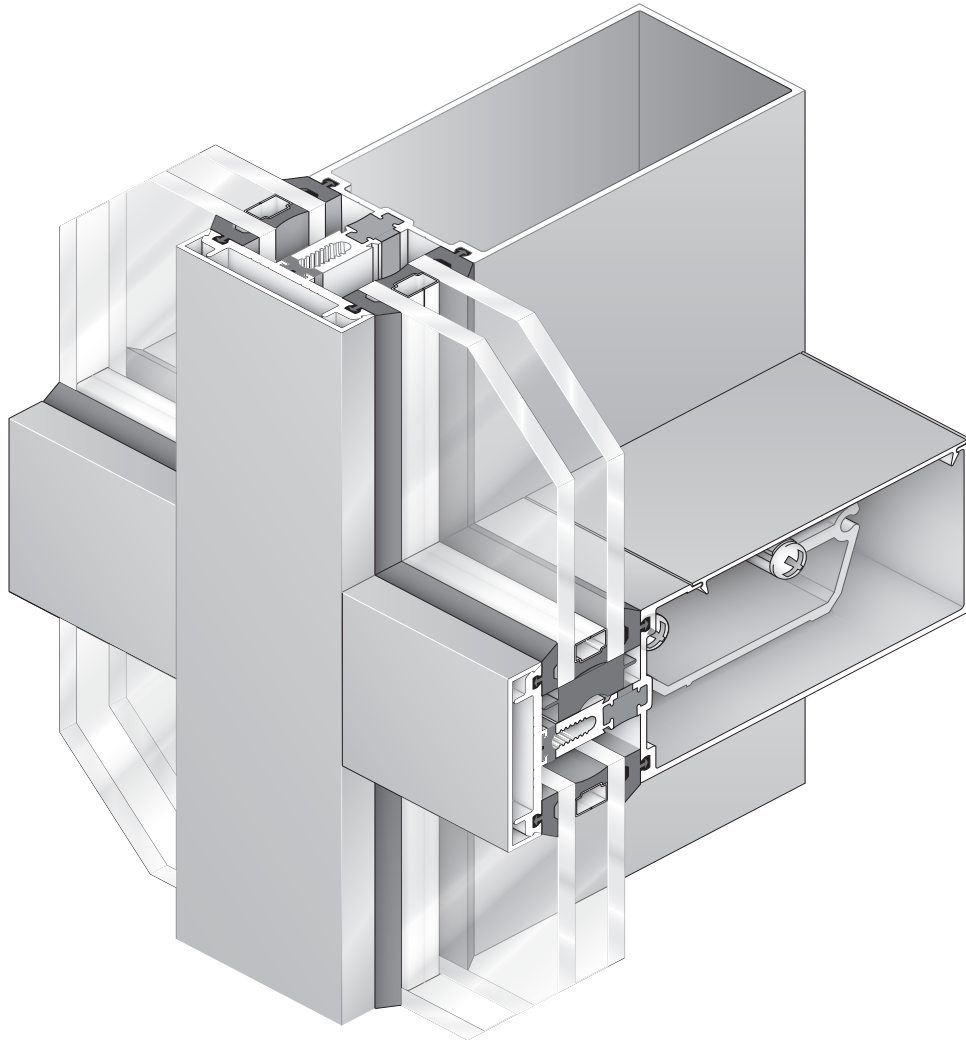


# INSTALLATION INSTRUCTIONS

## SERIES 2102/2202 CURTAIN WALL



---

Phone: (800) 262-5151 • Fax: (866) 262-3299  
crlaurence.com • usalum.com • crl-arch.com

---

# HANDLING, STORAGE, AND PROTECTION OF ALUMINUM

The following precautions are recommended to protect the material against damage. Following these precautions will help ensure early acceptance of your products and workmanship.

**A. HANDLE CAREFULLY.**

All aluminum materials at job site must be stored in a safe place, well removed from possible damage by other trades. Cardboard wrapped or paper interleaved materials must be kept dry.

**B. CHECK ARRIVING MATERIALS.**

Check for quantity counts and keep records of where various materials are stored.

**C. KEEP MATERIALS AWAY FROM WATER, MUD, AND SPRAY.**

Prevent cement, plaster, or other materials from damaging the finish.

**D. PROTECT THE MATERIALS AFTER ERECTION.**

Protect erected frame with polyethylene or canvas splatter screen. Cement, plaster, terrazzo, other alkaline solutions, and acid based materials used to clean masonry are harmful to the finish. ***If any of these materials come in contact with the aluminum, immediately remove with water and mild soap.***

The rapidly changing technology within the architectural aluminum products industry demands that CRL U.S. Aluminum reserve the right to revise, discontinue or change any product line, specification or electronic media without prior written notice.

**NOTE:** Dimensions in parentheses ( ) are millimeters unless otherwise noted.

# GENERAL INSTALLATION NOTES

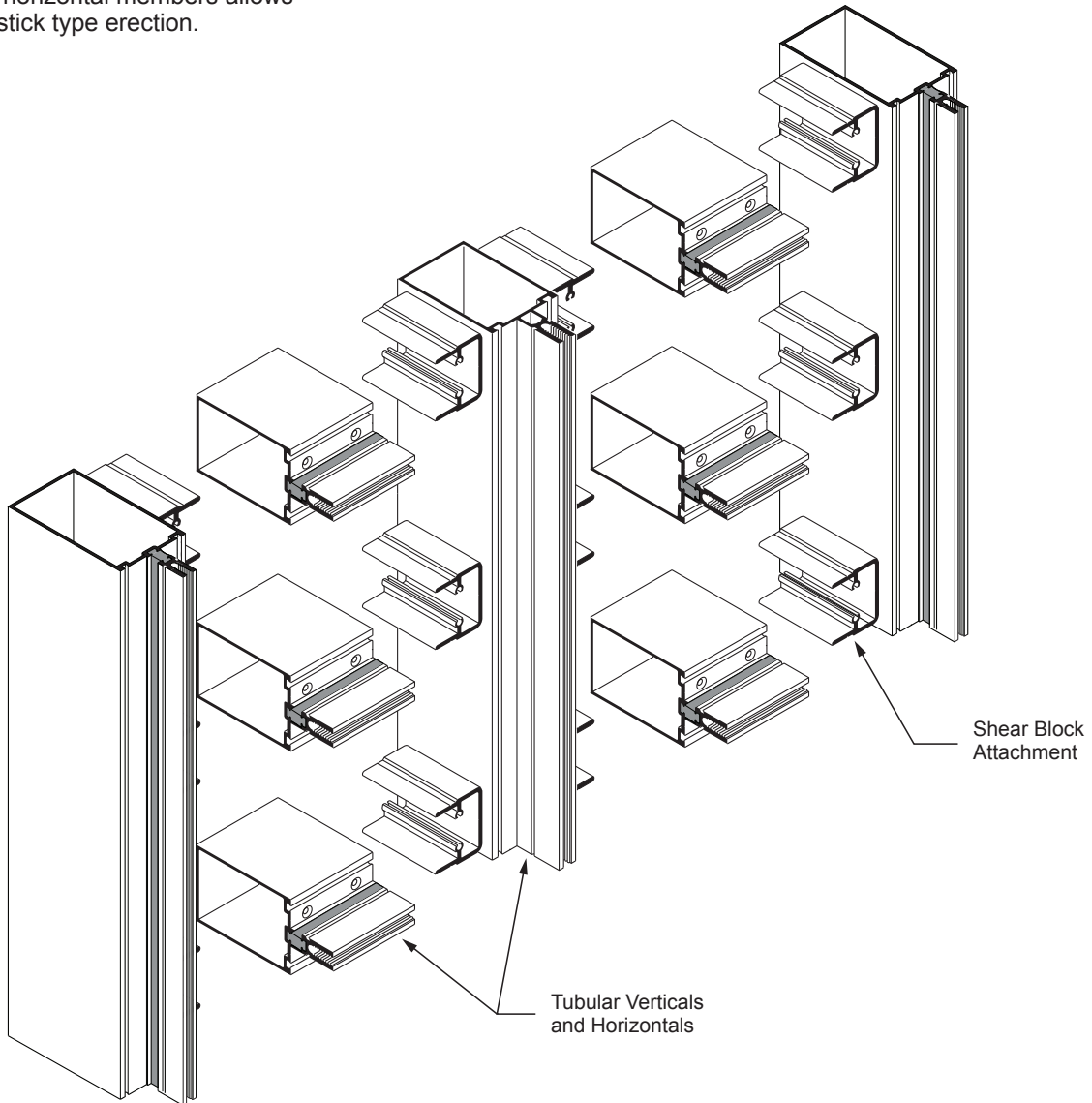
## Recommended guidelines for all installations:

- 1. REVIEW CONTRACT DOCUMENTS.** Check shop drawings, installation instructions, architectural drawings, and shipping lists to become thoroughly familiar with the project. The shop drawings take precedence and include specific details for the project. Note any **field verified** notes on the shop drawings prior to installing. The installation instructions are of a general nature and cover most conditions.
- 2. INSTALLATION.** All materials are to be installed plumb, level, and true.
- 3. BENCH MARKS.** All work should start from bench marks and/or column lines as established by the architectural drawings and the general contractor with guaranteed accuracy. Working from these datum points and lines determine:
  - a) The plane of the wall in reference to offset lines provided on each floor.
  - b) The finish floor lines in reference to bench marks on the outer building columns.
  - c) Mullion spacing from both ends of masonry opening to prevent dimensional build-up of daylight opening.
- 4. STEEL ANCHORS.** Steel anchors that weld to steel structure are normally line set before mullions are hung. Outstanding leg of anchors must be at 90° to offset lines. Mullion space should be held to  $\pm 1/32"$  (0.8). Anchor clips vary per job conditions. Follow approved shop drawings for size and location of clips.
- 5. FIELD WELDING.** All field welding must be adequately shielded to avoid any splatter on glass or aluminum. Results will be unsightly and/or structurally unsound. Advise general contractor and other trades accordingly. All field welds of steel anchors must receive touch-up paint (zinc chromate) to avoid rust.
- 6. SURROUNDING CONDITIONS.** Make certain that construction which will receive your materials is in accordance with the contract documents. If not, notify the general contractor in writing and resolve differences before proceeding with work.
- 7. ISOLATION OF ALUMINUM.** Aluminum to be placed in direct contact with uncured masonry or incompatible materials should be isolated with a heavy coat of zinc chromate or bituminous paint.
- 8. SEALANTS.** Sealants must be compatible with all materials with which they have contact, including other sealant surfaces. Consult with sealant manufacturer for recommendations relative to joint size, shelf life, compatibility, cleaning, priming, tooling, adhesion, etc. It is the responsibility of the **Glazing Contractor** to submit a statement from the sealant manufacturer indicating that glass and glazing materials have been tested for compatibility and adhesion with glazing sealants, and interpreting test results relative to material performance, including recommendations for primers and substrate preparation required to obtain adhesion. The chemical compatibility of all glazing materials and framing sealants with each other and with like materials used in glass fabrication must be established. ***This is required on every project.***
- 9. FASTENING.** Within the body of these instructions "fastening" means any method of securing one part to another or to adjacent materials. Only those fasteners used within the system are specified in these instructions. Due to the varying perimeter conditions and performance requirements, perimeter and anchor fasteners are not specified in these instructions. For perimeter and anchor fasteners refer to the shop drawings or consult the fastener supplier.
- 10. BUILDING CODES.** Due to the diversity in state/provincial, local, and federal laws and codes that govern the design and application of architectural products, it is the responsibility of the individual architect, owner, and installer to assure that products selected for use on projects comply with all the applicable building codes and laws. U.S. Aluminum exercises no control over the use or application of its products, glazing materials, and operating hardware, and assumes no responsibility thereof.
- 11. EXPANSION JOINTS.** Expansion joints and perimeter seals shown in these instructions and in the shop drawings are shown at normal size. Actual dimensions may vary due to perimeter conditions and/or difference in metal temperature between the time of fabrication and the time of installation. Gaps between expansion members should be based on temperature at time of installation.
- 12. WATER HOSE TEST.** As a representative amount of the wall has been glazed (500 square feet or 46.5 m<sup>2</sup>) a water hose test should be conducted in accordance with AAMA 501.2 specifications to check the installation. On all jobs the hose test should be repeated every 500 square feet (46.5 m<sup>2</sup>) during the glazing operation.
- 13. COORDINATION WITH OTHER TRADES.** Coordinate with the general contractor any sequence with other trades which offset curtain wall installation (i.e. fire proofing, back-up walls, partitions, ceilings, mechanical ducts, converters, etc.).
- 14. CARE AND MAINTENANCE.** Final cleaning of exposed aluminum surfaces should be done in accordance with AAMA 609.1 for anodized aluminum and 610.1 for painted aluminum
- 15. JOB SITE ESSENTIALS.** See pages 34 and 35.

# TYPE "A" FABRICATION PROCEDURES

## SHEAR BLOCK ASSEMBLY

All tubular back members and shear block attachment of horizontal members allows for traditional stick type erection.



NOT TO SCALE

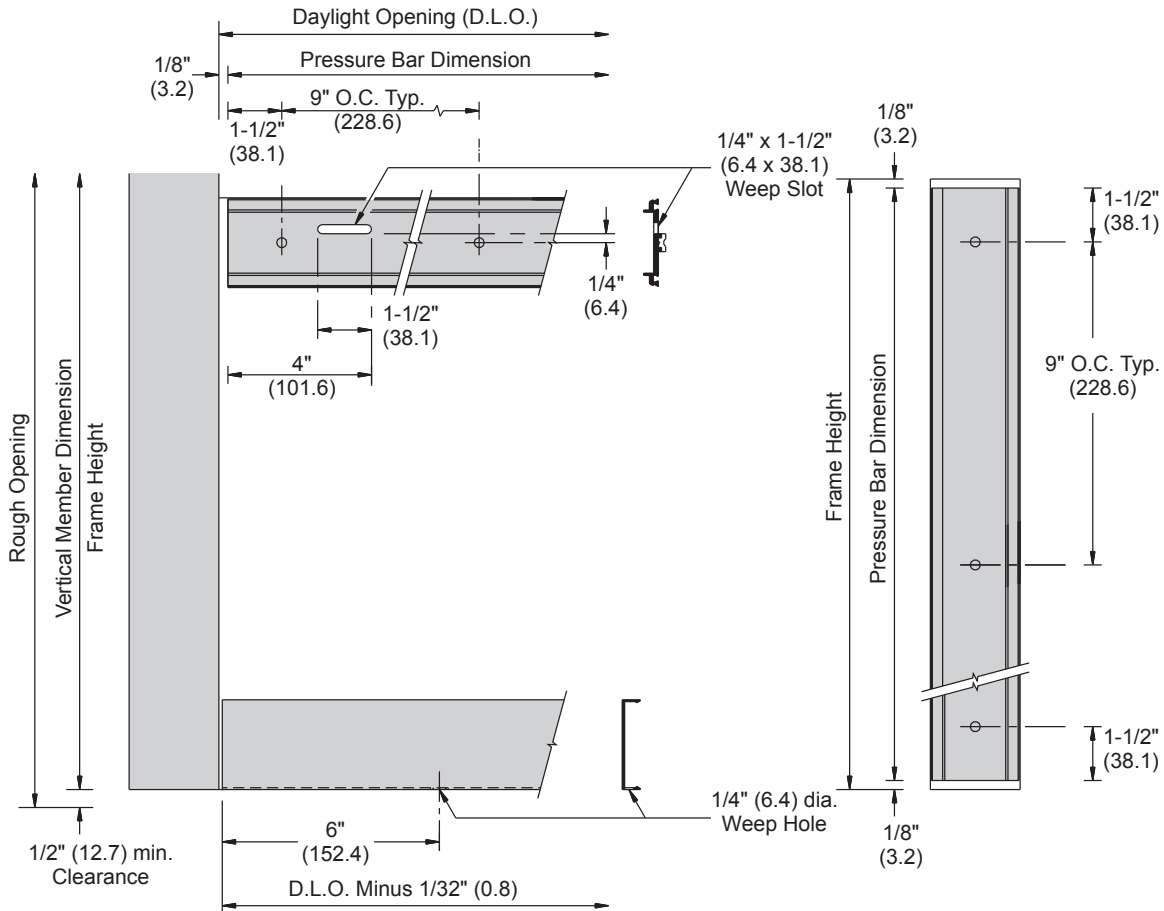
# TYPE "A" FABRICATION PROCEDURES

## CUTTING INSTRUCTIONS FOR SHEAR BLOCK AND SCREW SPLINE ASSEMBLY

Details shown on these instructions are for 1" (25) Glazing of 4" (101.6) back members.

