



COMMERCIAL
SUNROOM
PRODUCTS

Insulated Enclosure Architectural/Technical Details

500

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Specifications

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PROFESSIONAL ENGINEERING REGISTRATIONS

STATE

Alabama
Colorado
Connecticut
Washington, D.C.
Delaware
Florida
Georgia
Indiana (WM)
Illinois
Iowa
Kansas
Kentucky
Maryland
Massachusetts
Michigan
Minnesota
Mississippi
Missouri

STATE

Nebraska
New Hampshire
New Jersey
New York
North Carolina
Ohio
Pennsylvania
Rhode Island
South Carolina
Tennessee
Texas
Virginia
Vermont
Wisconsin
West Virginia

LIST OF REFERENCES

ENGINEERING ANALYSIS & DESIGN

BUILDING CODE COMPLIANCE FOR LOADS

1. "International Building Code", International Code Council (ICC), 2003 Edition
2. "Uniform Building Code" International Conference of Building Officials (ICBO), 1991 Edition
3. "National Building Code" Building Officials & Code Administrators (BOCA), 1990 Edition
4. "Standard Building Code", Southern Building Code Congress International (SBCCI), 1991 Edition

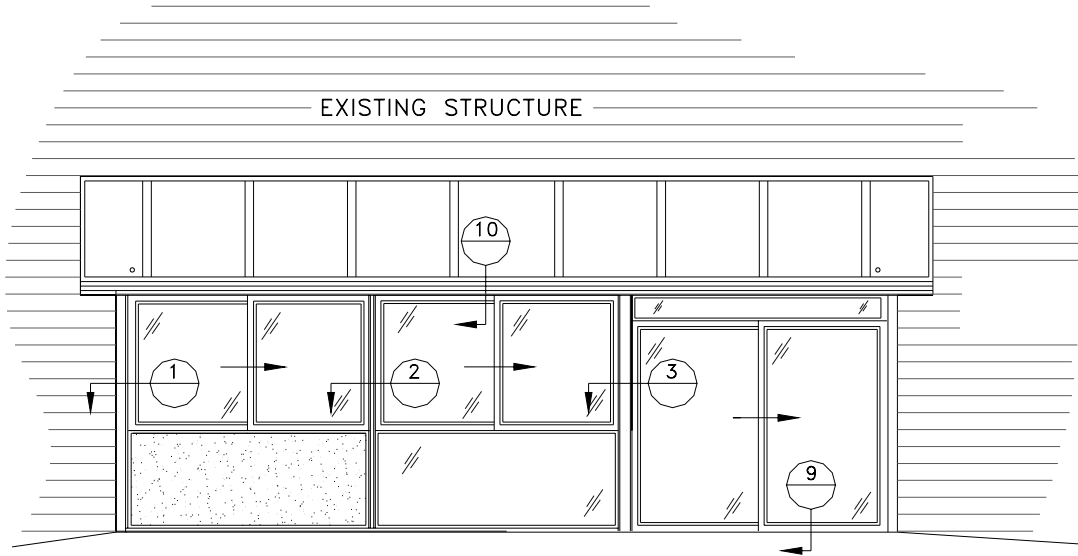
DESIGN LOADS

1. "International Building Code", ICC
2. "Uniform Building Code", ICBO
3. "National Building Code", BOCA
4. "ASCE –7 – 02" American Society of Civil Engineers (ASCE)

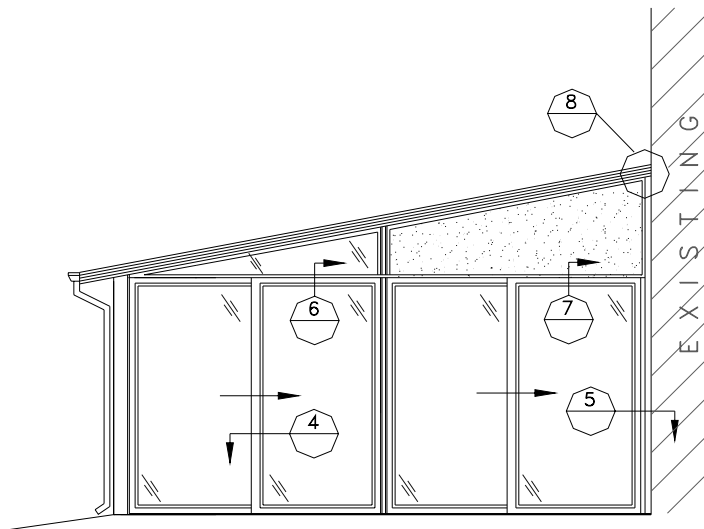
DESIGN LOAD COMBINATIONS

1. "International Building Code", ICC
2. "Uniform Building Code", ICBO
3. "National Building Code", BOCA
4. "Standard Building Code", SBCCI

