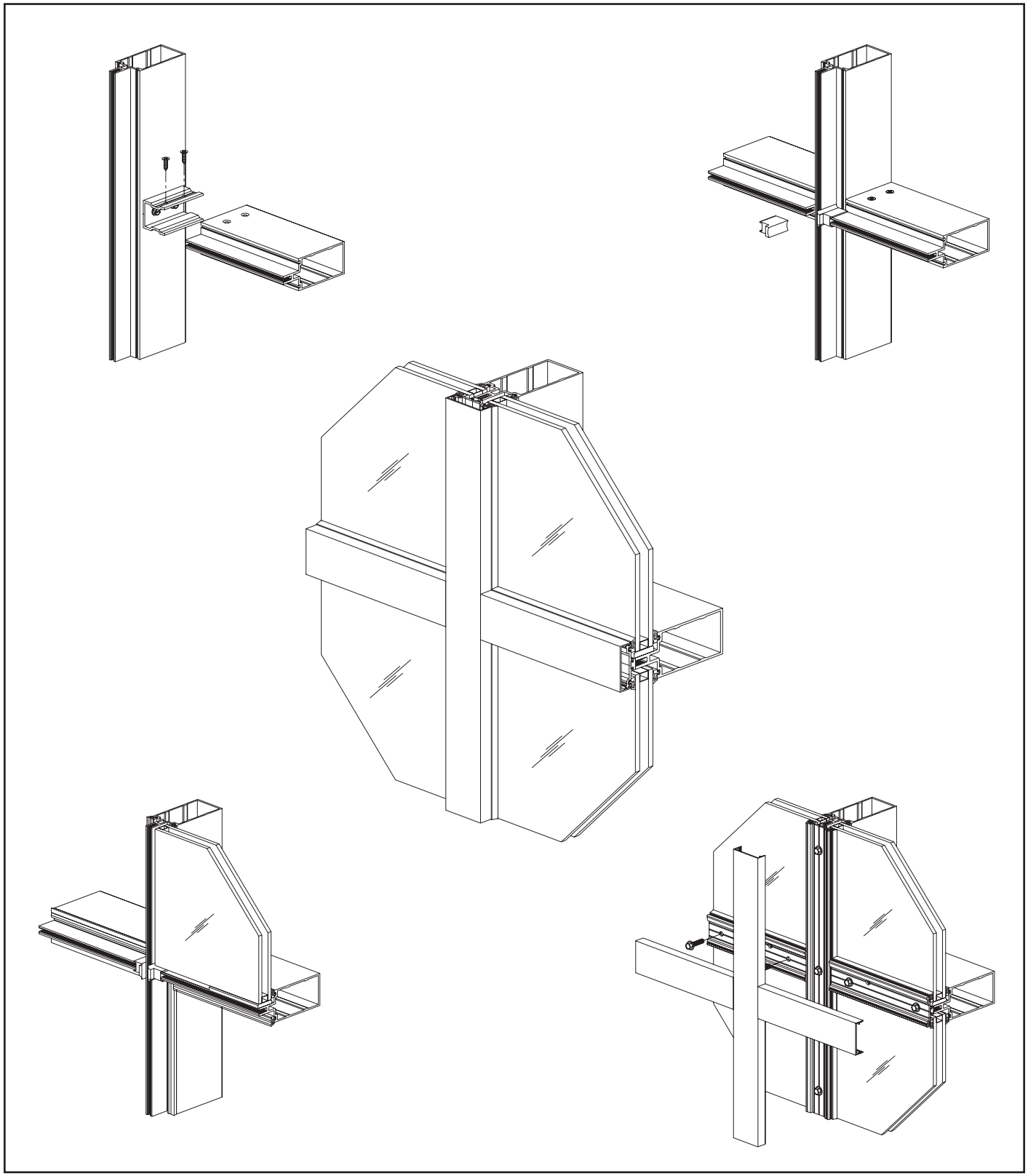
YCW 752 Outside Glazed Curtain Wall System



Installation Manual

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Installation Notes

1. Do not drop, roll or drag boxes of aluminum framing. Move and stack boxes with proper support to prevent distortion. If fork lifts are used be especially careful about striking the boxes when lifting or moving.

2. Store in a dry, out of the way area. If rain exposure, condensation or any water contact is likely, then all packaging material should be removed. Wet packaging materials will discolor and may stain aluminum finishes and paints.

3. All materials should be checked for quality and quantity upon receipt, YKK AP must be notified immediately of any discrepancies in shipment. Check to make sure that you have the required shims, sealants, supplies and tools necessary for the installation.

4. Carefully check the openings and surrounding conditions that will receive your material. Remember, if the construction is not per the construction documents, it is your responsibility to notify the general contractor in writing. Any discrepancies must be brought to the general contractor's attention before you proceed with the installation.

5. Gather your shop drawings, materials, packing list, and this installation manual. Carefully review parts location, the sequence it goes therein, when you glaze it and how you seal it. Installation instructions are of a general nature and may not cover every condition you will encounter. The shop drawings and/or installation manuals were prepared specifically for the product.

6. Any material substitutions must be of equal or greater quality.

7. Make certain that material samples have been sent for compatibility testing for all manufacturer's sealants involved. Make certain sealants have been installed in strict accordance with the manufacturer's recommendations and specifications.

8. Remember to isolate, in an approved manner, all aluminum from uncured masonry or other incompatible materials.

9. System-to-structure fasteners are not supplied by YKK AP. Fasteners called out on shop drawings are to indicate minimum sizes for design loading.

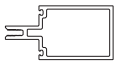
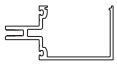
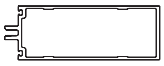
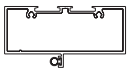
10. If any questions arise concerning YKK AP products or their installation, contact YKK AP for clarification before proceeding.

11. YKK AP storefront and/or curtain wall framing is typically completed before drywall, flooring and other products which may still be in process. Take the extra time to wrap and protect the work produced.

12. Cutting tolerances are plus zero, minus one thirty second unless otherwise noted.

13. Check our website, www.ykkap.com, for the latest installation manual update prior to commencing work.

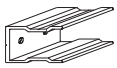
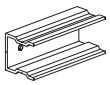
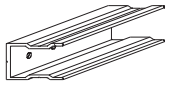
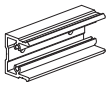
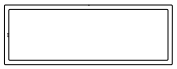
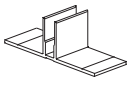
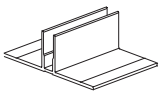
FRAMING MEMBERS