1. Cut members to size:

|   |  |
|---|--|
| <b>Vertical Back Members:</b>           | Rough Opening Minus Top and Bottom Clearances (Frame Height) |
| <b>Vertical Pressure Bars:</b>          | Frame Height Minus 1/4" (6.4)                                |
| <b>Vertical Face Covers:</b>            | Frame Height   |
| <b>Vertical Transition Adapters:</b>    | D.L.O. Plus 1" (25)  |
| <b>Horizontal Transition Adapters:</b>  | D.L.O. Minus 1/16" (1.6)                                     |
| <b>Horizontal Back Members:</b>         | D.L.O. Plus 1/32" (0.8)                                      |
| <b>Horizontal Pressure Bars:</b>        | D.L.O. Minus 1/4" (6.4)                                      |
| <b>SSG Pressure Bars:</b>               | Frame Width Minus 4-1/4" (108)                               |
| <b>Horizontal Face Members:</b>         | D.L.O. Minus 1/32" (0.8)                                     |
| <b>Horizontal Trim Members:</b>         | D.L.O. Minus 1/32" (0.8)                                     |
| <b>Jamb Perimeter Fillers:</b>          | Frame Height Minus 1/4" (6.4)                                |
| <b>Head and Sill Perimeter Fillers:</b> | D.L.O. Minus 1/8" (3.2)                                      |



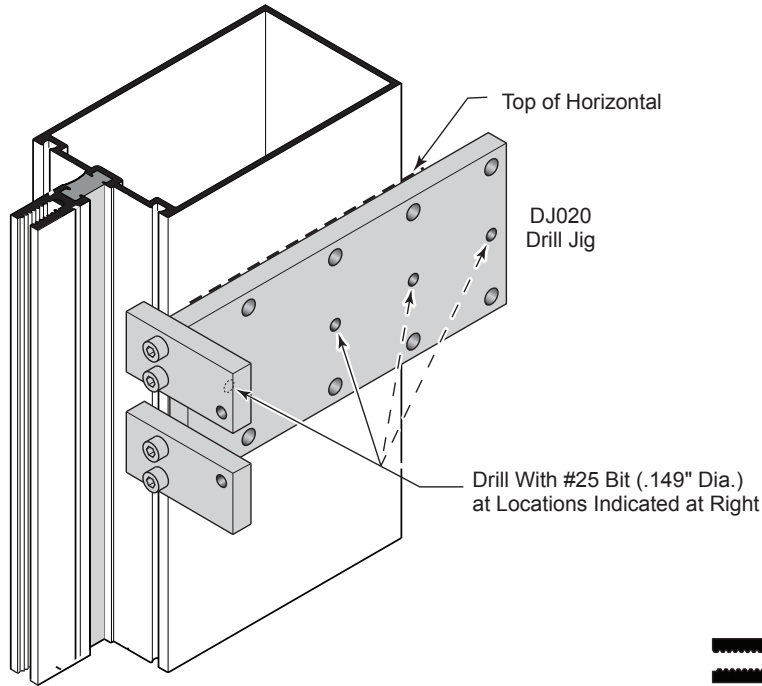
DETAIL A

NOT TO SCALE

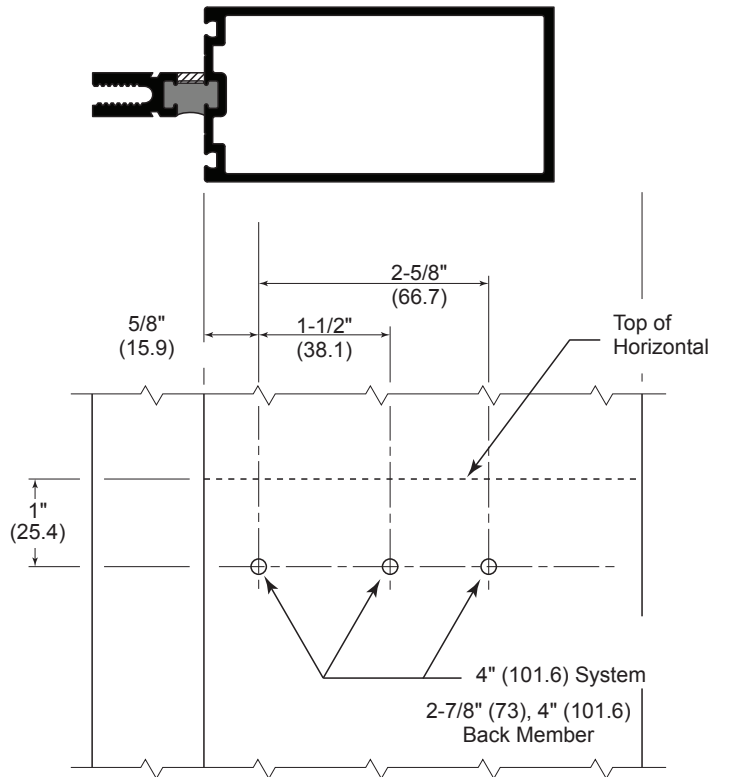
# DRILL JIG PREPARATION

## SHEAR BLOCK FABRICATION

- Fabricate verticals for horizontal members. Mark on verticals the location of horizontal members and drill holes for shear blocks (**Detail B**). Visit [usalum.com](http://usalum.com) for additional information.



**NOTE:** For larger projects we offer the Accufab Pro Tool Visit [usalum.com](http://usalum.com) for additional information.

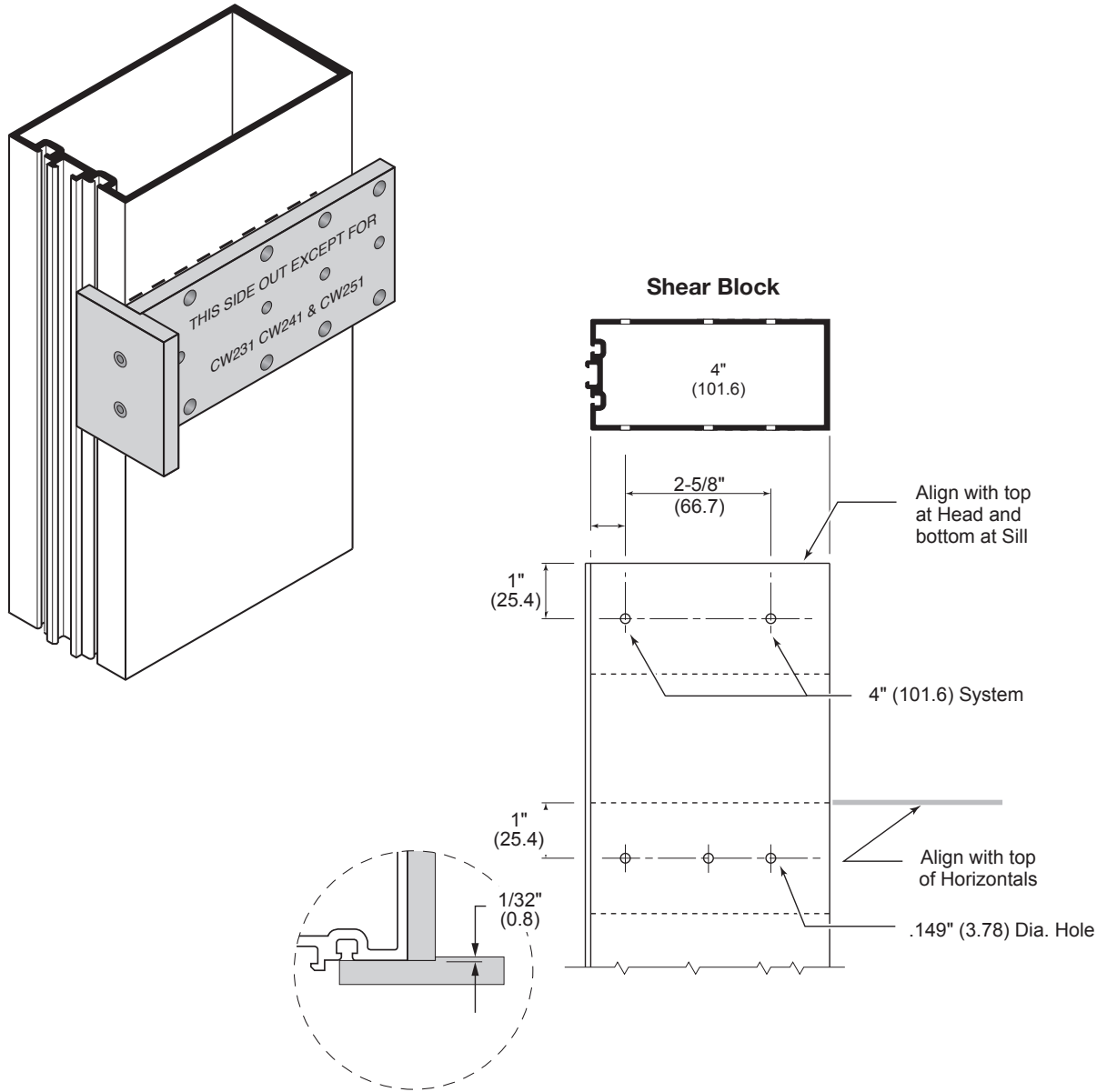


DETAIL B

NOT TO SCALE

# STRUCTURAL SILICONE FABRICATION

3. Fabricate structural silicone verticals for horizontal members. (Detail C)

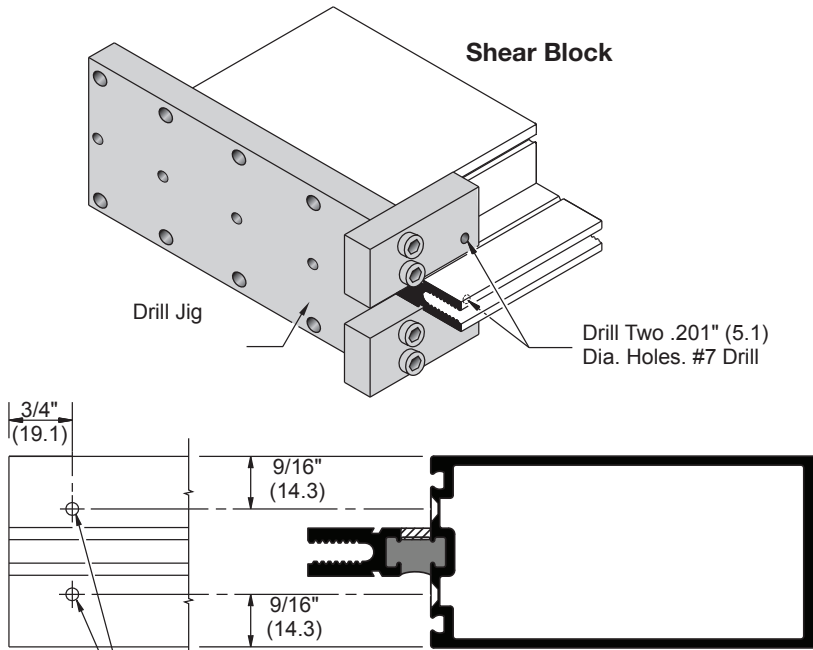


DETAIL C

NOT TO SCALE

# SHEAR BLOCK ASSEMBLY

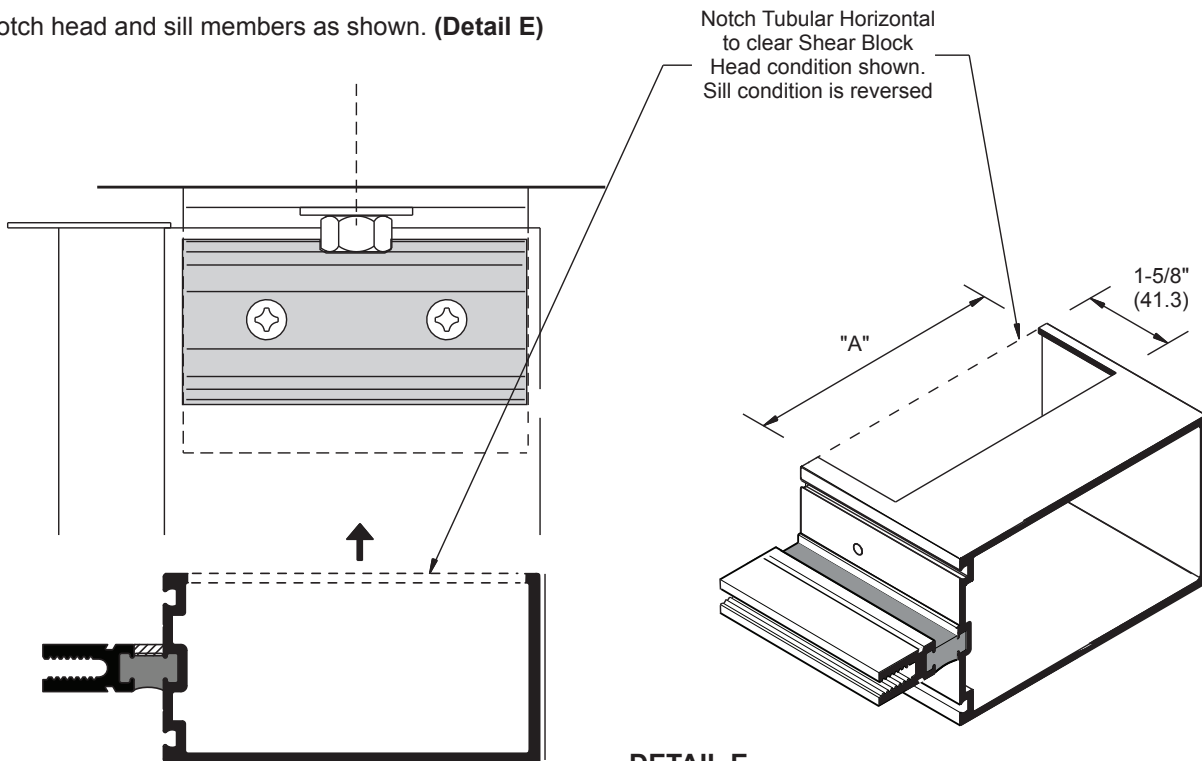
- Fabricate ends of horizontal members for shear block attachment screws. See Detail D for drill usage.



**NOTE:** Drill lower hole only at head and upper hole only at sill. Countersink for a #8 FHSMS

**DETAIL D**

- Notch head and sill members as shown. (**Detail E**)

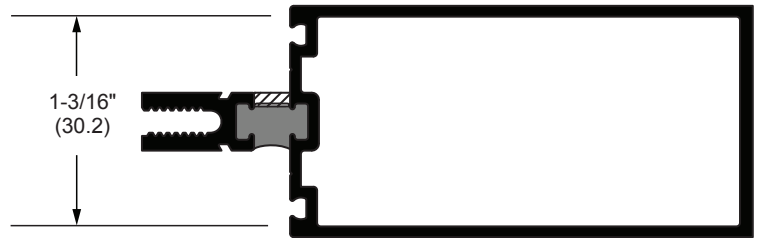
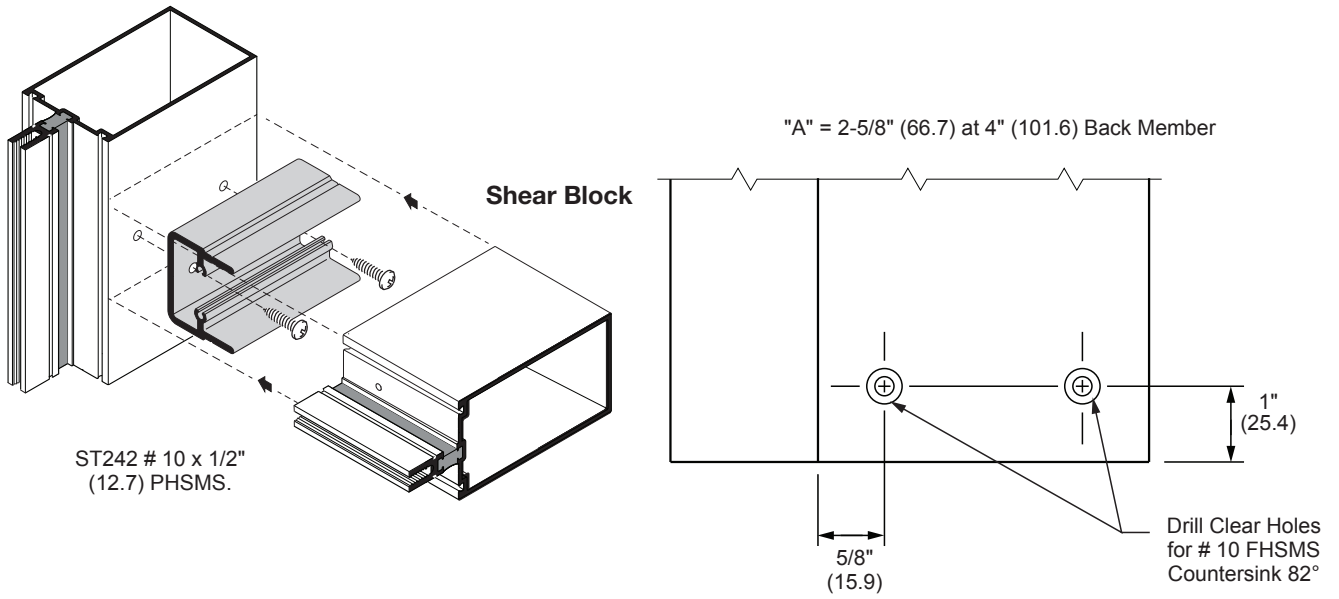