CA8 Insulated Enclosure Component Details



A
1 BEARING WALL ELEVATION OF
SINGLE SLOPE ROOF ENCLOSURE

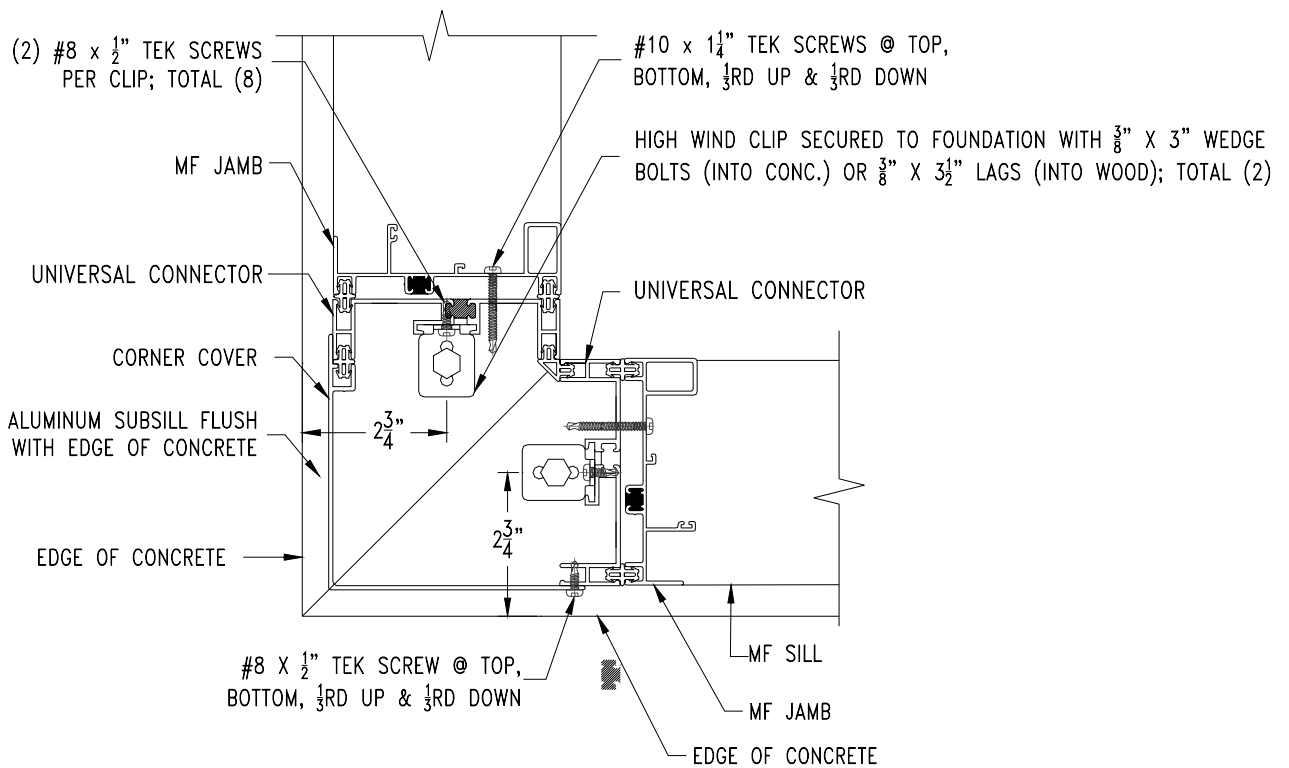


B
1 NON-BEARING WALL ELEVATION OF
SINGLE SLOPE ROOF ENCLOSURE

CA8 Insulated Enclosure Component Details

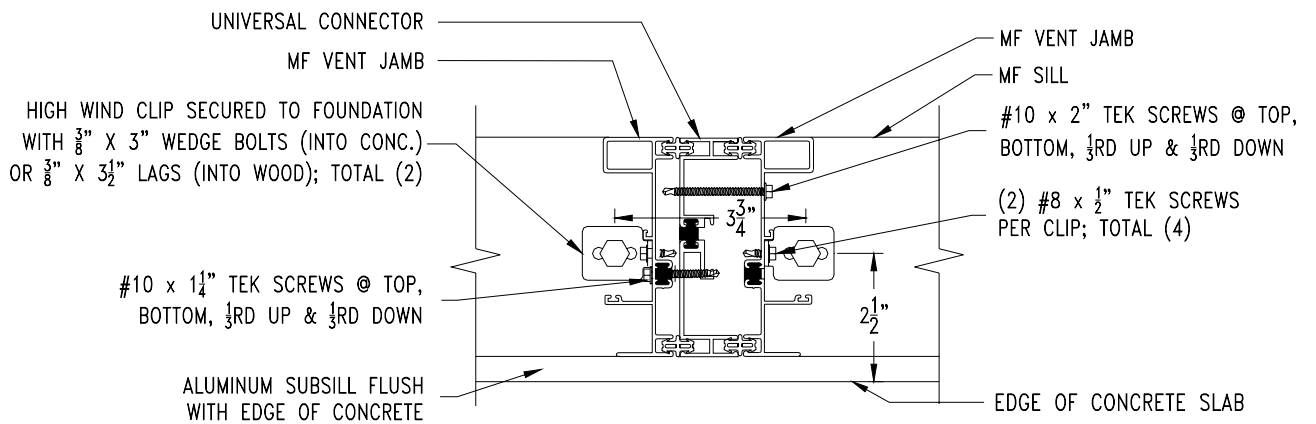
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CORNER DETAIL



