalinity (pH) test value is over 10.

### **3.8 PREPARATION**

- A. Refer to individual floor covering section(s) for additional requirements.
- B. Comply with recommendations of testing agency.
- C. Comply with requirements and recommendations of floor covering manufacturer.
- D. Fill and smooth surface cracks, grooves, depressions, control joints and other non-moving joints, and other irregularities with patching compound.
- E. Do not fill expansion joints, isolation joints, or other moving joints.

### **3.9 ADHESIVE BOND AND COMPATIBILITY TESTING**

- A. Comply with requirements and recommendations of floor covering manufacturer.

### **3.10 APPLICATION OF REMEDIAL FLOOR COATING**

- A. Comply with requirements and recommendations of coating manufacturer.

### **3.11 INSTALLATION OF REMEDIAL FLOOR SHEET MEMBRANE**

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

### **3.12 INSTALLATION OF MOISTURE VAPOR BARRIER**

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

### **3.13 APPLICATION OF SPRAY-APPLIED ADHESIVE**

- A. Installation per each floor finish assembly product manufacturer's written instructions, and as follows:
1. Spray-Applied Adhesive Method:
    - a. Do not place finish-flooring product until adhesive applied to substrate is ready to receive it per adhesive manufacturer's instructions.
    - b. Mark floor equivalent to manufacturer's recommended area for size of container used. Apply no more or less adhesive than what manufacturer recommends.
    - c. Outline perimeter of the room with a 4-5 inch (100-125 mm) wide band of adhesive. Apply the adhesive from 8-12 inches (200-300 mm) above the substrate.
    - d. Lay flooring finish material, adjust and reset until layout placement is certain.
    - e. Following installation of finish flooring (typically within an hour after installing) roll entire floor area with a 75 to 100 lb (34 to 45 kg) roller to ensure proper bonding with instant shear strength.
  2. Close space to traffic for 2 hours before beginning installation, however, flooring is immediately available after rolling for all range of use.

### **3.14 PROTECTION**

- A. Cover prepared floors with building paper or other durable covering.

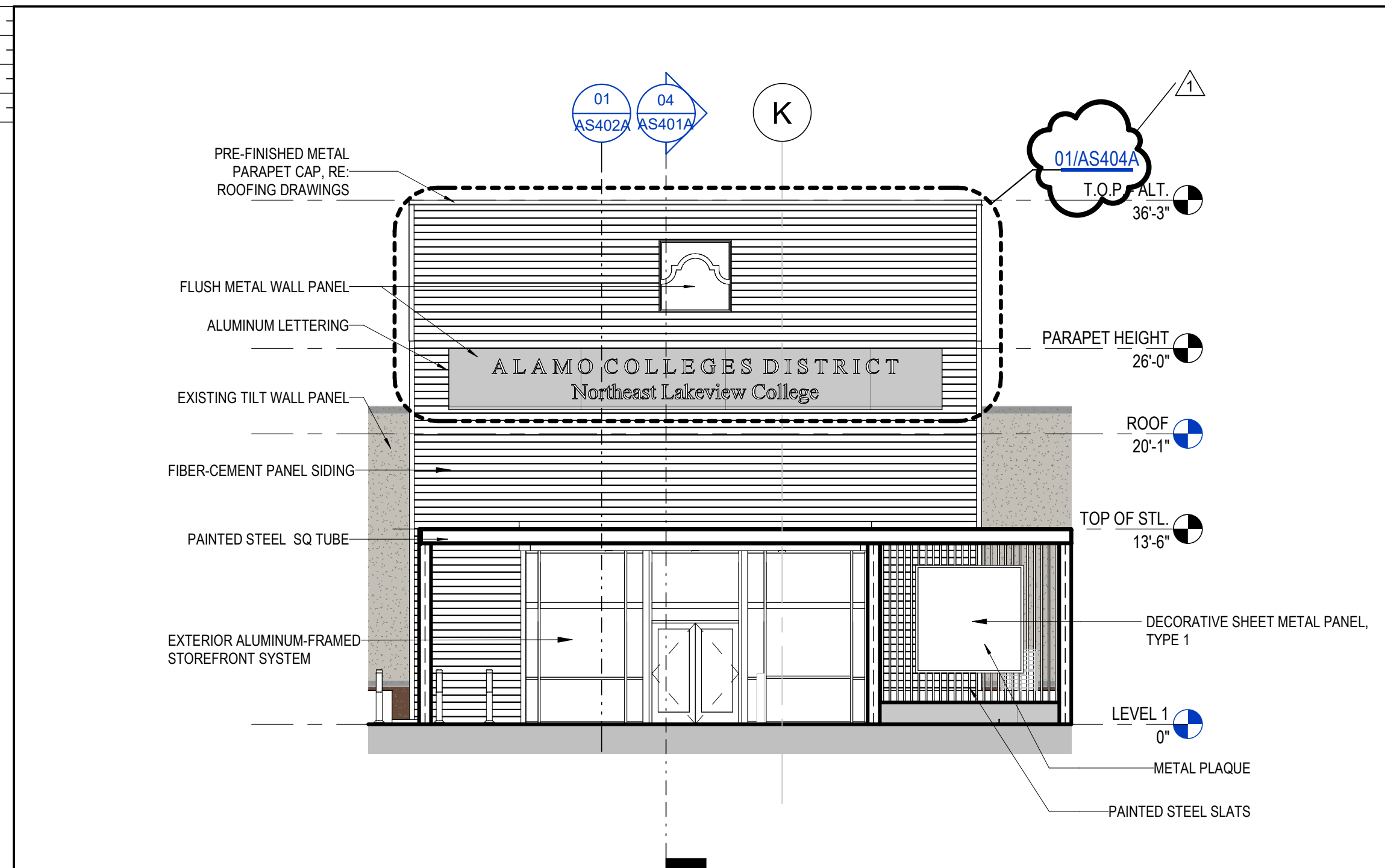
### **END OF SECTION**

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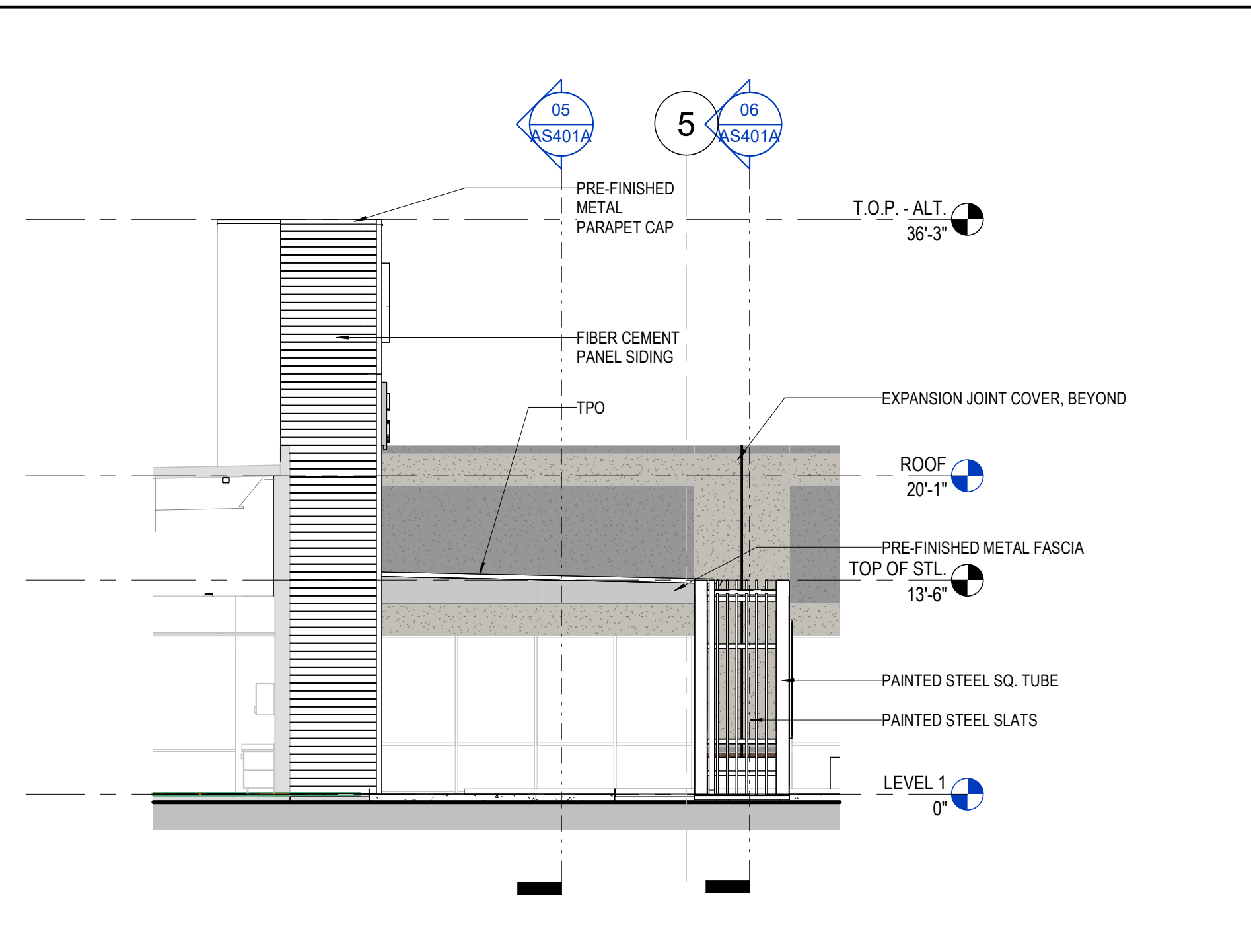