**DETAIL E**

NOT TO SCALE

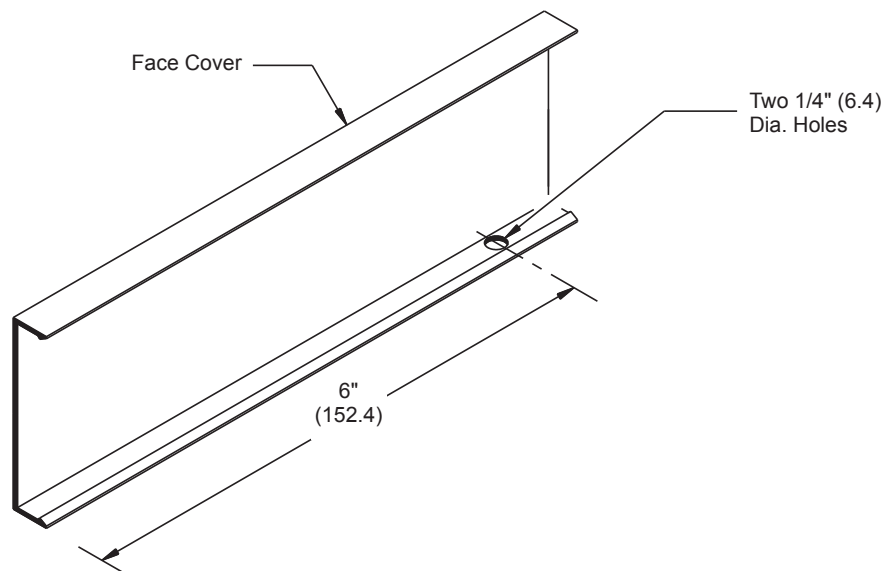


**SERIES 2102/2202 CURTAIN WALL**



**DETAIL F**

6. Drill 1/4" (6.4) dia. holes in bottom of horizontal face covers 6" (152.4) from each end. **(Detail G)**

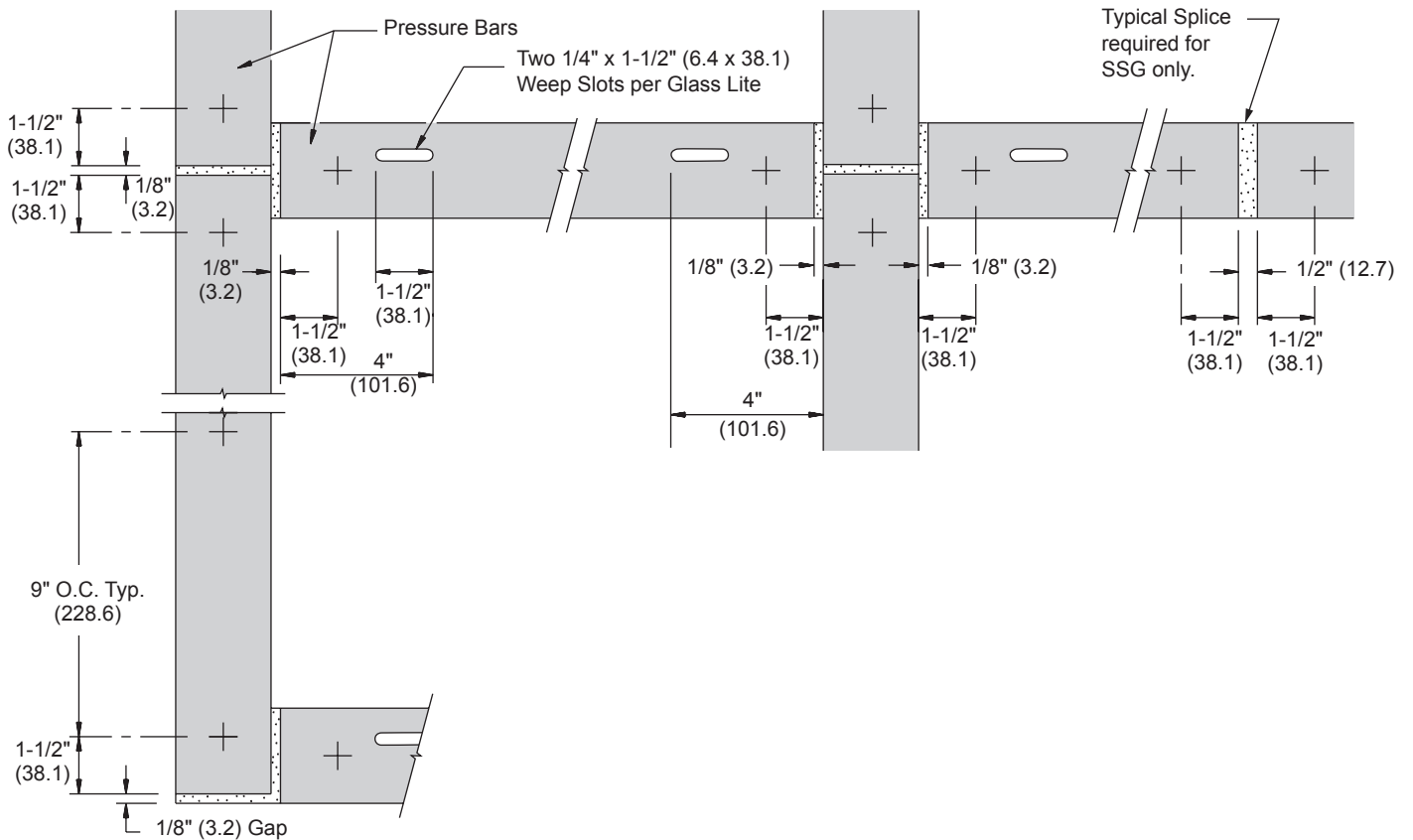


**DETAIL G**

NOT TO SCALE

# SHEAR BLOCK PRESSURE BAR FABRICATION

- Fabricate horizontal pressure bar members for slots and holes. Pressure bars are supplied with 9/32" (7.1) attachment holes at 9" (228.6) O.C.. Additional holes are required in pressure bars at 1-1/2" (38.1) from each end. **(Detail H)**

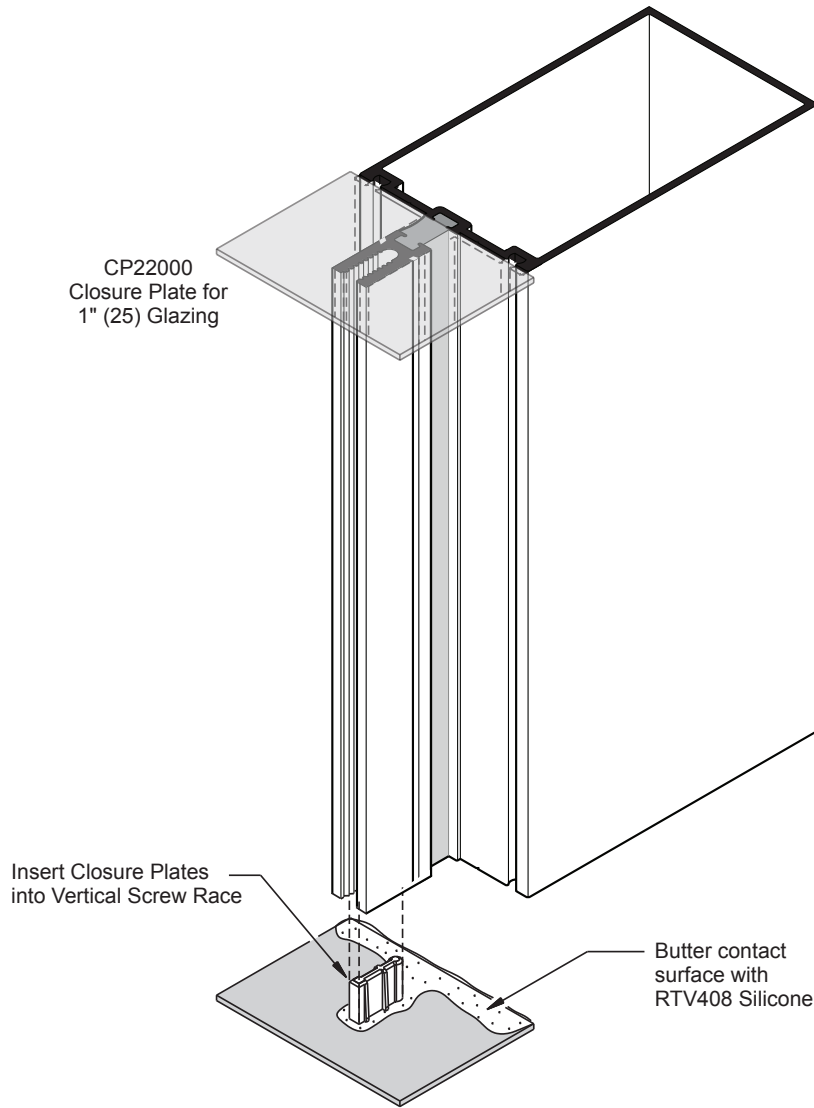


**DETAIL H**

NOT TO SCALE

# INSTALLATION PROCEDURE FOR SHEAR BLOCK ASSEMBLY

1. Apply Closure Plates to vertical mullions. (Detail I)



**NOTE:** Clean all surfaces prior to applying sealants. See sealant manufacturer requirements.  
TYPICAL AT ALL CONDITIONS

**NOTE:** Shear Blocks not shown for clarity.

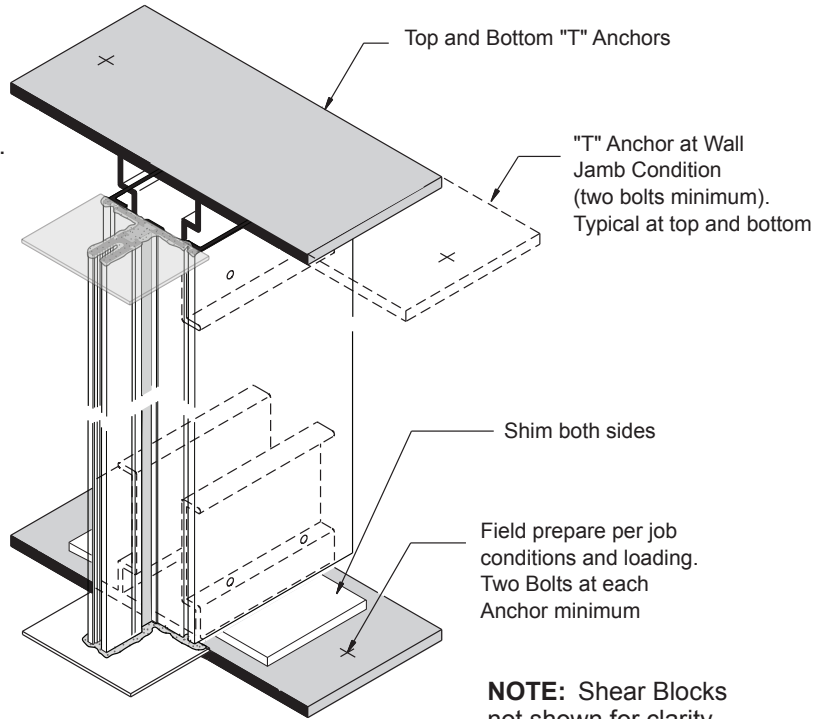
DETAIL I

NOT TO SCALE

# INSTALLATION PROCEDURE FOR SHEAR BLOCK ASSEMBLY

- Slide anchors into ends of vertical mullions (**Detail J**). If shims are required place them directly under each side of vertical for proper load distribution. Secure anchors to structure plumb, level, and true. See approved shop drawings for anchor bolt type and size.

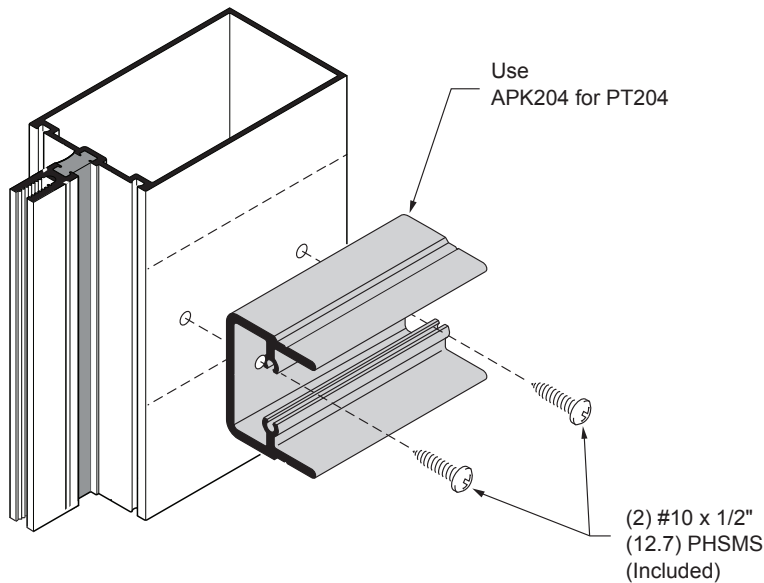
**NOTE:** Aluminum anchors must be isolated from dissimilar materials. Typical at top and bottom.



**DETAIL J**

- Attach Shear Blocks to verticals with screws provided.

**NOTE:** Tubular intermediate horizontals must be installed per bay along with verticals. Head and sill members are notched. Last bay intermediate horizontal is notched. (See Page 08)



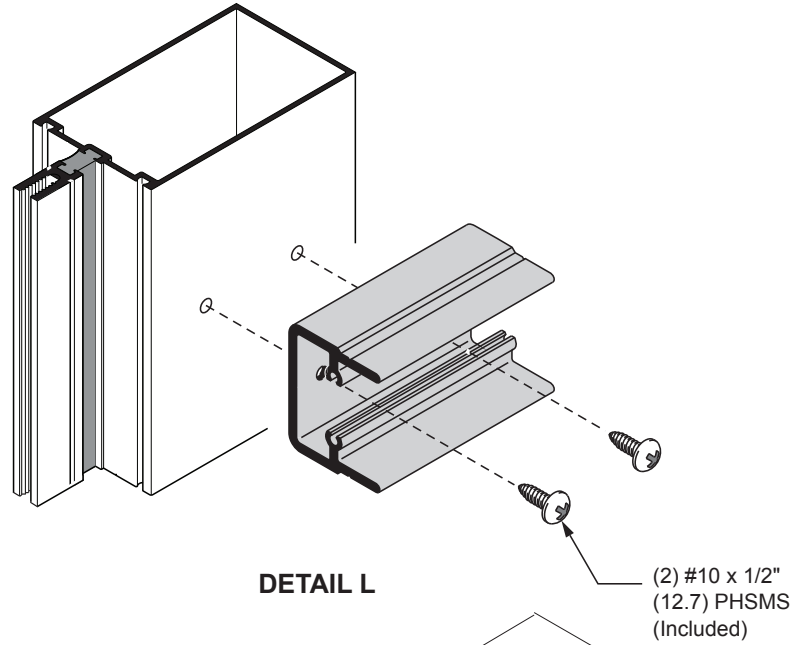
**DETAIL K**

NOT TO SCALE

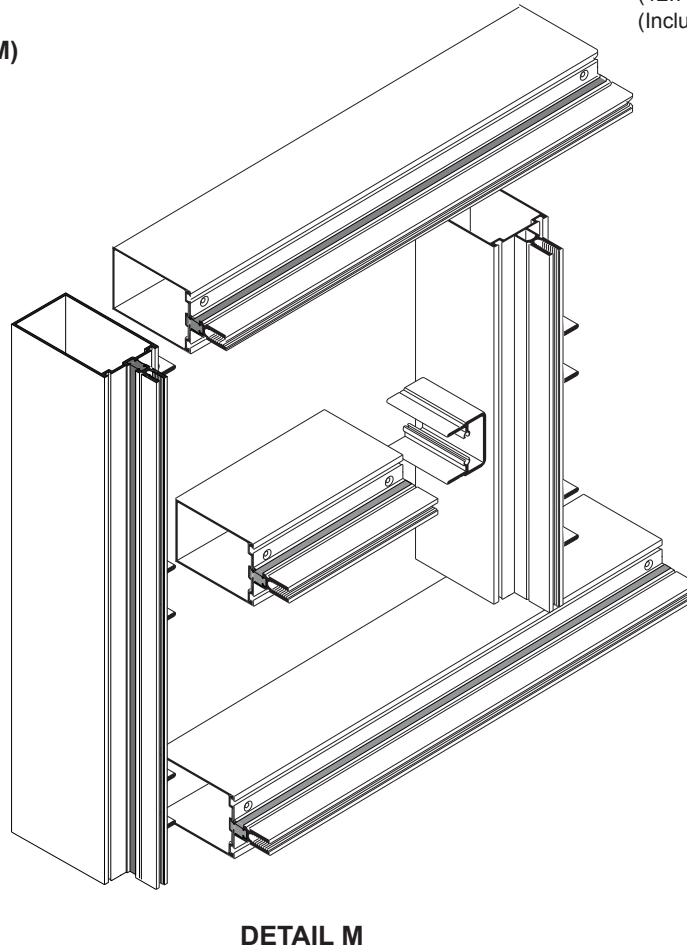
# ASSEMBLY PROCEDURE

## INSTALLATION PROCEDURE FOR PRE-ASSEMBLED MULTI-LITE ASSEMBLY

1. Attach shear blocks to mullion and jambs. **(Detail L)**



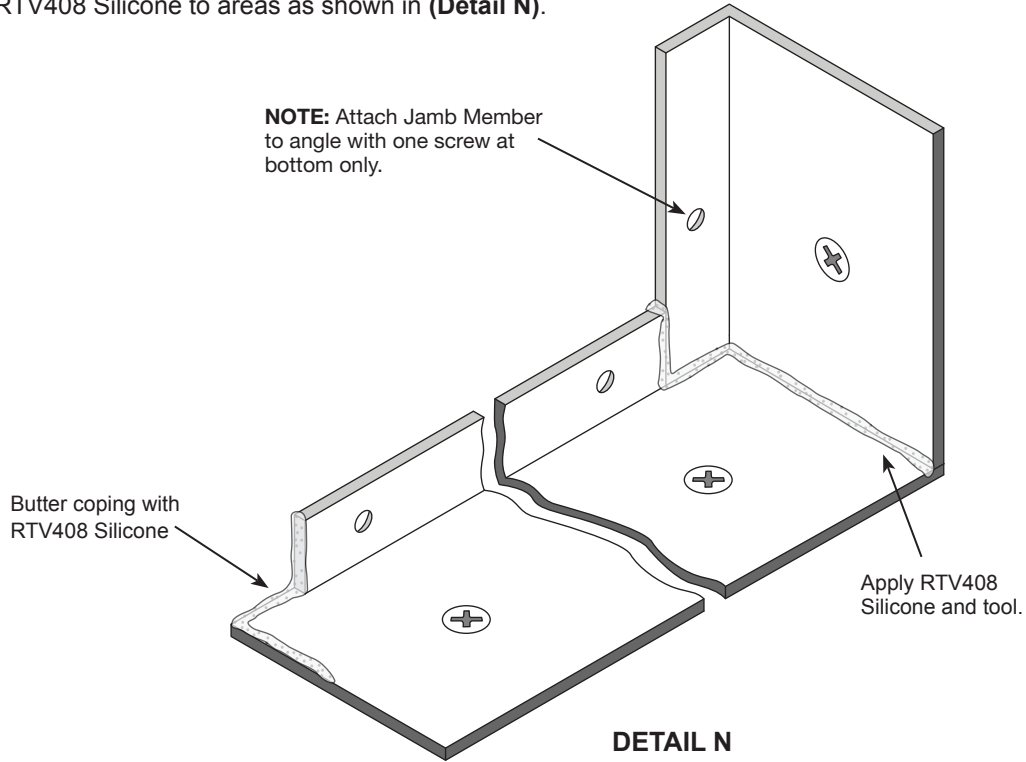
2. Assemble frame. **(Detail M)**



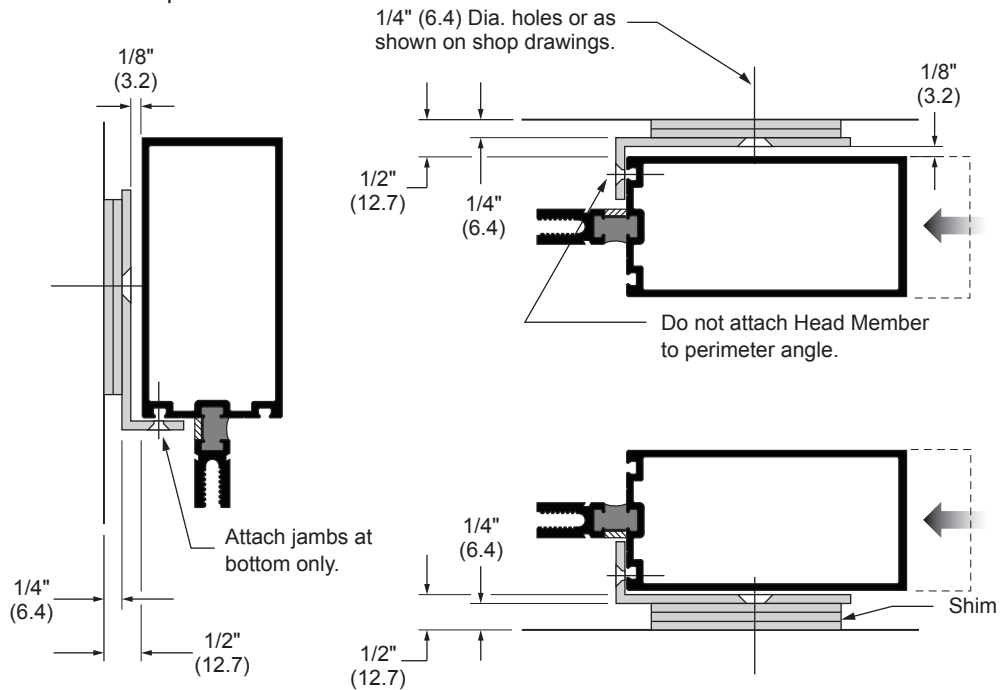
NOT TO SCALE

# ASSEMBLY PROCEDURE

3. Install perimeter angle into opening. See approved shop drawings for proper anchor bolt and size. Apply RTV408 Silicone to areas as shown in **(Detail N)**.