	**Mullion / Horizontal** 2” x 2-3/4” For 1” Glazing	**E9-1612**		**Glazing Adaptor** For 1/4” Glazing of 1” Glazing Pockets	**E9-1604**
	**Open Back Head/Sill** 2” x 2-3/4” For 1” Glazing	**E9-1671**		**90° Outside Corner Glazing Adaptor** For 1” Glazing	**E9-1639**
	Flush Filler For E9-1671	**E9-1672**		**90° Outside Corner Pressure Plate** For 1” Glazing	**AS-1640**
	**Mullion / Horizontal** 2” x 5-1/4” For 1” Glazing	**E9-1613**		**90° Outside Corner Face Cover** For 1” Glazing	**E9-1641**
	**Open Back Head/Sill** 2” x 5-1/4” For 1” Glazing	**E9-1670**		**90° Outside Corner Interior Cover Base**	**E9-1618**
	Flush Filler For E9-1670	**E3-3162**		**90° Outside Corner Interior Cover**	**E9-1657**
	**Mullion / Horizontal** 2” x 5-1/4” For 1/4” Glazing	**E9-1659**		**Glazing Pocket Flush Filler**	**E9-1619**
	**Pressure Plate** E9-1601 with PVC Isolator Punched 9” o.c.	**AS-1601**		**Single Acting Transom Bar** Elastomer Weathering E2-0051 Included	**AS-0402**
	**Perimeter Pressure Plate,** For 1” Glazing With PVC Isolator Punched 9” o.c., Use with E2-0239	**AS-1667**		**Door Jamb** For 1” Glazing Use with AS-0417	**E9-3513**
	**Perimeter Pressure Plate,** For 1/4” Glazing With PVC Isolator Punched 9” o.c., Use with E2-0239	**AS-1666**		**Door Jamb** For 1/4” Glazing Use with AS-0417	**E9-3218**
	**Face Cover** 2” x 5/8”	**E9-1602**		**Snap-In Door Stop** Elastomer Weathering E2-0051 Included, Use with E9-3513 or E9-3218	**AS-0417**

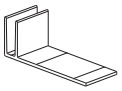
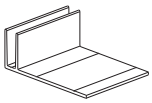
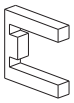
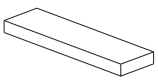
FRAMING MEMBERS

	**Perimeter Anchor** For 1” Glazing	**E9-1642**		**Perimeter Anchor** For 1/4” Glazing	**E9-1644**
	**Perimeter Channel** For 1” Glazing	**E9-1643**			

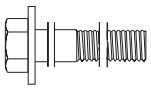
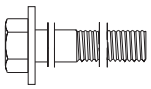
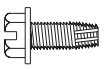
ACCESSORIES

	**Shear Block** For E9-1612 Use (2) HF-2510-W1 & (2) FC-1212	**E1-1262**		**90° Mullion Shear Block** For E9-1612 Use (2) HF-2510-W1 & (2) FC-1212	**E1-3553**
	**Shear Block** For E9-1613 & E9-1659 Use (2) HF-2510-W1 & (2) FC-1212	**E1-1250**		**90° Mullion Shear Block** For E9-1613 & E9-1659 Use (2) HF-2510-W1 & (2) FC-1212	**E1-3551**
	**Optional Concealed Fastener Shear Block** For E9-1612, Use (2) HF-2510-W1 & (2) FC-1220	**E9-3537**		**Mullion Joint Sleeve** For E9-1612	**E1-3558**
	**Optional Concealed Fastener Shear Block** For E9-1613 & E9-1659, Use (2) HF-2510-W1 & (2) FC-1220	**E1-3538**		**Mullion Joint Sleeve** For E9-1613 & E9-1659	**E1-1251**
	**Shear Clip** For E9-1612 (End Anchors) Use (2) HF-2510-W1 & (2) FC-1212	**E1-3554**		**Intermediate Vertical Mullion End Anchor** For E9-1612	**E1-3556**
	**Shear Clip** For E9-1613 & E9-1659 (End Anchors), Use (2) HF-2510-W1 & (2) FC-1212	**E1-1264**		**Intermediate Vertical Mullion End Anchor** For E9-1613 & E9-1659	**E1-1295**

ACCESSORIES (Continued)

	**Jamb Mullion End Anchor** For E9-1612	**E1-3557**		**Standard Joint Plug** For 1” Glazing	**E2-0138**
	**Jamb Mullion End Anchor** For E9-1613 & E9-1659	**E1-1296**		**Joint Plug** For Slide-In Mullion 1” Glazing, Use with E2-0146 E-Slot Plug	**E2-0149**
	**Face Cover Splice Sleeve** For E9-1602	**E1-1252**		**Standard Joint Plug** For 1/4” Glazing	**E2-0285**
	**Mullion End Cap** 2” x 2-3/16” x 0.050”	**E1-1290**		**Joint Plug** For Slide-In Mullion 1/4” Glazing, Use with E2-0146 E-Slot Plug	**E2-0130**
	**Wind Load Anchor** Steel with Zinc Oxide Paint Refer to Shop Drawings for Anchor Dimensions	**E1-1204*** Project Specific		**E-Slot Plug** For Slide-In Mullion 1” & 1/4” Glazing	**E2-0146**
	**Dead Load Anchor** Steel with Zinc Oxide Paint Refer to Shop Drawings for Anchor Dimensions	**E1-1205*** Project Specific		**Setting Block** For 1” Glazing With Pressure Sensitive Adhesive	**E2-0134**
	**Temporary Glass Retainer**	**E1-1294**		**Side Block** For 1” Glazing With Pressure Sensitive Adhesive	**E2-0133**
	**Jamb Anchor Tap Plate** 3” x 6” x 5/16” Thk.	**E1-3536**		**Setting Block** For 1/4” Glazing With Pressure Sensitive Adhesive	**E2-0623**
	**Isolator Tape** (1/8” x 3/8”) Use with AS-1666 & AS-1667 Perimeter Pressure Plate	**E2-0239**		**Anchor Slip Pad** For Dead Load & Wind Load Anchors	**E3-0103**
	**Thermal Isolator**	**E2-0137**		**Glazing Gasket**	**E2-0120**

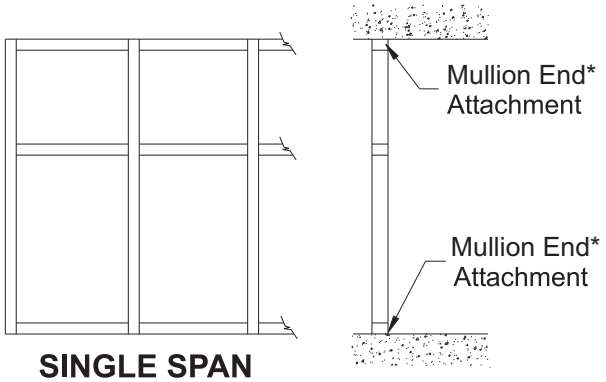
FASTENERS

	**#8 x 3/8" PHSMS** Type AB, Zinc Plated Steel For Attachment of Glazing Adaptor E9-1604	**PC-0806**		**1/4"–20 x 1" HWHMS** Type MF, Zinc Plated Steel For Attachment Corner Adaptor to Mullion	**HM-2516 -W3**
	**#8 x 1/2" FHSMS** Type AB, Zinc Plated Steel Undercut For Attachment of Face Cover Splice Sleeve	**FC-0808**		**1/4"–20 x 1" HWHMS** Type CA, Stainless Steel For Attachment of Pressure Plate to Mullion	**HD-2516 -W3-SS**
	**#12 x 3/4" FHSMS** Type AB, Zinc Plated Steel For Attachment of Horizontal to Shear Block/Clip	**FC-1212**		**1/2"–13 x 2" HWHMS** Zinc Plated Steel, For Attachment of Windload/ Deadload Anchor at Jamb	**HM-5032**
	**#12 x 1-1/4" FHSMS** Type AB, Zinc Plated Steel For Attachment of Horizontal to Concealed Shear Block	**FC-1220**		**1/2"–13 x 4-1/2" HWHMS** Zinc Plated Steel, For Attachment of Windload/ Deadload Anchor at Mullion	**HM-5072**
	**#14 x 5/8" FHSMS** Type AB, Zinc Plated Steel For Attachment of Mullion End Cap E1-1290	**FC-1410**		**1/2"-13 Nut HHMS** Zinc Plated Steel For Attachment of Mid-Anchors (Wind Load / Dead Load)	**HM-5000**
	**1/4"–20 x 5/8" HWHS** Type F, Zinc Plated Steel For Attachment of Shear Block/Clip to Vertical	**HF-2510 -W1**		**1/2" Flat Washer** Zinc Plated Steel, For Attachment of Mid-Anchors (Wind Load / Dead Load)	**WW-5000**
	**1/4"–20 x 1" HWHS** Type F, Zinc Plated Steel For Shear Block/Clip Attachment w/ Steel Reinf.	**HF-2516 -W1**		**1/2" Lock Washer** Zinc Plated Steel, For Attachment of Mid-Anchors (Wind Load / Dead Load)	**WS-5000**