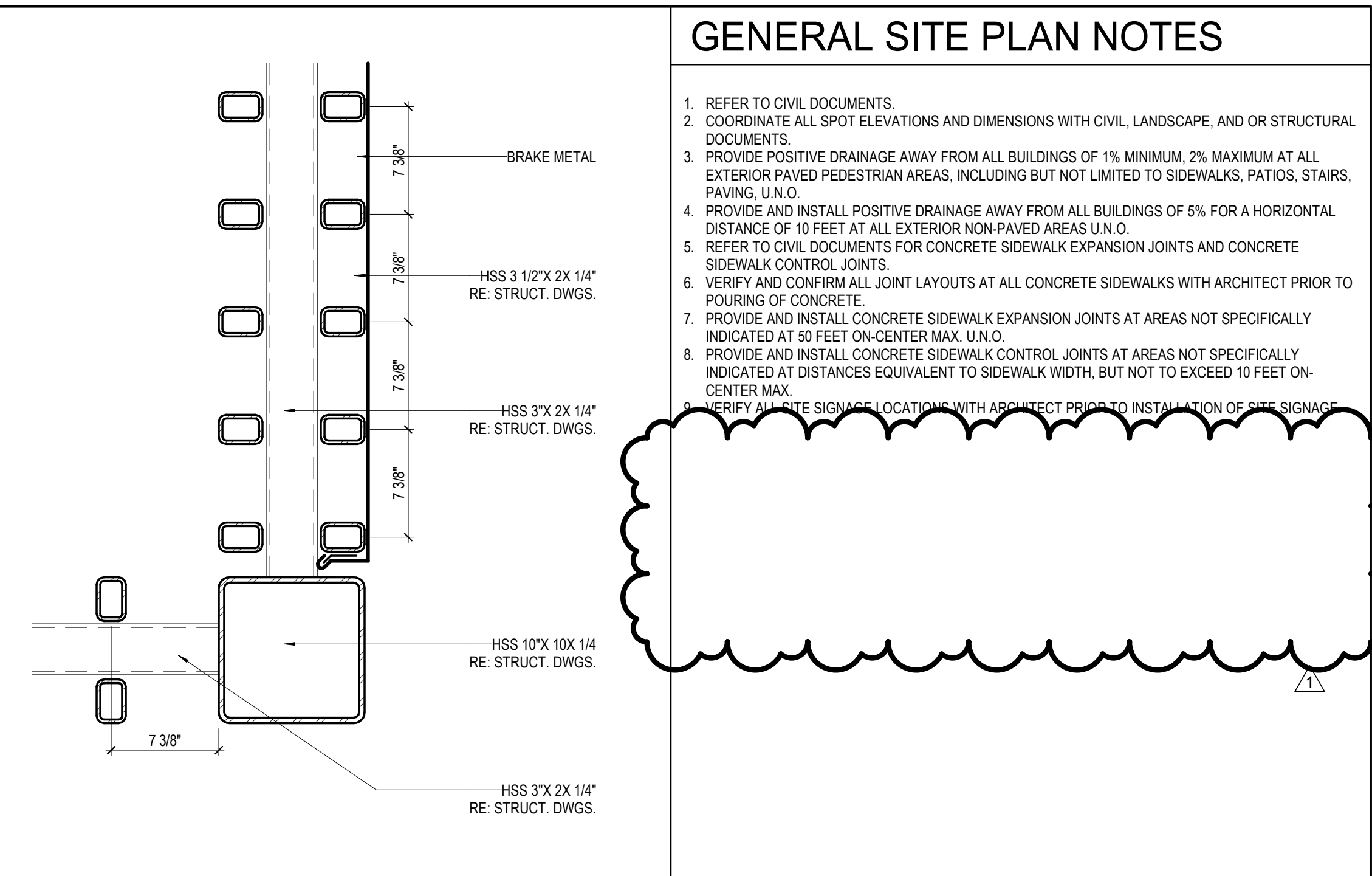




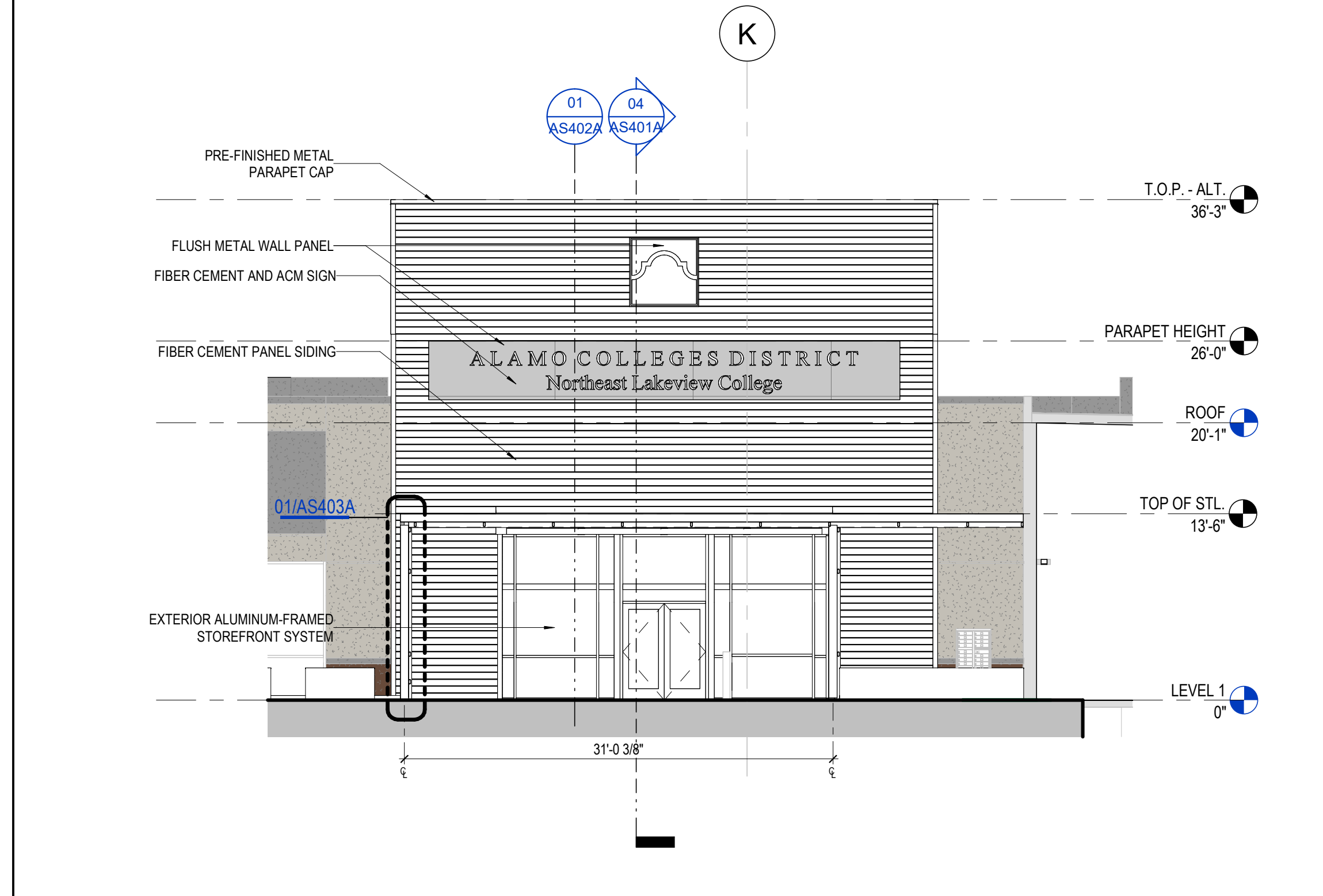
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1/8" = 1'-0"