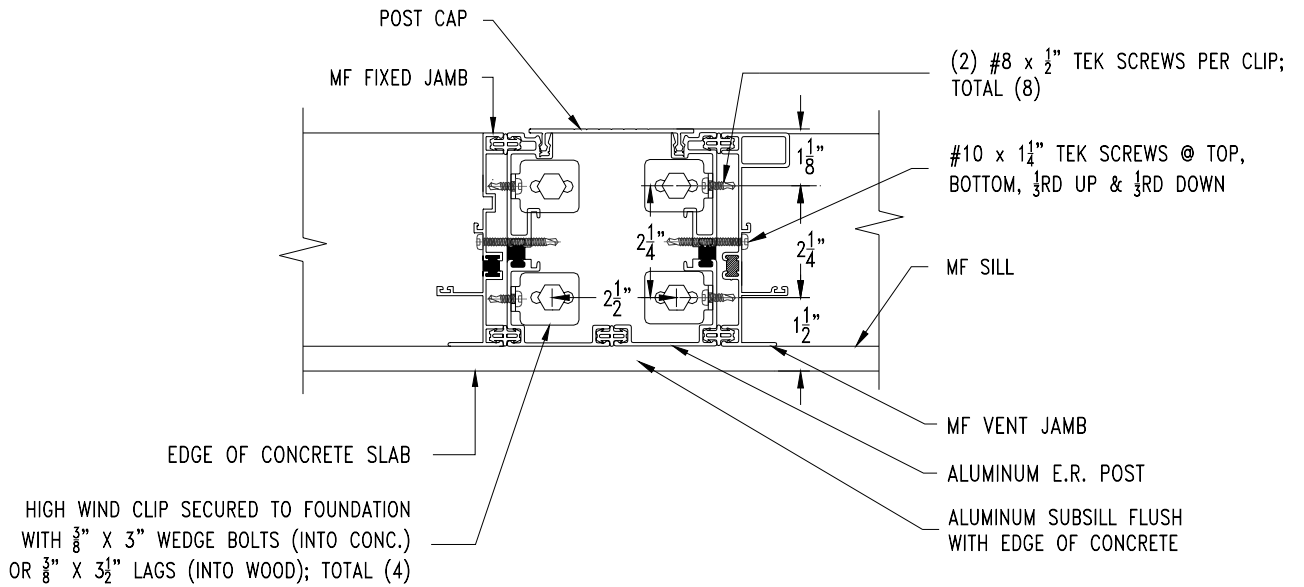
CA8 Insulated Enclosure Component Details