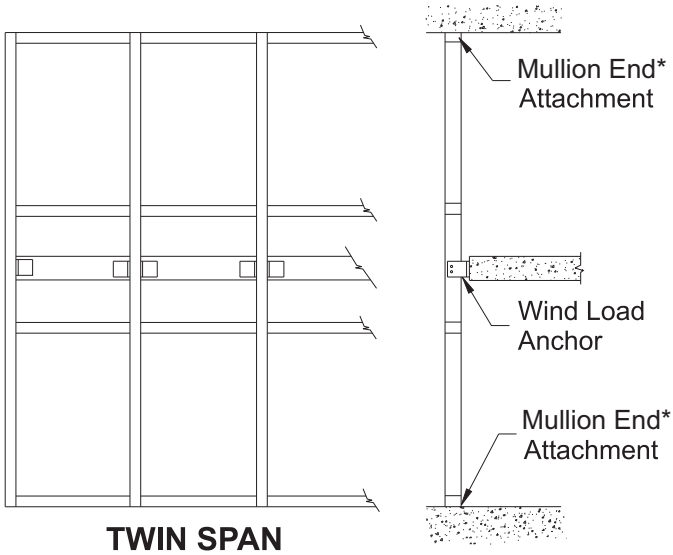
FRAME FABRICATION

FRAME TYPES / ANCHORING METHODS

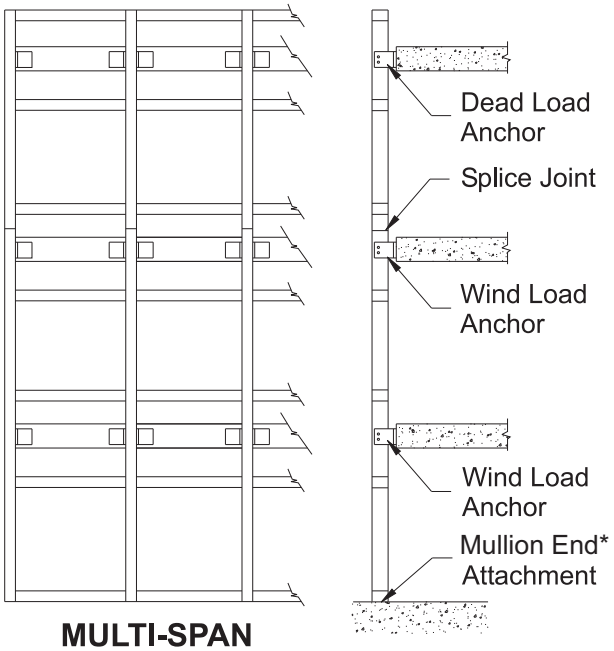
The following is a guideline for common types of frames. Refer to shop drawings for exact layout of frames.



SINGLE SPAN



TWIN SPAN



MULTI-SPAN

Smaller units may be assembled on the ground and tipped in place. Larger units require being stick assembled in place.

Note: If YKK does not prepare the shop drawings for the project, a qualified engineer must approve all anchors, their arrangement, and mullion selection.

All anchors must be attached to structurally sound material that will accommodate the anchor reactions.

* Mullion end attachment will be continuous perimeter anchor or mullion end anchor.

Fabrication of YCW 752 varies depending on the type of mullion end attachment required for a given project:

Perimeter Anchors are for low load anchoring conditions (maximum 500lb. end load reaction): E9-1642, E9-1643, & E9-1644

Mullion End Anchors "F" & "T" are for high load conditions: E1-3556, E1-3513, E1-1295, E1-3557, E1-3514, & E1-1296

FRAME FABRICATION

FRAME TYPES / ANCHORING METHODS

Using Perimeter Anchors:

-Vertical mullions must be notched as shown in **Detail 1** on **Page 7**.

Using Mullion End Anchors:

YCW 752 has two possible end anchoring conditions:
“T” and “F”.

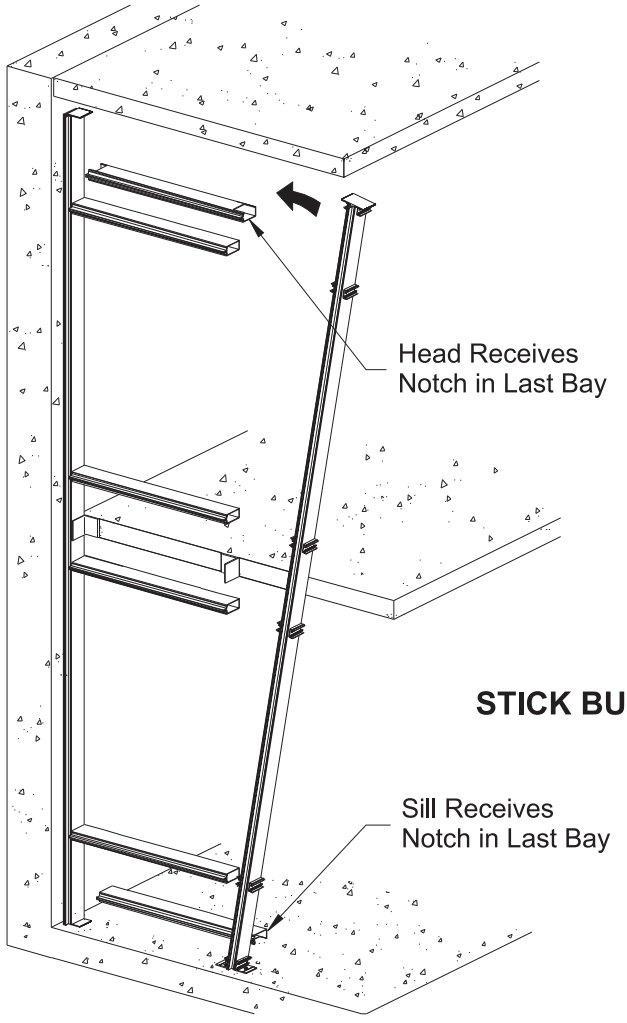
-”T” anchors are used with intermediate verticals at the head and sill.
-”F” anchors are used with jamb mullions at the head and sill.
-”Door Jamb” anchors are used with mullions at a door jamb and are specified by the approved shop drawings or P.E. calcs.
-Anchor usage depends on end reaction, stress, and attachment.

Mullions should be pre-assembled with shear blocks/clips, end anchors, and steel or aluminum reinforcing if necessary.

