

**Project Name: UNIVERSITY OF CALIFORNIA, MERCED
KOLLIGIAN LIBRARY 3W RENOVATION**

Project No.: 908074

ADDENDUM NO. 2
to the
CONTRACT DOCUMENTS
July 20, 2018

- I. Bidder acknowledges that it is the Bidder's responsibility to ascertain whether any Addenda have been issued and if so, to obtain copies of such Addenda. Bidder therefore agrees to be bound by all Addenda that have been issued for this bid.

This Addendum forms a part of the Contract Documents and modifies the original Bidding Documents. The following changes, additions, or deletions shall be made to the following documents as indicated and all other Contract Documents shall remain the same.

II. CLARIFICATIONS

A. PRE-BID QUESTIONS – Questions received from bidders and responses are as follows:

1. Q. In the spec 084113 page 4 section 2.3 paragraph A. It calls for the aluminum system to be 2" X 4 1/2". In the drawings page A902, details 6, 9, and 10 the system is 1 3/4" X 4 1/2". Which one is it?
 - A. Storefront details updated to show 1-3/4" or 2" mullion width. Final width to match (E) storefront systems, to be verified by Contractor.

III. BIDDING/CONTRACT DOCUMENTS AND DIVISION 1 SPECIFICATIONS – VOLUME 1

NONE

IV. SPECIFICATIONS – VOLUME 2

1. Modified section 08 41 13 Aluminum Entrances and Storefronts (Changes in Red) See also item 01-01 below.

V. **DRAWINGS**

1. Item 01-01
 - a. **Reference: A902**
 - b. Storefront details updated to show 1-3/4" or 2" mullion width. Final width to match (E) storefront systems, to be verified by Contractor.

VI. **ATTACHMENTS**

- 1 Sheet A902
- 2 Specification 08 41 13

UNIVERSITY OF CALIFORNIA, MERCED

By: University of California, Merced

Fran Telechea
Director of Construction

End of Addendum No. 2

ADDENDUM NO. 2

SECTION 08 41 13
ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS
ADDENDUM #2

PART 1 - GENERAL

1.1 PERFORMANCE REQUIREMENTS

- A. General Performance: Aluminum-framed systems shall withstand the effects of the following performance requirements without failure due to defective manufacture, fabrication, installation, or other defects in construction. Failure includes the following:
1. Deflection exceeding specified limits.
 2. Thermal stresses transferring to building structure.
 3. Framing members transferring stresses, including those caused by thermal and structural movements to glazing.
 4. Noise or vibration created by wind and by thermal and structural movements.
 5. Loosening or weakening of fasteners, attachments, and other components.
 6. Sealant failure.
- B. Delegated Design: Design aluminum-framed systems, including comprehensive engineering analysis by a qualified professional engineer, using performance requirements and design criteria indicated.
- C. Structural Loads:
1. Seismic Performance: Storefront window system assemblies shall withstand the effects of earthquake motions determined according to ASCE/SEI 7 and the California Building Code.
 - a. The term "withstand" means "the unit will remain in place without separation of any parts from the device when subjected to the seismic forces specified."
- D. Deflection of Framing Members, Deflection Normal to Wall Plane: Limited to edge of glass in a direction perpendicular to glass plane shall not exceed L/175 of the glass edge length for each individual glazing lite or an amount that restricts edge deflection of individual glazing lites to 3/4 inch, whichever is less.
- E. Condensation Resistance: Provide aluminum-framed systems with fixed glazing and framing areas having condensation-resistance factors (CRF) of not less than 57 (frame) and 70 (glass) when glazed with 1" (25 mm) insulated, 1/4" (6 mm) clear, 1/2" (12 mm) air, 1/4" (6 mm) clear glass and tested according to AAMA 1503.1.
- F. Thermal Conductance: Provide aluminum-framed systems with fixed glazing and framing areas having an average U-factor of not more than 0.44 Btu/sq. ft. x h x deg F when glazed with 1"

(25 mm) insulated, 1/4" (6 mm) clear, 1/2" (12 mm) air, 1/4" (6 mm) clear glass and tested according to AAMA 1503.1.

1.2 SUBMITTALS

- A. Product Data: For each type of product indicated. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for aluminum-framed systems.
- B. Shop Drawings: For aluminum-framed systems. Include plans, elevations, sections, details, and attachments to other work.
- C. Maintenance Data: For aluminum-framed systems to include in maintenance manuals.
- D. Warranties: Manufacturer's standard warranty.
 - 1. Two years from the date of substantial completion of the project provided however that the Limited Warranty shall begin in no event later than six months from date of shipment by manufacturer.

1.3 QUALITY ASSURANCE

- A. Installer Qualifications: Manufacturer's authorized representative who is trained and approved for installation of units required for this Project.
- B. Product Options: Information on Drawings and in Specifications establishes requirements for systems' aesthetic effects and performance characteristics. Aesthetic effects are indicated by dimensions, arrangements, alignment, and profiles of components and assemblies as they relate to sightlines, to one another, and to adjoining construction. Performance characteristics are indicated by criteria subject to verification by one or more methods including preconstruction testing, field testing, and in-service performance.
 - 1. Do not revise intended aesthetic effects, as judged solely by Architect, except with Architect's approval. If revisions are proposed, submit comprehensive explanatory data to Architect for review.
- C. Accessible Entrances: Comply with applicable provisions in the U.S. Architectural & Transportation Barriers Compliance Board's ADA-ABA Accessibility Guidelines, ICC/ANSI A117.1, and the California Building Code.
- D. Source Limitations for Aluminum-Framed Systems: Obtain from single source from single manufacturer.

July 20, 2018

Revision: 1
LF/SF: 08 41 13

ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS
08 41 13 – Page 2

1.4 PROJECT CONDITIONS

- A. Field Measurements: Verify actual locations of structural supports for aluminum-framed systems by field measurements before fabrication and indicate measurements on Shop Drawings.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Basis-of-Design Products: In other Part 2 Articles where named manufacturer's products are indicated as "Basis of Design," Drawings and Specifications are based on products manufactured by:
- 1) Kawneer North America; an Alcoa company.
 - b. Subject to compliance with requirements, provide products indicated or comparable products by one of the following:
 - 1) EFCO Corporation.
 - 2) Oldcastle Glass Engineered Prodcuts.
 - 3) United States Aluminum.

2.2 MATERIALS

- A. Aluminum: Alloy and temper recommended by manufacturer for type of use and finish indicated.
1. Sheet and Plate: ASTM B 209.
 2. Extruded Bars, Rods, Profiles, and Tubes: ASTM B 221.
 3. Extruded Structural Pipe and Tubes: ASTM B 429.
 4. Structural Profiles: ASTM B 308/B 308M.
 5. Welding Rods and Bare Electrodes: AWS A5.10/A5.10M.

2.3 STOREFRONT FRAMING SYSTEMS

- A. Framing Members, General: Manufacturer's standard extruded-aluminum framing members of type and size indicated and as required to support imposed loads.
1. Construction: Non-thermally broken.
 2. Glazing: As specified in Division 08 Section "Glazing".
 3. Glazing Gaskets: Manufacturer's standard compression types; replaceable, extruded EPDM rubber.
 4. Spacers and Setting Blocks: Manufacturer's standard elastomeric type.