4. Install frame into opening plumb, level and true. Attach frame to angle at sill and one screw at bottom of jambs with **ST035** screws #10 x 5/8" (15.9), 12" (304.8) on center. Attach a piece of the perimeter pressure bar at the head to temporarily hold the frame in place.

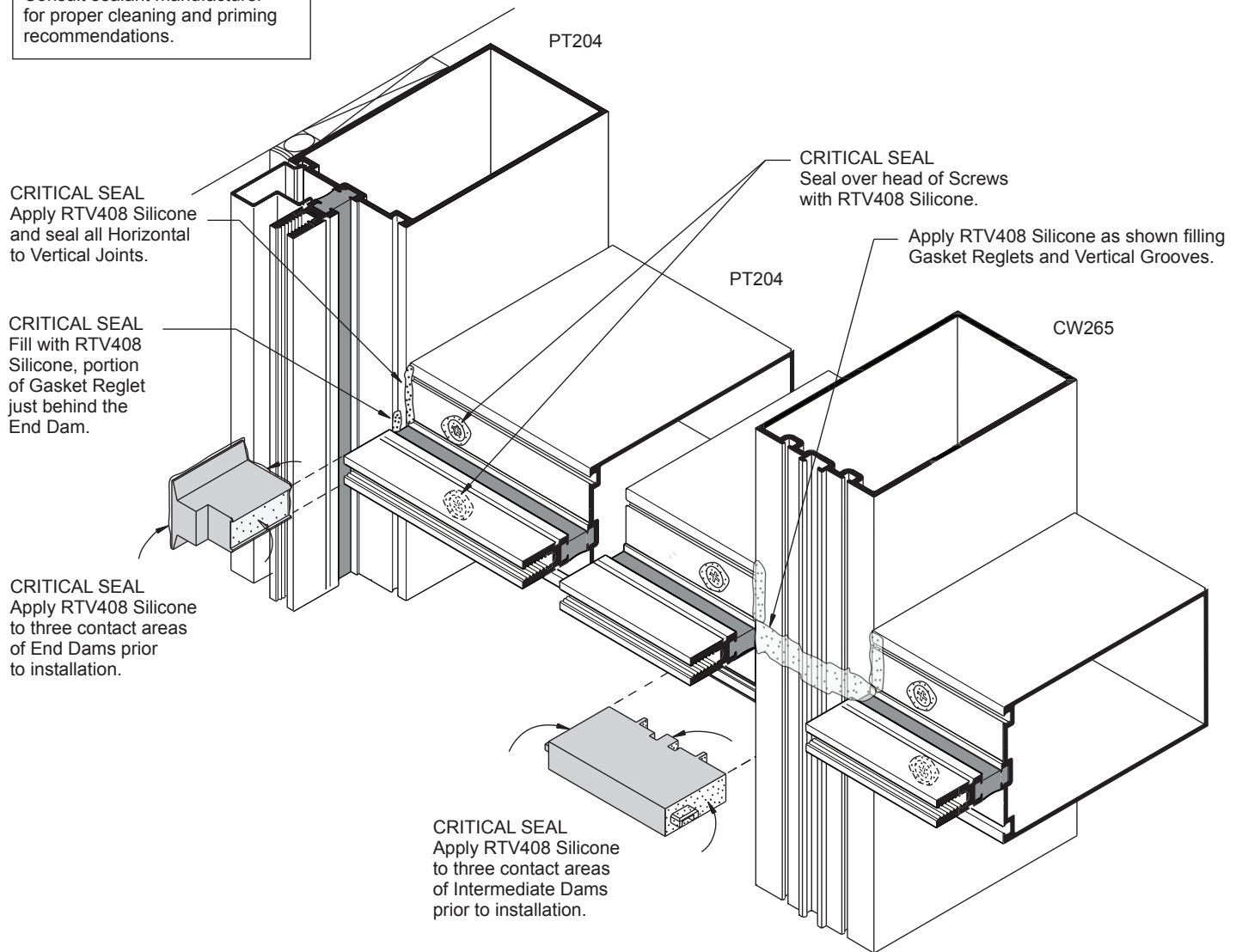


NOT TO SCALE

# FRAME SEALANT PROCEDURE

1. Apply RTV408 Silicone and seal joint at horizontal and vertical intersection. Seal over heads of screws in the glazing pockets (**Detail P**).
2. Apply RTV408 Silicone at the three contact areas of end dams. Fill the vertical gasket reglet with RTV408 Silicone at the end dam location.
3. Slide end dams into place. **NOTE:** End dams occur at head and sill also.

**NOTE:**  
Consult sealant manufacturer for proper cleaning and priming recommendations.



**DETAIL P**

NOT TO SCALE

# GLAZING

**GLASS SIZES (Captured)**

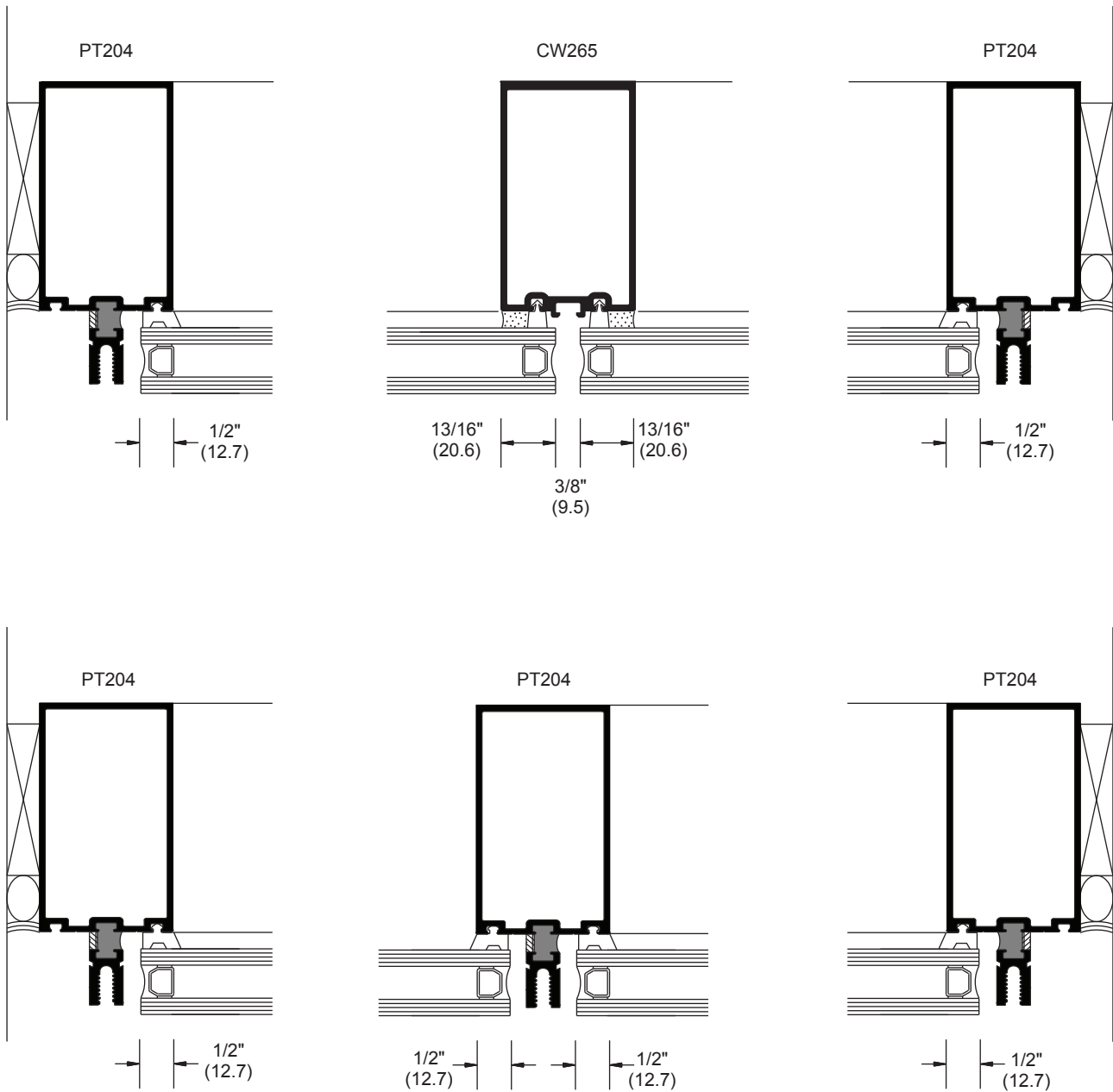
GLASS WIDTH and HEIGHT = DAYLIGHT OPENING + 1" (25.4)

**GLASS SIZES (Structural Silicone Glazed)**

GLASS HEIGHT = DAYLIGHT OPENING + 1" (25.4)

GLASS WIDTH = DAYLIGHT OPENING + GLASS BITES

**NOTE:** These formulas do not take into account glass tolerances.  
Consult glass manufacturer before ordering glass.



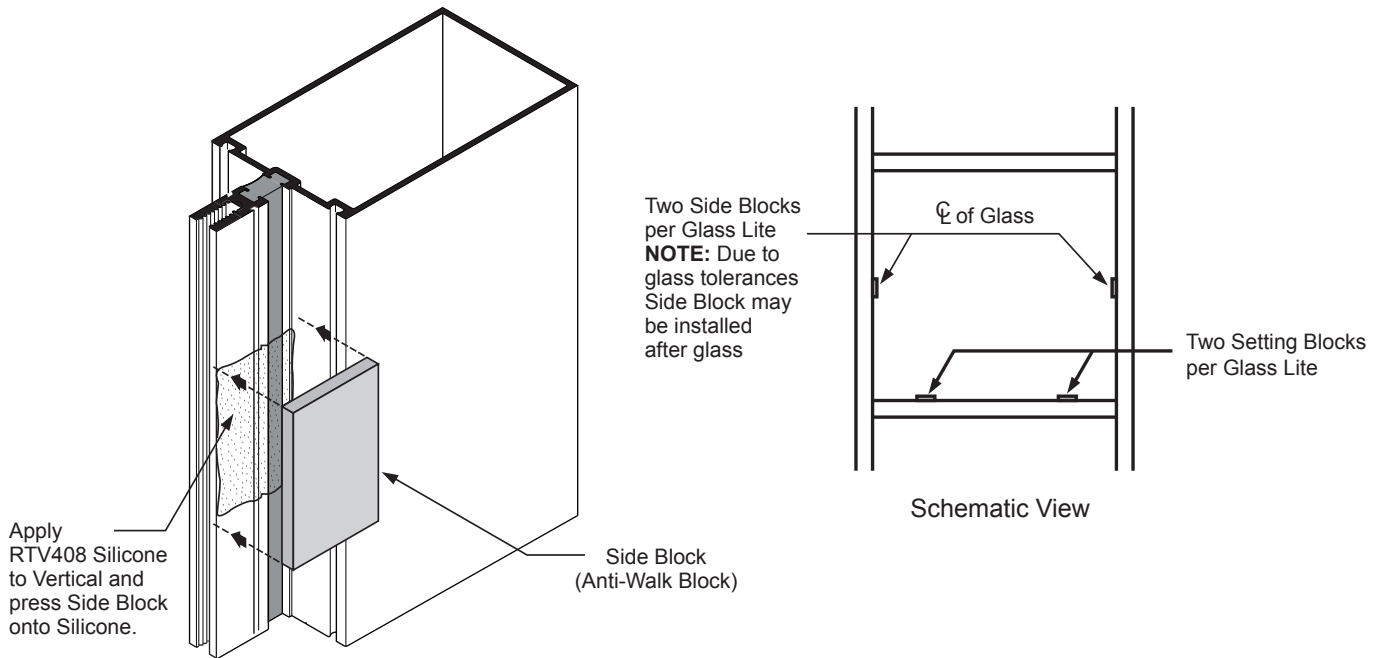
DETAIL Q

NOT TO SCALE



## GLAZING

1. Remove gaskets from carton and lay flat in a clean, dry area in order to recover shape. Allow gaskets to relax at least two hours at temperatures above 50°F (10°C). Glaze with gaskets above 40°F (4°C). If necessary warm gaskets in a hot box before installing.  
Use **NP430** dense gasket at exterior and **NP420** sponge gasket at interior.
2. Cut gaskets allowing 1/8" (3.2) extra length per foot of extrusion to allow for shrinkage.  
Vertical gaskets on mullion run past horizontal gaskets by 5/8" (15.9).  
Horizontal gaskets butt against vertical gaskets.
3. Install back gaskets into vertical and horizontal members and front gaskets into pressure bars. Horizontal pressure bar gaskets should extend 1/8" (3.2) beyond each end of the extrusions. Vertical pressure bar gaskets run continuous.
4. Position two setting blocks for each glass lite as directed by the deadload charts and shop drawings.
5. Apply RTV408 Silicone to vertical mullion and press on two side blocks per glass lite, at approximately mid-height of glass (**Detail R**).



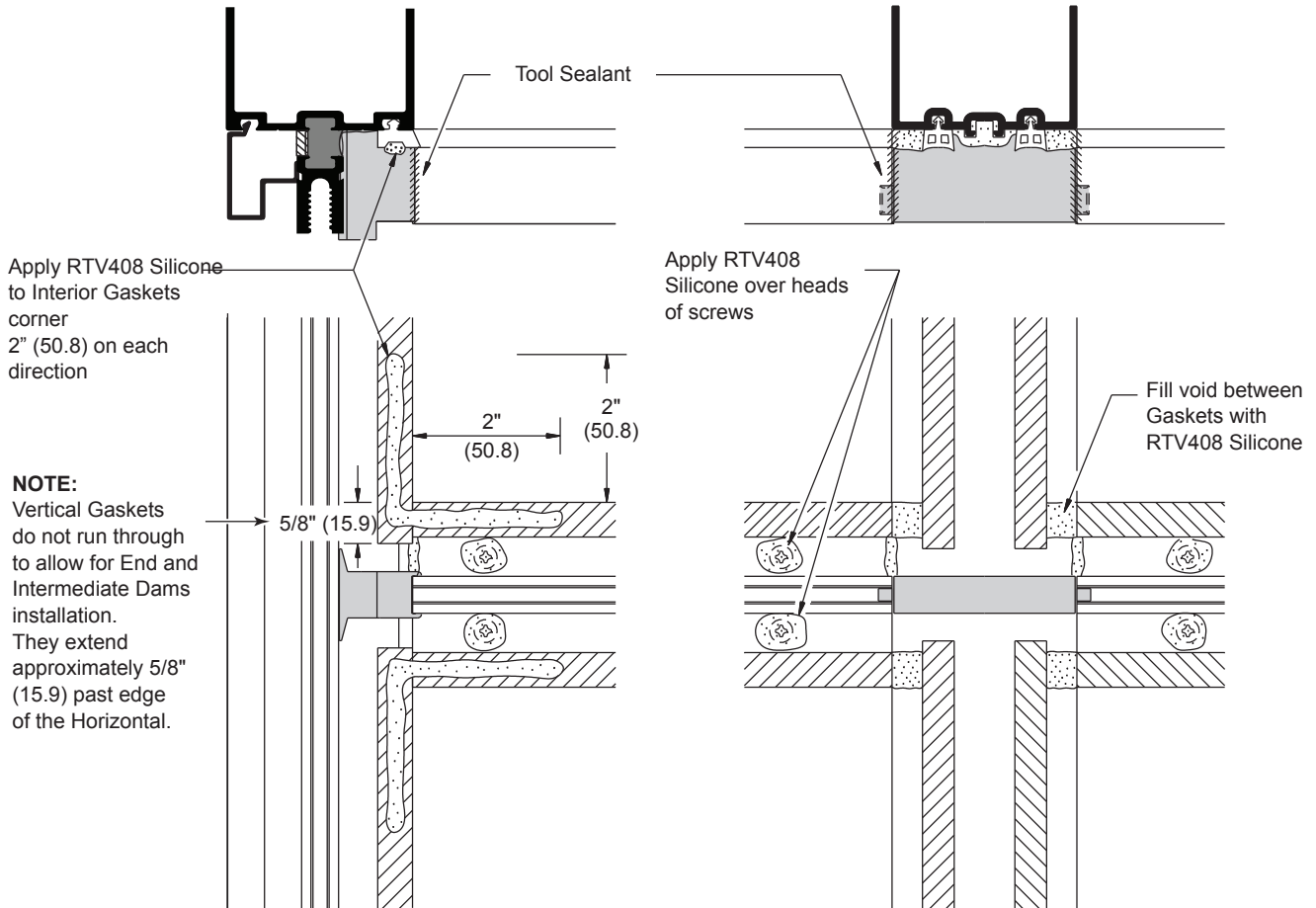
### DETAIL R

6. Apply bead of RTV408 Silicone at interior gasket corners 2" (50.8) in each direction. (**Detail S**)
7. Install glass and center in opening. Use **CW368** Temporary Glass Retainers to hold glass in place until pressure bars are installed. (**Detail T**)

NOT TO SCALE

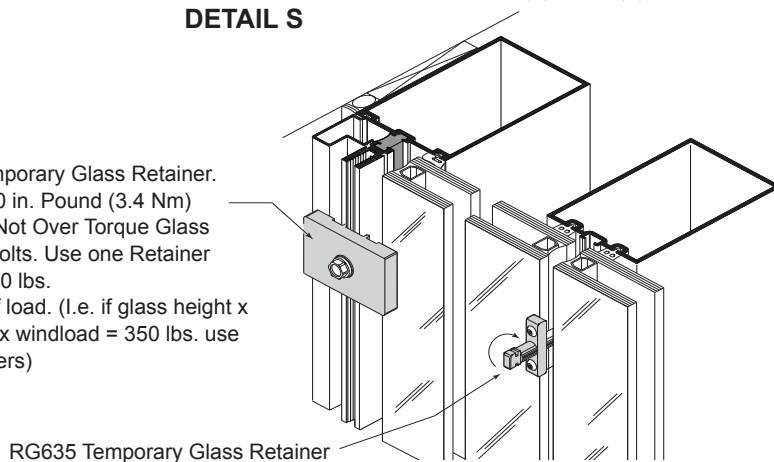
# GLAZING STRUCTURAL SILICONE APPLICATION

8. Structural silicone is applied from the interior. Follow silicone manufacturer's instructions and recommendations for surface preparation and silicone application. Mask glass and aluminum and tool sealant.
9. After structural silicone has fully cured remove temporary glass retainers from intermediate verticals; insert open cell polyurethane rod between glass edges; mask glass adjacent to joint, and apply outside weatherseal.