Framing Members for Stick Build:

-Head and sill members must be notched as shown in **Detail 7** on **Page 14** to clear the mullion end anchors.
-Intermediate horizontal members at end bays must be E-Slotted to clear shear blocks as shown in **Detail 8** on **Page 15.**

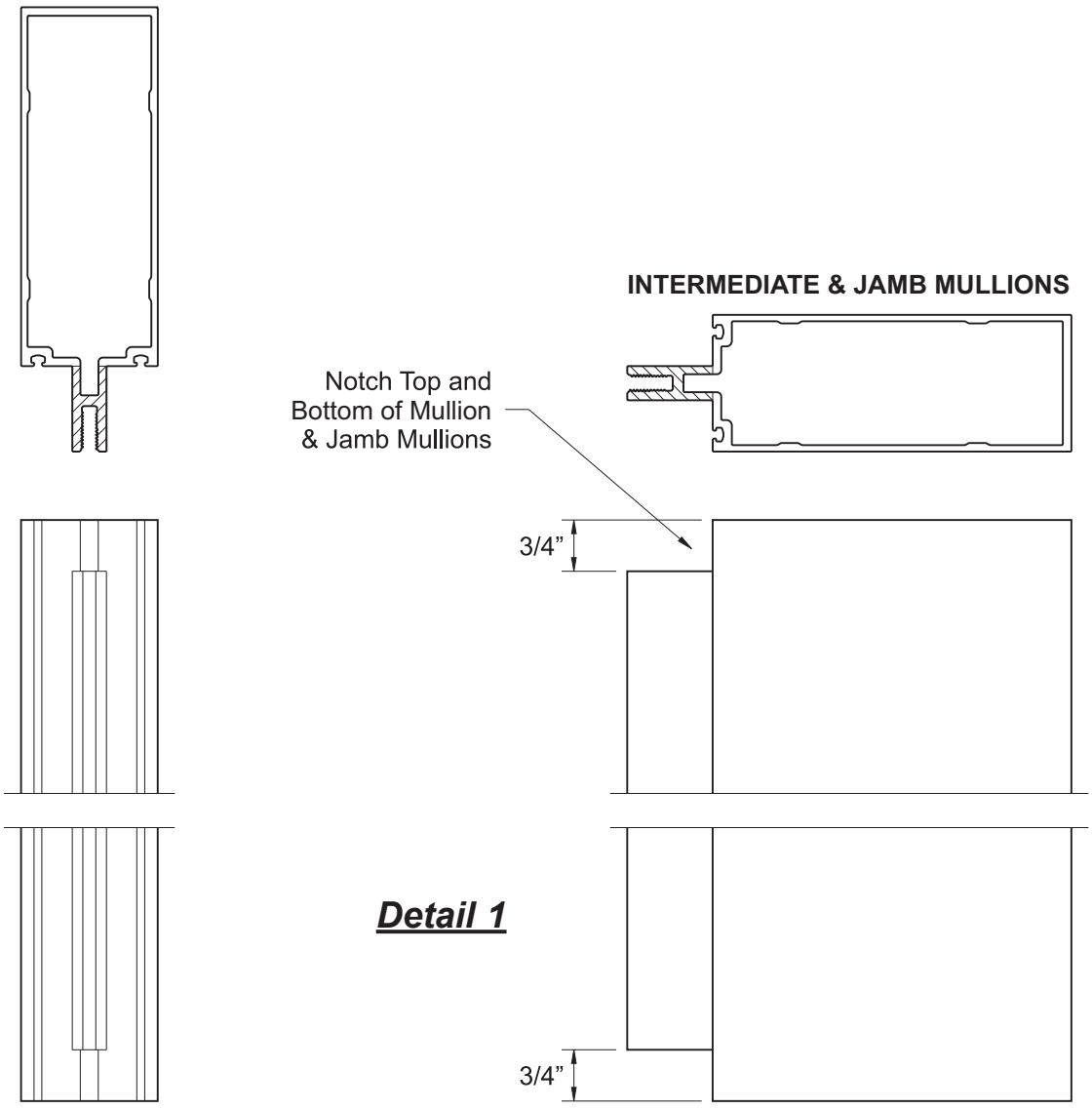
Note: When using stick build construction, check overall frame width every fifth mullion as the wall is installed to prevent the buildup of cumulative tolerance errors.



STICK BUILD

FRAME FABRICATION

FABRICATE MULLIONS



Detail 1

Step 1

-Cut all intermediate and jamb mullions to dimensions as shown on shop drawings.
Allow for 1/2” caulk joint around the frame & 1/2” joint at vertical splices.

Note: Mullions at door jambs are sealed against the substrate at the sill without a shim space at that location.

Step 2

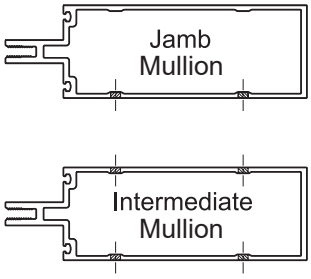
-If you are using continuous perimeter anchors, E9-1642, E9-1643, or E9-1644, the top and bottom of mullion and jamb mullions must be notched as shown in **Detail 1**.

Note: Do not notch verticals when using mullion end anchors: “T” or “F”.

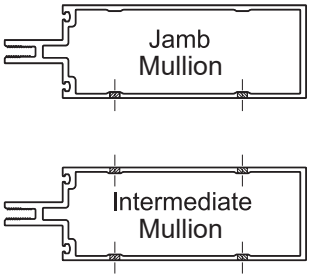
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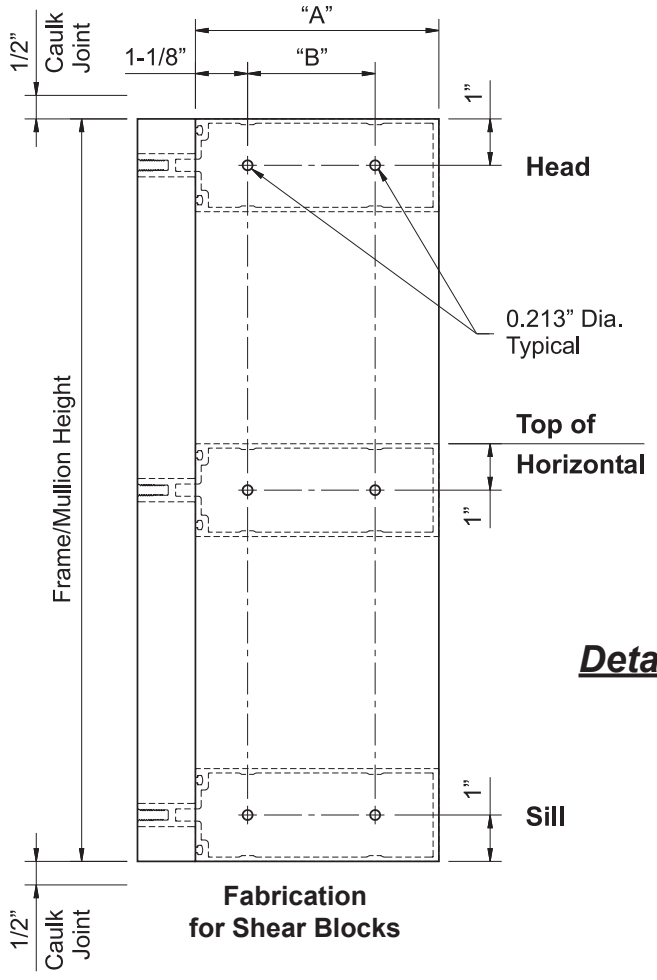
STEP 3
FABRICATE MULLIONS

-Mullion hole locations for shear blocks are shown below.
-Drill 0.213” dia. (#3 drill bit) holes for shear block/clip attachment at the locations indicated. See **Detail 2**.