2 UNIVERSAL CONNECTOR DETAIL



CA8 Insulated Enclosure Component Details

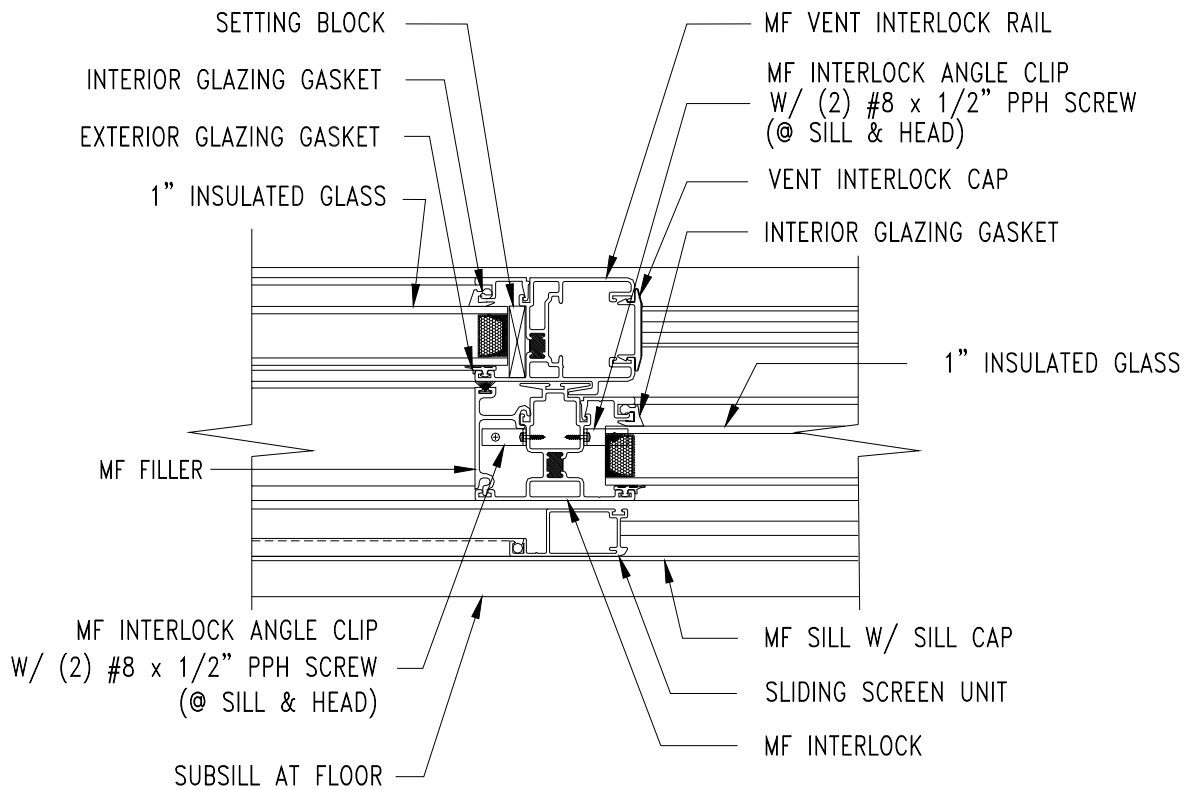
3 E. R. POST DETAIL



CA8 Insulated Enclosure Component Details

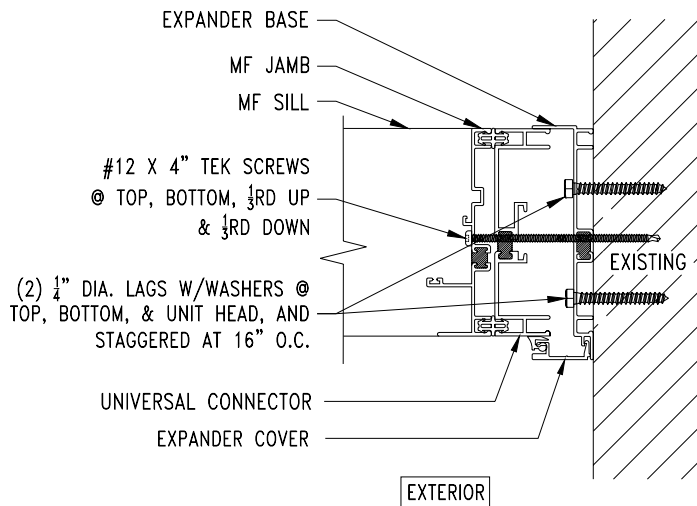
4

MEETING RAIL DETAIL



CA8 Insulated Enclosure Component Details

5 WALL EXPANDER DETAIL

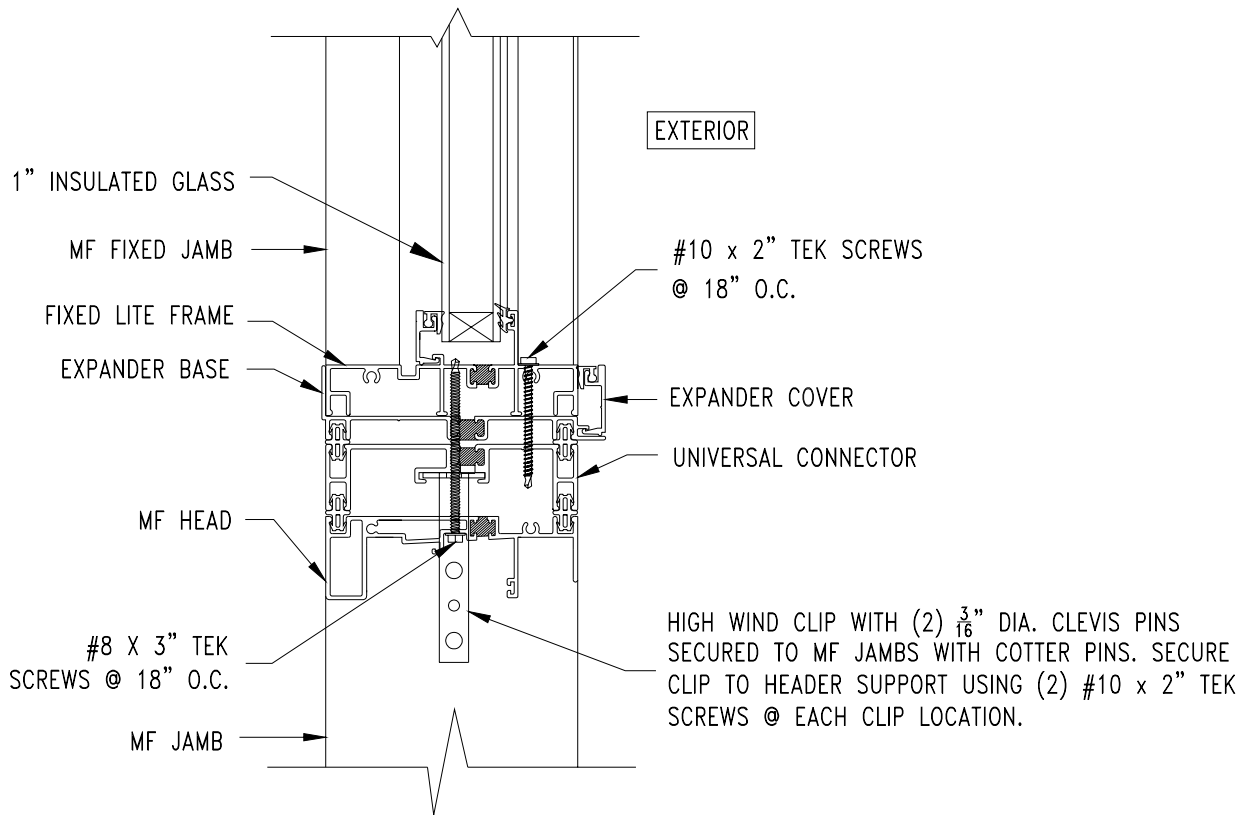


MOUNTING TO EXISTING STRUCTURES: REMOVE EXISTING SIDING AND ANY COMPRESSIBLE SHEATHING AT CONNECTION POINTS OF ENCLOSURE TO HOUSE. LAGS MUST BE SECURELY ANCHORED TO STRUCTURAL FRAMING OR INSTALL BLOCKING SECURELY FASTENED TO STRUCTURAL FRAMING TO PROVIDE MINIMUM 1 1/2" EMBEDMENT FOR MOUNTING FASTENERS.