5. Bond-Breaker Tape: Manufacturer's standard TFE-fluorocarbon or polyethylene material to which sealants will not develop adhesion.
 6. Glazing Sealants: For structural-sealant-glazed systems, as recommended by manufacturer for joint type, and as follows:
 7. Structural Sealant: ASTM C 1184, single-component neutral-curing silicone formulation that is compatible with system components with which it comes in contact, specifically formulated and tested for use as structural sealant and approved by a structural-sealant manufacturer for use in aluminum-framed systems indicated.
 8. Color: Black
 9. Weatherseal Sealant: ASTM C 920 for Type S, Grade NS, Class 25, Uses NT, G, A, and O; single-component neutral-curing formulation that is compatible with structural sealant and other system components with which it comes in contact; recommended by structural-sealant, weatherseal-sealant, and aluminum-framed-system manufacturers for this use.
 10. Color: Matching structural sealant.
- A. Basis of Design: Kawneer, VG 450 Framing System 1-3/4" or 2" Sightline.
1. Size: 1-3/4 or 2 by 4-1/2 inches, 4-1/2 by 4-1/2 inches. Contractor to Verify existing condition and match width of mullions.
 2. Wall Thickness: Not less than 0.080 inches.
 3. Glazing: Center Plane 1/4" Clear, Tempered where shown on Drawings
 4. Finish: Kawneer Permaflour Coating; Bone White or sim.
- B. Brackets and Reinforcements: Manufacturer's standard high-strength aluminum with nonstaining, nonferrous shims for aligning system components.
- C. Fasteners and Accessories: Manufacturer's standard corrosion-resistant, nonstaining, nonbleeding fasteners and accessories compatible with adjacent materials.
1. Use self-locking devices where fasteners are subject to loosening or turning out from thermal and structural movements, wind loads, or vibration.
 2. Reinforce members as required to receive fastener threads.
 3. Where fasteners must be exposed, use countersunk Phillips flat head screws finished to match framing system or fabricated from stainless steel.
- D. Framing System Gaskets and Sealants: Manufacturer's standard, recommended by manufacturer for joint type.
1. Sealants shall be as specified in Division 07 Section "Joint Sealants."

2.4 GLAZING SYSTEMS

- A. Glazing: Glazing shall be as specified in Division 08 Section "Glazing."
- B. Glazing Gaskets: Manufacturer's standard compression types; replaceable, molded or extruded, of profile and hardness required to maintain watertight seal.

July 20, 2018

Revision: 1
LF/SF: 08 41 13

ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS
08 41 13 – Page 4

- C. Spacers and Setting Blocks: Manufacturer's standard elastomeric type.

2.5 ACCESSORY MATERIALS

- A. Joint Sealants: For installation at perimeter of aluminum-framed systems, as specified in Division 07 Section "Joint Sealants."

2.6 FABRICATION

- A. Form or extrude aluminum shapes before finishing.
- B. Framing Members, General: Fabricate components that, when assembled, have the following characteristics:
 - 1. Profiles that are sharp, straight, and free of defects or deformations.
 - 2. Accurately fitted joints with ends coped or mitered.
 - 3. Accommodations for thermal and mechanical movements of glazing and framing to maintain required glazing edge clearances.
 - 4. Provisions for field replacement of glazing from interior.
 - 5. Fasteners, anchors, and connection devices that are concealed from view to greatest extent possible.
- C. Mechanically Glazed Framing Members: Fabricate for flush glazing without projecting stops.
- D. Storefront Framing: Fabricate components for assembly using shear-block system.
- E. Entrance Door Frames: Reinforce as required to support loads imposed by door operation and for installing entrance door hardware.
- F. Entrance Doors: Reinforce doors as required for installing entrance door hardware.
 - 1. Door stiles and rails shall have hairline joints at corners. Heavy concealed reinforcement brackets shall be secured with screws and shall be of deep penetration and fillet welded.
 - 2. All doors shall have an adjusting mechanism in the top rail to provide for minor clearance adjustments.

2.7 ALUMINUM FINISHES

- A. Kawneer Permafluor (70% PVDF), AAMA 2605, Fluoropolymer Coating, Color Bone White or sim. to match color of (E) storefront systems.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. General:

- 1. Comply with manufacturer's written instructions.
- 2. Do not install damaged components.
- 3. Fit joints to produce hairline joints free of burrs and distortion.
- 4. Rigidly secure nonmovement joints.
- 5. Install anchors with separators and isolators to prevent metal corrosion and electrolytic deterioration.
- 6. Seal joints watertight unless otherwise indicated.

B. Metal Protection:

- 1. Where aluminum will contact dissimilar metals, protect against galvanic action by painting contact surfaces with primer or applying sealant or tape, or by installing nonconductive spacers as recommended by manufacturer for this purpose.

C. Set continuous sill members and flashing in full sealant bed as specified in Division 07 Section "Joint Sealants" to produce weathertight installation.

D. Install components plumb and true in alignment with established lines and grades, and without warp or rack.

E. Install glazing as specified in Division 08 Section "Glazing."

F. Entrance Doors: Install doors to produce smooth operation and tight fit at contact points.

3.3 ERECTION TOLERANCES

A. Install aluminum-framed systems to comply with the following maximum erection tolerances:

- 1. Location and Plane: Limit variation from true location and plane to 1/8 inch in 12 feet; 1/4 inch over total length.
- 2. Alignment:

- a. Where surfaces abut in line, limit offset from true alignment to 1/16 inch.
- b. Where surfaces meet at corners, limit offset from true alignment to 1/32 inch.

B. Diagonal Measurements: Limit difference between diagonal measurements to 1/8 inch.

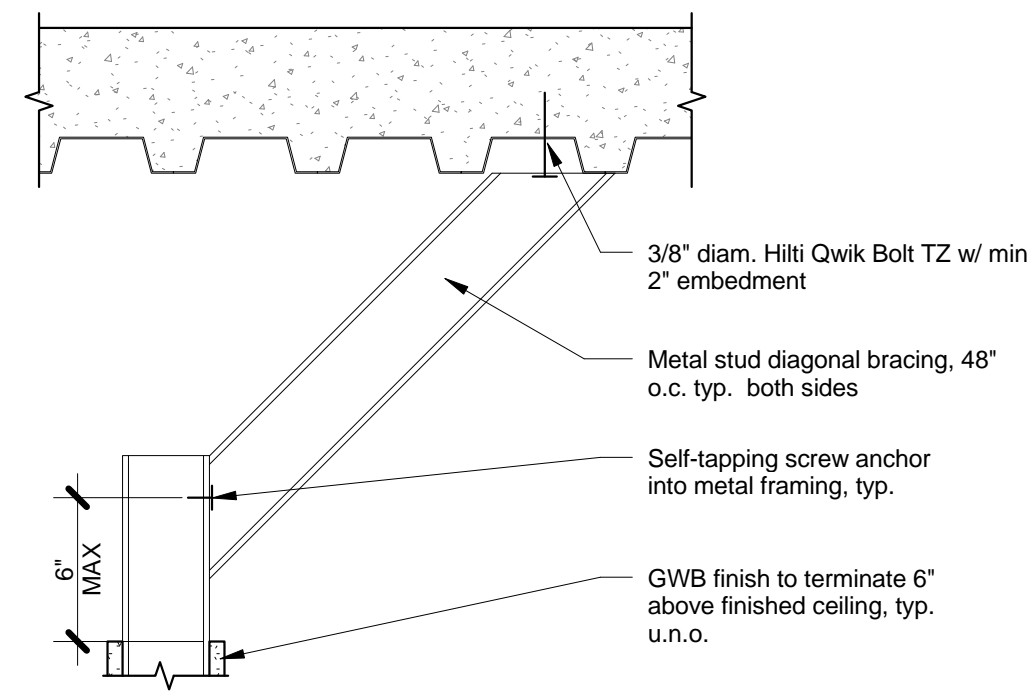
3.4 FIELD QUALITY CONTROL

- A. Testing: Testing and inspecting of representative areas of installed work shall take place as follows.
 1. Testing shall be performed by the Contractor in the presence of the Owner's Inspector. The Owner's Inspector shall be responsible for observing and reporting results of testing.
- B. Repair or remove work if test results and inspections indicate that it does not comply with specified requirements.
- C. Inspection Reports: Inspection reports shall be prepared by the Owner's Inspector.