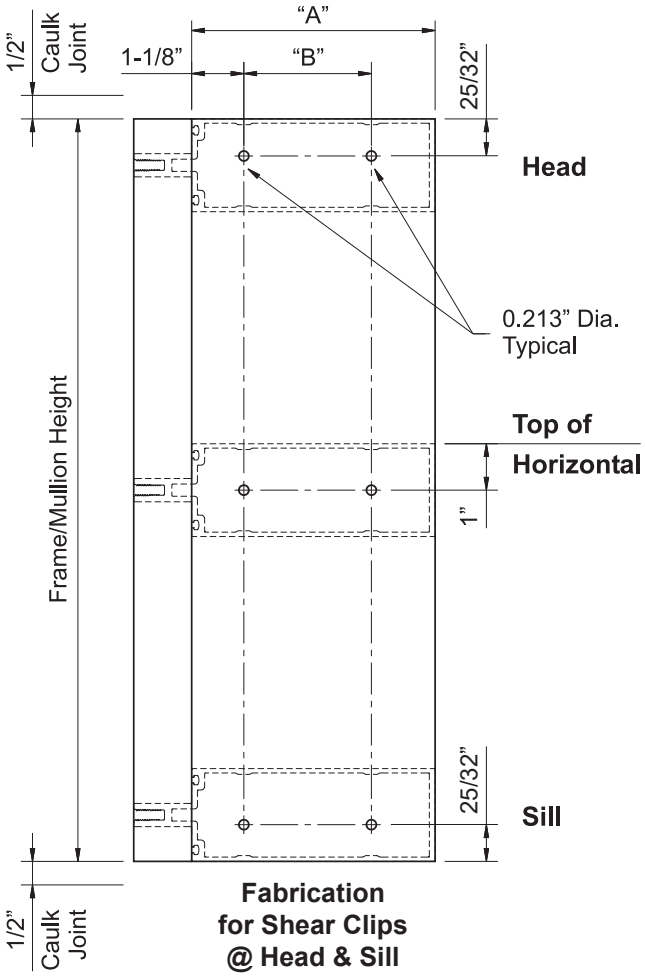


Dim “A”	Dim “B”
5-1/4”	2-3/4”
2-3/4”	1”





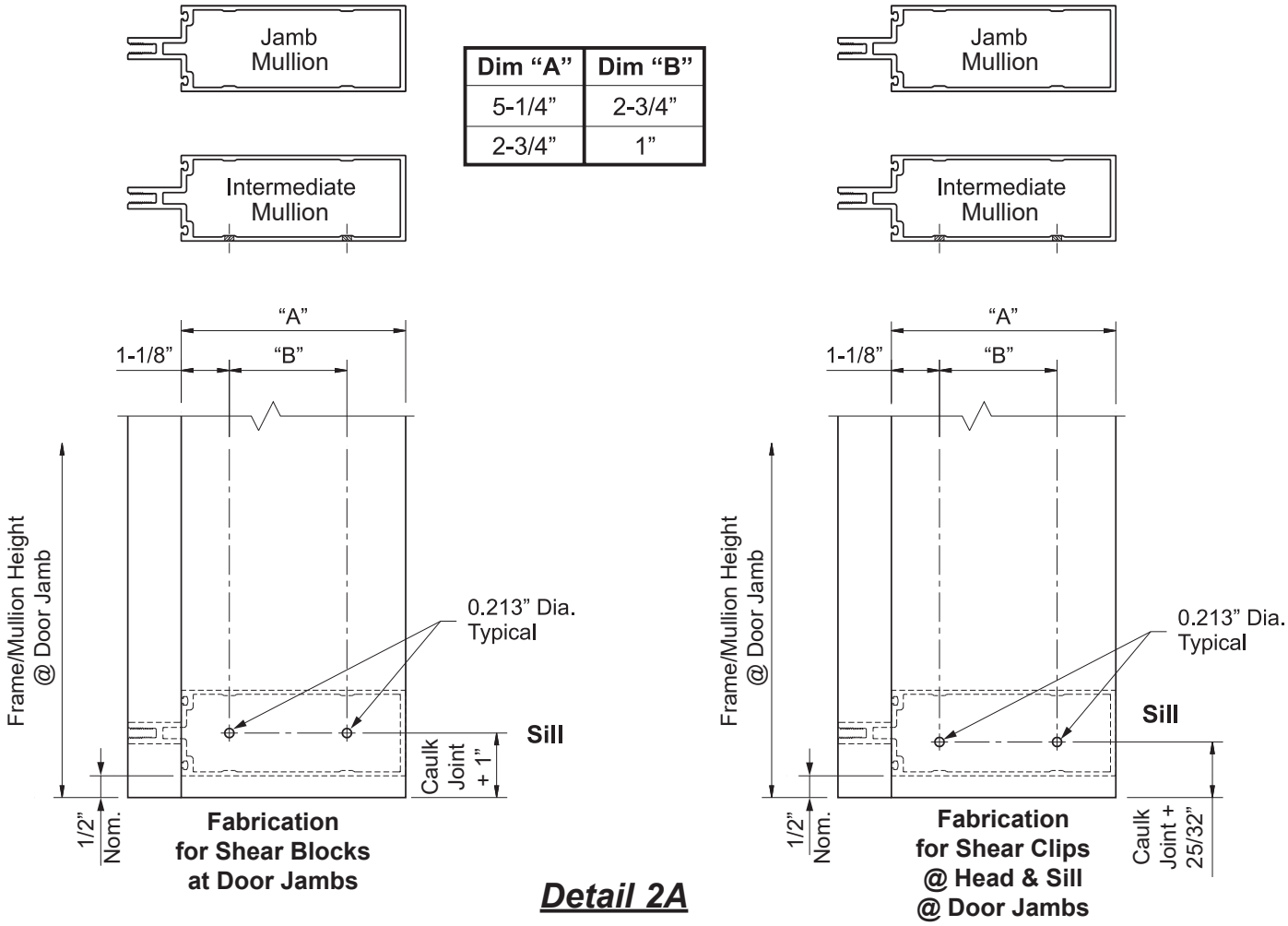
Detail 2



FRAME FABRICATION

STEP 3 (Continued)
FABRICATE MULLIONS

-Mullions used at door jambs require a different fabrication as are sealed flat against the floor. See **Detail 2A**.



Detail 2A

FRAME FABRICATION

STEP 4
USING ALTERNATE REINFORCING

If your engineering calculations require the mullions to be reinforced with either steel or aluminum, secure the reinforcing to the vertical using the appropriate fasteners.