CA8 Insulated Enclosure Component Details

6

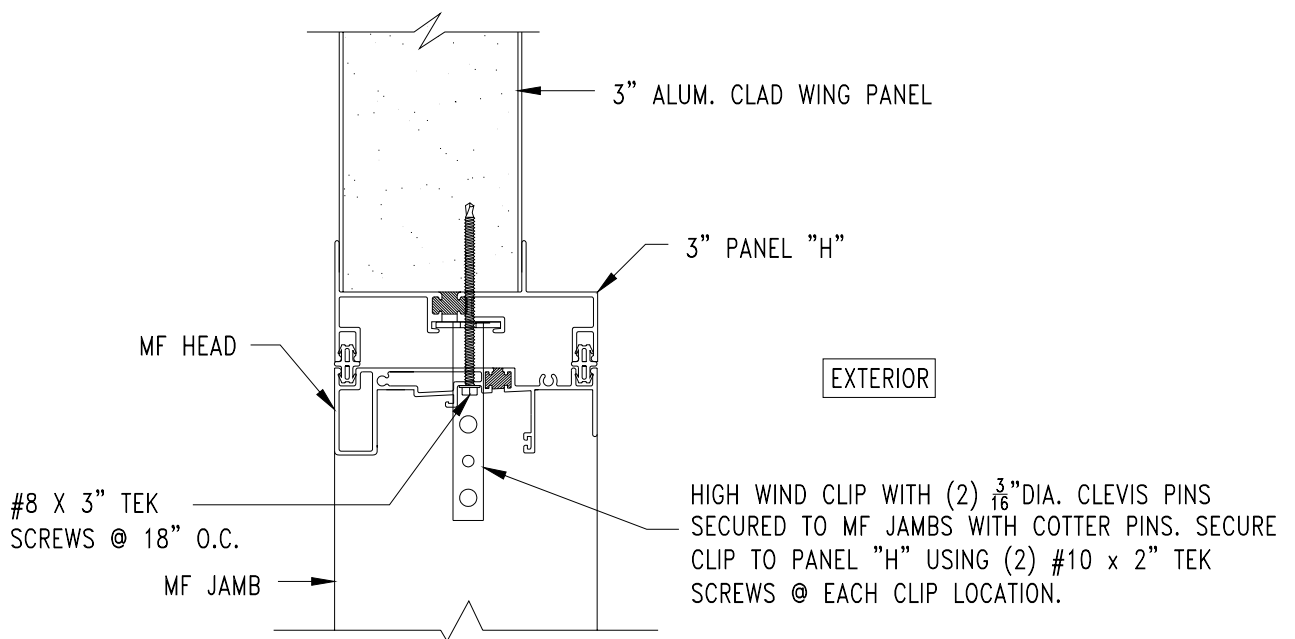
GLASS WING DETAIL



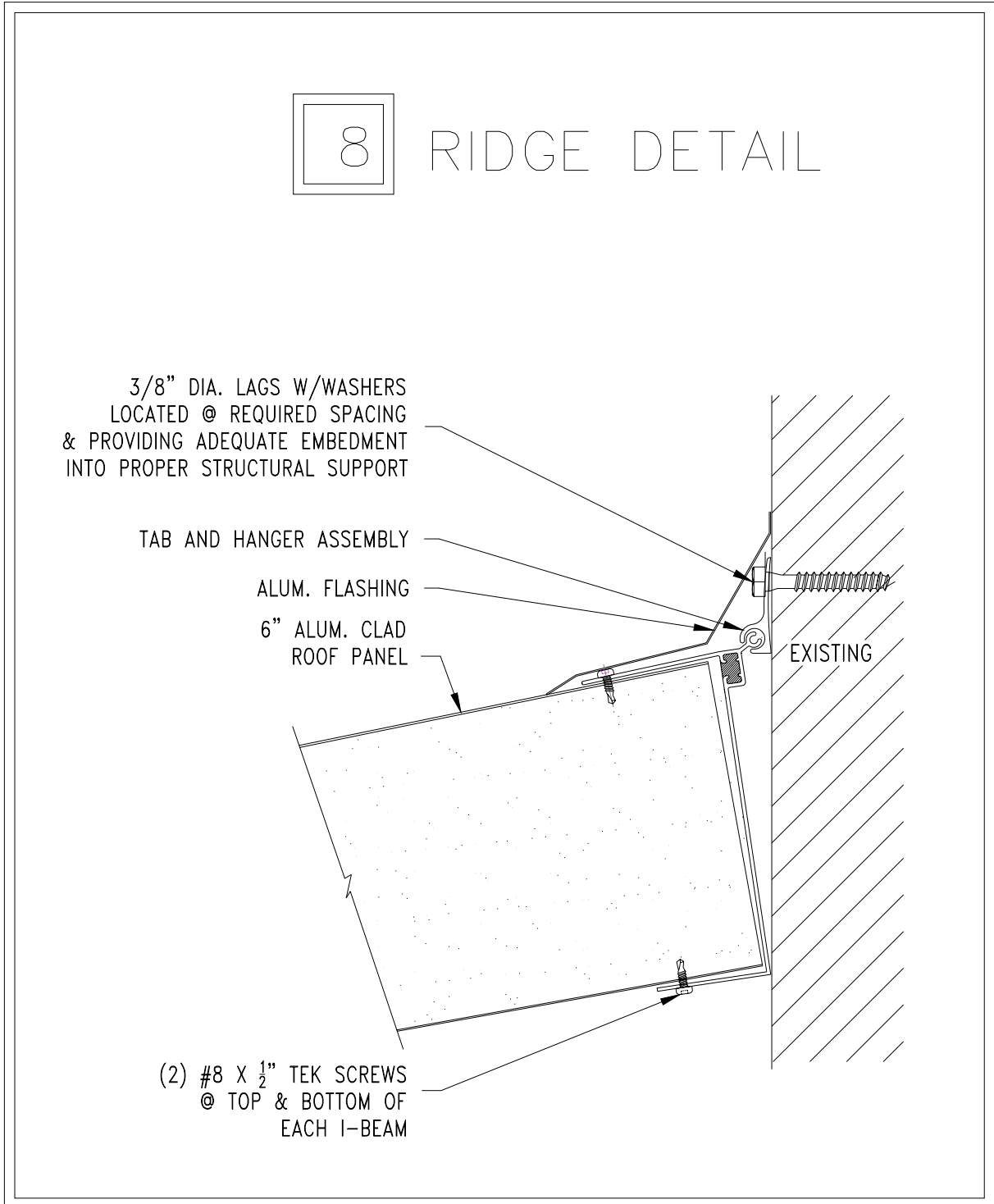
CA8 Insulated Enclosure Component Details