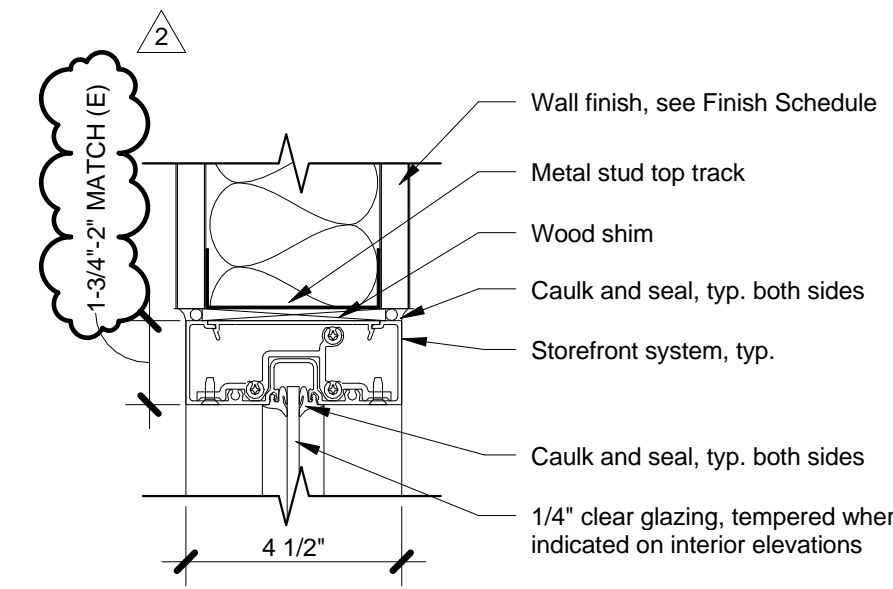
3.5 ADJUSTING & CLEANING

- A. Adjust operating entrance door hardware to function smoothly as recommended by manufacturer and as specified in Division 8 Section "Door Hardware."
- B. Clean aluminum surfaces immediately after installing aluminum-framed storefronts. Avoid damaging protective coatings and finishes. Remove excess sealants, glazing materials, dirt, and other substances.
- C. Clean glass immediately after installation. Comply with glass manufacturer's written recommendations for final cleaning and maintenance. Remove nonpermanent labels, and clean surfaces.
- D. Remove and replace glass that has been broken, chipped, cracked, abraded, or damaged during construction period.

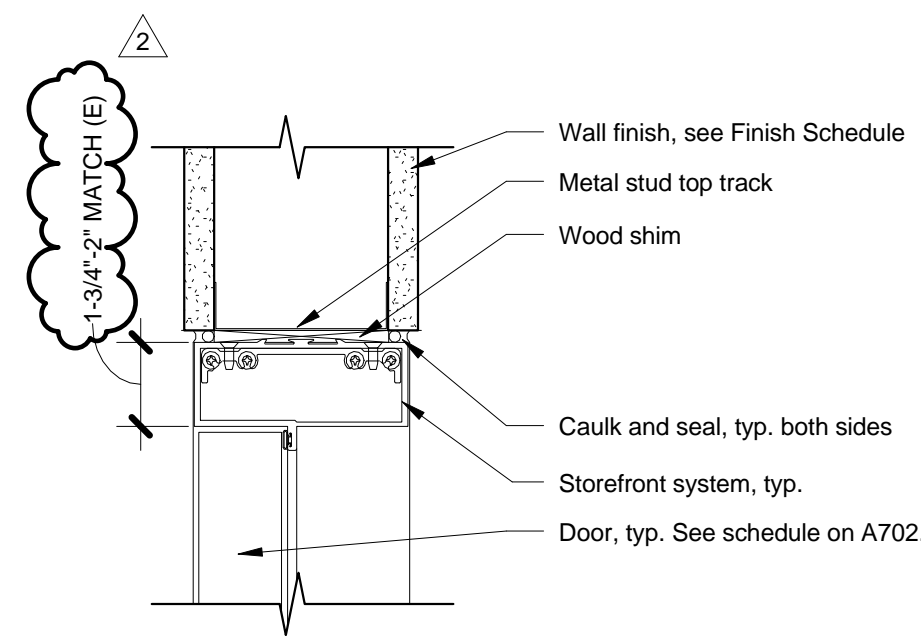
END OF SECTION



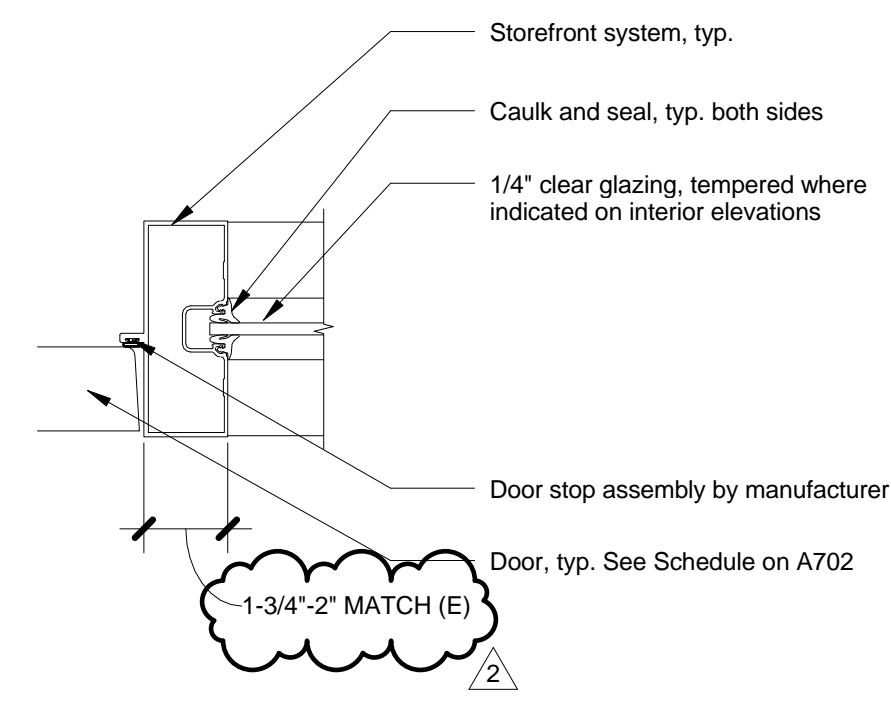
20 Diagonal Bracing
1 1/2" = 1'-0"



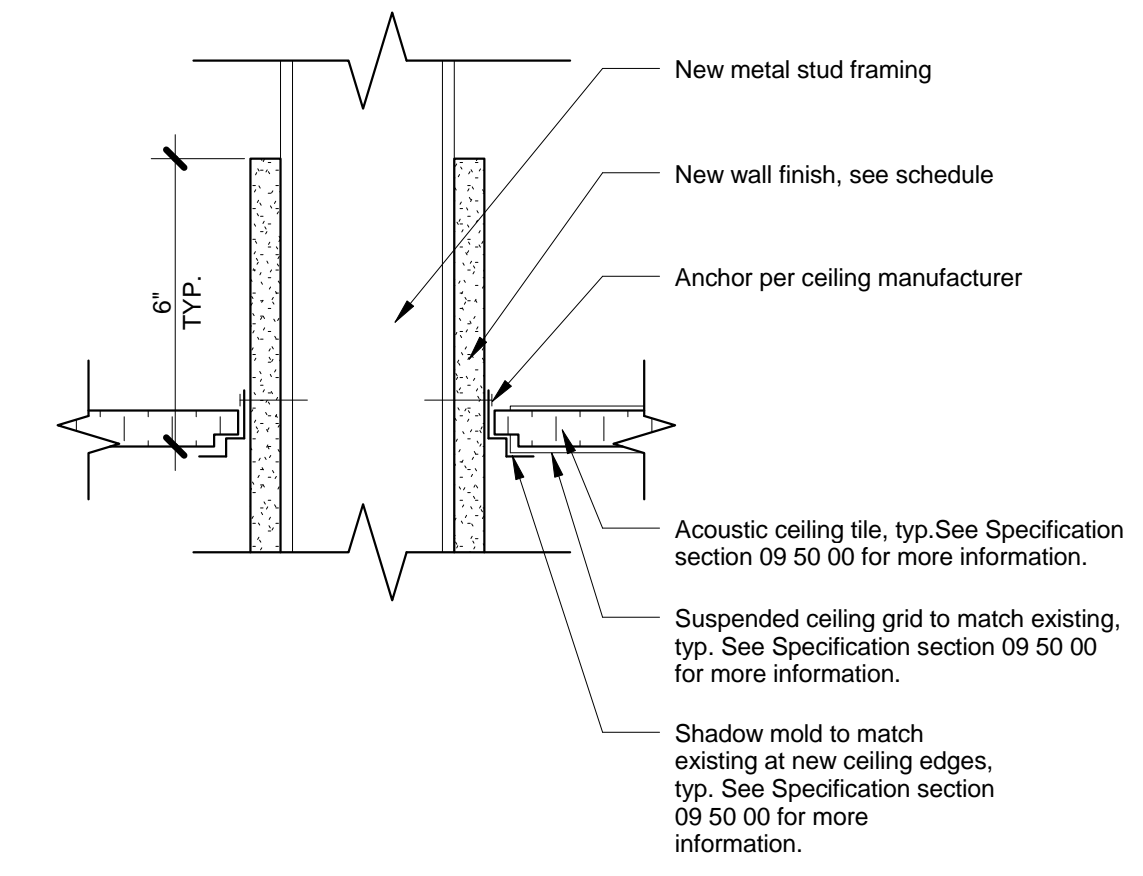
16 Storefront Transom Head
3" = 1'-0"