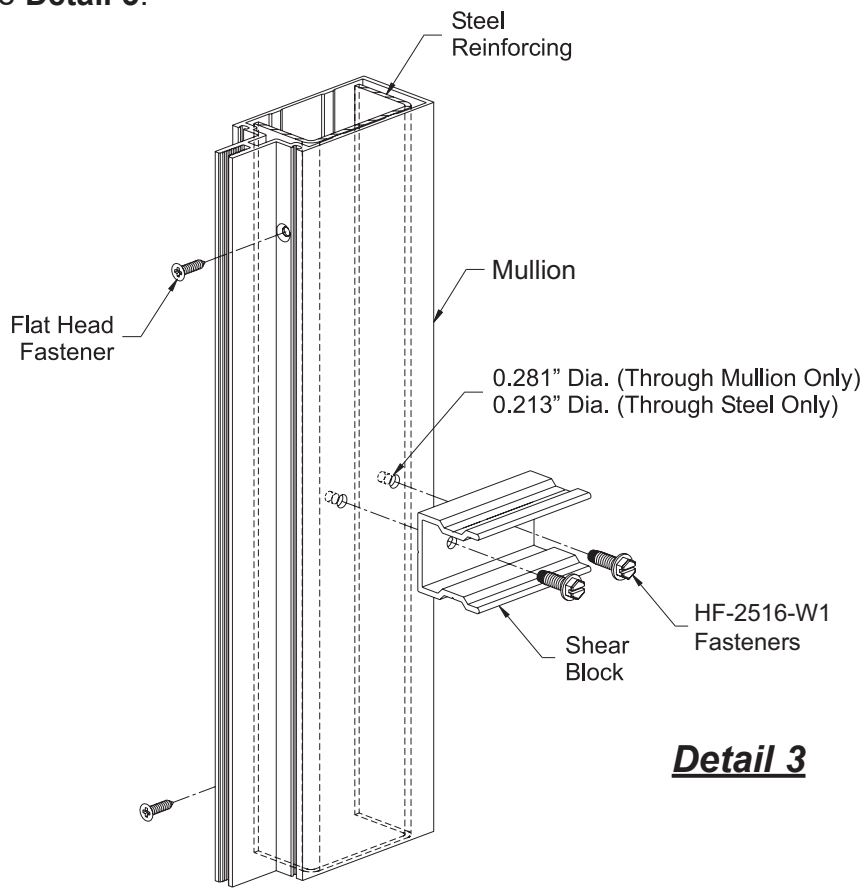
- -Start 3” from both ends of the mullion and install a fastener on both sides of the mullion tongue.
- -Stagger the fasteners on either side of the tongue going up the vertical.
- -Seal all screw heads with sealant.

Note: Exact size of reinforcing, size and location of fasteners to be determined by a qualified engineer.

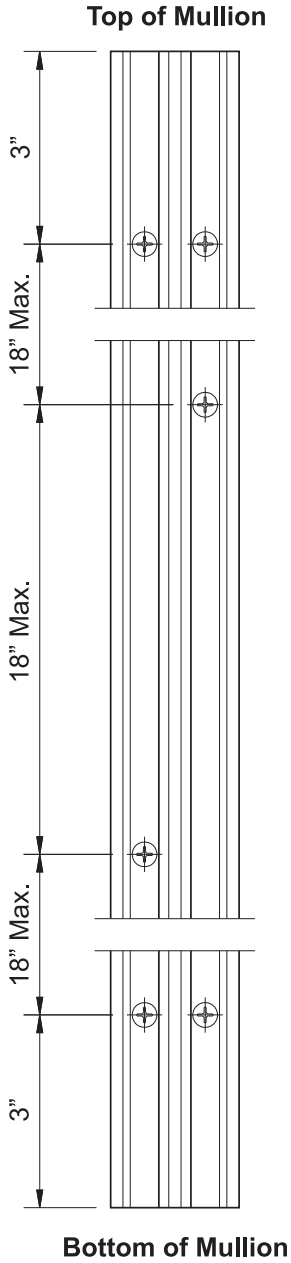
Optional reinforcing is also attached on the sides of the mullion with the attachment of shear blocks.

- -Drill 0.281” dia. (9/32 bit) clear holes in the mullion only.
- -Match drill 0.213 dia. (#3 bit) tap holes in the reinforcing only.
- -Attach the shear blocks with HF-2516 fasteners.

See **Detail 3**.



Detail 3



04-4007-18 | Effective Date: Oct 22, 2026

FRAME FABRICATION

STEP 5
ATTACH SHEAR BLOCKS/CLIPS TO HORIZONTALS

-Attach the shear blocks/clips to jambs and verticals with two HF-2510-W1 fasteners per block. Refer to the chart below for the proper part numbers to be used for the given mullions.

Note: See **Step 4** on the previous page when using alternate reinforcing.

For Frames With Perimeter Anchors:
-Head, intermediate horizontal, and sill members are attached using shear blocks.

For Frames With Mullion End Anchors:
-Intermediate horizontal members are attached using shear blocks.
-Head and sill members are attached using shear clips.

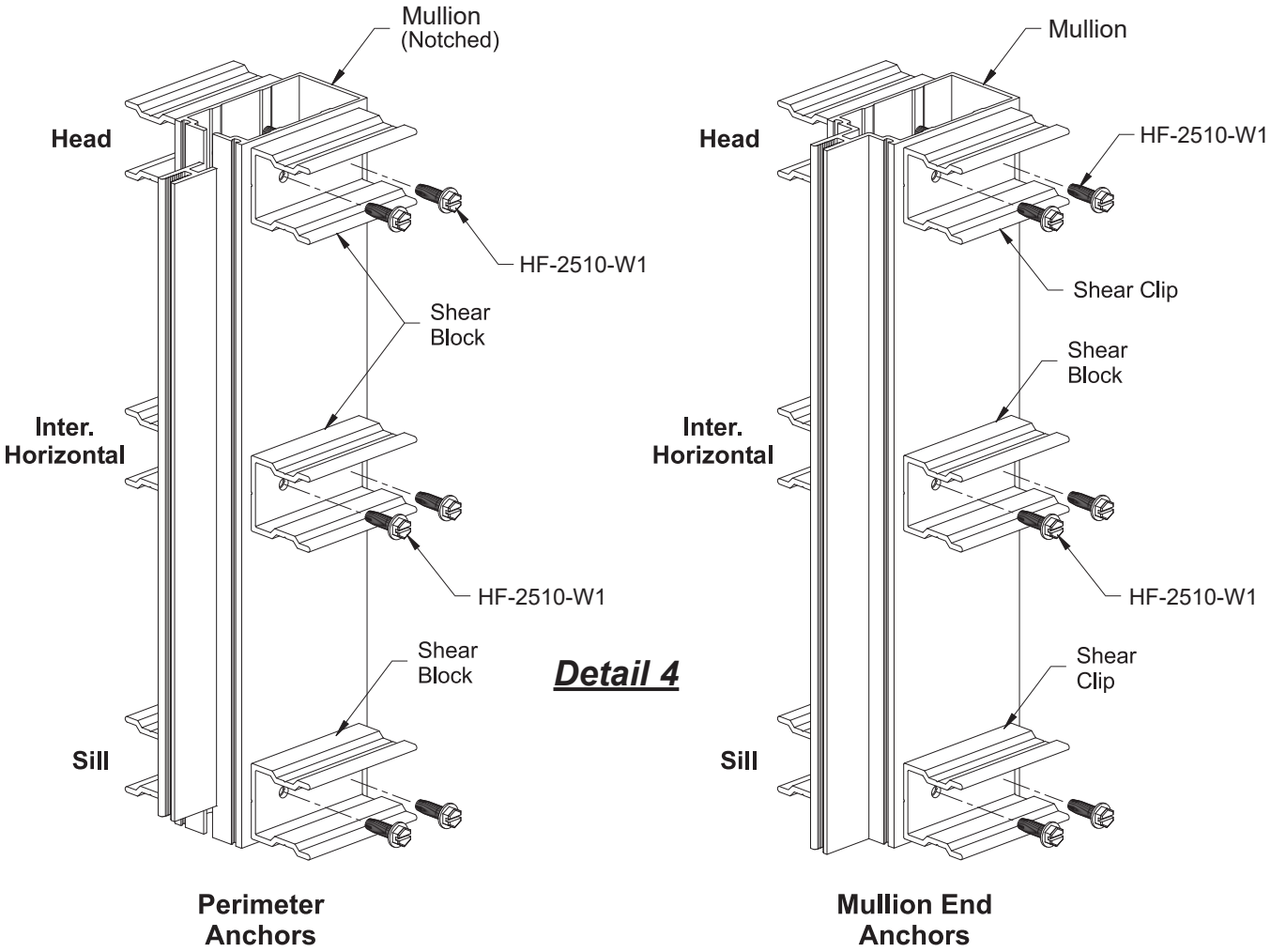
See **Detail 4** on the next page.