DETAIL S

CW368 Temporary Glass Retainer.  
Torque to 30 in. Pound (3.4 Nm)  
**NOTE:** Do Not Over Torque Glass Retainers Bolts. Use one Retainer per each 150 lbs. (667.2 N) of load. (i.e. if glass height x glass width x windload = 350 lbs. use three retainers)

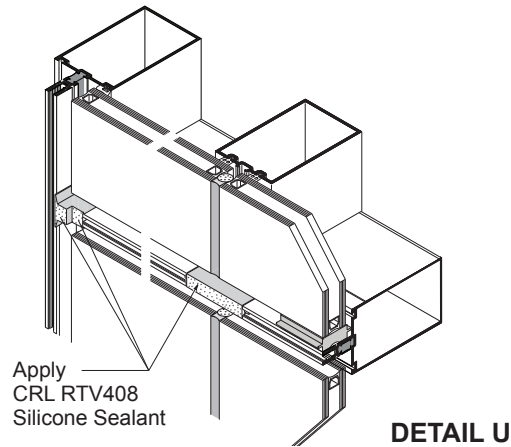


DETAIL T

NOT TO SCALE

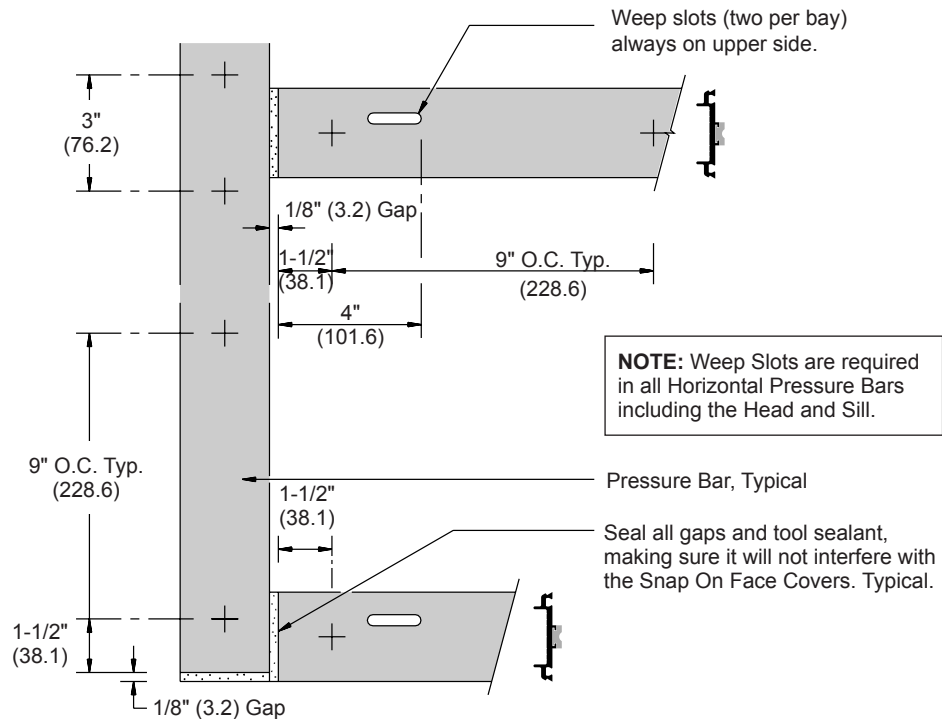
# PRESSURE BAR INSTALLATION

Apply RTV408 Silicone to faces of end dams prior to installing pressure bars. Pressure bars should be installed while sealant is wet. **(Detail U)**



Install vertical pressure bar bolts from bottom to top and horizontal pressure bar bolts from center outward. Always locate bolts 1-1/2" (38.1) maximum from vertical/horizontal intersections to ensure proper pressure over end dams. **(Detail V) NOTE: Be sure pressure bar spacer is not disengaged.**

1. Install vertical pressure bars first, leaving 1/8" (3.2) gaps at top and bottom. Using a torque wrench, torque bolts to 30 inch pound (3.4 Nm). Increase torque to 50 to 60 inch pound (5.7 to 6.8 Nm) minimum after all four sides have been secured.
2. Center horizontal pressure bars in opening, leaving 1/8" (3.2) gaps at each end. **NOTE:** Weep slots must be on top side of all horizontal pressure bars and level with bottom of glazing pocket to ensure proper drainage. **(Detail V)**
3. Seal gaps at vertical/horizontal intersections and at top and bottom of vertical pressure bars. **(Detail V)**



**DETAIL V**

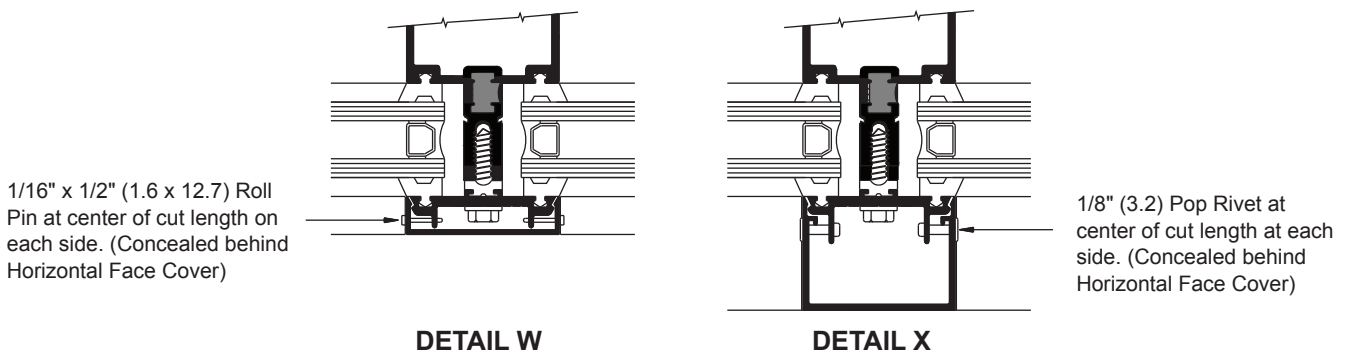
NOT TO SCALE

# FACE COVER INSTALLATION

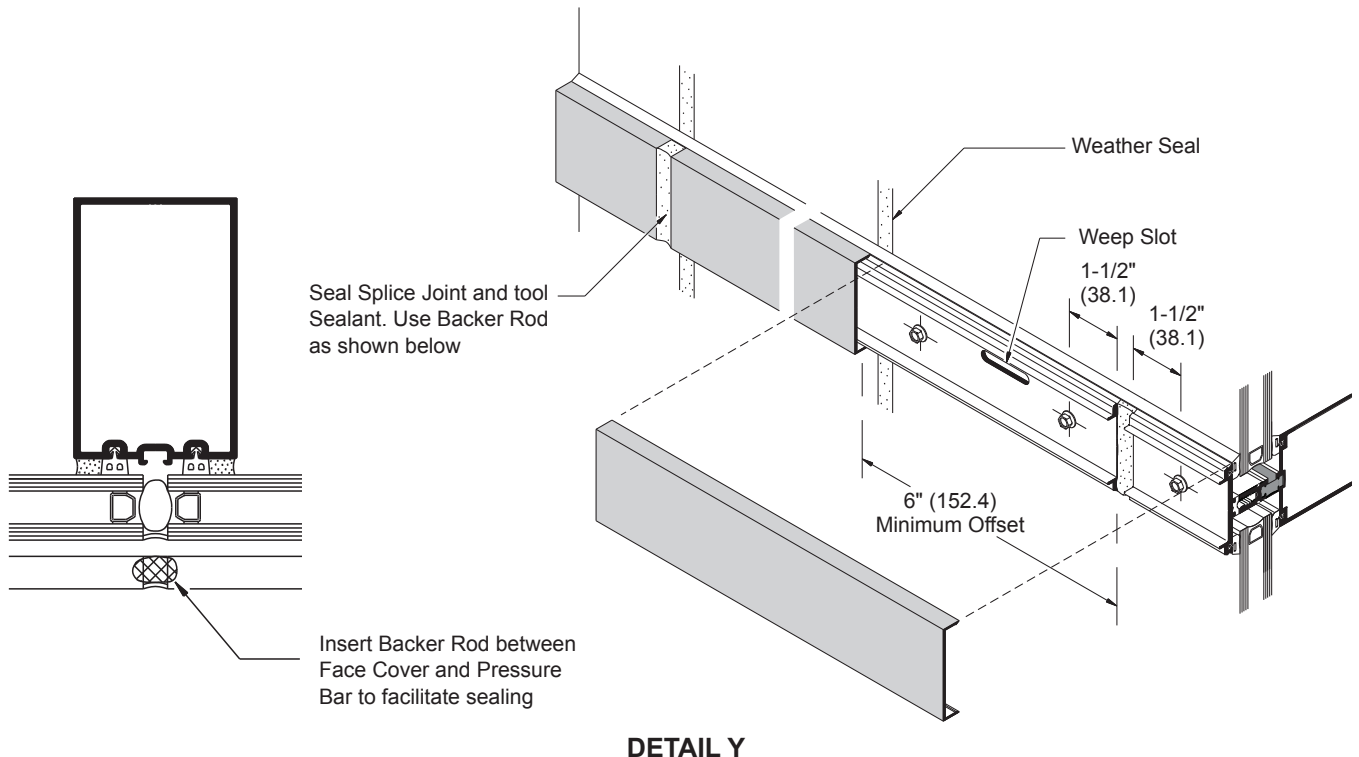
Care must be taken to prevent damage of face covers during installation. Use a piece of wood such as 2" x 4" x 12" (51 x 102 x 305) and CRL ST57550 Compo-Cast Dead Blow Soft Face Hammer.

1. Install vertical face covers first. Do not disturb top and bottom closure plates when installing face covers. Pinning of vertical face cover is required to prevent slippage. Use one pin on each side per cut length, concealed behind horizontal face cover closer to center line or as shown on shop drawings. **(Detail W)**.
2. Install snap-in horizontal face covers with the weep holes located on the bottom side.

**NOTE:** Extended face covers require a special pressure bar. Pin vertical extended covers with one 1/8" (3.2) Dia. pop rivet on each side per cut length (optional #10 x 1/2" (12.7) FHSMS). **(Detail X)**  
 Extended horizontal covers must be pinned on top side at both ends.



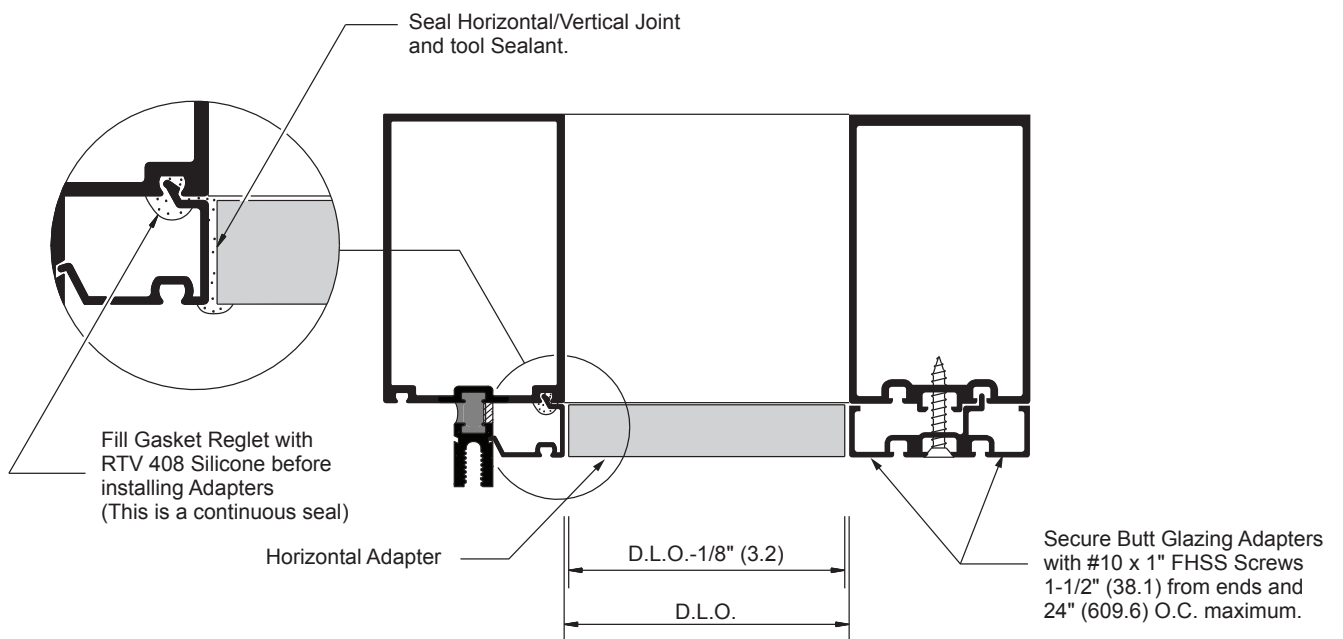
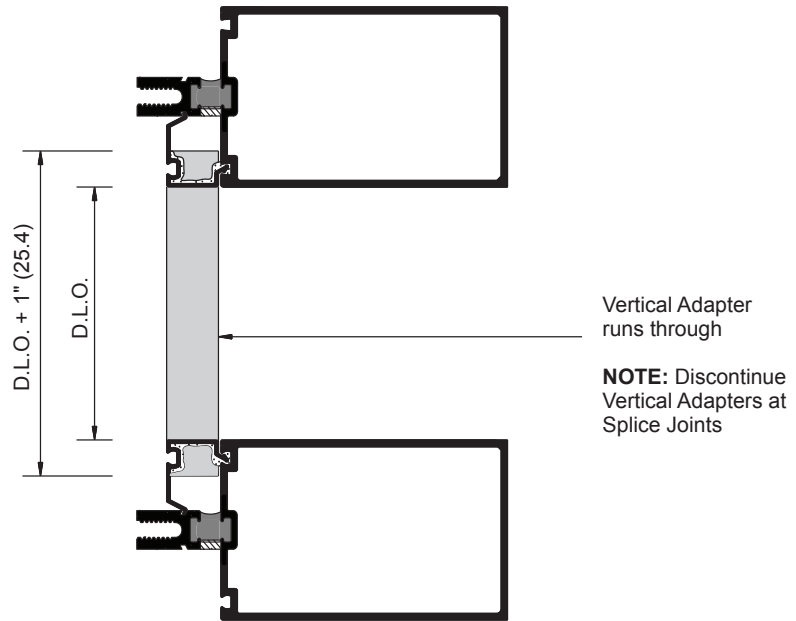
**NOTE:** Locate splice joints at center line of vertical members. Splice joint width should be based on linear expansion for aluminum specifications and sealant movement capability. Do not align face cover splices with pressure bar splices; offset by 6" (152) minimum. Set backer rod between face cover and pressure bars at joint and seal. **(Detail Y)**



NOT TO SCALE

# TRANSITION GLAZING

1. Apply RTV408 Silicone into gasket reglets before installing snap-in transition adapters.
2. Install vertical adapters first.
3. Install horizontal adapters and seal horizontal/vertical joints. Tool sealant. **(Detail Z)**



**DETAIL Z**

NOT TO SCALE

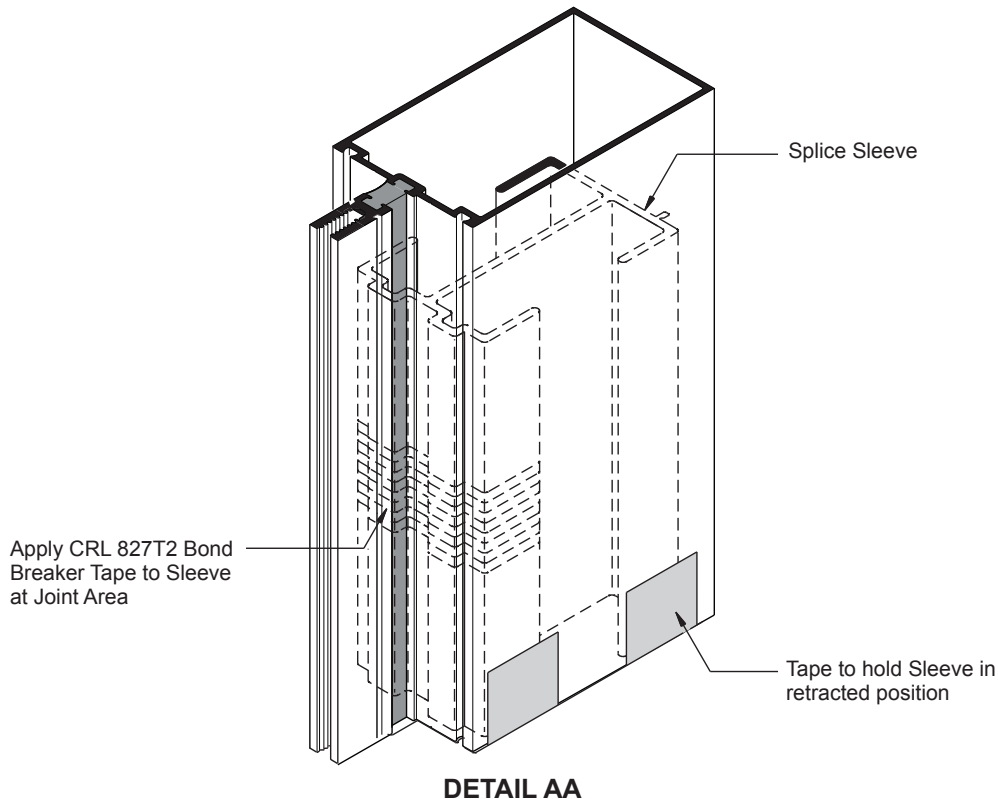
## VERTICAL SPLICE JOINTS

Splice joint width should be based on sealant movement capability and on the following formula:

|   |  |
|---|--|
| Linear expansion for aluminum, in inches      | = Length (") x F° difference in temperature x .0000129 |
| Linear expansion for aluminum, in millimeters | = Length (mm) x C° difference in temperature x .0232   |

A 1/2" (12.7) minimum joint is recommended. Use a 1/2" (12.7) spacer shim to set and hold the mullion joint constant during erection. Remove the shim after attaching the verticals to the anchors. **Splice joints must occur at spandrel areas.** **NOTE:** Splice joints are designed to accommodate thermal movement only. They do not compensate for variations in floor levels.