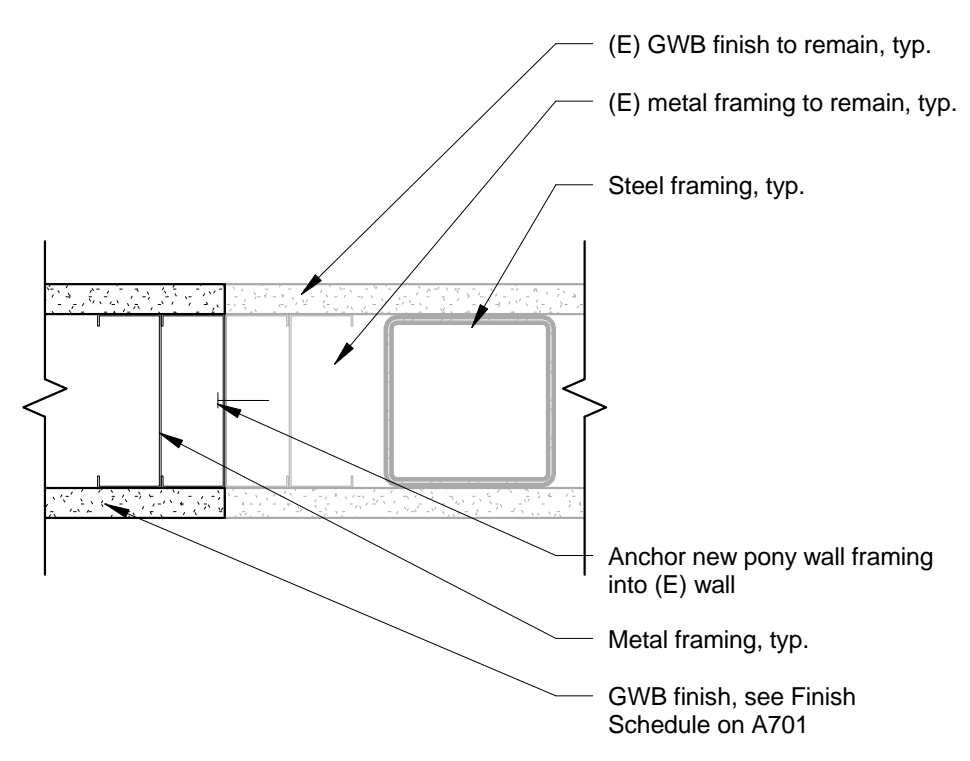
12 Storefront Door Head
3" = 1'-0"



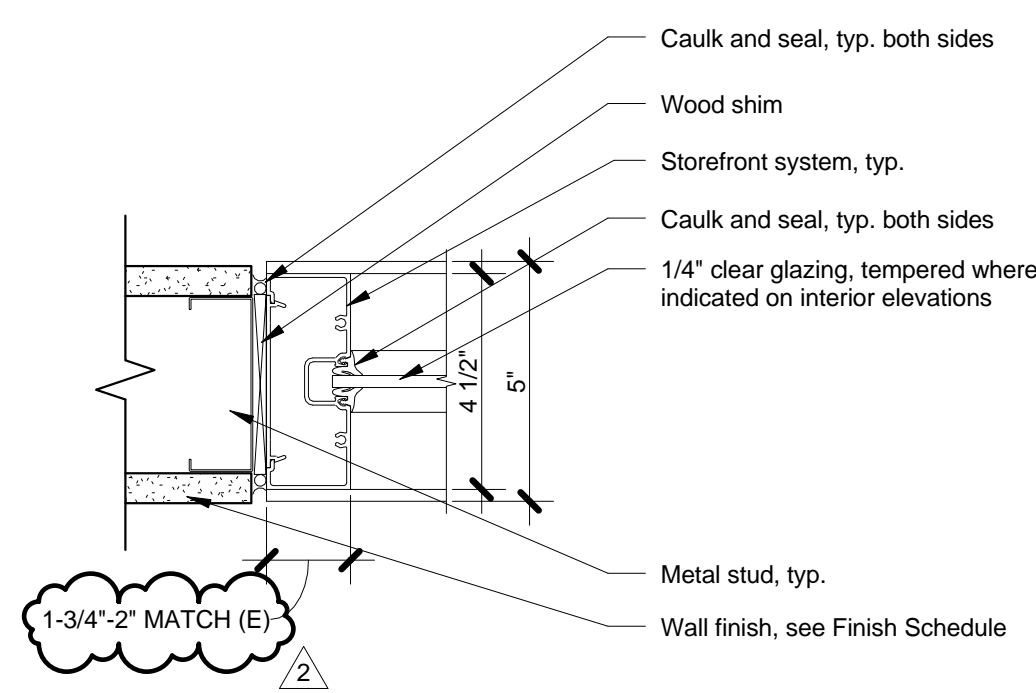
8 Storefront Door Jamb (@ Sidelight)
3" = 1'-0"



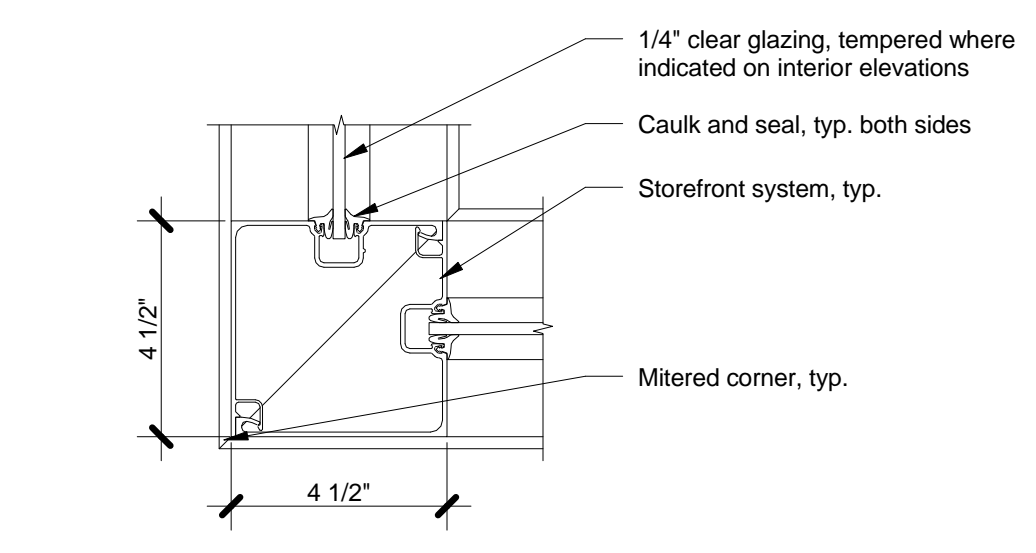
4 Ceiling Attachment to New Wall
3" = 1'-0"