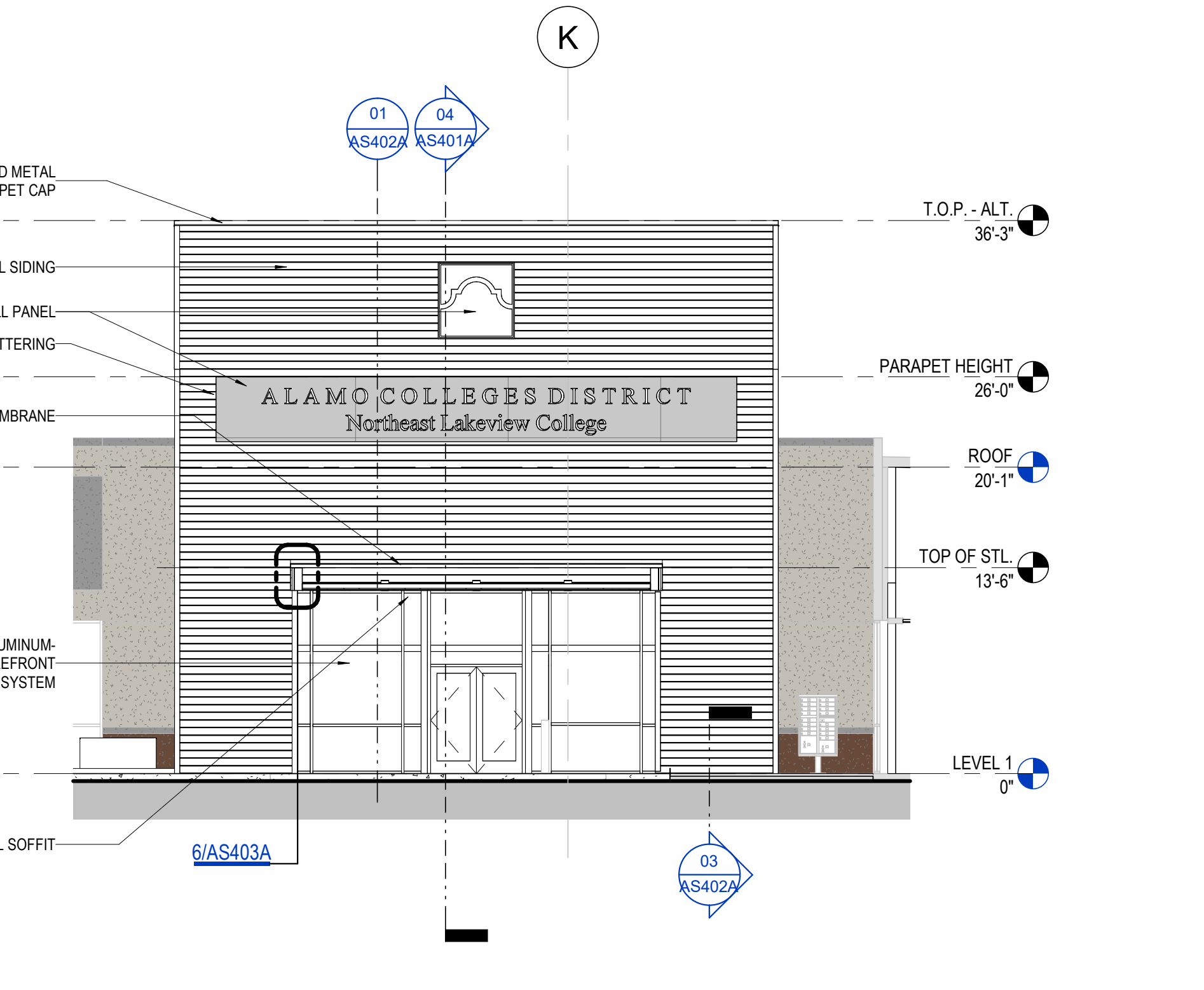
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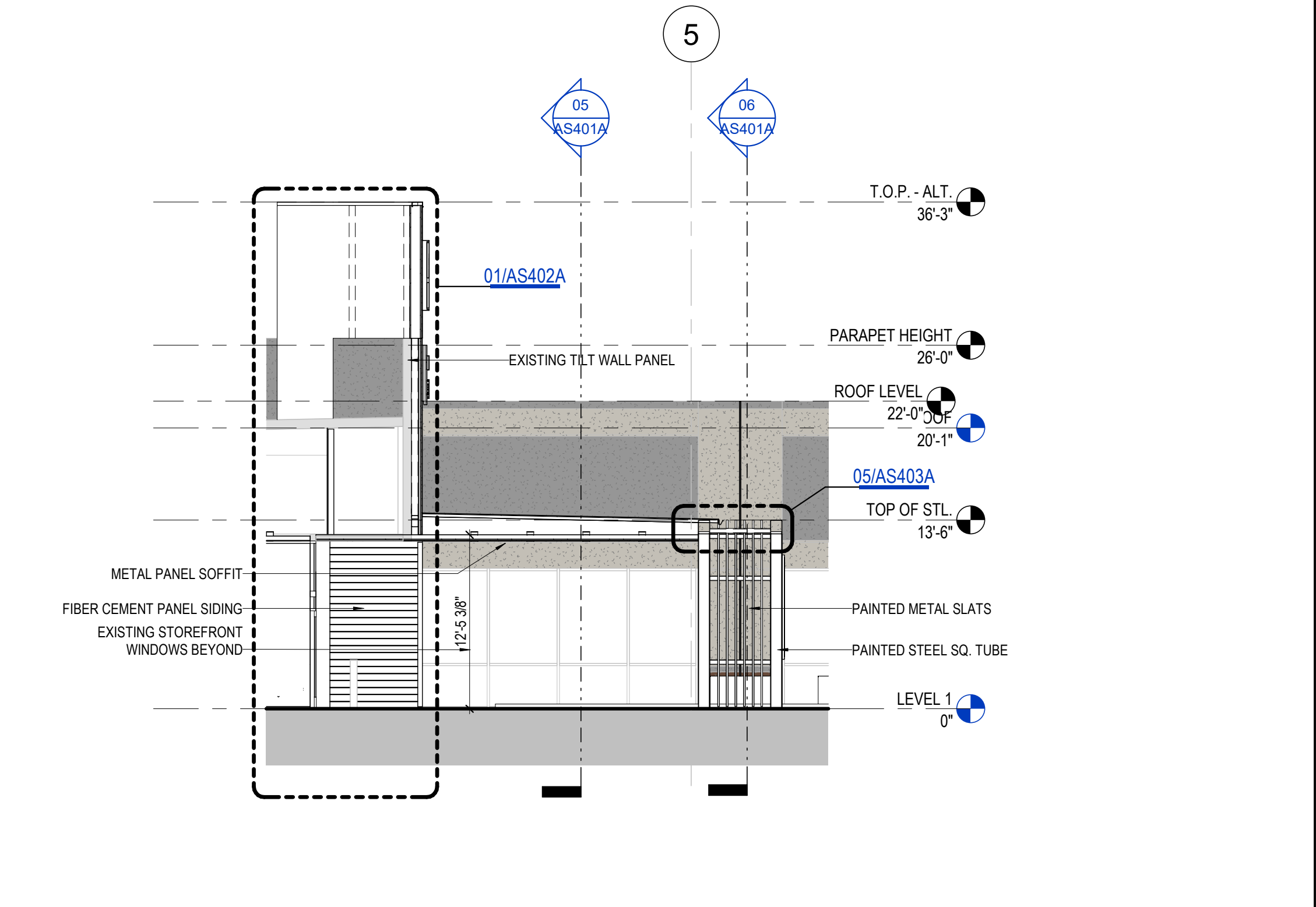
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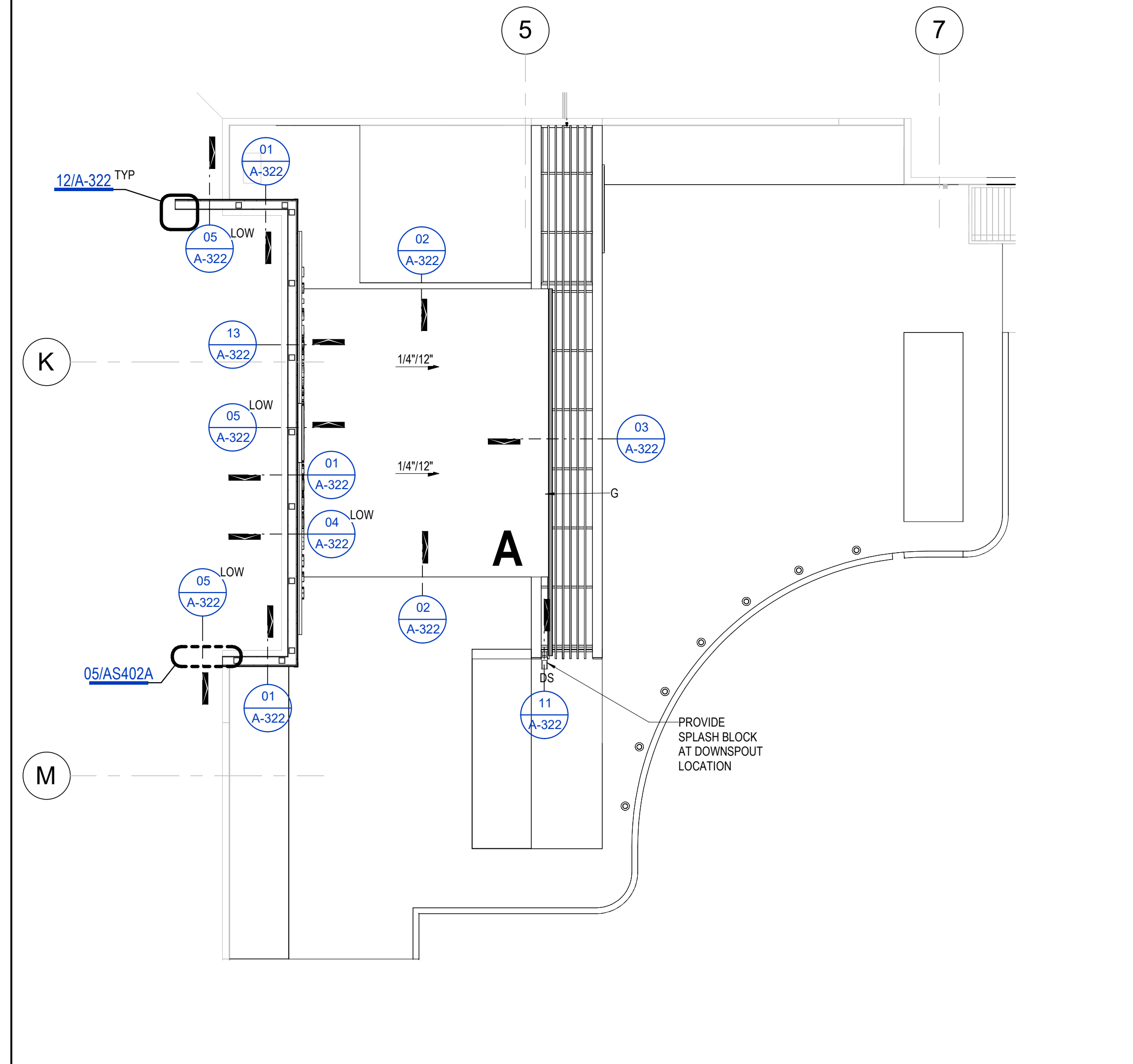
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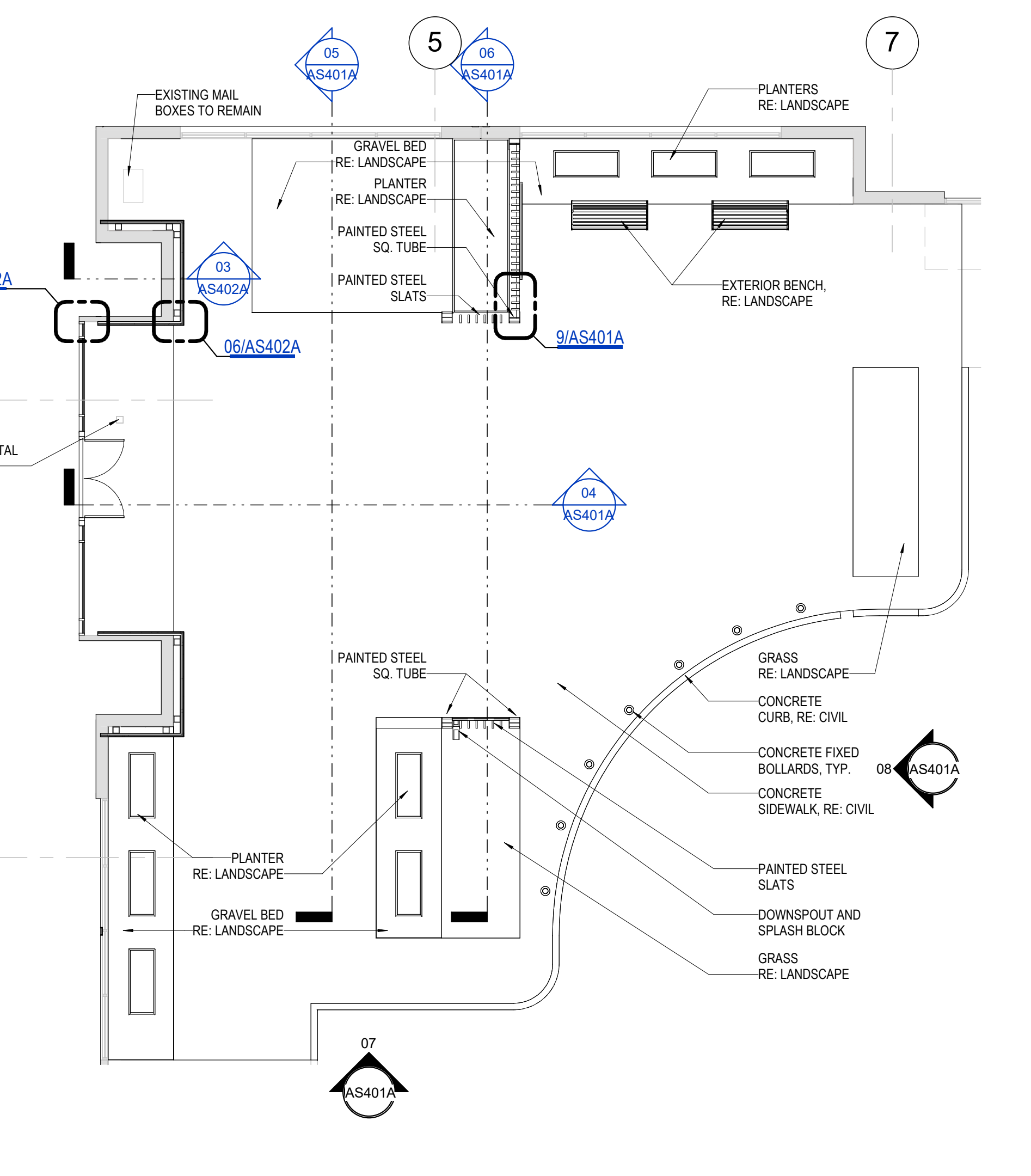
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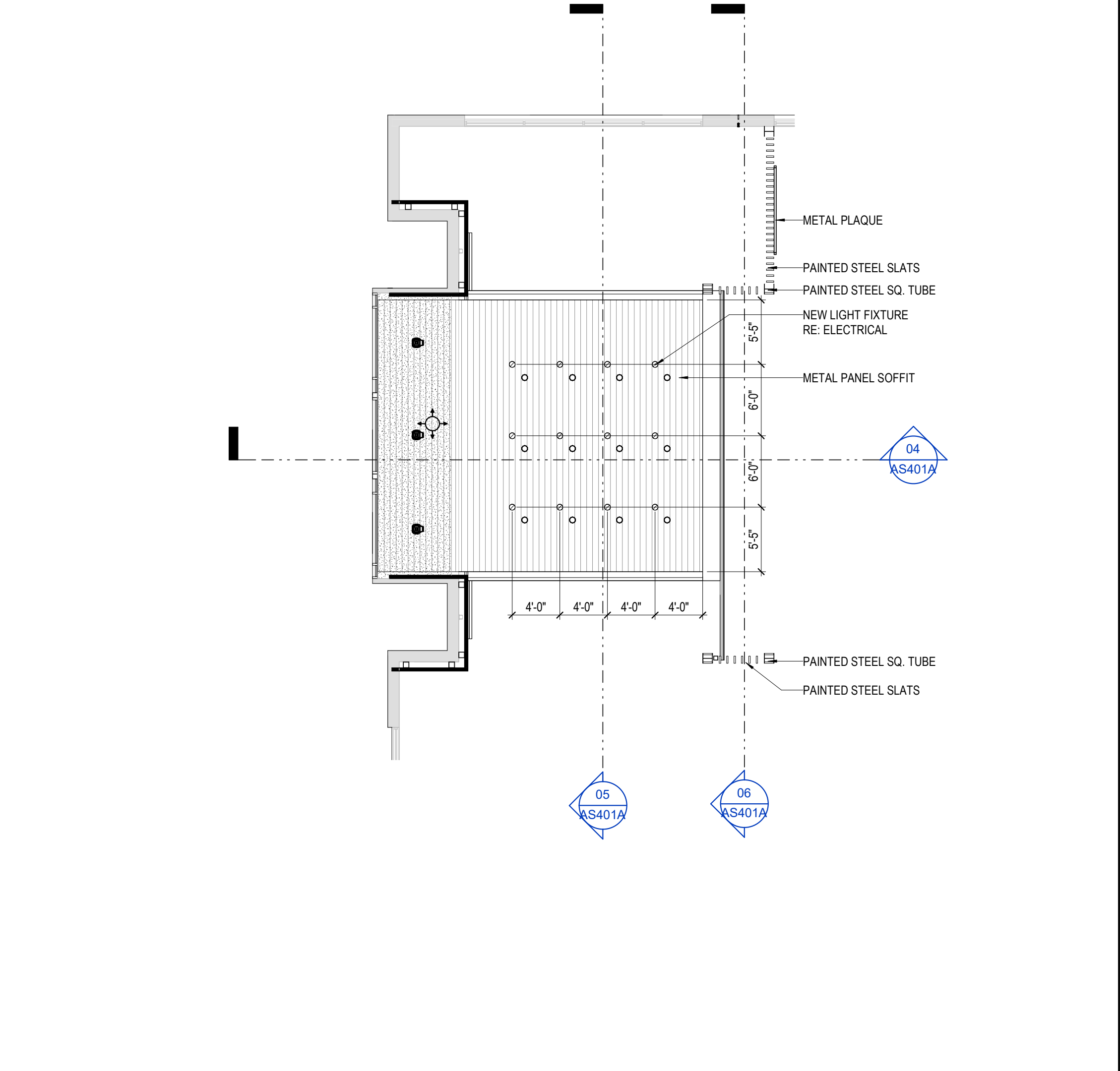
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1/8" = 1'-0"