Note: Optional concealed fastener shear blocks can be used only at the intermediate horizontals.

Mullion	Shear Block	Shear Clip
E9-1613	E1-1250 (E1-3538 optional)	E1-1264
E9-1659	E1-1250 (E1-3538 optional)	E1-1264
E9-1612	E1-1262 (E1-3537 optional)	E1-3554

FRAME FABRICATION

STEP 5 (Continued)
ATTACH SHEAR BLOCKS/CLIPS TO HORIZONTALS

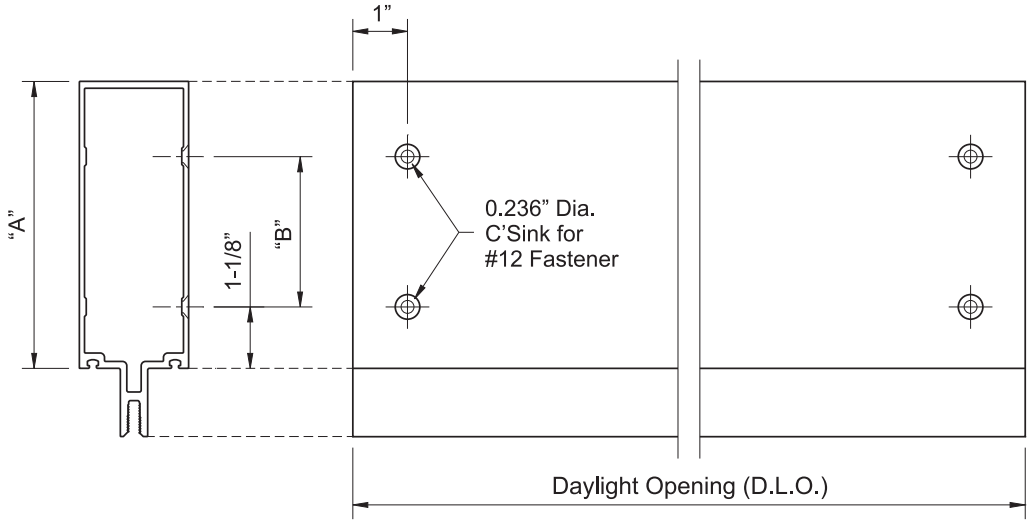


FRAME FABRICATION

STEP 6
FABRICATE HORIZONTAL MEMBERS

-Cut all horizontal members to the daylight opening as shown in shop drawings.
-Horizontal members must be fabricated as shown below to attach to shear blocks / clips.
-Layout hole locations on the top of the horizontal at both ends as shown below.
-Drill 0.236” diameter (#B bit) holes and countersink for #12 flat head fasteners.
See **Detail 5**.

Dim “A”	Dim “B”
5-1/4”	2-3/4”
2-3/4”	1”

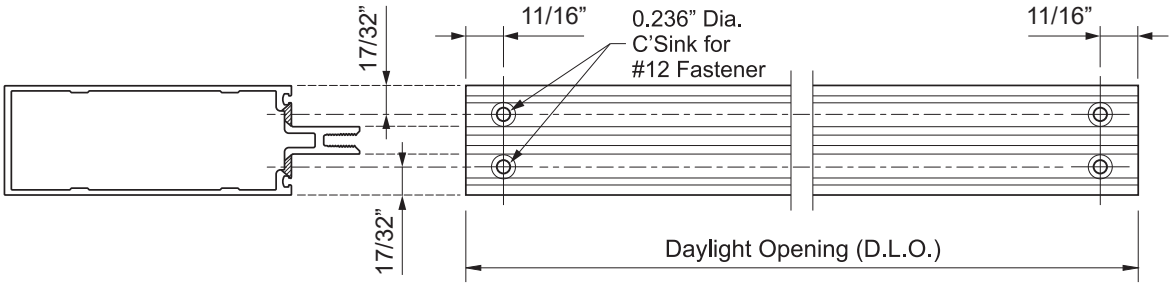


Detail 5

If Optional Concealed Fastener Shear Blocks Are Used:

-Cut all horizontal members to the daylight opening as shown in shop drawings.
-Horizontal members must be fabricated as shown below to attach to shear blocks.
-Layout hole locations on the face of the horizontal at both ends as shown below.
-Drill 0.236” diameter (#B bit) holes and countersink for #12 flat head fasteners.

See **Detail 6**.



Detail 6

FRAME FABRICATION

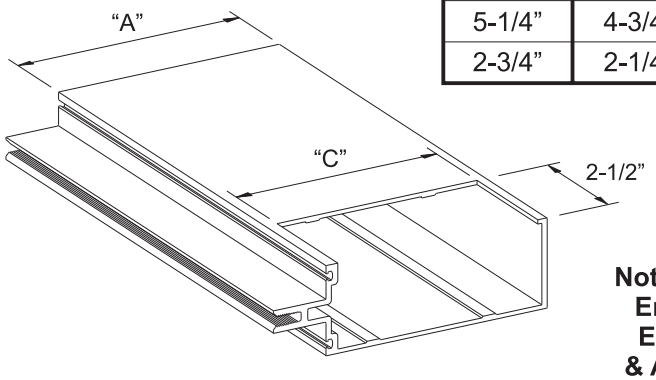
STEP 6 (Continued)
FABRICATE HORIZONTAL MEMBERS

If Mullion End Anchors Are Used
Tubular Head and Sill Members Require Additional Fabrication:

-Head and sill members must be notched out at each end to clear mullion end anchors and anchor bolts.

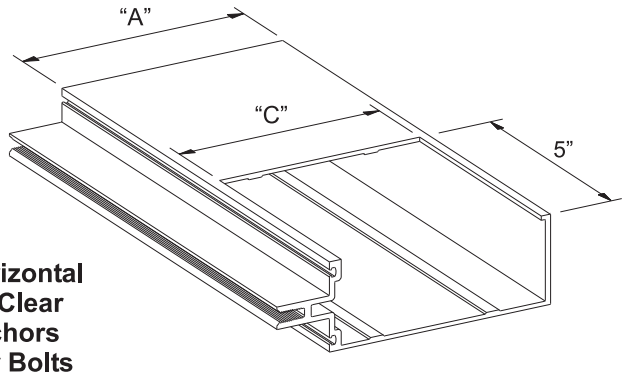
-See **Detail 7** below for notch dimensions.

Dim "A"	Dim "C"
5-1/4"	4-3/4"
2-3/4"	2-1/4"



AT "T" ANCHORS

Notch Horizontal Ends to Clear End Anchors & Anchor Bolts



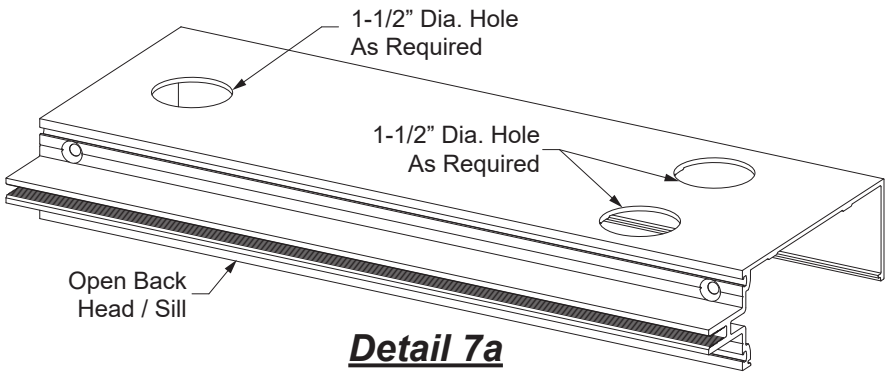
AT "F" ANCHORS

Detail 7

If Mullion End Anchors Are Used
Open Back Head and Sill Members Require Additional Fabrication:

-Open back head & sill members require holes to access anchor bolts.
-Drill 1-1/2" diameter holes at anchor locations as required by approved shop drawings or engineering calculations.