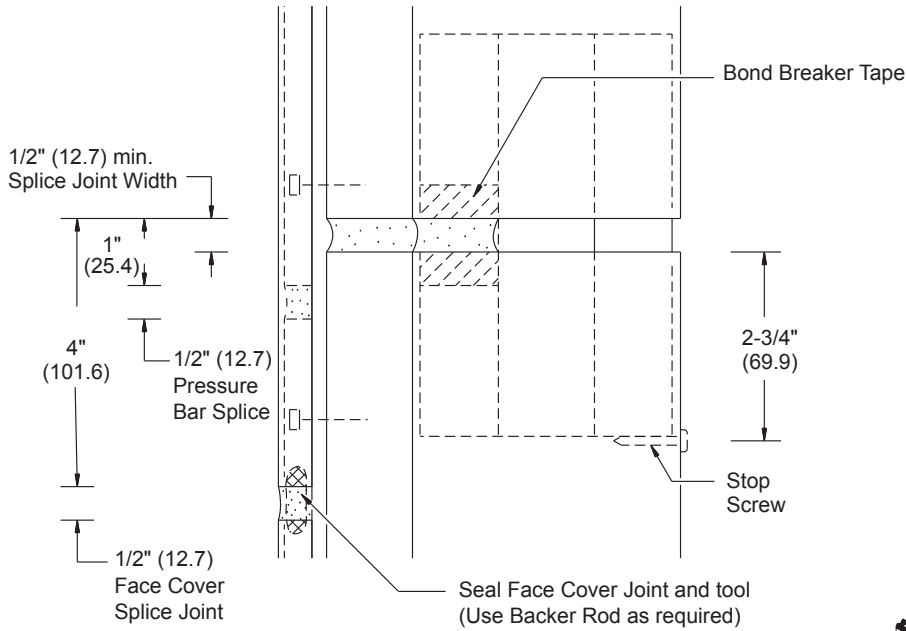
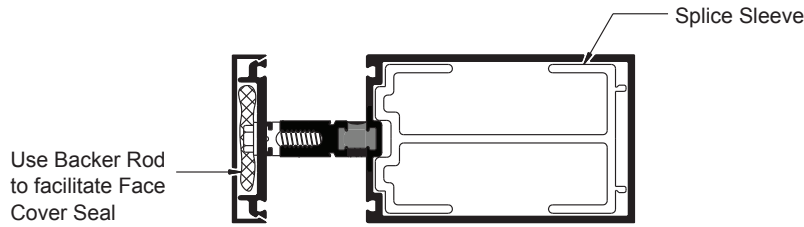
1. Clean splice sleeves and all joint surfaces. Apply bond breaker tape to areas where sleeve will be sealed to avoid three side adhesion. **(Detail AA)**
2. Slide sleeve into the upper member before it is installed and tape to hold it in retracted position. **(Detail AA)**



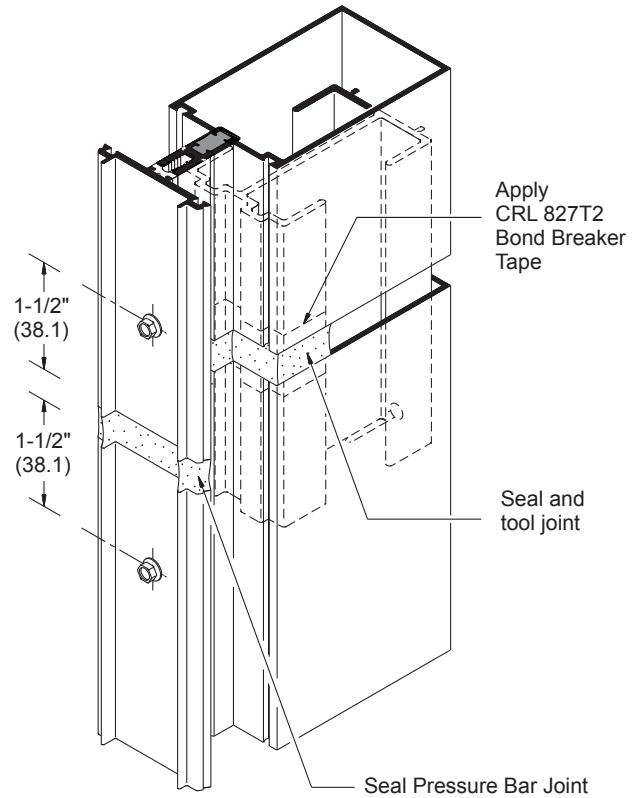
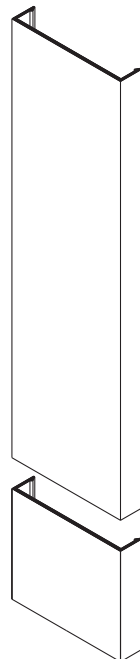
3. Install stop screw, 2-3/4" (69.9) down from top of extrusion at inside of lower member. **(Detail BB)**
4. Install upper member and let extruded sleeve slide down until it sits on top of stop screw.
5. Seal joint over sleeve. **(Detail CC)** When transition adapters for 1/4" (6.4) spandrel are used they should be discontinued at splice joint and installed after splice joint is sealed. Stagger joints on back members, pressure bars and face caps. **(Detail BB)**
6. Seal pressure bar joint. **(Detail CC)**
7. Install face covers and seal joint using backer rod as required. **(Detail CC)**

NOT TO SCALE

# SERIES 2102/2202 CURTAIN WALL



**DETAIL BB**

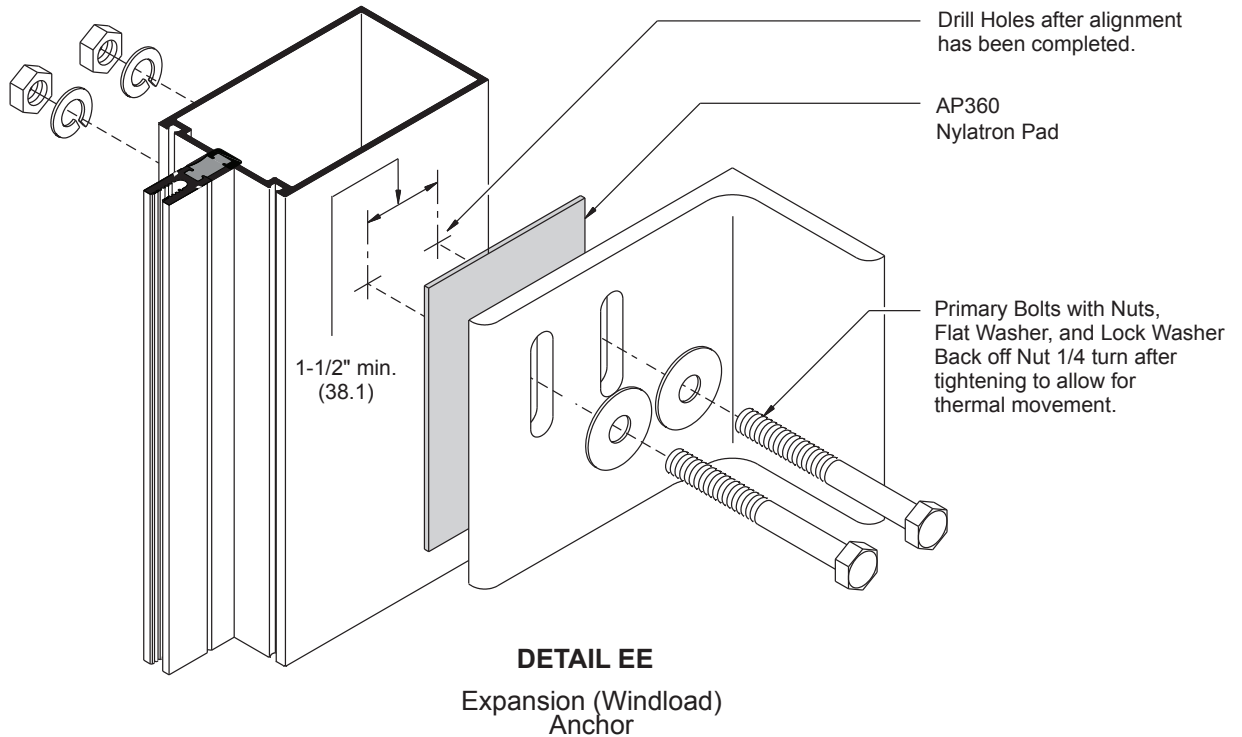
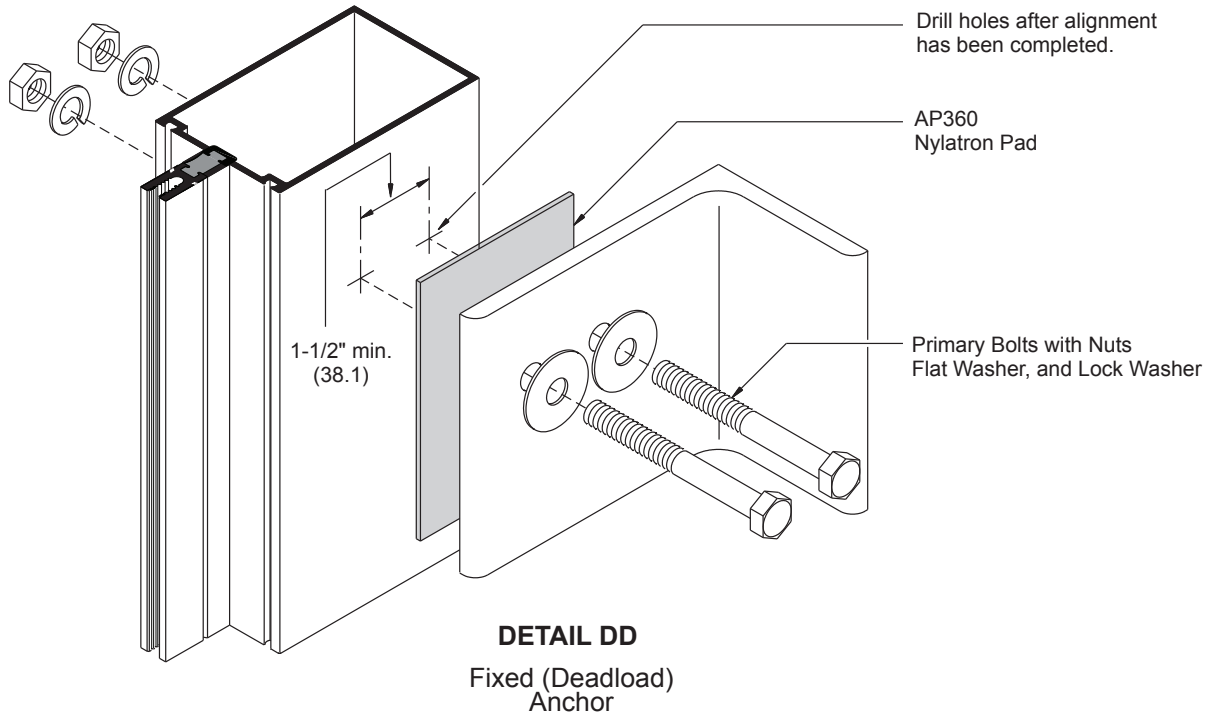


**DETAIL CC**

NOT TO SCALE

# MULTI-SPAN CONDITION

**Detail DD** and **Detail EE** show fixed (deadload) and expansion (windload) anchors. Anchor type and size vary per job requirements. Details shown are to be used as a guide only. See approved shop drawings for actual conditions.



Secure verticals to anchor clips after alignment has been completed.

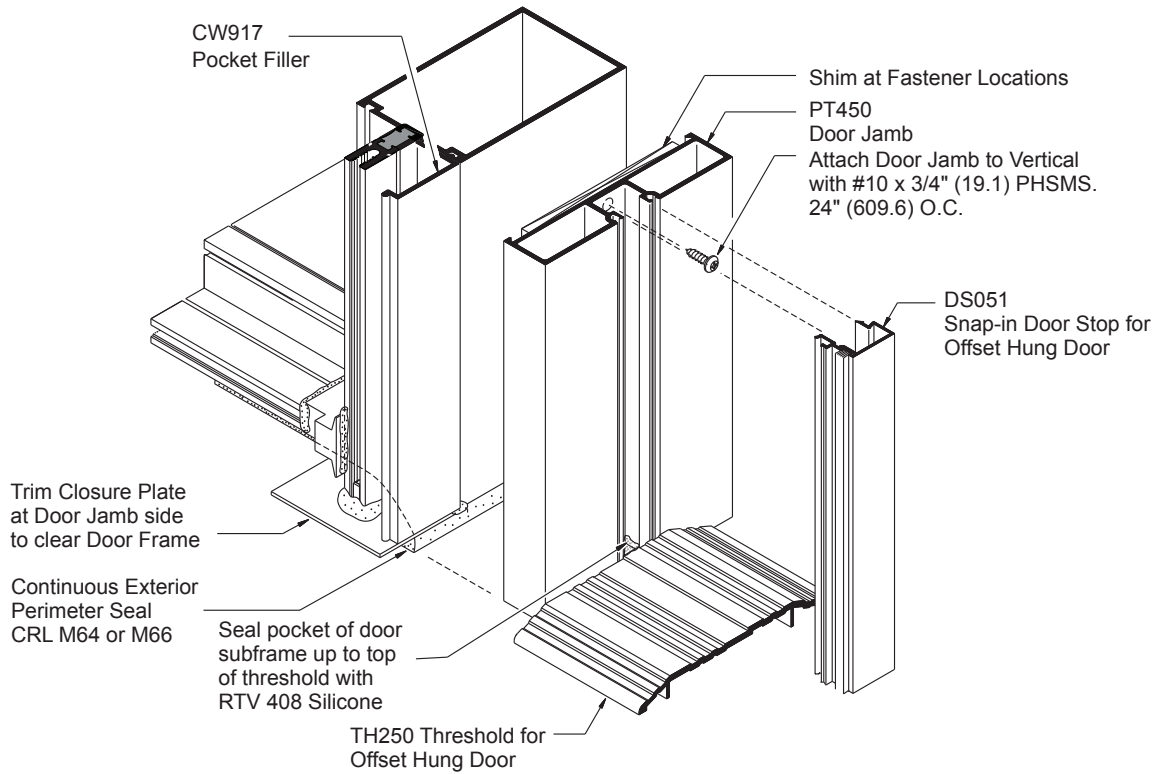
**NOTE: Mullion spacing must be held to within +1/32" (0.8).  
Check overall frame dimension every four bays to monitor dimension build up.**

NOT TO SCALE



# ENTRANCE FRAMES

Entrance Frames may be installed simultaneously with Curtain Wall or after Curtain Wall installation has been completed. Use **CW917** or **CW916** pocket fillers to close glazing pocket at door side.



**DETAIL FF**  
Offset Hung Door

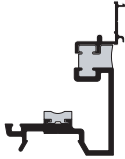
NOT TO SCALE

# FLUSH DOOR ADAPTOR FABRICATION AND INSTALLATION

## FABRICATION

**NOTE:** Flush door adaptors are not available for Series 2100 butt glaze applications

1. Cut door adaptor members to length.



**CW207**

Header Adaptor Length = DOOR OPENING WIDTH Minus 1/32" (0.8).  
 Jamb Adaptor Length = DOOR OPENING HEIGHT Plus 7/16" (11.1).



**CW206**

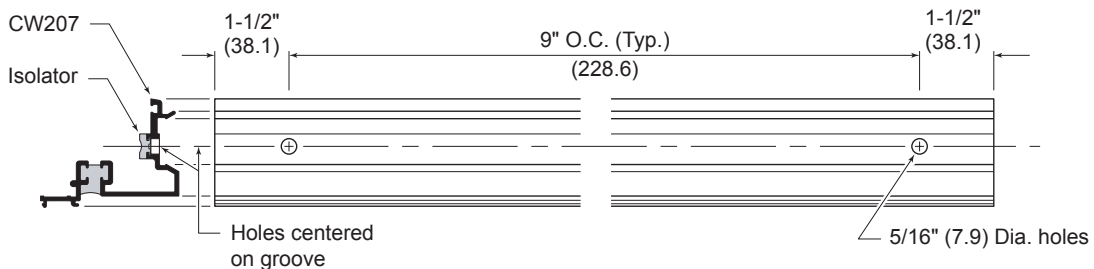
Header Cap Length = DOOR OPENING WIDTH Minus 1/32" (0.8).  
 Jamb Cap Length = DOOR OPENING HEIGHT Plus 7/16" (11.1).  
 (Field cutting may be required to obtain a tight joint with vertical cap above)



**CW209**

Header Door Stop Length = DOOR OPENING WIDTH Minus 1/32" (0.8).  
 Jamb Door Stop Length = DOOR OPENING HEIGHT Minus 1-1/32" (26.2).

2. Drill 5/16" (7.9) diameter anchor holes in all cut to length adaptors 1-1/2" (38.1) from each end and 9" (228.6) O.C. (**Detail GG**).  
**NOTE:** Isolator must be in place prior to drilling anchor holes.