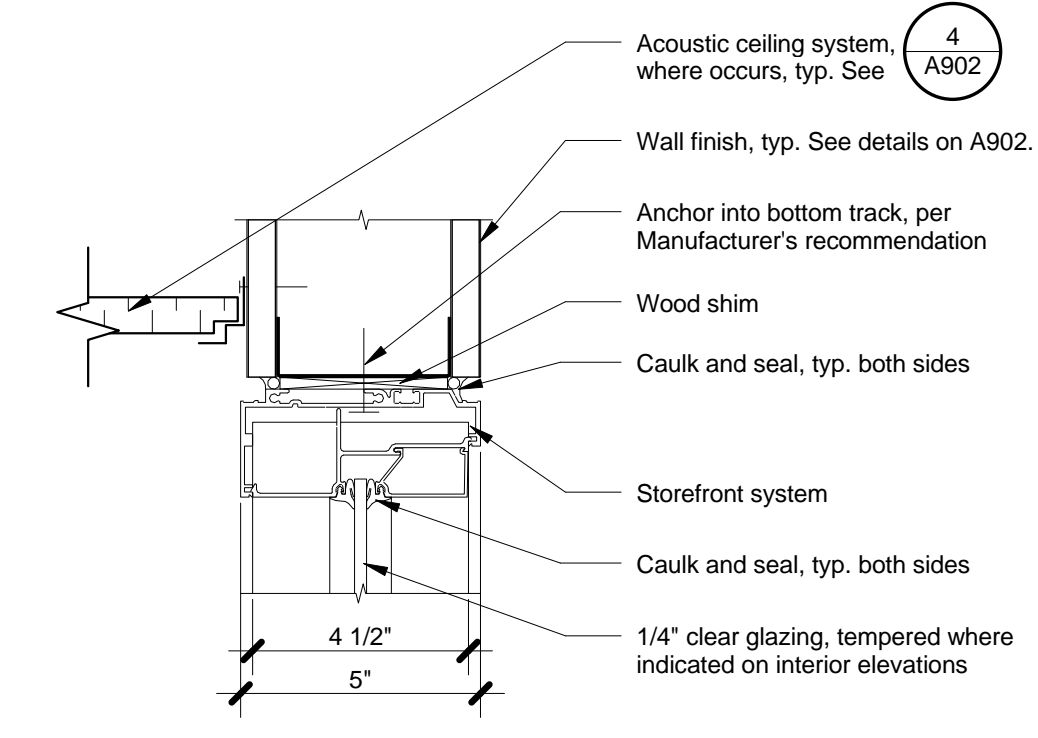
19 New Pony Wall Anchoring
3" = 1'-0"



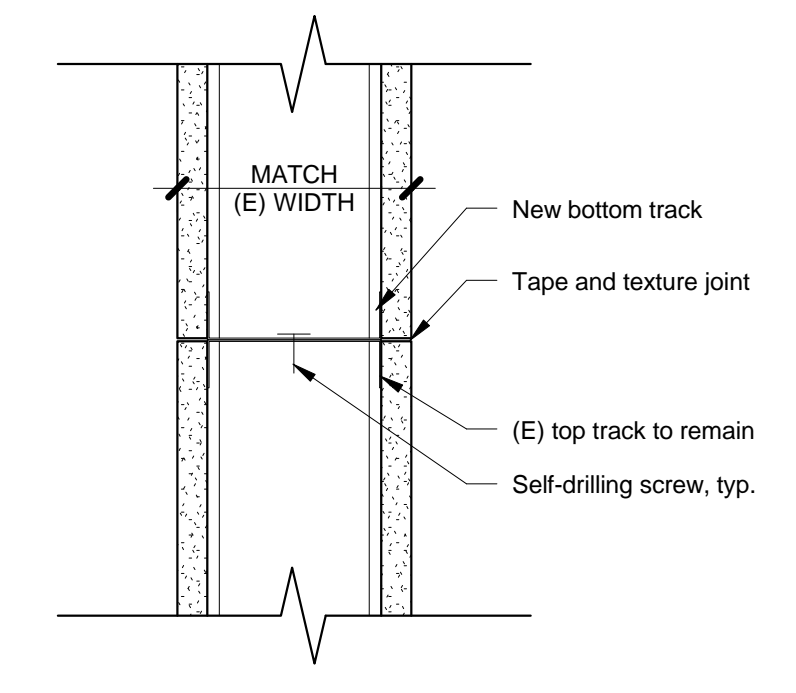
15 Storefront Window Jamb
3" = 1'-0"



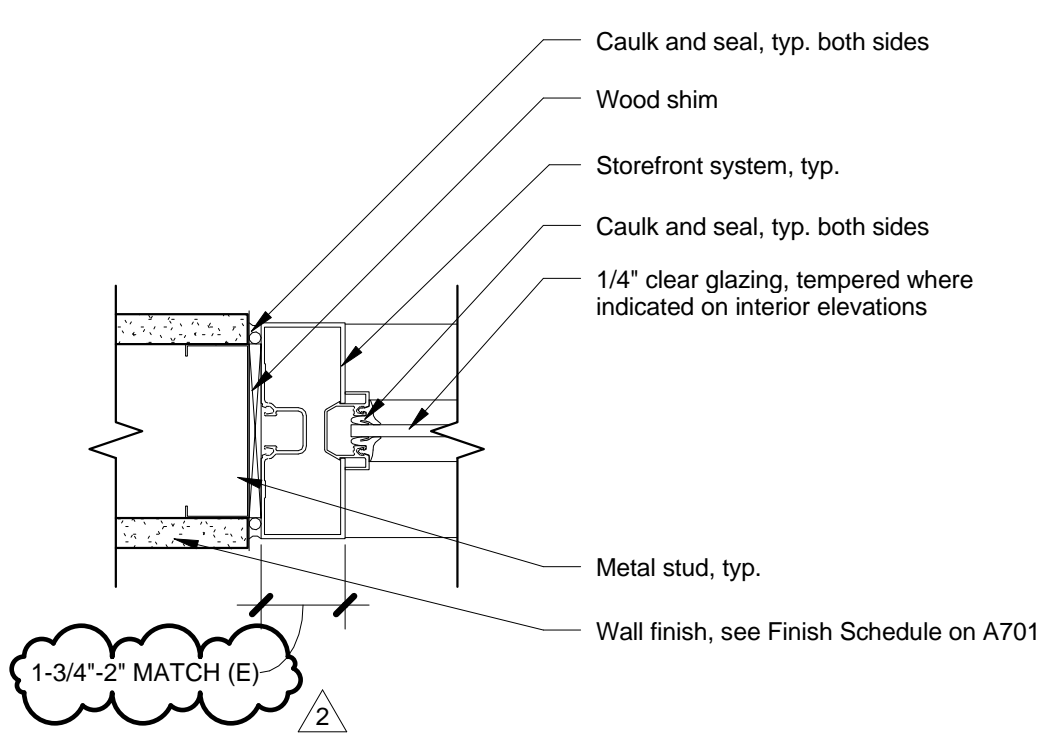
11 Storefront Corner Mullion
3" = 1'-0"