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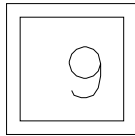
ALUMINUM CLAD PANEL
WING DETAIL



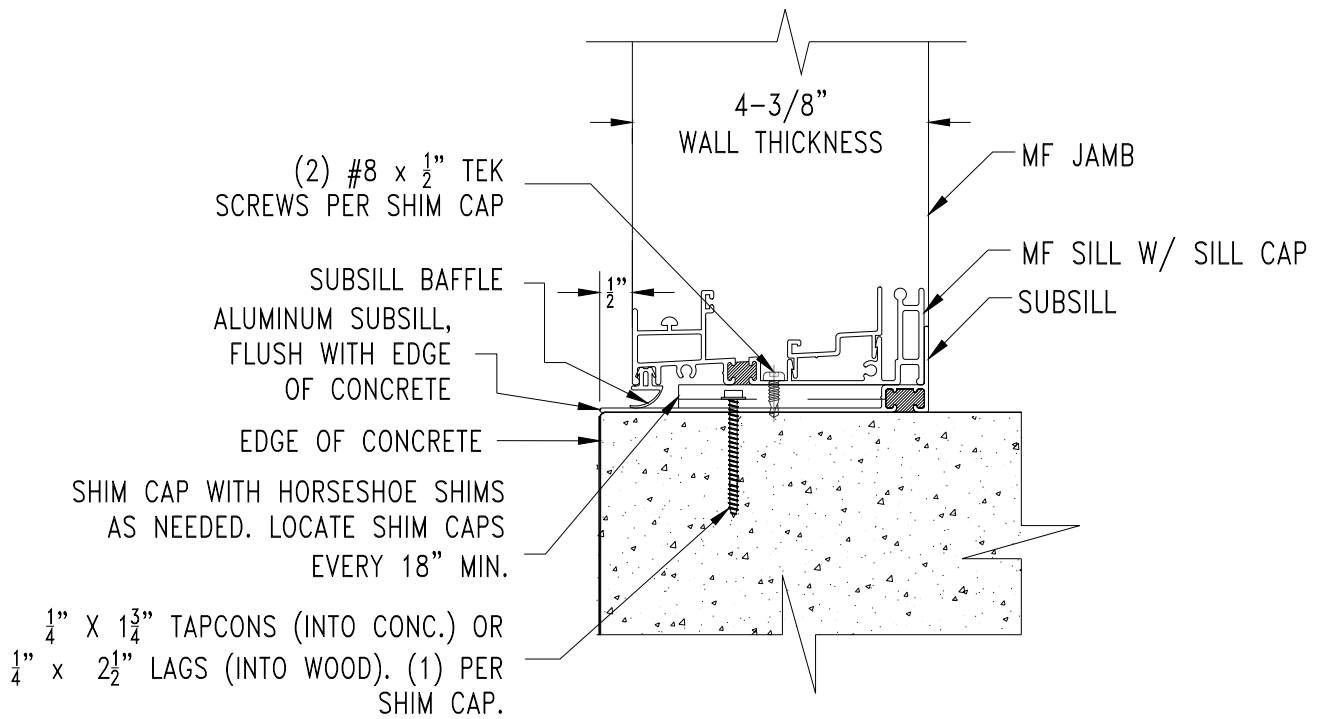
CA8 Insulated Enclosure Component Details