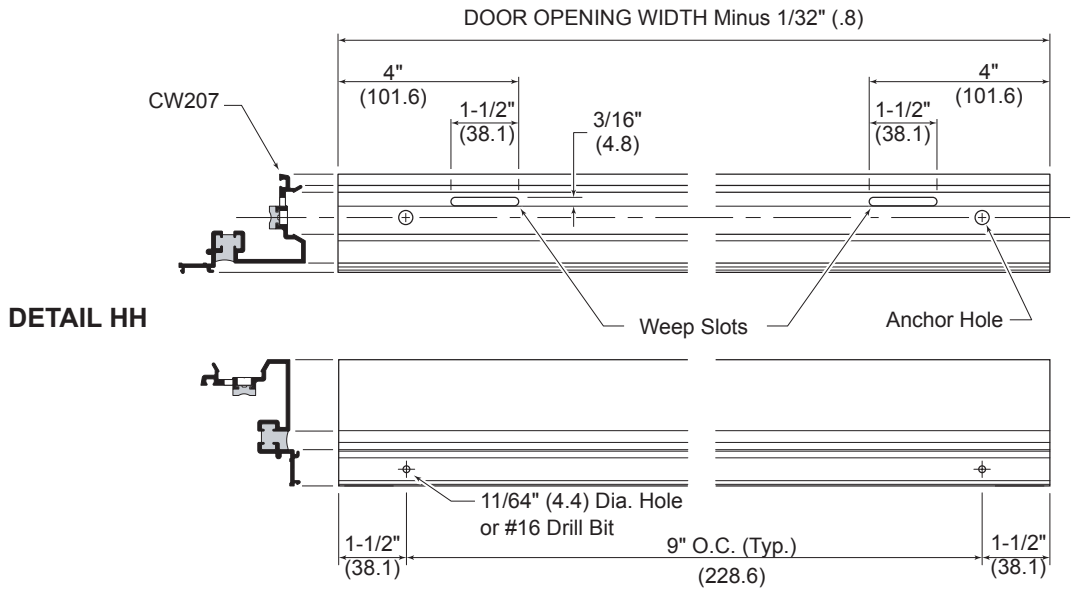
**DETAIL GG**

NOT TO SCALE

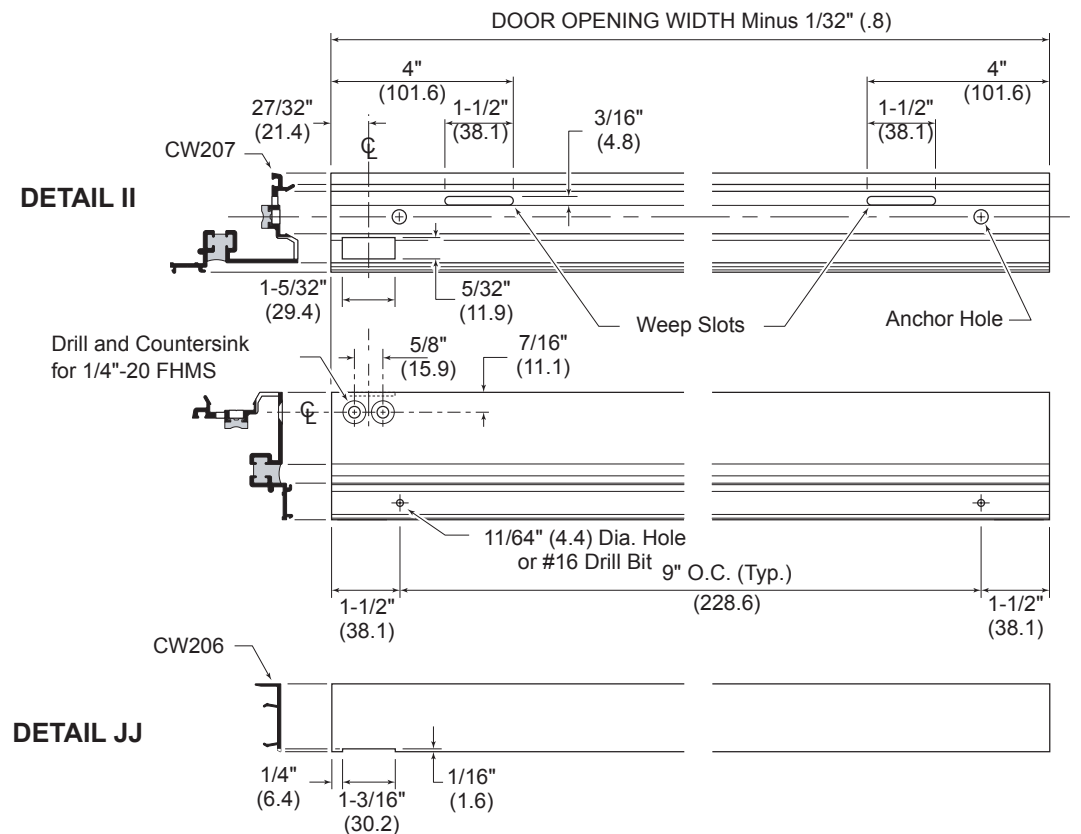
# FLUSH DOOR ADAPTOR FABRICATION AND INSTALLATION

## FABRICATION

- For butt hung doors, fabricate header adaptor for weep slots and additional anchor holes. **(Detail HH)**  
(Refer to the **Entrances and Frames** section of this manual for flush bolt and panic rod strike fabrication.)



- For offset pivot doors, fabricate header adaptor for pivot (Left hand shown), weep slots and additional anchor holes. **(Detail II)** Notch face cap for pivot clearance **(Detail JJ)**.  
(Refer to the **Entrances and Frames** section of this manual for flush bolt and panic rod strike fabrication.)



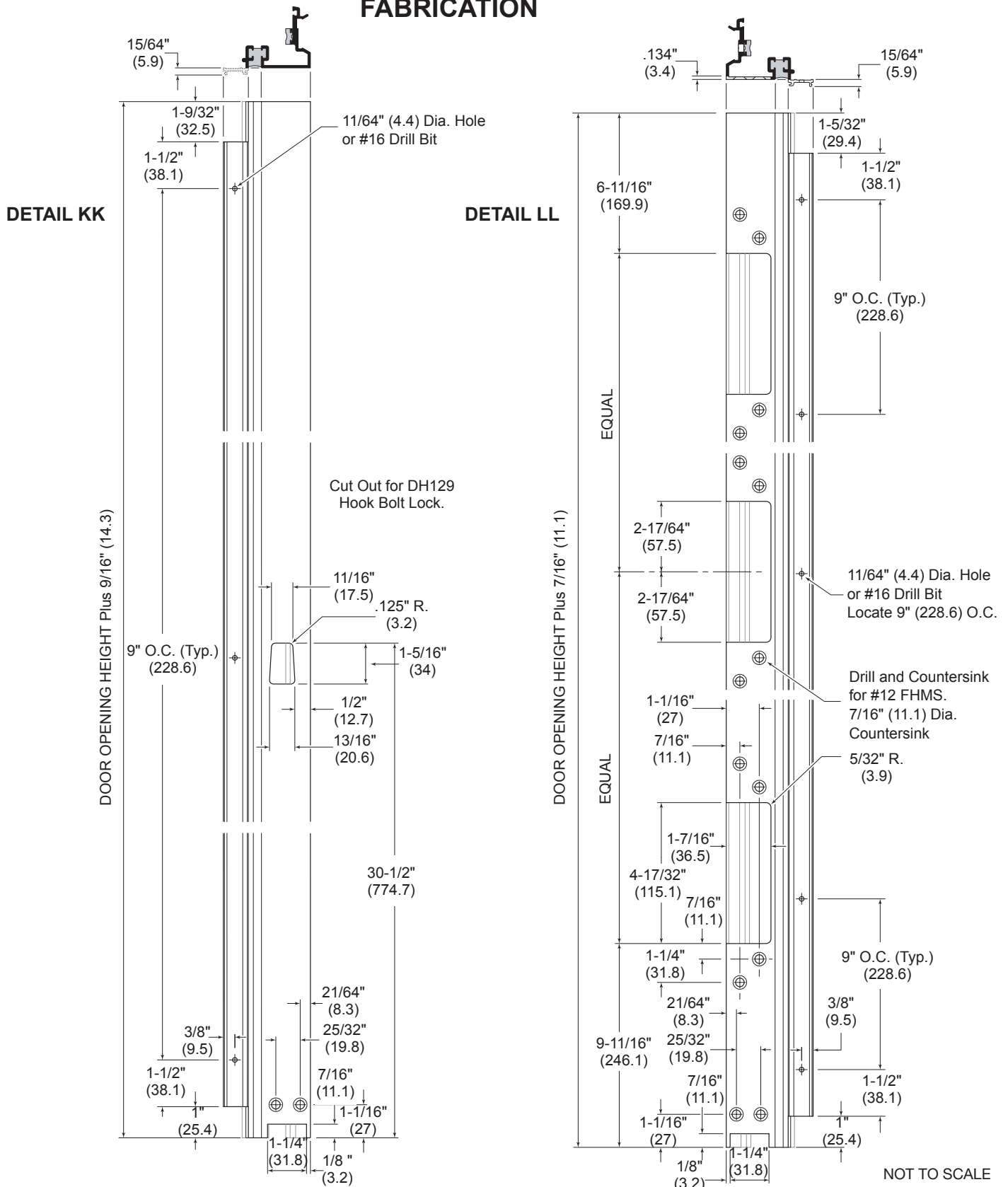
NOT TO SCALE

# FLUSH DOOR ADAPTOR FABRICATION AND INSTALLATION

5. Fabricate for lock jamb (**Detail KK**).  
(Right hand shown; left hand opposite)

6. Fabricate for butt hinges (**Detail LL**).  
(Left hand shown; right hand opposite)

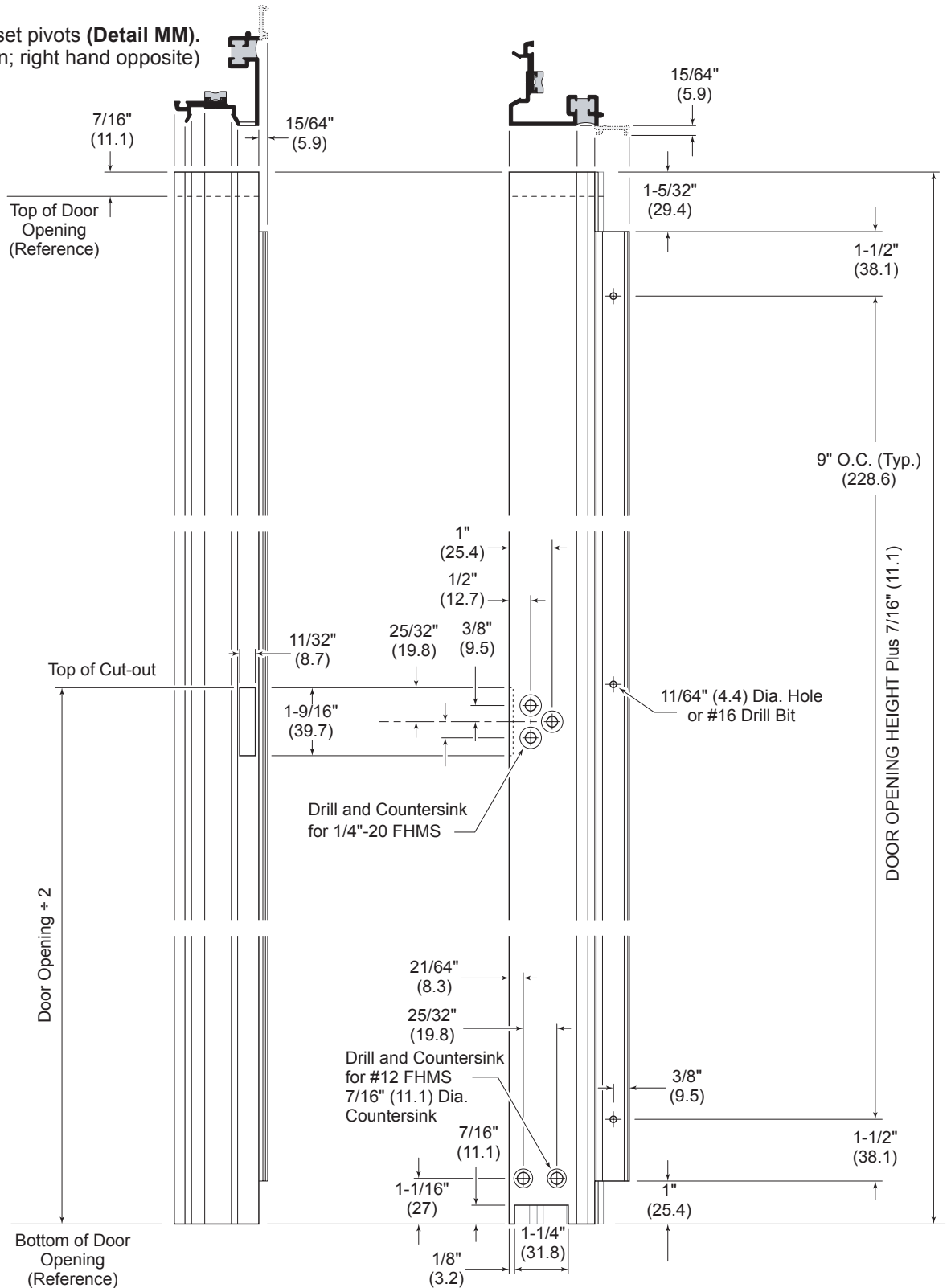
## FABRICATION



# FLUSH DOOR ADAPTOR FABRICATION AND INSTALLATION

## FABRICATION

7. Fabricate for offset pivots (**Detail MM**).  
(Left hand shown; right hand opposite)



DETAIL MM

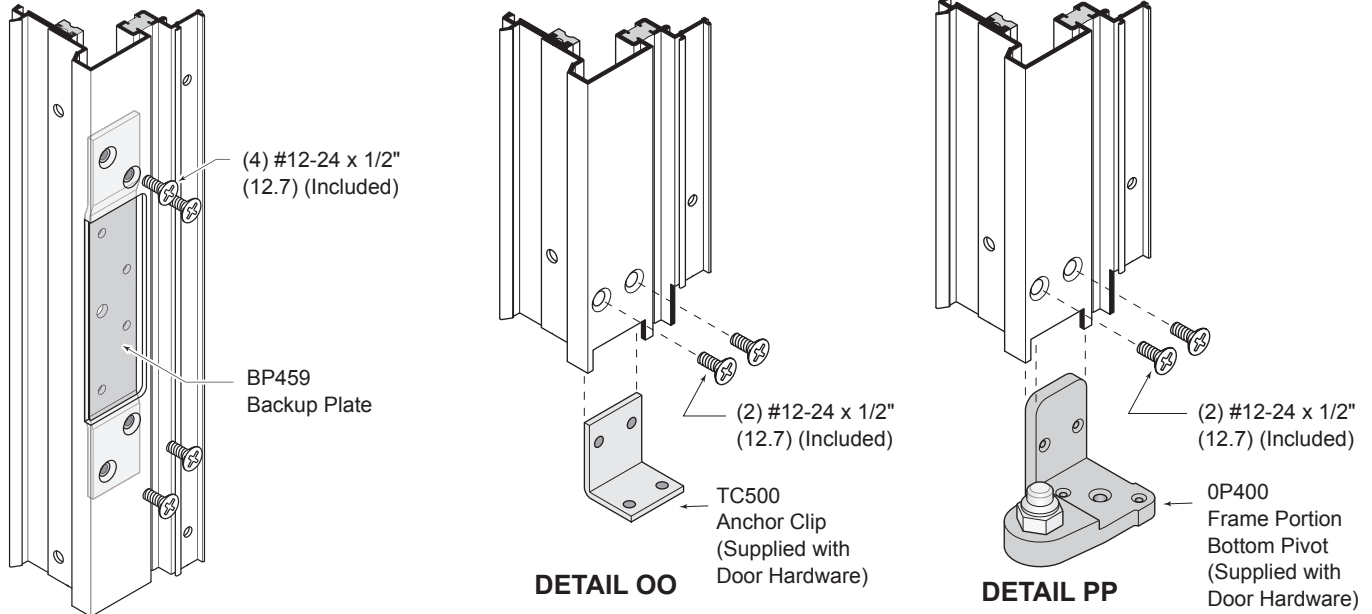
NOT TO SCALE

# FLUSH DOOR ADAPTOR FABRICATION AND INSTALLATION

## FABRICATION

8. For butt hung application, install hinge back up plates and threshold clips. **(Detail NN and Detail OO)**  
 For offset pivot application, install bottom frame portion pivot(s). **(Detail PP)** Single doors require threshold clip at lock jamb. **(Detail OO)**

9. Install gaskets in door adaptors.



DETAIL NN

DETAIL OO

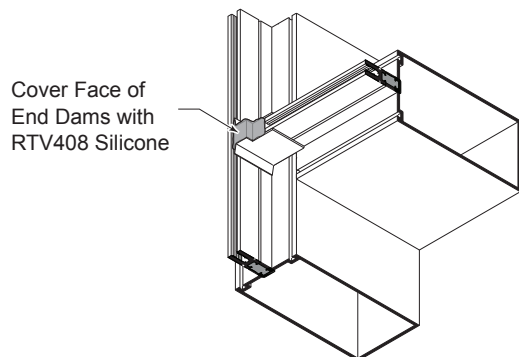
DETAIL PP

These hardware items must be applied prior to door adaptor installation.

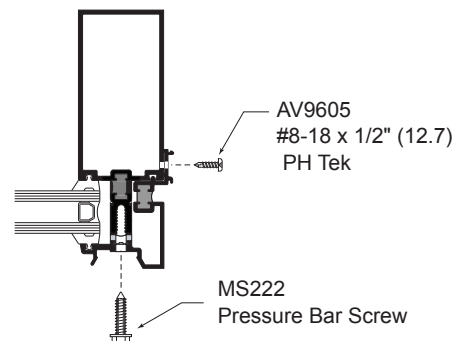
## INSTALLATION

**NOTE:** Prior to adaptor installation all End Dams must be installed and sealed. Transom and sidelite glass must be in place.