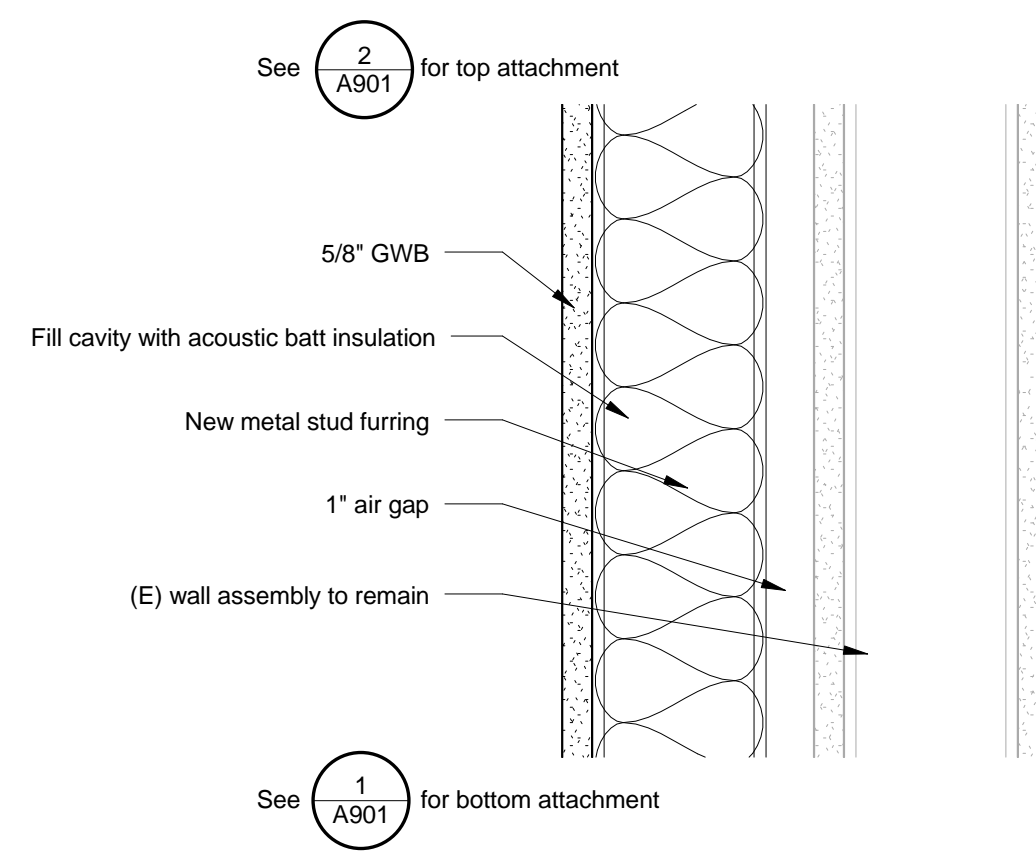
7 Storefront Window Head
3" = 1'-0"



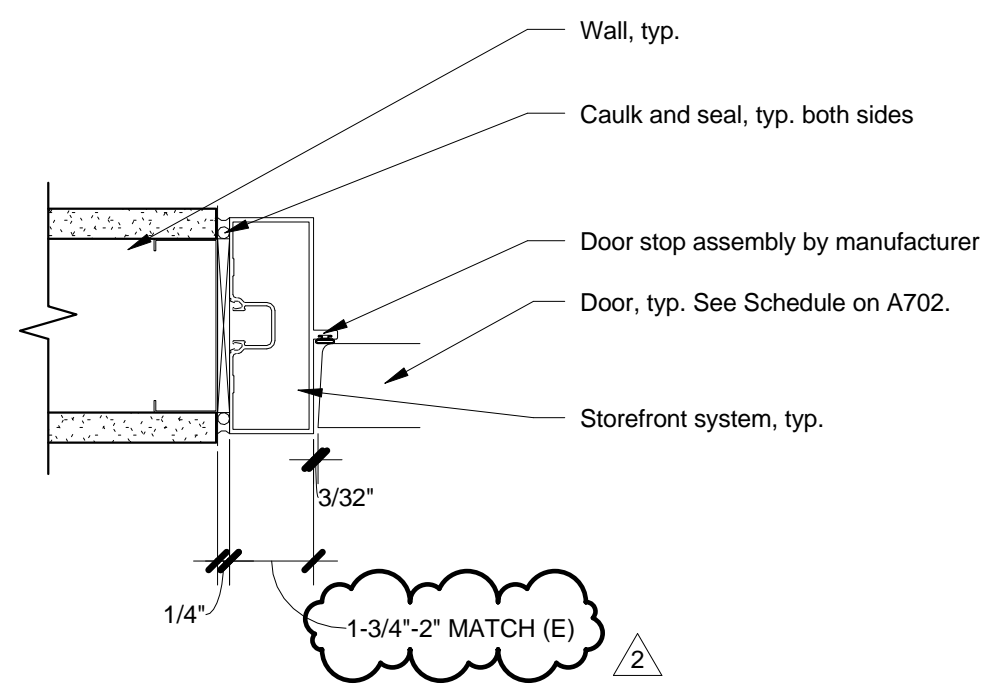
3 New Framed Wall on (E) Pony Wall
3" = 1'-0"



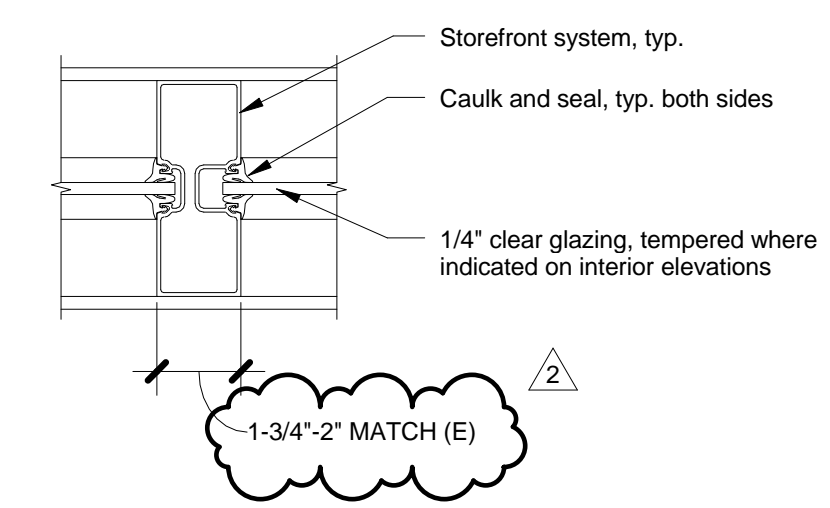
18 Storefront Transom Jamb @ Wall
3" = 1'-0"



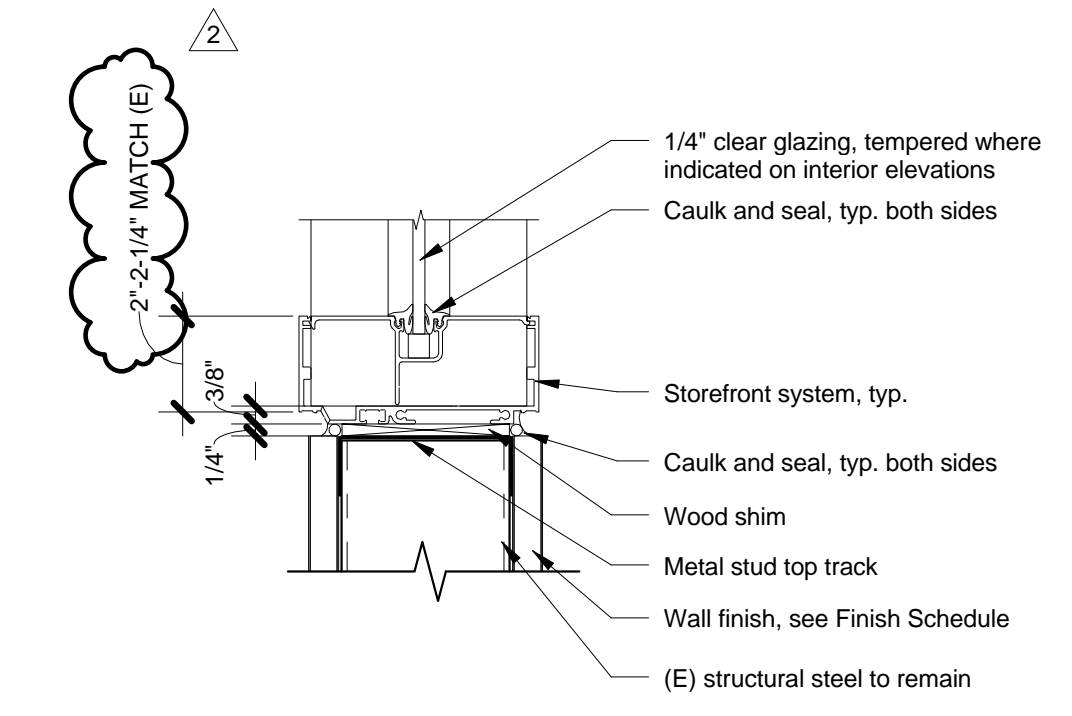
14 New Furred Wall
3" = 1'-0"