03 CANOPY - ROOF PLAN - ALTERNATE 01  
1/8" = 1'-0"



02 CANOPY - FLOOR PLAN - ALTERNATE 01  
1/8" = 1'-0"



01 CANOPY - CEILING PLAN - ALTERNATE 01  
1/8" = 1'-0"

GENERAL SITE PLAN NOTES

1. REFER TO CIVIL DOCUMENTS.
2. COORDINATE ALL SPOT ELEVATIONS AND DIMENSIONS WITH CIVIL, LANDSCAPE, AND OR STRUCTURAL DOCUMENTS.
3. PROVIDE POSITIVE DRAINAGE AWAY FROM ALL BUILDINGS OF 1% MINIMUM, 2% MAXIMUM AT ALL EXTERIOR PAVED PEDESTRIAN AREAS, INCLUDING BUT NOT LIMITED TO SIDEWALKS, PATIOS, STAIRS, PAVING, U.N.O.
4. PROVIDE AND INSTALL POSITIVE DRAINAGE AWAY FROM ALL BUILDINGS OF 5% FOR A HORIZONTAL DISTANCE OF 10 FEET AT ALL EXTERIOR NON-PAVED AREAS U.N.O.
5. REFER TO CIVIL DOCUMENTS FOR CONCRETE SIDEWALK EXPANSION JOINTS AND CONCRETE SIDEWALK CONTROL JOINTS.
6. VERIFY AND CONFIRM ALL JOINT LAYOUTS AT ALL CONCRETE SIDEWALKS WITH ARCHITECT PRIOR TO POURING OF CONCRETE.
7. PROVIDE AND INSTALL CONCRETE SIDEWALK EXPANSION JOINTS AT AREAS NOT SPECIFICALLY INDICATED AT 50 FEET ON-CENTER MAX. U.N.O.
8. PROVIDE AND INSTALL CONCRETE SIDEWALK CONTROL JOINTS AT AREAS NOT SPECIFICALLY INDICATED AT DISTANCES EQUIVALENT TO SIDEWALK WIDTH, BUT NOT TO EXCEED 10 FEET ON-CENTER MAX.
9. VERIFY ALL SITE SIGNAGE LOCATIONS WITH ARCHITECT PRIOR TO INSTALLATION OF SITE SIGNAGE.

**NORTHEAST LAKEVIEW COLLEGE-  
SUNDANCE RENOVATION**

2049 SUNDANCE PARKWAY  
NEW BRAUNFELS, TX 78130

CLIENT PROJECT NO: 250033  
ISSUE FOR BID - CONSTRUCTION DOCUMENTS

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**ALAMO COLLEGES DISTRICT**

**KEY PLAN**

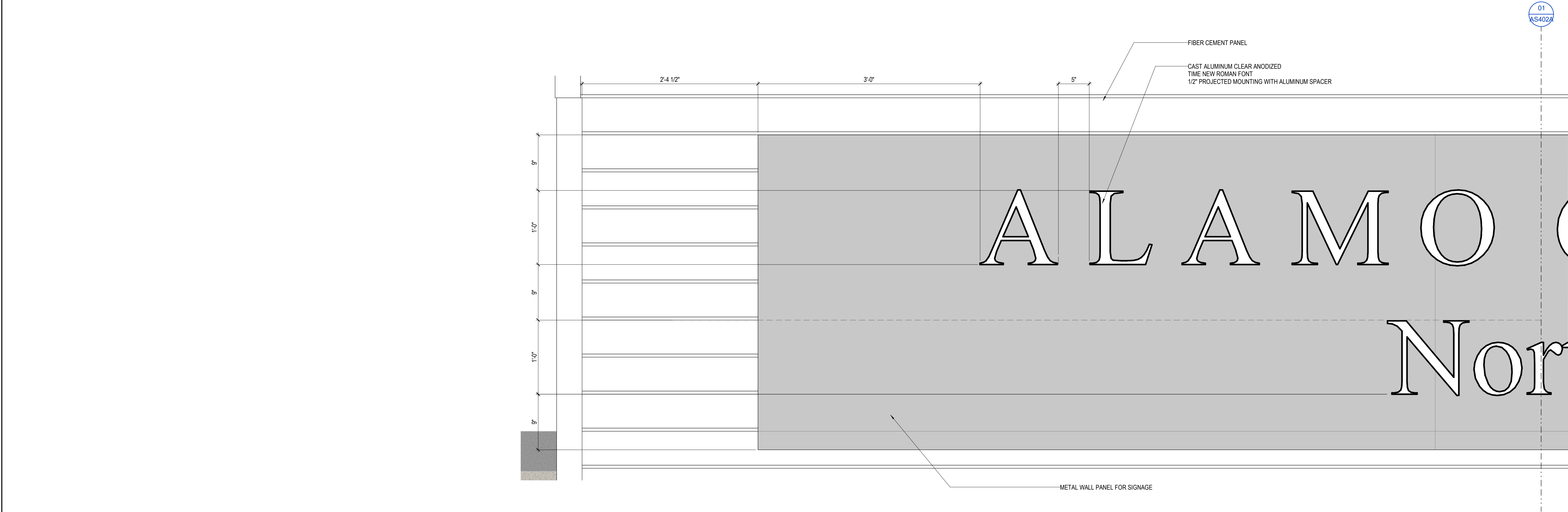
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REGISTERED ARCHITECT  
AMERICAN INSTITUTE OF ARCHITECTS  
STATE OF TEXAS  
202511016  
09/24/2025

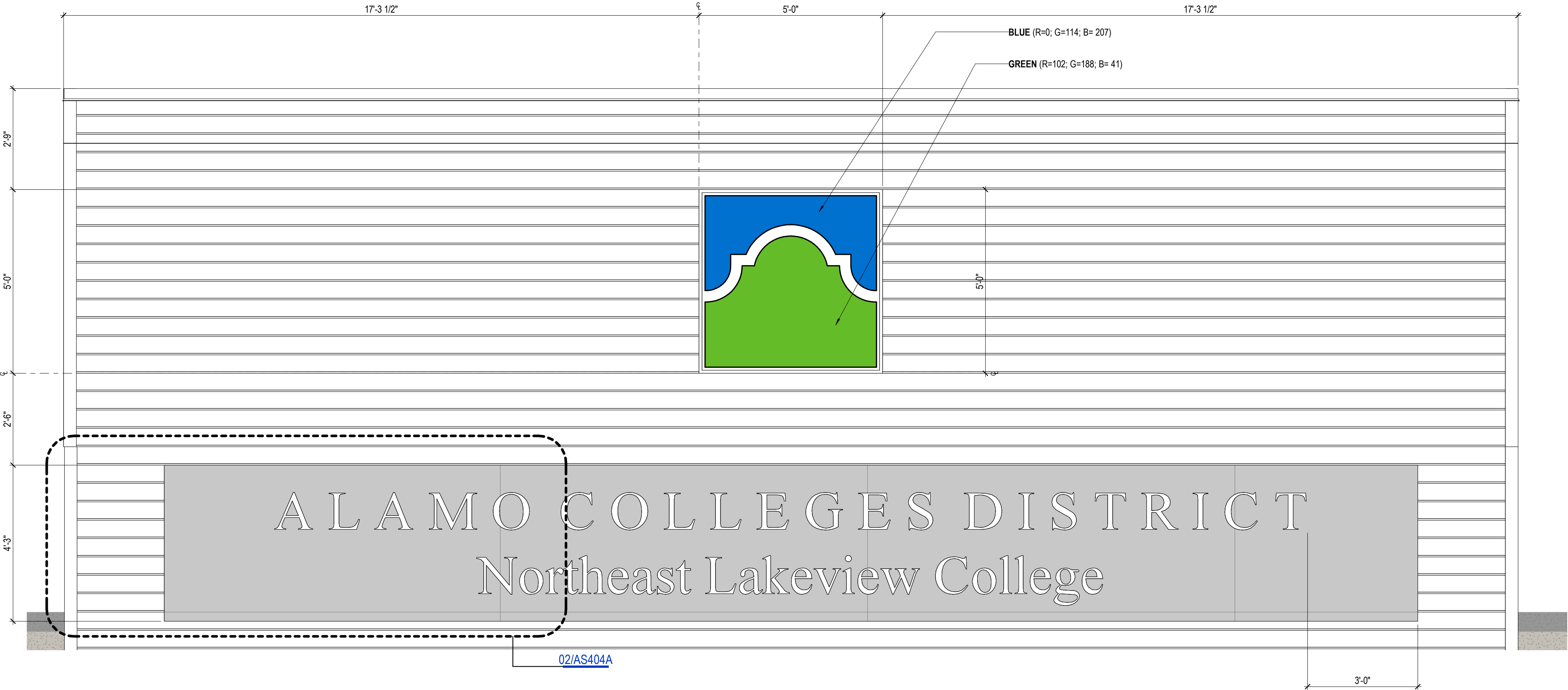
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02 ENLARGED SIGNAGE DETAIL  
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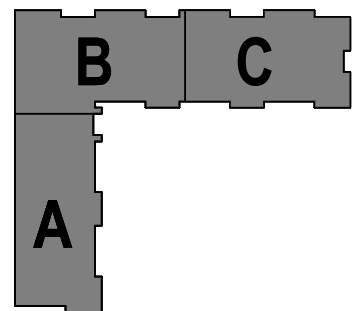
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1/2" = 1'-0"

NORTHEAST LAKEVIEW COLLEGE-  
SUNDANCE RENOVATION

2048 SUNDANCE PARKWAY  
NEW BRAUNFELS, TX 78130

CLIENT PROJECT NO: 250033

ISSUE FOR BID - CONSTRUCTION DOCUMENTS



KEY PLAN

NORTH: PLAN



09/24/2025

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SIGNAGE DETAILS -  
ALTERNATE

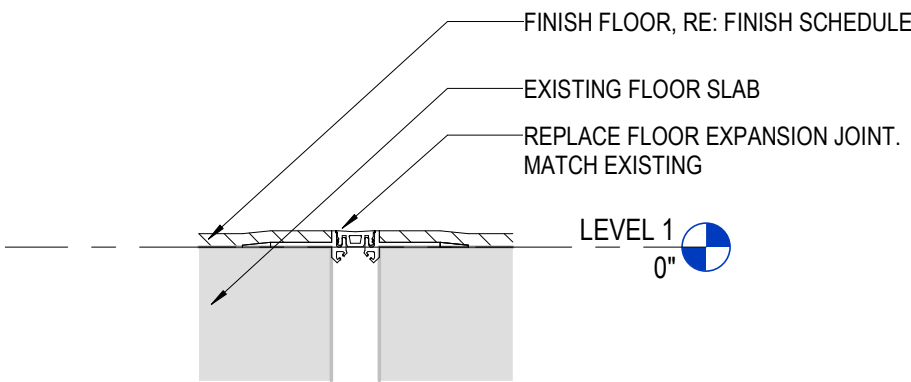
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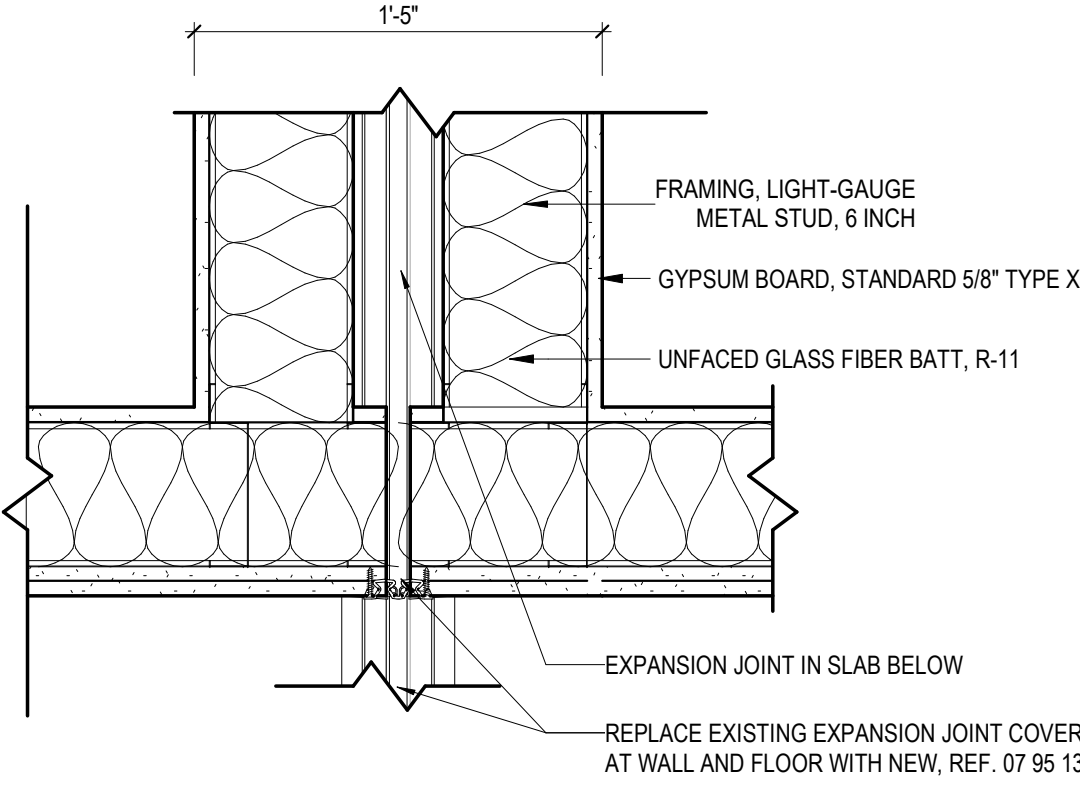