1. Seal face of end dams. **(Detail QQ)**
2. Install jamb and head adaptors using MS222 pressure bar screws. **(Detail QQ)** Refer to page 24 of the glazing portion of this section for bolt tightening procedures. Vertical adaptors extend from floor to 7/16" (11.11) above bottom of door header/horizontal and must be installed prior to head adaptor installation.
3. Secure adaptors to mullion side walls with AV9605 Pan Head Phillips tek screws. **(Detail QQ)**



DETAIL QQ

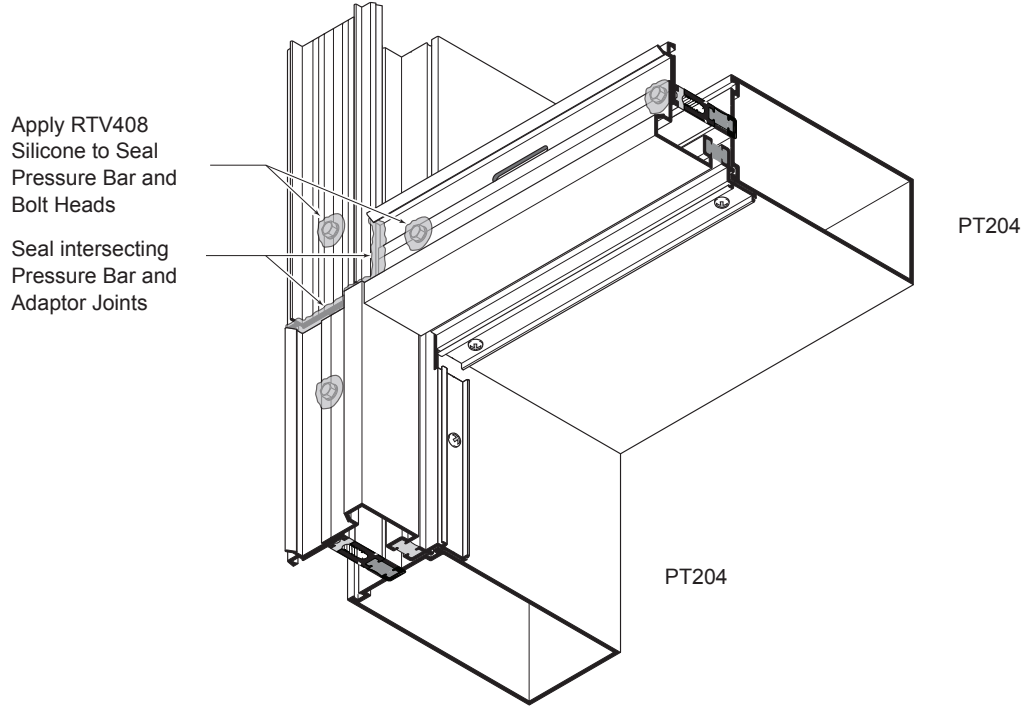


NOT TO SCALE

# FLUSH DOOR ADAPTOR FABRICATION AND INSTALLATION

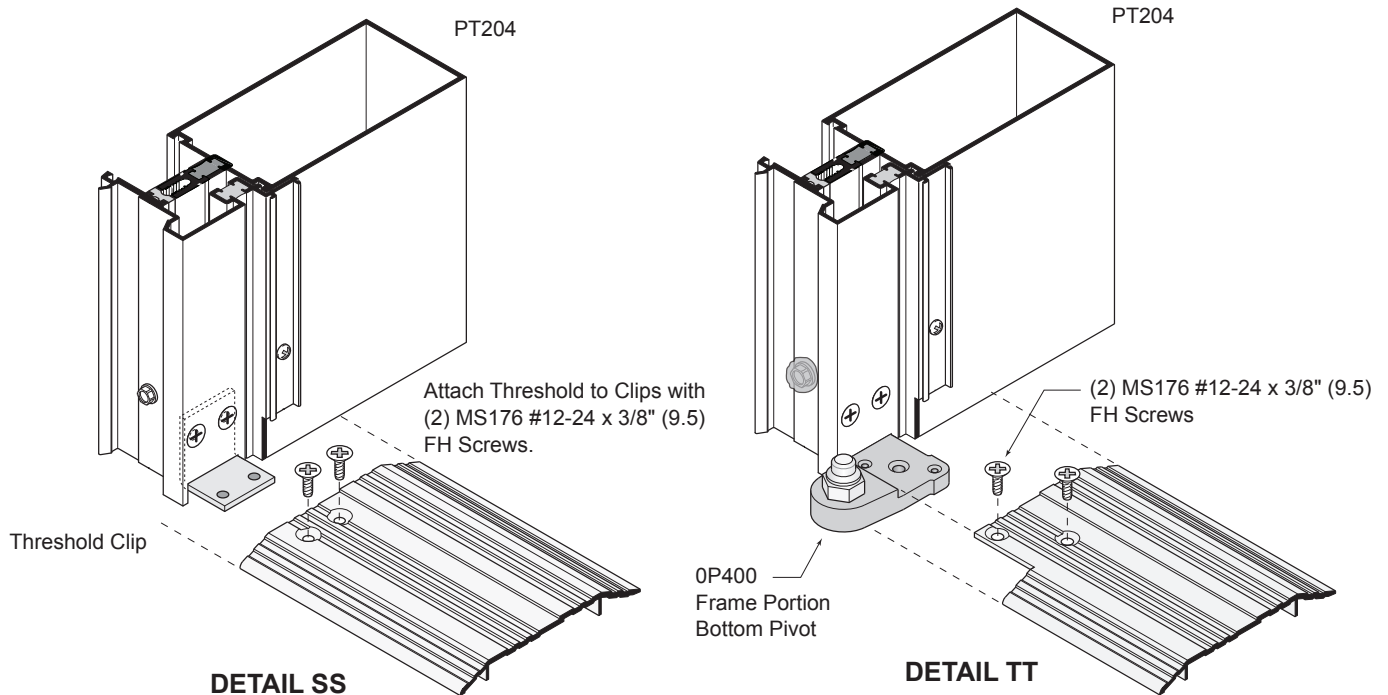
- 4. Seal all pressure bar bolt heads. (Detail RR)
- 5. Seal gaps at intersections of pressure bars and door adaptors.

**NOTE: THIS IS A CRITICAL SEAL.**



**DETAIL RR**

- 6. Install thresholds into opening using screws provided with door hardware. (Detail SS for butt hung, Detail TT for offset pivot application).

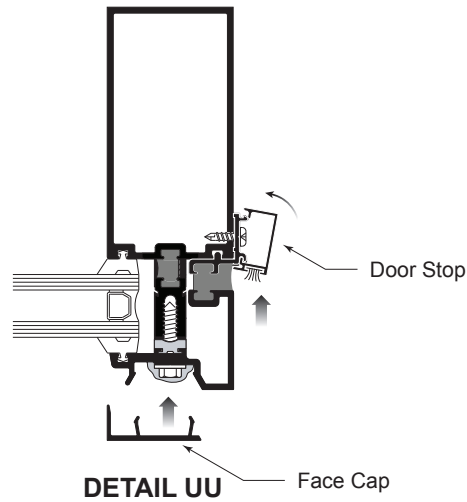


NOT TO SCALE

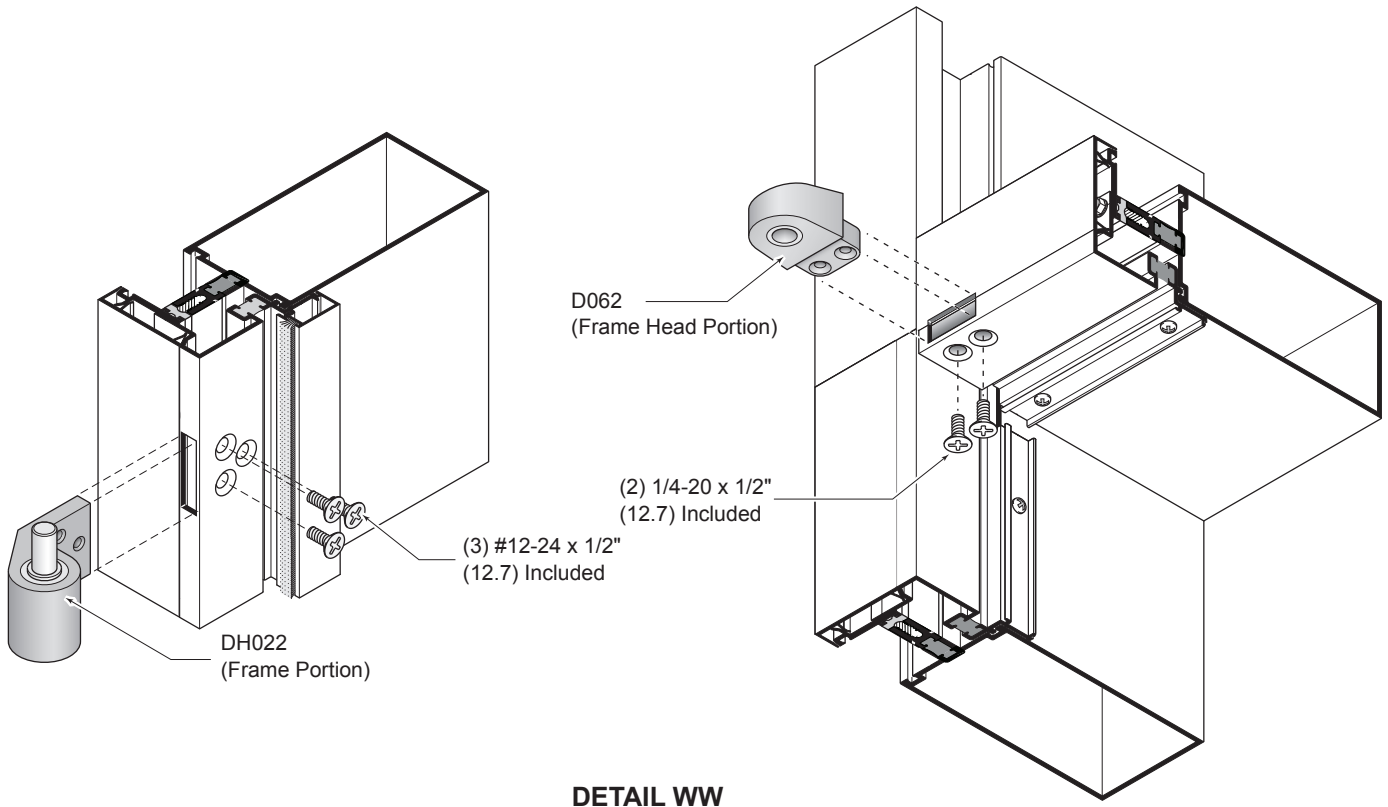
# FLUSH DOOR ADAPTOR FABRICATION AND INSTALLATION

## INSTALLATION

7. Snap on face caps (**Detail UU**). Vertical face caps run from floor to 9/16" (14.3) above bottom of header.  
(Field cutting to length is recommended)
8. Snap door stop on header adaptor (**Detail UU**). (Head door stop runs through)
9. Snap door stops on jamb members (**Detail UU**).



10. For offset pivot doors, install frame portion pivots (**Detail WW**).



NOT TO SCALE





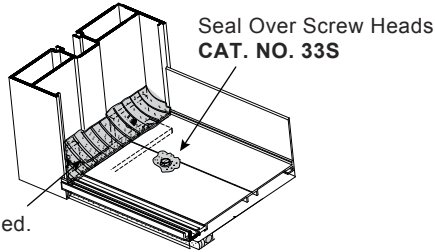
# GUIDE TO SEALANTS

NOTE: All sealants must be tooled to ensure proper adhesion.

## WATERPROOFING

- 33S ACETIC CURE SILICONE

Sill to Subsill, End Dams, Screw Heads, and Threshold to Door Frame Sealing.



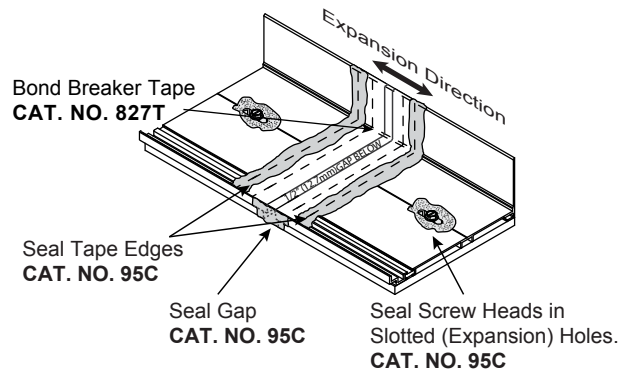
Fill with Sealant to Create a Water Shed.  
CAT. NO. 33S

NOTE: Not for use near insulating glass units with butyl sealant.

## EXPANSION

- 95C SILICONE BUILDING SEALANT

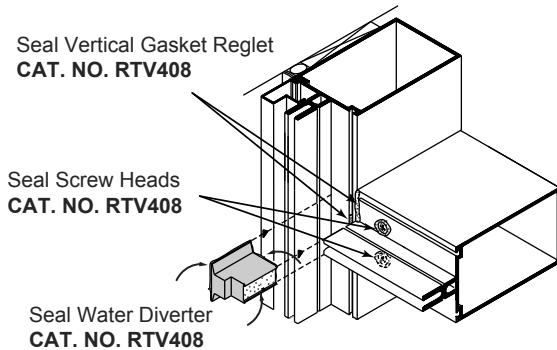
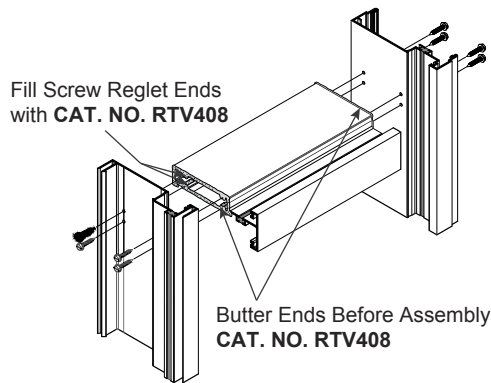
Expansion Joints.



## JOINT ADHESIVE

- RTV408 NEUTRAL CURE SILICONE

Small Joints, End Joints and Buttered Surfaces, Water Diverters, End Dams, and Reglet Fills.

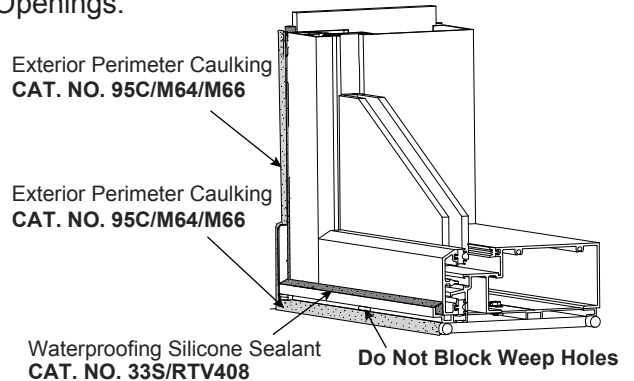


NOTE: I.G. butyl contact OK.

## PERIMETER

- 95C SILICONE BUILDING SEALANT (Preferred)
- M64 (SMOOTH) MODIFIED POLYURETHANE
- M66 (TEXTURED) MODIFIED POLYURETHANE

Perimeter Seals, Expansion Joints, Sill and Threshold Beds, Concrete, Wood, and Steel Openings.



## STRUCTURAL

- ALL STRUCTURAL SEALANTS REQUIRE TESTING AND APPROVAL.

Glass-to-Glass or Glass-to-Metal



# JOB SITE ESSENTIALS

HELPFUL TOOLS AND SUPPLIES FOR INSTALLING CRL U.S. ALUMINUM ENTRANCES, STOREFRONTS, WINDOWS, AND CURTAIN WALL SYSTEMS



**CRL 95C Silicone Building Sealant**  
CAT. NO. 95C



**CRL RTV408 Neutral Cure Silicone**  
CAT. NO. RTV408



**CRL33S Acetic Cure Silicone Sealant**  
CAT. NO. 33S



**CRL M64 Smooth Texture Modified Polyurethane Construction Sealant**  
CAT. NO. M64



**CRL M66 Grainy Texture Modified Polyurethane Construction Sealant**  
CAT. NO. M66



**CRL12:1 Ratio Strap Frame Caulking Gun**  
CAT. NO. GA1203



**CRL Complete Set of Seven All Stainless Steel Spatulas**  
CAT. NO. AB958G



**CRL Spring Clamps**  
CAT. NO. JC3202HT



**CRL Backer Rod Roller Tool**  
CAT. NO. SBRR



**CRL Soft-Face Power Hitter**  
CAT. NO. ST57532



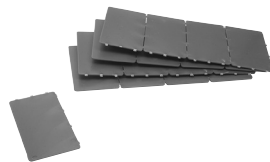
**CRL Saint-Gobain/Norton V2100 Thermalbond® Structural Glazing Spacer Tape**



**CRL Utility Knife**  
CAT. NO. K82



**CRL PHS Series Plastic Horseshoe Shims**



**CRL Plastic Bearing Shimstrips**



**CRL Knit Fit Gloves**



**CRL Knife Blades**  
CAT. NO. 1992C

**SERIES 2102/2202 CURTAIN WALL**



**CRL Bond Breaker Tape  
CAT. NO. 827T2**



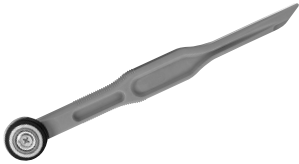
**CRL Glass Cutters  
CAT. NO. TC17B**



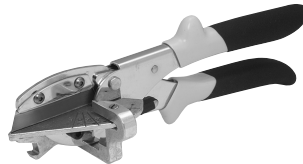
**CRL Running Pliers  
CAT. NO. PPG1**



**CRL Vacuum Cups  
CAT. NO. S338**



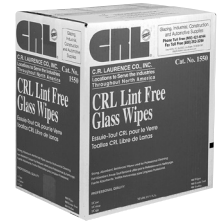
**CRL Gasket Roller  
CAT. NO. VR10**



**CRL Gasket Cutter  
CAT. NO. MC80N**



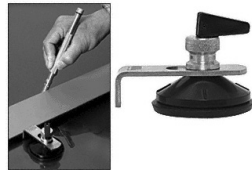
**CRL Glass Cleaner  
CAT. NO. 1973**



**CRL Lint Free Wipes  
CAT. NO. 1550**



**CRL Tape Measure  
CAT. NO. 54125**



**CRL Glazier's Rule Holder  
CAT. NO. RH670**



**CRL Phenolic L Square  
CAT. NO. L48**



**CRL PAL Digital Level Tool  
CAT. NO. 406065**



**CRL Glass Marking Pencil  
CAT. NO. GM44**



**CRL Belt Sander  
CAT. NO. LD321**



**CRL Glass Grinding Belts  
CAT. NO. CRL3X21120X**



**CRL All Terrain Dolly  
CAT. NO. ATD1**



**CRL Hard Hat  
CAT. NO. ES3452**



**CRL Portable Ladder  
CAT. NO. 6206**



**CRL Cordless Screwdriver  
CAT. NO. LD823**



**CRL 18V Cordless Driver/Drill  
CAT. NO. LD147**