CA8 Insulated Enclosure Component Details

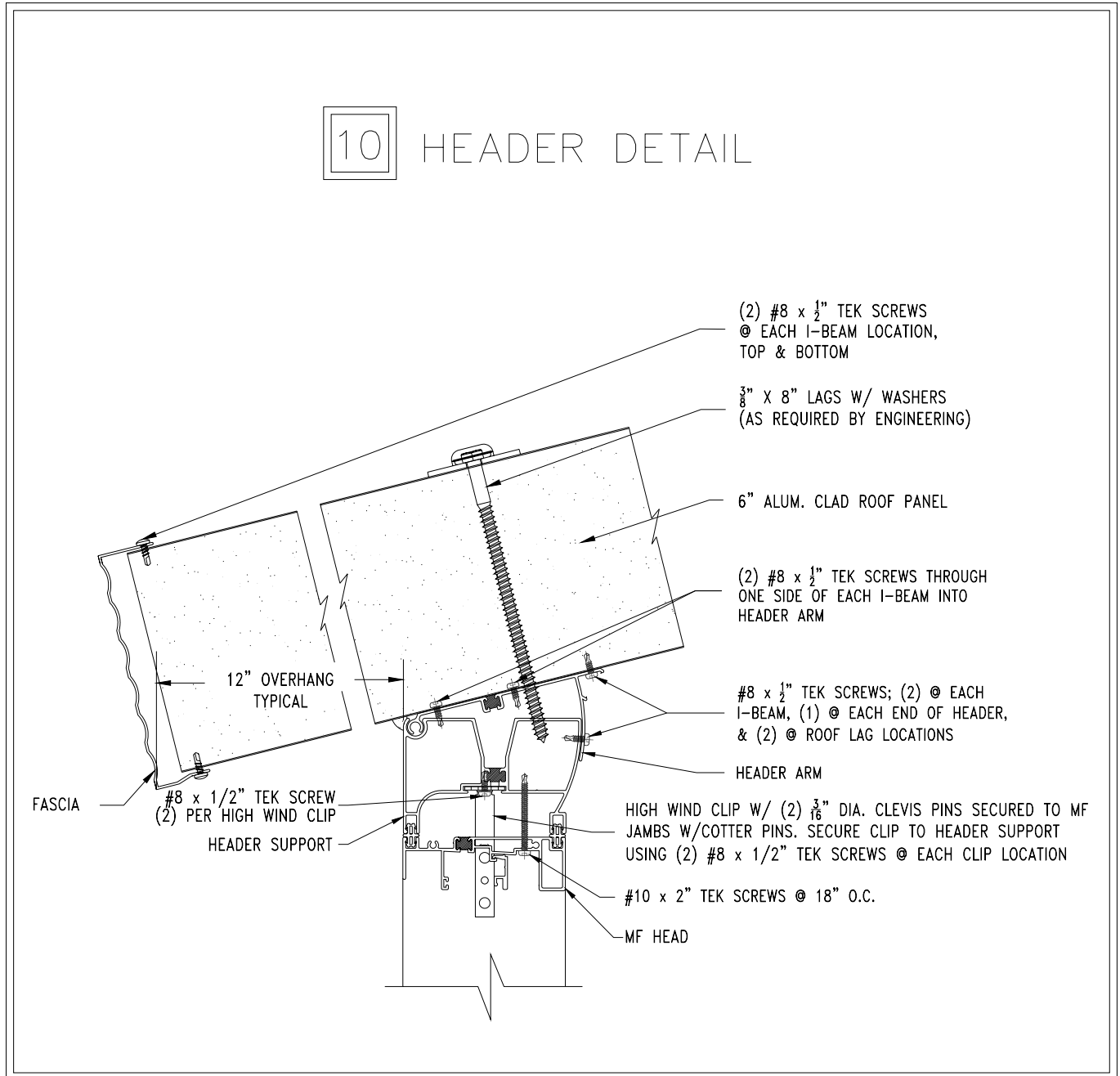


SILL DETAIL



CA8 Insulated Enclosure Component Details

10 HEADER DETAIL



INSULATED ENCLOSURE SPECIFICATIONS**SECTION 13123****PART 1 GENERAL****1.01 WORK INCLUDES**

- A. Furnish prefabricated, pre-engineered aluminum glazed structure (Insulated Enclosure).

1.02 REFERENCES

- A. Confirm with the following codes, specifications and standards (where applicable)
 - 1. Architectural Aluminum Manufacturers Association (AAMA)
 - 2. Flat Glass Marketing Association (FGMA)
 - 3. American National Standards Institute (ANSI)
 - 4. Insulating Glass Certification Council (IGCC)
 - 5. International Code Council (ICC)
 - 6. International Conference of Building Officials (ICBO)
 - 6. Building Officials & Code Administrators (BOCA)
 - 7. Southern Building Code Congress International (SBCCI)
 - 8. The Aluminum Association (AA).
 - 9. National Sunroom Association (NSA)

***1.03 PERFORMANCE REQUIREMENTS**

- A. Testing and Certification-
AAMA/NWWDA 101/I.S.2 – 97 SGD – R40 / HS-LC40
NFRC 100-91 Procedure for Determining Fenestration Product Thermal Properties
- B. Wind loading – Withstands wind loads based on ASCE-7 guidelines.
- C. Live/snow loading-Withstands vertical roof loads based on the greater of 20 psf live load or roof snow loads based on ICC/ICBO/BOCA/SBCCI guidelines.