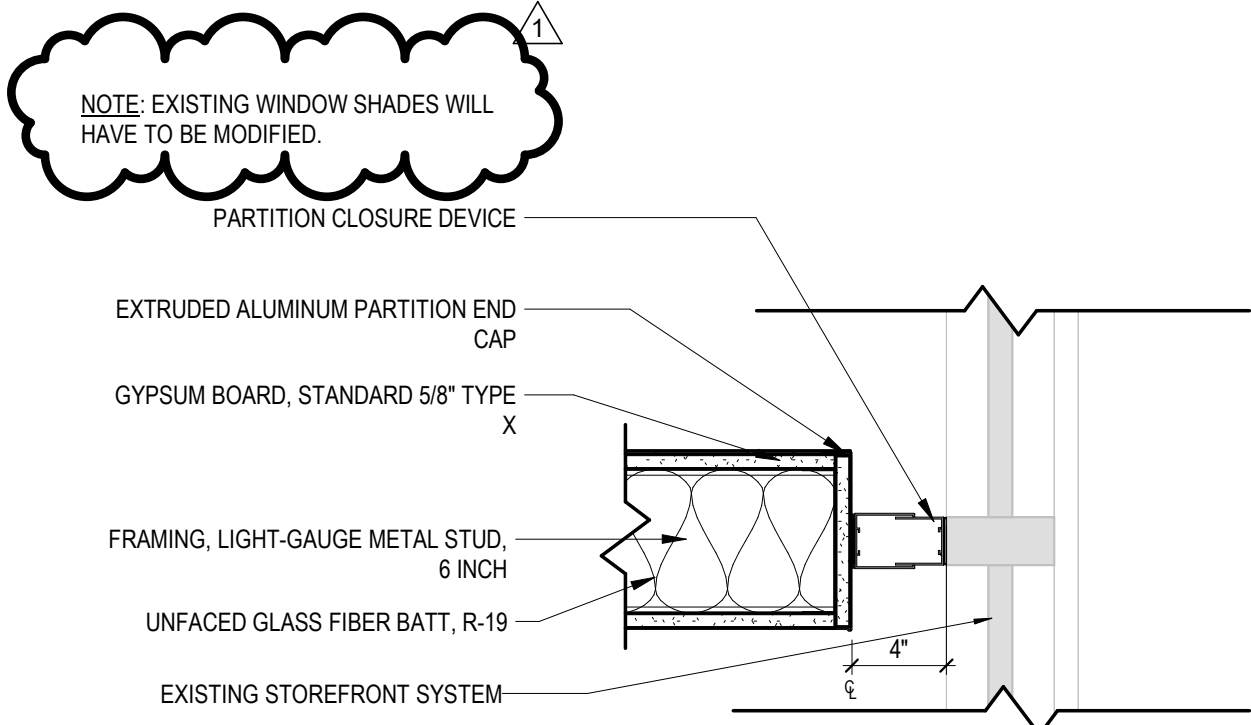
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3" = 1'-0"



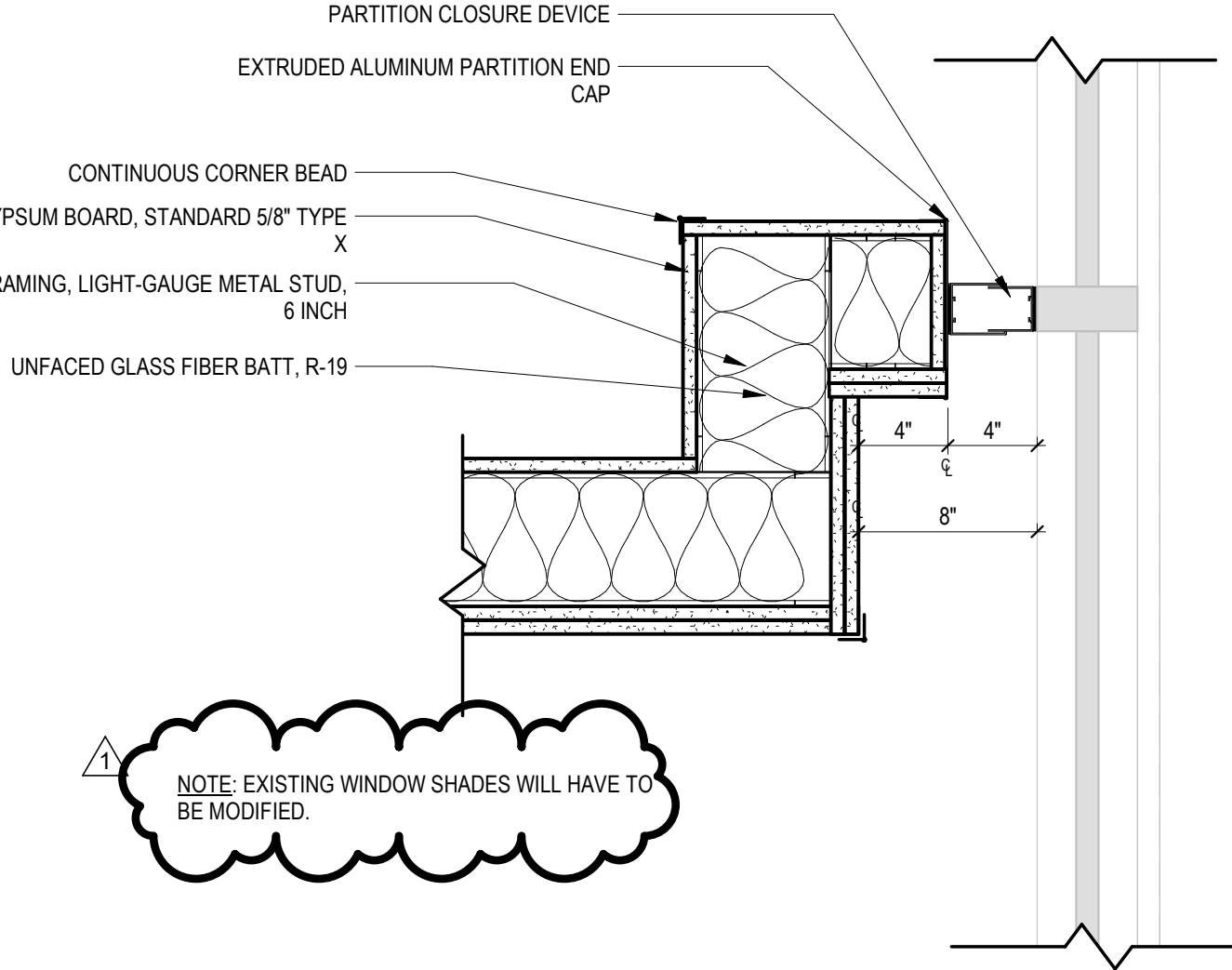
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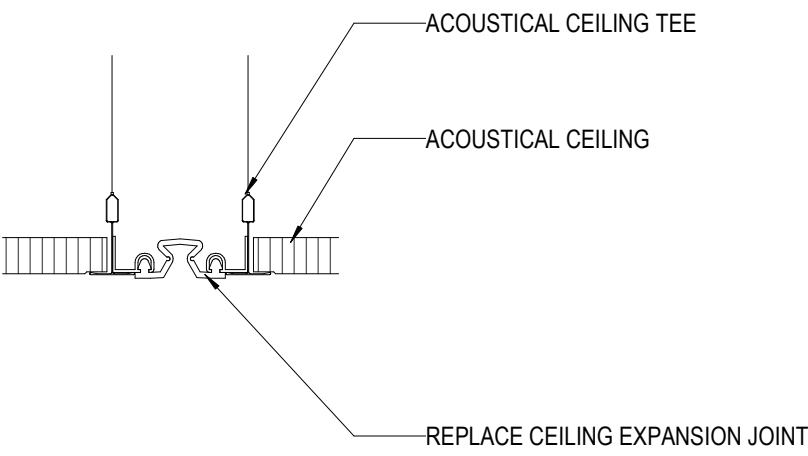
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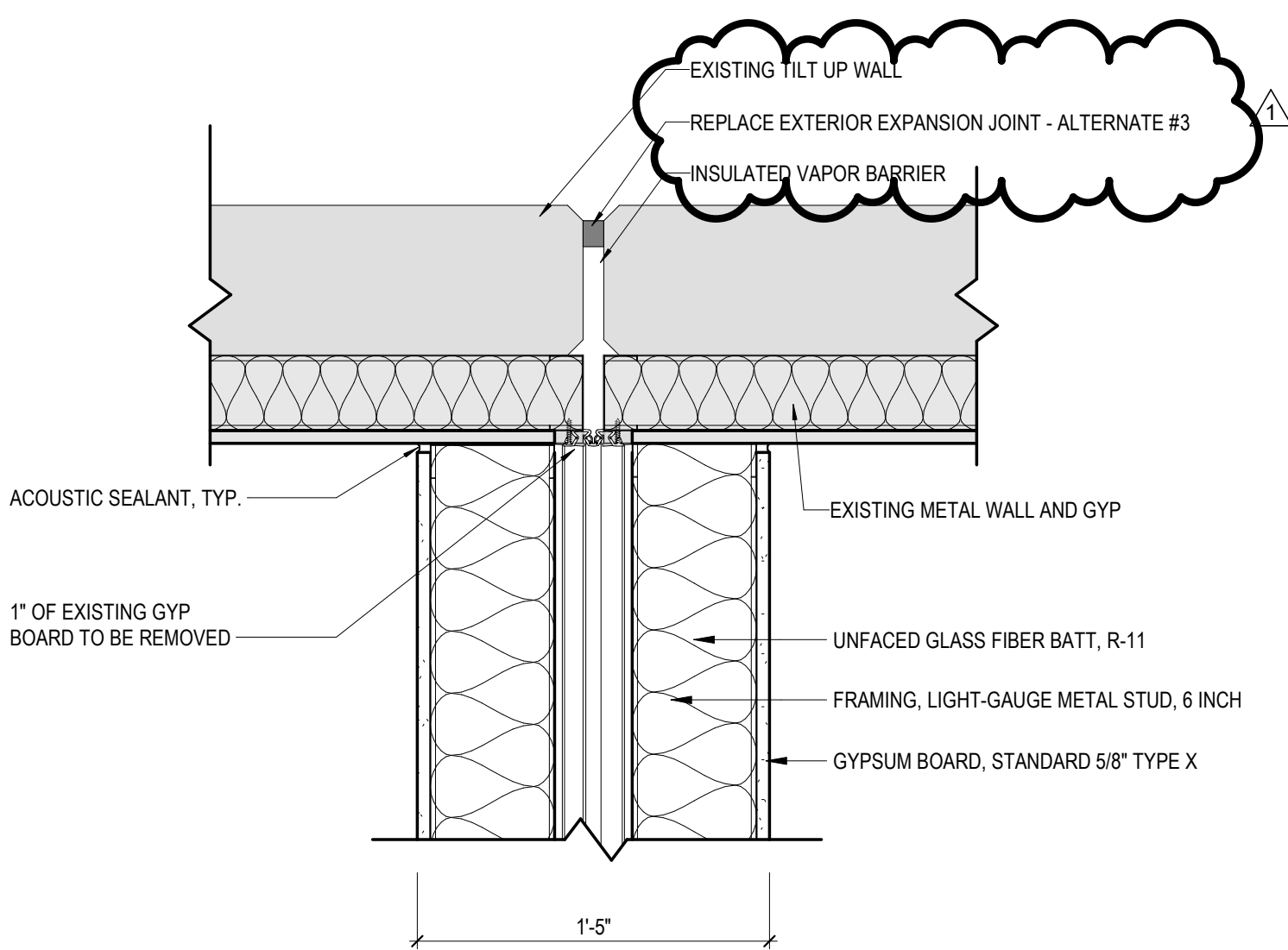
01 PLAN DETAIL - PARTITION CLOSURE DEVICE  
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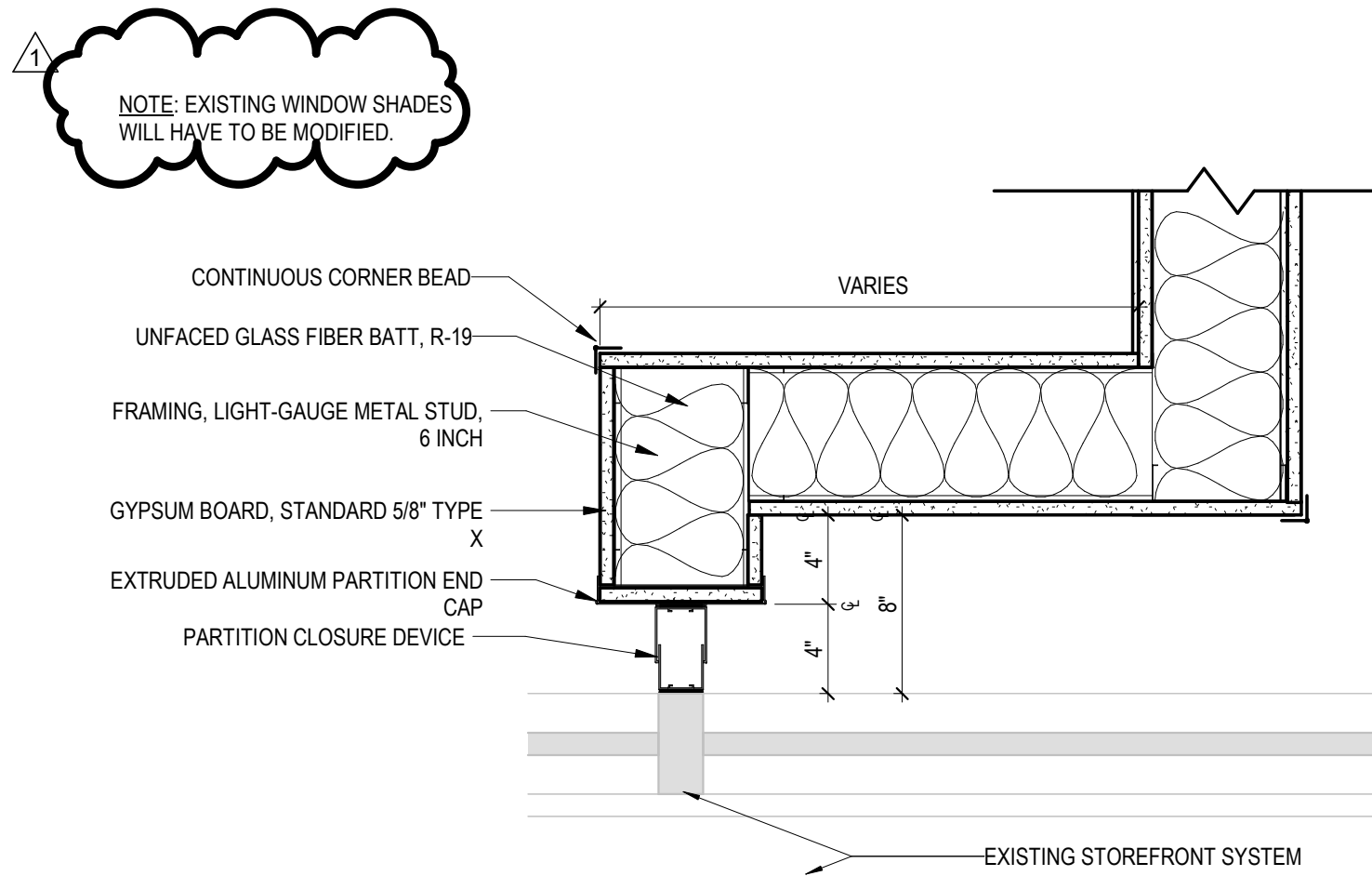
07 CEILING EXPANSION JOINT  
3" = 1'-0"