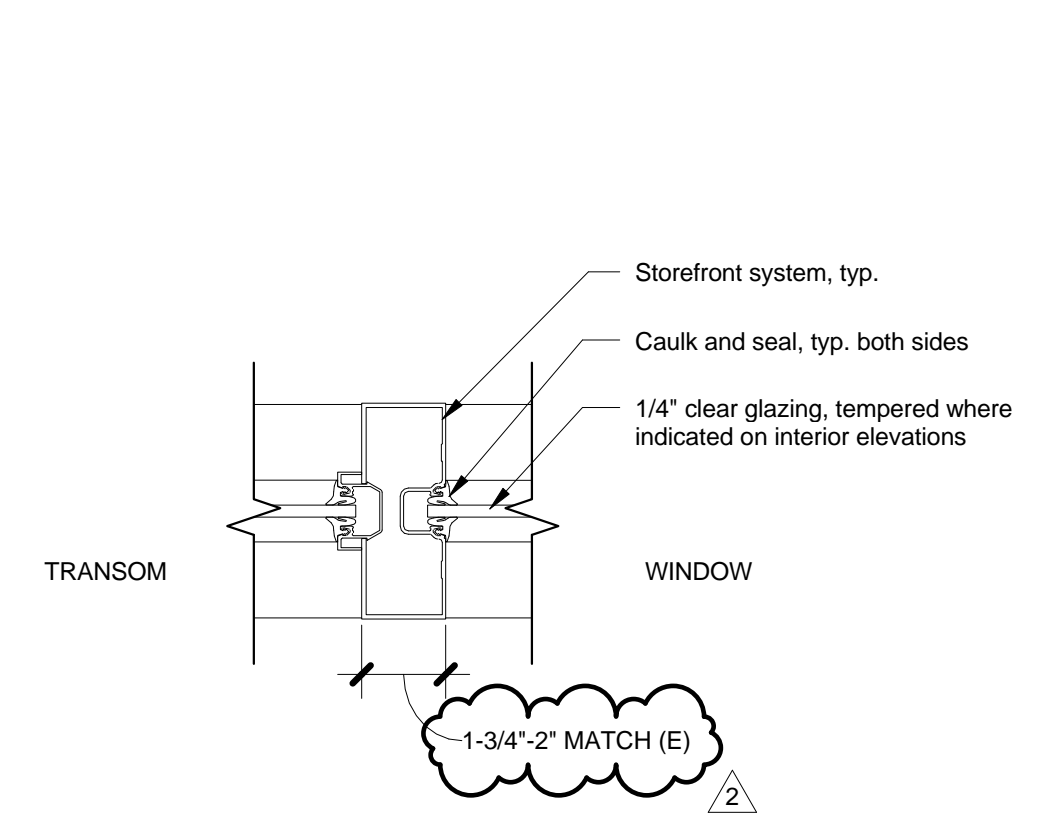
10 Storefront Door Jamb (@ Wall)
3" = 1'-0"



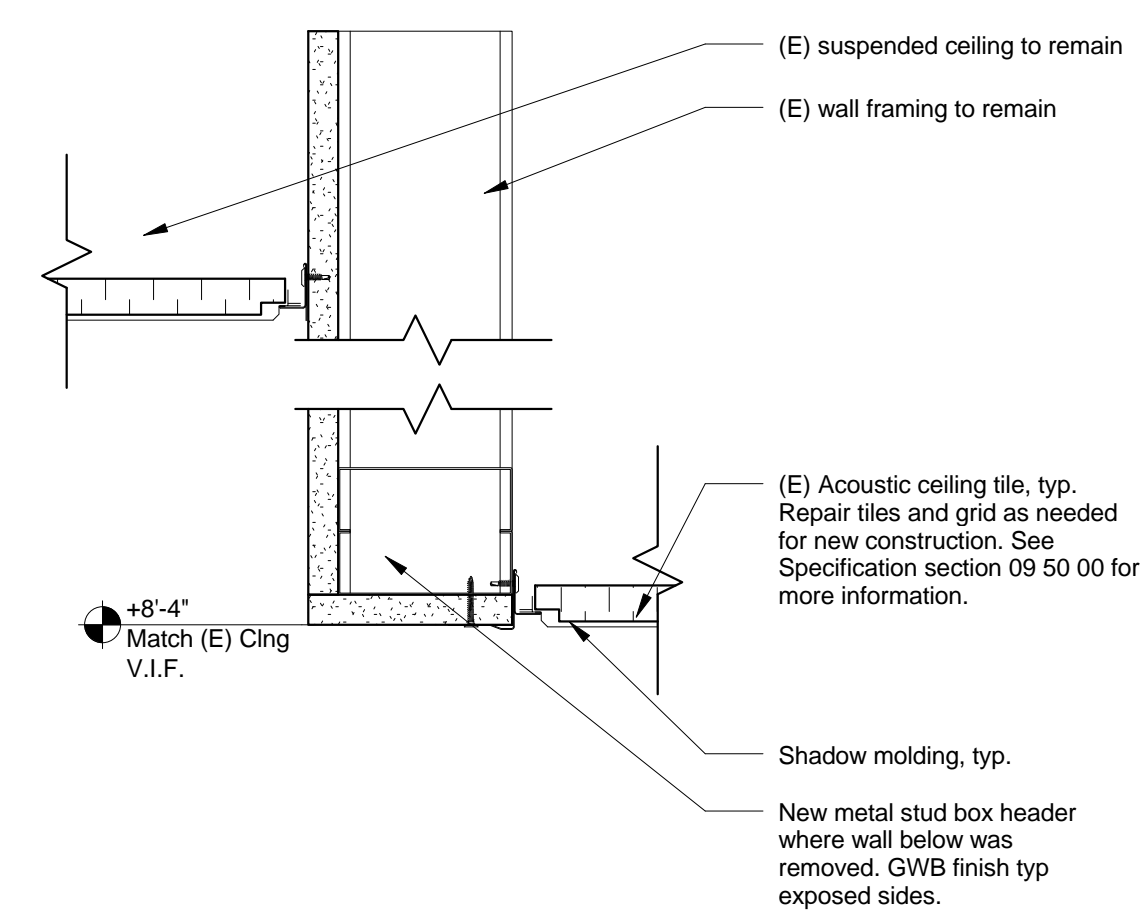
6 Storefront Vertical Mullion
3" = 1'-0"