1.04 SUBMITTALS

- A. Submit Shop Drawing for review and approval prior to fabrication, including pertinent details for installation, anchorage of framing members, glazing, sealing, flashing & adaptation of systems to specific project.
- B. Submit Engineering Calculations, stamped and certified by a Registered Professional Engineer attesting adequacy of system to meet required loads.

1.05 SAMPLES

- A. Submit sample to represent:
 - 1. Minimum quality of work
 - 2. Color of aluminum finish.

1.06 DELIVERY, STORAGE AND HANDLING

- A. Deliver materials to jobsite in manufacturer's packaging.
- B. Store off ground in dry covered area, protected from weather conditions.

1.07 WARRANTY

- A. Provide complete manufacturer's warranty, 10 years on defects of materials and 1 year on installation labor, if installation is completed by manufacturer. See manufacturers complete warranty, available upon request.

PART 2 PRODUCTS**2.01 ACCEPTABLE MANUFACTURERS**

- A. Patio Enclosures, Inc. Macedonia, Ohio 1-800-468-0720.

2.02 MATERIALS - INSULATED ENCLOSURE*A. STRUCTURE**

- 1. Full units shall be comprised of master frame 4-1/4" deep with one movable sliding glass panel, one fixed glass panel and one movable screen panel.
- 2. Structural Sections: Shall be extruded aluminum 6060, 6063 6061, 6005 or 6105 alloy.
- 3. Screen panel frame shall be 3/4" thick and mounted in a separate track so screen door will not fall out. Screen cloth shall be black painted 18" x 16" aluminum mesh.
- 4. Moving glass panels shall have two adjustable tandem nylon wheel assemblies.
- 5. Window units shall be custom manufactured to order.
- 6. Options to adjust height shall include glass transom or glass kneewall.

B. GASKETRY

- 1. Gaskets shall be EPDM or PVC and compatible with all contact materials.

C. WEATHER SEAL

- 1. Polypropylene woven pile with a polypropylene barrier.

D. FASTENERS

- 1. A list of fasteners and related components shall be provided upon request from Patio Enclosures, Inc.

E. SILICONE SEALANT

- 1. Silicone shall meet or exceed federal specifications TT-S-001543A.
- 2. Sealants shall match color of adhering surfaces as approved.

***F. GLAZING**

- 1. Insulated glass units (IGU) shall be 1" nominal overall thickness.
- 2. Vertical glass: Doors shall be tempered inboard and outboard. Standard glass shall be clear over clear.
- 3. IGU shall carry CBA rating as certified by the Insulating Glass Certification Council (IGCC).

2.03 OPTIONAL GLAZING:

Bronze tint over clear, Comfort-Gard® I (clear over Low-E Argon Gas Filled), Comfort-Gard® II (bronze over Low-E Argon Gas Filled). Comfort Gard Plus (Azurlite® over Low-E Argon Gas Filled) or as selected by designee.

2.04 FINISH

- A. All visible aluminum extrusions shall be maintenance free, exterior grade PPG Duracron paint finish.
- B. Paint finished is electro statically applied and baked.
- C. Color: Quaker Bronze, Sandstone or White

* **Optional Foam Roof System** (Manufactured by PEI)

- a. Panels shall be 3", 4-5/8" or 6" overall thickness and consist of expanded high-density polystyrene (EPS) insulation sandwiched between 2 sheets of .023" aluminum.
- b. Paint for the aluminum sheets shall be an electro statically applied baked enamel finish, with an additional Krystal-Kote to provide increased durability and efficient water run-off.
- c. Color: white/white, sandstone/sandstone or sandstone/white.
- d. Flush-mount skylights using tempered/tempered IGU shall be an available option.
- e. Minimum pitch shall be 1/2" per foot.
- f. Panels shall be connected by a thermally broken structural I-Beam.
- g. Roof deflection of PEI Roof Systems under design load shall not exceed 1/120 of its clear span.
- h. Engineering calculations shall be available upon the Architect's request from PEI (stamped and certified by a Registered Professional Engineer).
- i. Roof system shall have passed a full-scale fire test by a testing laboratory accredited by all major model code groups.

PART 3 EXECUTION

3.01 INSPECTION

- A. Sunroom contractor shall examine surrounding structure and the conditions under which the work is to be performed, and notify the General Contractor and Architect in writing of any conditions detrimental to the proper and timely completion of the job. Sunroom construction shall not proceed until any and all unsatisfactory conditions have been corrected in an acceptable manner to the sunroom contractor.
- B. Surrounding and attaching structures (basewall, building wall etc.) shall be plumb, level and square, plus or minus 1/2".

3.02 INSTALLATION

- A. Shall be in accordance with manufacturer's installation instructions.

3.03 FINAL CLEANING

- A. After each workday, leave immediate area neat.
- B. Remove excess sealant compounds from aluminum and glass surfaces promptly.