06 PLAN DETAIL EXPANSION JOINT - EXT.  
1 1/2" = 1'-0"



05 MULLION MATE DETAIL  
1 1/2" = 1'-0"



CLIENT ALAMO COLLEGES DISTRICT		
DATE 09/24/2025		PROJECT NUMBER 250033
DRAWING HISTORY		
No.	Description	Date
1	ADDENDUM II	2025/10/16
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<div> <div>A-811</div> <div>DOOR SCHEDULE - PANEL &amp; FRAME TYPES</div> <div>FOR ALUMINUM LABELING OCR</div> </div>	<div> <div>0"</div> <div>1"</div> </div>	<div>DOOR SCHEDULE - NEW</div> <table> <tr> <th>NUMBER</th><th>SINGLE/PAIR</th><th>DOOR WIDTH</th><th>HEIGHT</th><th>PANEL TYPE</th><th>PANEL MATL.</th><th>PANEL FINISH</th><th>FRAME TYPE</th><th>FRAME MATL.</th><th>FRAME FINISH</th><th>REMARKS</th></tr> <tr> <td colspan="11">LEVEL 1</td></tr> <tr><td>E102</td><td>SINGLE</td><td>3'-0"</td><td>8'-10"</td><td>NV-1</td><td>WS</td><td>PTD</td><td>001</td><td>AL</td><td>ANODIZED</td><td>-</td></tr> <tr><td>E104</td><td>SINGLE</td><td>3'-0"</td><td>8'-10"</td><td>NV-1</td><td>WS</td><td>PTD</td><td>001</td><td>AL</td><td>ANODIZED</td><td>-</td></tr> <tr><td>E107</td><td>SINGLE</td><td>3'-0"</td><td>8'-10"</td><td>NV-1</td><td>WS</td><td>PTD</td><td>001</td><td>AL</td><td>ANODIZED</td><td>-</td></tr> <tr><td>E113</td><td>PAIR</td><td>3'-0"1'-6"</td><td>8'-10"</td><td>NV-1F</td><td>WS</td><td>PTD</td><td>001</td><td>AL</td><td>ANODIZED</td><td>2, 9</td></tr> <tr><td>E113A</td><td>PAIR</td><td>3'-0"3'-0"</td><td>8'-10"</td><td>FF</td><td>WS</td><td>PTD</td><td>001</td><td>AL</td><td>ANODIZED</td><td>2, 9</td></tr> <tr><td>E113A.1</td><td>PAIR</td><td>3'-0"3'-0"</td><td>7'-6"</td><td>FG-1FG-1</td><td>AL</td><td>ANODIZED</td><td>RE ELEV</td><td>AL</td><td>ANODIZED</td><td>1, 2, 4, 9</td></tr> <tr><td>E113A.2</td><td>PAIR</td><td>3'-0"3'-0"</td><td>8'-10"</td><td>FF</td><td>WS</td><td>PTD</td><td>001</td><td>AL</td><td>ANODIZED</td><td>2, 9</td></tr> <tr><td>E113A.3</td><td>SINGLE</td><td>3'-0"</td><td>8'-10"</td><td>F</td><td>WS</td><td>PTD</td><td>001</td><td>AL</td><td>ANODIZED</td><td>9</td></tr> <tr><td>E120</td><td>PAIR</td><td>3'-0"1'-6"</td><td>8'-10"</td><td>NV-1F</td><td>WS</td><td>PTD</td><td>001</td><td>AL</td><td>ANODIZED</td><td>2, 9</td></tr> <tr><td>E123</td><td>SINGLE</td><td>3'-0"</td><td>8'-10"</td><td>NV-1</td><td>WS</td><td>PTD</td><td>001</td><td>AL</td><td>ANODIZED</td><td>9</td></tr> <tr><td>E125</td><td>SINGLE</td><td>3'-0"</td><td>8'-10"</td><td>NV-1</td><td>WS</td><td>PTD</td><td>001</td><td>AL</td><td>ANODIZED</td><td>9</td></tr> <tr><td>E126</td><td>PAIR</td><td>3'-0"1'-6"</td><td>8'-10"</td><td>NV-1F</td><td>WS</td><td>PTD</td><td>001</td><td>AL</td><td>ANODIZED</td><td>2, 9</td></tr> <tr><td>E128</td><td>PAIR</td><td>3'-0"1'-6"</td><td>8'-10"</td><td>NV-1F</td><td>WS</td><td>PTD</td><td>001</td><td>AL</td><td>ANODIZED</td><td>2, 9</td></tr> <tr><td>E128.1</td><td>PAIR</td><td>3'-0"1'-6"</td><td>7'-0"</td><td>FG-1FG-1</td><td>AL</td><td>ANODIZED</td><td>RE ELEV</td><td>AL</td><td>ANODIZED</td><td>1, 2, 4, 9</td></tr> <tr><td>E128.2</td><td>PAIR</td><td>3'-0"3'-0"</td><td>8'-10"</td><td>FF</td><td>WS</td><td>PTD</td><td>001</td><td>AL</td><td>ANODIZED</td><td>2, 9</td></tr> <tr><td>E134</td><td>PAIR</td><td>3'-0"5'-6"</td><td>8'-10"</td><td>NV-1F</td><td>WS</td><td>PTD</td><td>001</td><td>AL</td><td>ANODIZED</td><td>-</td></tr> <tr><td>E134.1</td><td>SINGLE</td><td>3'-0"</td><td>8'-10"</td><td>NV-1</td><td>WS</td><td>PTD</td><td>001</td><td>AL</td><td>ANODIZED</td><td>-</td></tr> <tr><td>E138</td><td>SINGLE</td><td>3'-0"</td><td>8'-10"</td><td>NV-1</td><td>WS</td><td>PTD</td><td>001</td><td>AL</td><td>ANODIZED</td><td>-</td></tr> <tr><td>E141</td><td>SINGLE</td><td>3'-0"</td><td>8'-10"</td><td>NV-1</td><td>WS</td><td>PTD</td><td>001</td><td>AL</td><td>ANODIZED</td><td>2, 8</td></tr> <tr><td>E142</td><td>SINGLE</td><td>3'-0"</td><td>8'-10"</td><td>NV-1</td><td>WS</td><td>PTD</td><td>001</td><td>AL</td><td>ANODIZED</td><td>2, 8</td></tr> <tr><td>E145</td><td>SINGLE</td><td>3'-0"</td><td>8'-10"</td><td>F</td><td>WS</td><td>PTD</td><td>001</td><td>AL</td><td>ANODIZED</td><td>-</td></tr> 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<tr><td>S103</td><td>SINGLE</td><td>3'-0"</td><td>8'-10"</td><td>NV-1</td><td>WS</td><td>PTD</td><td>001</td><td>AL</td><td>ANODIZED</td><td>-</td></tr> <tr><td>S103A</td><td>SINGLE</td><td>3'-0"</td><td>8'-10"</td><td>FG-1</td><td>WS</td><td>PTD</td><td>011</td><td>AL</td><td>ANODIZED</td><td>-</td></tr> <tr><td>S103B</td><td>SINGLE</td><td>3'-0"</td><td>8'-10"</td><td>FG-1</td><td>AL</td><td>PTD</td><td>011</td><td>AL</td><td>ANODIZED</td><td>-</td></tr> <tr><td>S103C</td><td>SINGLE</td><td>3'-0"</td><td>8'-10"</td><td>FG-1</td><td>AL</td><td>PTD</td><td>011</td><td>AL</td><td>ANODIZED</td><td>-</td></tr> <tr><td>S106</td><td>SINGLE</td><td>3'-0"</td><td>8'-10"</td><td>NV-1</td><td>WS</td><td>PTD</td><td>001</td><td>AL</td><td>ANODIZED</td><td>-</td></tr> <tr><td>S107</td><td>PAIR</td><td>3'-0"1'-6"</td><td>8'-10"</td><td>NV-1F</td><td>WS</td><td>PTD</td><td>001</td><td>AL</td><td>ANODIZED</td><td>2</td></tr> 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<tr><td>S131A</td><td>PAIR</td><td>3'-0"1'-6"</td><td>8'-10"</td><td>NV-1F</td><td>WS</td><td>PTD</td><td>001</td><td>AL</td><td>ANODIZED</td><td>2</td></tr> <tr><td>S2</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>	NUMBER	SINGLE/PAIR	DOOR WIDTH	HEIGHT	PANEL TYPE	PANEL MATL.	PANEL FINISH	FRAME TYPE	FRAME MATL.	FRAME FINISH	REMARKS	LEVEL 1											E102	SINGLE	3'-0"	8'-10"	NV-1	WS	PTD	001	AL	ANODIZED	-	E104	SINGLE	3'-0"	8'-10"	NV-1	WS	PTD	001	AL	ANODIZED	-	E107	SINGLE	3'-0"	8'-10"	NV-1	WS	PTD	001	AL	ANODIZED	-	E113	PAIR	3'-0"1'-6"	8'-10"	NV-1F	WS	PTD	001	AL	ANODIZED	2, 9	E113A	PAIR	3'-0"3'-0"	8'-10"	FF	WS	PTD	001	AL	ANODIZED	2, 9	E113A.1	PAIR	3'-0"3'-0"	7'-6"	FG-1FG-1	AL	ANODIZED	RE ELEV	AL	ANODIZED	1, 2, 4, 9	E113A.2	PAIR	3'-0"3'-0"	8'-10"	FF	WS	PTD	001	AL	ANODIZED	2, 9	E113A.3	SINGLE	3'-0"	8'-10"	F	WS	PTD	001	AL	ANODIZED	9	E120	PAIR	3'-0"1'-6"	8'-10"	NV-1F	WS	PTD	001	AL	ANODIZED	2, 9	E123	SINGLE	3'-0"	8'-10"	NV-1	WS	PTD	001	AL	ANODIZED	9	E125	SINGLE	3'-0"	8'-10"	NV-1	WS	PTD	001	AL	ANODIZED	9	E126	PAIR	3'-0"1'-6"	8'-10"	NV-1F	WS	PTD	001	AL	ANODIZED	2, 9	E128	PAIR	3'-0"1'-6"	8'-10"	NV-1F	WS	PTD	001	AL	ANODIZED	2, 9	E128.1	PAIR	3'-0"1'-6"	7'-0"	FG-1FG-1	AL	ANODIZED	RE ELEV	AL	ANODIZED	1, 2, 4, 9	E128.2	PAIR	3'-0"3'-0"	8'-10"	FF	WS	PTD	001	AL	ANODIZED	2, 9	E134	PAIR	3'-0"5'-6"	8'-10"	NV-1F	WS	PTD	001	AL	ANODIZED	-	E134.1	SINGLE	3'-0"	8'-10"	NV-1	WS	PTD	001	AL	ANODIZED	-	E138	SINGLE	3'-0"	8'-10"	NV-1	WS	PTD	001	AL	ANODIZED	-	E141	SINGLE	3'-0"	8'-10"	NV-1	WS	PTD	001	AL	ANODIZED	2, 8	E142	SINGLE	3'-0"	8'-10"	NV-1	WS	PTD	001	AL	ANODIZED	2, 8	E145	SINGLE	3'-0"	8'-10"	F	WS	PTD	001	AL	ANODIZED	-	E146	SINGLE	3'-0"	8'-10"	NV-1	WS	PTD	001	AL	ANODIZED	2, 8	EG2.1	SINGLE	3'-0"	8'-10"	F	WS	PTD	001	AL	ANODIZED	1, 10	EG5.1	SINGLE	3'-0"	8'-10"	F	WS	PTD	001	AL	ANODIZED	1, 10	S100	PAIR	3'-0"3'-0"	8'-0"	FG-1FG-1	AL	ANODIZED	RE ELEV	AL	ANODIZED	1, 2, 4	S100A	SINGLE	3'-0"	8'-10"	F	WS	PTD	001	AL	ANODIZED	-	S101	PAIR	3'-0"3'-0"	8'-0"	FG-1FG-1	AL	ANODIZED	RE ELEV	AL	ANODIZED	1	S103	SINGLE	3'-0"	8'-10"	