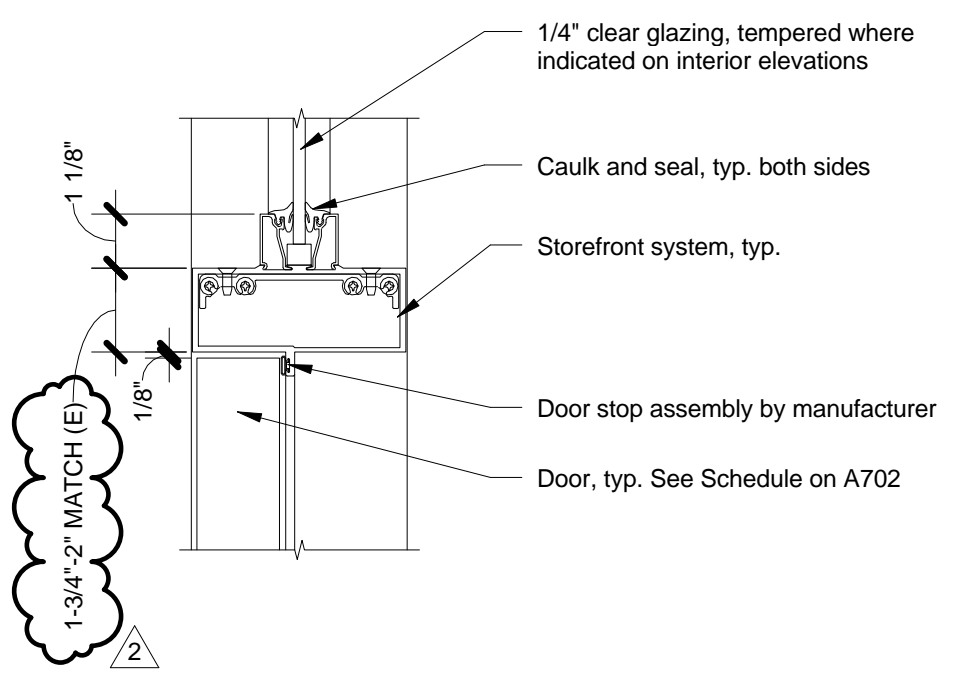
2 Storefront Bottom @ Pony Wall
3" = 1'-0"



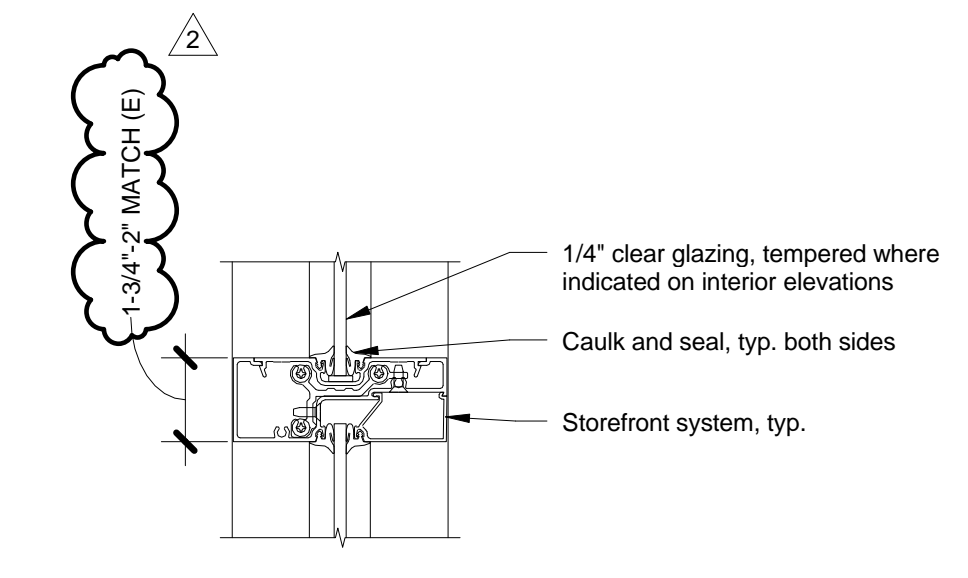
17 Storefront Transom Jamb @ Sidelight
3" = 1'-0"



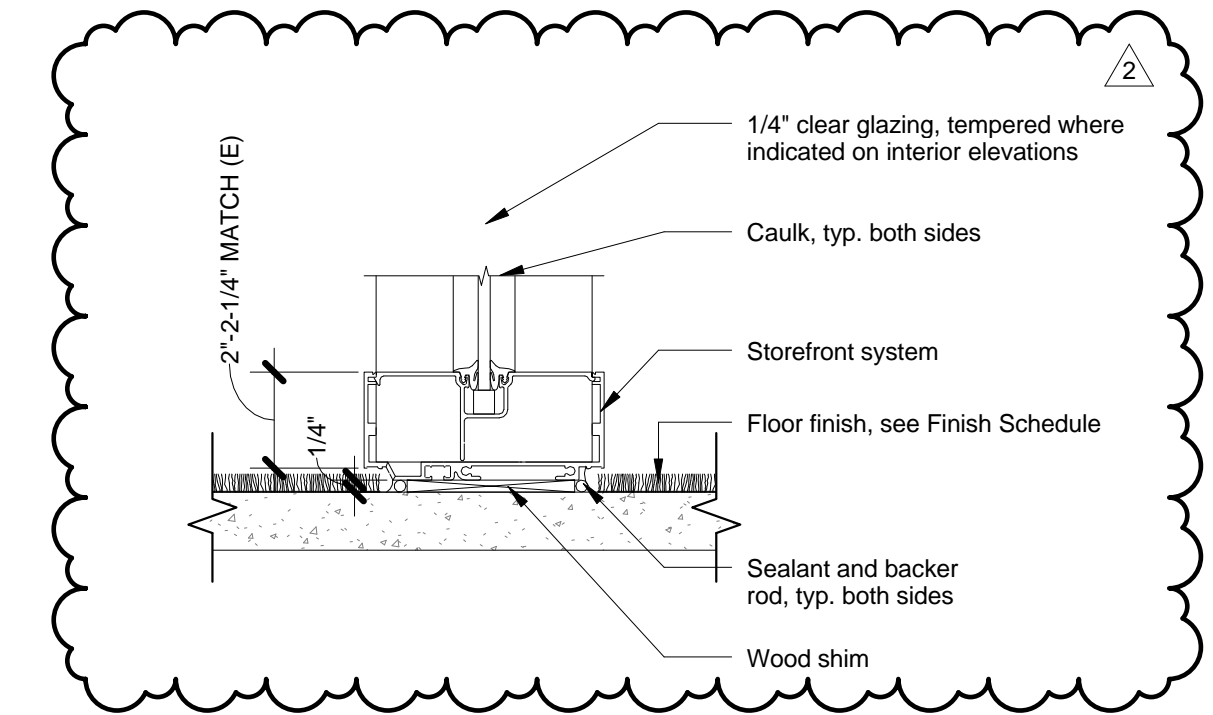
13 New Box Header at Ceiling Transition
3" = 1'-0"



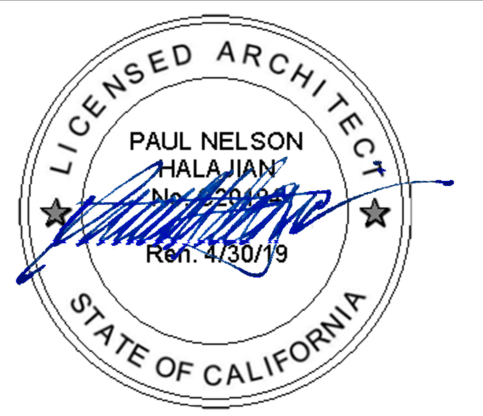
9 Storefront Door Head @ Transom
3" = 1'-0"



5 Storefront Horizontal Mullion
3" = 1'-0"



1 Storefront Bottom @ Floor
3" = 1'-0"



PAUL HALAJIAN ARCHITECTS expressly reserves its common law copyright and other property rights specifically related to the contents of these plans. This document and the ideas and designs incorporated herein, as an instrument of professional service rendered by PAUL HALAJIAN ARCHITECTS, is not to be used in whole or in part for any other project without prior written authorization from PAUL HALAJIAN ARCHITECTS.

DRAWING SET INFORMATION:

07.10.2018	Bid Set
------------	---------

REVISIONS:

1	07.20.2018	Addendum #1
2	07.20.2018	Addendum #2