NV-1	WS	PTD	001	AL	ANODIZED	-	S103A	SINGLE	3'-0"	8'-10"	FG-1	WS	PTD	011	AL	ANODIZED	-	S103B	SINGLE	3'-0"	8'-10"	FG-1	AL	PTD	011	AL	ANODIZED	-	S103C	SINGLE	3'-0"	8'-10"	FG-1	AL	PTD	011	AL	ANODIZED	-	S106	SINGLE	3'-0"	8'-10"	NV-1	WS	PTD	001	AL	ANODIZED	-	S107	PAIR	3'-0"1'-6"	8'-10"	NV-1F	WS	PTD	001	AL	ANODIZED	2	S107A	SINGLE	3'-0"	8'-10"	NV-1	WS	PTD	001	AL	ANODIZED	2	S114	PAIR	3'-0"1'-6"	8'-10"	NV-1F	WS	PTD	001	AL	ANODIZED	-	S114A	SINGLE	3'-0"	8'-10"	F	WS	PTD	001	AL	ANODIZED	-	S114B	SINGLE	3'-0"	8'-10"	F	WS	PTD	001	AL	ANODIZED	2	S114C	TRIPLE	6'-9"	8'-10"	HMS	AL	ANODIZED	001	AL	ANODIZED	-	S114D	TRIPLE	6'-9"	8'-10"	HMS	AL	ANODIZED	001	AL	ANODIZED	-	S117	PAIR	3'-0"1'-6"	8'-10"	NV-1F	WS	PTD	001	AL	ANODIZED	-	S118	PAIR	3'-0"1'-6"	8'-10"	NV-1F	WS	PTD	001	AL	ANODIZED	2	S119	SINGLE	3'-6"	8'-10"	FG-1S	AL	ANODIZED	RE ELEV	AL	ANODIZED	6, 9	S120	SINGLE	3'-6"	8'-10"	FG-1S	AL	ANODIZED	RE ELEV	AL	ANODIZED	6, 9	S121	SINGLE	3'-0"	8'-10"	F	WS	PTD	001	AL	ANODIZED	-	S122	SINGLE	3'-6"	8'-10"	FG-1S	AL	ANODIZED	RE ELEV	AL	ANODIZED	6, 9	S123	SINGLE	3'-6"	8'-10"	FG-1S	AL	ANODIZED	RE ELEV	AL	ANODIZED	6, 9	S124	PAIR	3'-0"1'-6"	8'-10"	NV-1F	WS	PTD	001	AL	ANODIZED	2	S124A.1	PAIR	3'-0"1'-6"	8'-10"	NV-1F	WS	PTD	001	AL	ANODIZED	2	S124A.2	PAIR	3'-0"1'-6"	8'-10"	NV-1F	WS	PTD	001	AL	ANODIZED	2	S127	PAIR	3'-0"1'-6"	8'-10"	NV-1F	WS	PTD	001	AL	ANODIZED	2	S131	PAIR	3'-0"1'-6"	8'-10"	NV-1F	WS	PTD	001	AL	ANODIZED	2	S131A	PAIR	3'-0"1'-6"	8'-10"	NV-1F	WS	PTD	001	AL	ANODIZED	2	S2										
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E120	PAIR	3'-0"1'-6"	8'-10"	NV-1F	WS	PTD	001	AL	ANODIZED	2, 9																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
E123	SINGLE	3'-0"	8'-10"	NV-1	WS	PTD	001	AL	ANODIZED	9																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
E125	SINGLE	3'-0"	8'-10"	NV-1	WS	PTD	001	AL	ANODIZED	9																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
E126	PAIR	3'-0"1'-6"	8'-10"	NV-1F	WS	PTD	001	AL	ANODIZED	2, 9																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
E128	PAIR	3'-0"1'-6"	8'-10"	NV-1F	WS	PTD	001	AL	ANODIZED	2, 9																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
E128.1	PAIR	3'-0"1'-6"	7'-0"	FG-1FG-1	AL	ANODIZED	RE ELEV	AL	ANODIZED	1, 2, 4, 9																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
E128.2	PAIR	3'-0"3'-0"	8'-10"	FF	WS	PTD	001	AL	ANODIZED	2, 9																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
E134	PAIR	3'-0"5'-6"	8'-10"	NV-1F	WS	PTD	001	AL	ANODIZED	-																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
E134.1	SINGLE	3'-0"	8'-10"	NV-1	WS	PTD	001	AL	ANODIZED	-																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
E138	SINGLE	3'-0"	8'-10"	NV-1	WS	PTD	001	AL	ANODIZED	-																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
E141	SINGLE	3'-0"	8'-10"	NV-1	WS	PTD	001	AL	ANODIZED	2, 8																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
E142	SINGLE	3'-0"	8'-10"	NV-1	WS	PTD	001	AL	ANODIZED	2, 8																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
E145	SINGLE	3'-0"	8'-10"	F	WS	PTD	001	AL	ANODIZED	-																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
E146	SINGLE	3'-0"	8'-10"	NV-1	WS	PTD	001	AL	ANODIZED	2, 8																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
EG2.1	SINGLE	3'-0"	8'-10"	F	WS	PTD	001	AL	ANODIZED	1, 10																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
EG5.1	SINGLE	3'-0"	8'-10"	F	WS	PTD	001	AL	ANODIZED	1, 10																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
S100	PAIR	3'-0"3'-0"	8'-0"	FG-1FG-1	AL	ANODIZED	RE ELEV	AL	ANODIZED	1, 2, 4																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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S101	PAIR	3'-0"3'-0"	8'-0"	FG-1FG-1	AL	ANODIZED	RE ELEV	AL	ANODIZED	1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
S103	SINGLE	3'-0"	8'-10"	NV-1	WS	PTD	001	AL	ANODIZED	-																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
S103A	SINGLE	3'-0"	8'-10"	FG-1	WS	PTD	011	AL	ANODIZED	-																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
S103B	SINGLE	3'-0"	8'-10"	FG-1	AL	PTD	011	AL	ANODIZED	-																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
S103C	SINGLE	3'-0"	8'-10"	FG-1	AL	PTD	011	AL	ANODIZED	-																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
S106	SINGLE	3'-0"	8'-10"	NV-1	WS	PTD	001	AL	ANODIZED	-																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
S107	PAIR	3'-0"1'-6"	8'-10"	NV-1F	WS	PTD	001	AL	ANODIZED	2																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
S107A	SINGLE	3'-0"	8'-10"	NV-1	WS	PTD	001	AL	ANODIZED	2																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
S114	PAIR	3'-0"1'-6"	8'-10"	NV-1F	WS	PTD	001	AL	ANODIZED	-																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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S114B	SINGLE	3'-0"	8'-10"	F	WS	PTD	001	AL	ANODIZED	2																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
S114C	TRIPLE	6'-9"	8'-10"	HMS	AL	ANODIZED	001	AL	ANODIZED	-																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
S114D	TRIPLE	6'-9"	8'-10"	HMS	AL	ANODIZED	001	AL	ANODIZED	-																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
S117	PAIR	3'-0"1'-6"	8'-10"	NV-1F	WS	PTD	001	AL	ANODIZED	-																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
S118	PAIR	3'-0"1'-6"	8'-10"	NV-1F	WS	PTD	001	AL	ANODIZED	2																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
S119	SINGLE	3'-6"	8'-10"	FG-1S	AL	ANODIZED	RE ELEV	AL	ANODIZED	6, 9																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
S120	SINGLE	3'-6"	8'-10"	FG-1S	AL	ANODIZED	RE ELEV	AL	ANODIZED	6, 9																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
S121	SINGLE	3'-0"	8'-10"	F	WS	PTD	001	AL	ANODIZED	-																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
S122	SINGLE	3'-6"	8'-10"	FG-1S	AL	ANODIZED	RE ELEV	AL	ANODIZED	6, 9																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
S123	SINGLE	3'-6"	8'-10"	FG-1S	AL	ANODIZED	RE ELEV	AL	ANODIZED	6, 9																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
S124	PAIR	3'-0"1'-6"	8'-10"	NV-1F	WS	PTD	001	AL	ANODIZED	2																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
S124A.1	PAIR	3'-0"1'-6"	8'-10"	NV-1F	WS	PTD	001	AL	ANODIZED	2																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
S124A.2	PAIR	3'-0"1'-6"	8'-10"	NV-1F	WS	PTD	001	AL	ANODIZED	2																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
S127	PAIR	3'-0"1'-6"	8'-10"	NV-1F	WS	PTD	001	AL	ANODIZED	2																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
S131	PAIR	3'-0"1'-6"	8'-10"	NV-1F	WS	PTD	001	AL	ANODIZED	2																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
S131A	PAIR	3'-0"1'-6"	8'-10"	NV-1F	WS	PTD	001	AL	ANODIZED	2																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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REF SPECS FOR HARDWARE SET

FINISH FLOOR

DOOR SCHEDULE - EXISTING											
NUMBER	SINGLE/PAIR	WIDTH	HEIGHT	PANEL TYPE	MATL.	FINISH	FRAME TYPE	MATL.	FINISH	REMARKS	
LEVEL 1											
S107.1	SINGLE	3'-0"	7'-0"	FG-1	AL	ANODIZED	011	AL	ANODIZED	1, 2, 4	
S126.1E	SINGLE	3'-0"	7'-0"	FG-1	AL	ANODIZED	011	AL	ANODIZED	1, 2, 4	
S130A.1	SINGLE	3'-0"	9'-8 1/2"	FG-1	AL	ANODIZED	011	AL	ANODIZED	1, 2, 4	
XE8	SINGLE	3'-0"	7'-0"	FG-1	AL	ANODIZED	011	AL	ANODIZED	1, 2, 4	
XE100B	SINGLE	3'-0"	8'-10"	F	WS	PTD	001	AL	ANODIZED	7	
XE101	SINGLE	3'-6"	8'-10"	FG-1S	AL	ANODIZED	STOREFRONT	AL	ANODIZED	7	
XE103	SINGLE	3'-6"	8'-10"	FG-1S	AL	ANODIZED	STOREFRONT	AL	ANODIZED	7	
XE105	SINGLE	3'-6"	8'-10"	FG-1S	AL	ANODIZED	STOREFRONT	AL	ANODIZED	7	
XE107.1	SINGLE	3'-0"	7'-0"	FG-1	AL	ANODIZED	011	AL	ANODIZED	1, 2, 4	
XE109	SINGLE	3'-0"	8'-7"	FG-1	AL	ANODIZED	011	AL	ANODIZED	7	
XE109.1	SINGLE	3'-0"	8'-7"	FG-1	AL	ANODIZED	011	AL	ANODIZED	7	
XE110	SINGLE	3'-6"	8'-10"	FG-1S	AL	ANODIZED	STOREFRONT	AL	ANODIZED	7	
XE111	SINGLE	3'-6"	8'-10"	FG-1S	AL	ANODIZED	STOREFRONT	AL	ANODIZED	7	
XE112	SINGLE	3'-6"	8'-10"	FG-1S	AL	ANODIZED	STOREFRONT	AL	ANODIZED	7	
XE114	SINGLE	3'-0"	8'-10"	F	WS	PTD	001	AL	ANODIZED	7	
XE115	SINGLE	3'-0"	8'-10"	F	WS	PTD	001	AL	ANODIZED	7	
XE116	SINGLE	3'-0"	8'-10"	F	WS	PTD	001	AL	ANODIZED	2, 4	
XE117	SINGLE	3'-0"	8'-10"	F	WS	PTD	001	AL	ANODIZED	7	
XE118	SINGLE	3'-6"	8'-10"	FG-1S	AL	ANODIZED	STOREFRONT	AL	ANODIZED	7	
XE119	SINGLE	3'-6"	8'-10"	FG-1S	AL	ANODIZED	STOREFRONT	AL	ANODIZED	7	
XE120.1	SINGLE	3'-0"	7'-0"	FG-1	AL	ANODIZED	011	AL	ANODIZED	1, 2, 4	
XE122	SINGLE	3'-0"	8'-9 1/2"	FG-1	AL	ANODIZED	011	AL	ANODIZED	7	
XE122.1	SINGLE	3'-0"	8'-9 1/2"	FG-1	AL	ANODIZED	011	AL	ANODIZED	7	
XE124	PAIR	6'-0"	7'-0"	FG-1	AL	ANODIZED	STOREFRONT	AL	ANODIZED	1, 2, 4	
XE126.1	SINGLE	3'-0"	7'-0"	FG-1	AL	ANODIZED	011	AL	ANODIZED	1, 2, 4	
XE127	SINGLE	3'-6"	8'-10"	FG-1S	AL	ANODIZED	STOREFRONT	AL	ANODIZED	7	
XE128	SINGLE	3'-6"	8'-10"	FG-1S	AL	ANODIZED	STOREFRONT	AL	ANODIZED	7	
XE130	SINGLE	3'-6"	8'-10"	FG-1S	AL	ANODIZED	STOREFRONT	AL	ANODIZED	7	
XE131	SINGLE	3'-6"	8'-10"	FG-1S	AL	ANODIZED	STOREFRONT	AL	ANODIZED	7	
XE132	SINGLE	3'-6"	8'-10"	FG-1S	AL	ANODIZED	STOREFRONT	AL	ANODIZED	7	
XE133	SINGLE	3'-6"	8'-10"	FG-1S	AL	ANODIZED	STOREFRONT	AL	ANODIZED	7	
XE135	SINGLE	3'-0"	7'-0"	FG-1	AL	ANODIZED	011	AL	ANODIZED	1, 2, 4	
XE137	SINGLE	3'-6"	8'-10"	FG-1S	AL	ANODIZED	STOREFRONT	AL	ANODIZED	7	
XE139	PAIR	6'-0"	8'-10"	F	WS	PTD	001	AL	ANODIZED	7	
XE140	SINGLE	3'-0"	8'-10"	F	WS	PTD	001	AL	ANODIZED	7	
XE141A	PAIR	6'-0"	8'-10"	F	WS	PTD	001	AL	ANODIZED	7	
XE141A.1	PAIR	6'-0"	8'-10"	F	WS	PTD	001	AL	ANODIZED	7	
XE142.1	SINGLE	3'-0"	7'-0"	FG-1	AL	ANODIZED	011	AL	ANODIZED	1, 2, 4	
XE142A	PAIR	6'-0"	8'-10"	F	WS	PTD	001	AL	ANODIZED	7	
XE142A.1	PAIR	6'-0"	8'-10"	F	WS	PTD	001	AL	ANODIZED	7	
XE142B	SINGLE	3'-0"	8'-10"	F	WS	PTD	001	AL	ANODIZED	7	
XE143	SINGLE	3'-0"	6'-10"	F	WS	PTD	011	AL	ANODIZED	7	
XE143.1	SINGLE	3'-0"	7'-0"	FG-1	AL	ANODIZED	011	AL	ANODIZED	1, 2, 4	
XE144	SINGLE	3'-0"	8'-10"	F	WS	PTD	001	AL	ANODIZED	7	
XE146.1	SINGLE	3'-0"	7'-0"	FG-1	AL	ANODIZED	011	AL	ANODIZED	1, 2, 4	
XE146A	PAIR	6'-0"	8'-10"	F	WS	PTD	001	AL	ANODIZED	7	
XE146A.1	PAIR	6'-0"	8'-10"	F	WS	PTD	001	AL	ANODIZED	7	
XE146B	SINGLE	3'-0"	8'-10"	F	WS	PTD	001	AL	ANODIZED	7	
XE147	PAIR	6'-0"	8'-10"	F	WS	PTD	001	AL	ANODIZED	2	
XE148	PAIR	6'-0"	8'-10"	F	HM	PTD	001	AL	ANODIZED	7	
XE149	SINGLE	3'-0"	8'-10"	F	WS	PTD	001	AL	ANODIZED	7	
XE149.1	SINGLE	3'-0"	8'-10"	F	WS	PTD	001	AL	ANODIZED	7	
XE150	SINGLE	3'-0"	7'-0"	FG-1	AL	ANODIZED	011	AL	ANODIZED	2, 4	
XE7	PAIR	6'-0"	8'-10"	F	HM	PTD	001	AL	ANODIZED	7	
XE8	PAIR	6'-0"	8'-10"	F	HM	PTD	001	AL	ANODIZED	7	
XS102	SINGLE	3'-0"	8'-10"	F	WS	PTD	001	AL	ANODIZED	7	
XS102A	SINGLE	3'-0"	8'-10"	F	WS	PTD	001	AL	ANODIZED	7	
XS104	SINGLE	3'-0"	8'-7"	FG-1	AL	ANODIZED	011	AL	ANODIZED	7	
XS104.1	SINGLE	3'-0"	8'-7"	FG-1	AL	ANODIZED	011	AL	ANODIZED	7	
XS105	SINGLE	3'-6"	8'-10"	FG-1S	AL	ANODIZED	STOREFRONT	AL	ANODIZED	7	
XS108	SINGLE	3'-6"	8'-10"	FG-1S	AL	ANODIZED	STOREFRONT	AL	ANODIZED	7	
XS109	SINGLE	3'-6"	8'-10"	FG-1S	AL	ANODIZED	STOREFRONT	AL	ANODIZED	7	
XS110	SINGLE	3'-6"	8'-10"	FG-1S	AL	ANODIZED	STOREFRONT	AL	ANODIZED	7	
XS112	SINGLE	3'-0"	8'-10"	F	WS	PTD	001	AL	ANODIZED	7	
XS113	SINGLE	3'-0"	8'-10"	F	WS	PTD	001	AL	ANODIZED	7	
XS114C.1	SINGLE	3'-0"	7'-0"	FG-1	AL	ANODIZED	011	AL	ANODIZED	1, 2, 4	
XS115	SINGLE	3'-0"	8'-10"	F	WS	PTD	001	AL	ANODIZED	7	
XS116	SINGLE	3'-6"	8'-10"	FG-1S	AL	ANODIZED	STOREFRONT	AL	ANODIZED	7	
XS125	SINGLE	3'-0"	8'-10"	F	WS	PTD	001	AL	ANODIZED	2, 4	
XS126	SINGLE	3'-6"	8'-10"	FG-1S	AL	ANODIZED	STOREFRONT	AL	ANODIZED	7	
XS128	SINGLE	3'-6"	8'-10"	FG-1S	AL	ANODIZED	STOREFRONT	AL	ANODIZED	7	
XS129	SINGLE	3'-6"	8'-10"	FG-1S	AL	ANODIZED	STOREFRONT	AL	ANODIZED	7	
XS130	SINGLE	3'-6"	8'-10"	FG-1S	AL	ANODIZED	STOREFRONT	AL	ANODIZED	7	
XS132	PAIR	6'-0"	8'-9 1/2"	FG-1	AL	ANODIZED	STOREFRONT	AL	ANODIZED	7	
XS132.1	SINGLE	3'-1 1/2"	8'-10"	FG-1	AL	ANODIZED	011	AL	ANODIZED	7	
XS132.2	SINGLE	3'-0"	7'-0"	FG-1	AL	ANODIZED	011	AL	ANODIZED	1, 2, 4	
XS132A	SINGLE	3'-0"	8'-10"	F	WS	PTD	001	AL	ANODIZED	7	
XS138	PAIR	6'-0"	8'-10"	F	WS	PTD	001	AL	ANODIZED	7	
XS132D	SINGLE	3'-0"	8'-9 1/2"	FG-1	AL	ANODIZED	011	AL	ANODIZED	7	
XS133	SINGLE	3'-0"	8'-10"	F	WS	PTD	001	AL	ANODIZED	7	
XS134	SINGLE	3'-0"	8'-10"	F	WS	PTD	001	AL	ANODIZED	7	
XS135	SINGLE	3'-0"	8'-10"	F	WS	PTD	001	AL	ANODIZED	7	
XS25	PAIR	6'-0"	7'-0"	FG-1	AL	ANODIZED	STOREFRONT	AL	ANODIZED	1, 2, 4	
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