-See **Detail 7a** below for notch dimensions.



Detail 7a

FRAME FABRICATION

STEP 6 (Continued)
FABRICATE HORIZONTAL MEMBERS

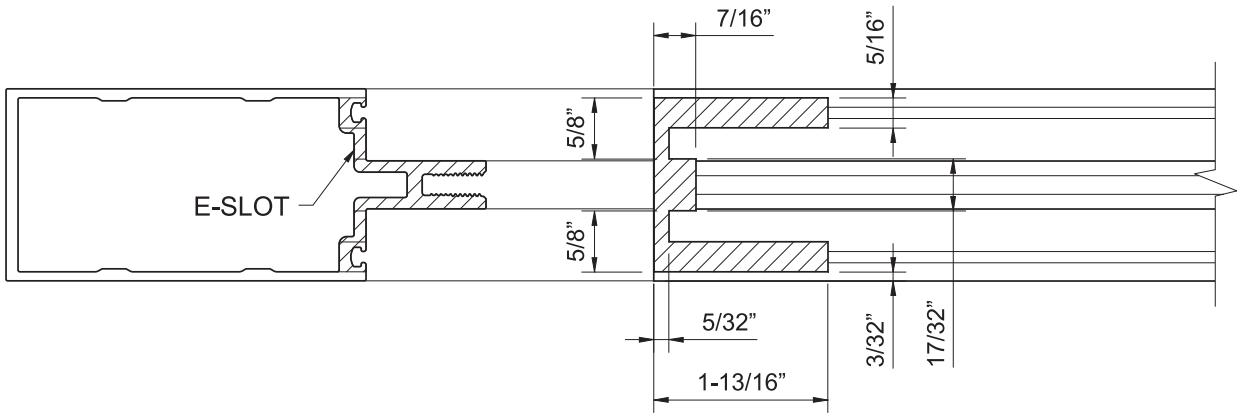
Horizontals at End Bays (E-SLOT):

When stick building the frame, horizontals at end bays must slide in from the interior. In order to clear the shear blocks on the verticals:

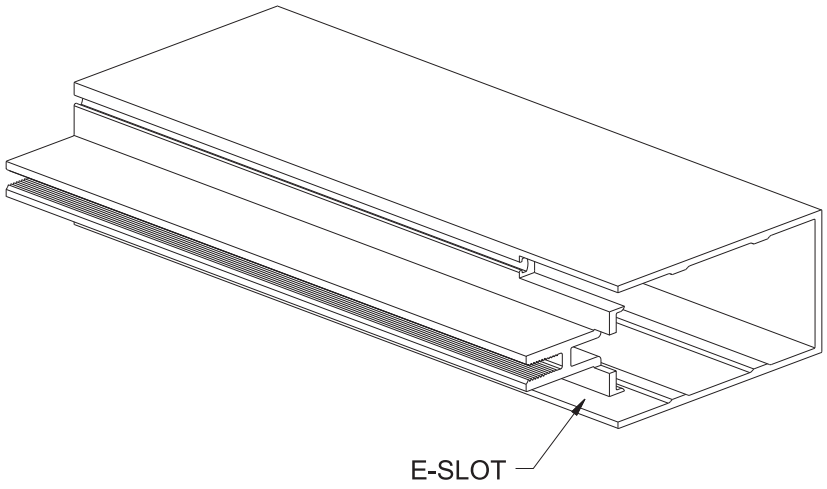
-Notch the face and tongue of the horizontal at both ends as shown below.

See **Detail 8**.

Note: Optional concealed fastener shear blocks cannot be used at E-slots.



Detail 8



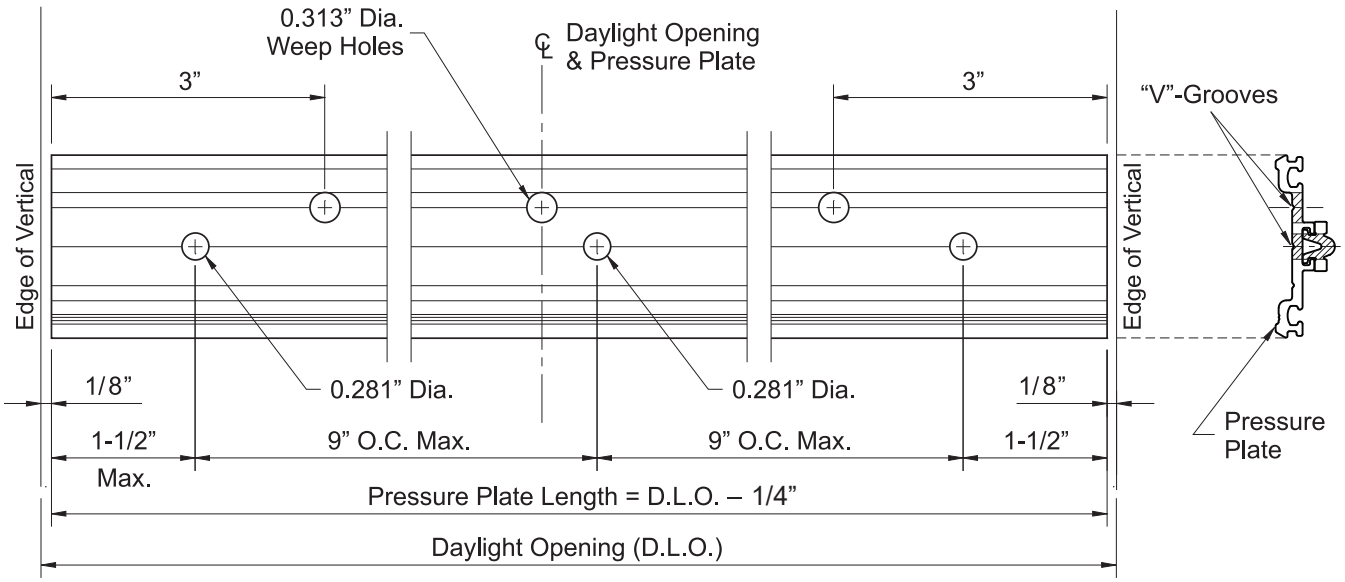
FRAME FABRICATION

STEP 7
FABRICATE PRESSURE PLATES

Horizontal Pressure Plates:

-Cut horizontal pressure plates to the daylight opening between verticals minus(–) 1/4”.
-Pressure plate stock lengths have 0.281” dia. holes factory punched every 9”.
After cutting, drill additional holes to ensure that end holes are 1-1/2” from each end.
-Drill two 0.313” (5/16”) diameter weep holes 3” from each end and one at the centerline of the pressure plate.
See **Detail 9**.

Note: If the space between the weep holes exceeds 3’, additional weep holes should be drilled to ensure that there is no more than 3’ between the weep holes.



Detail 9

Vertical Pressure Plates:

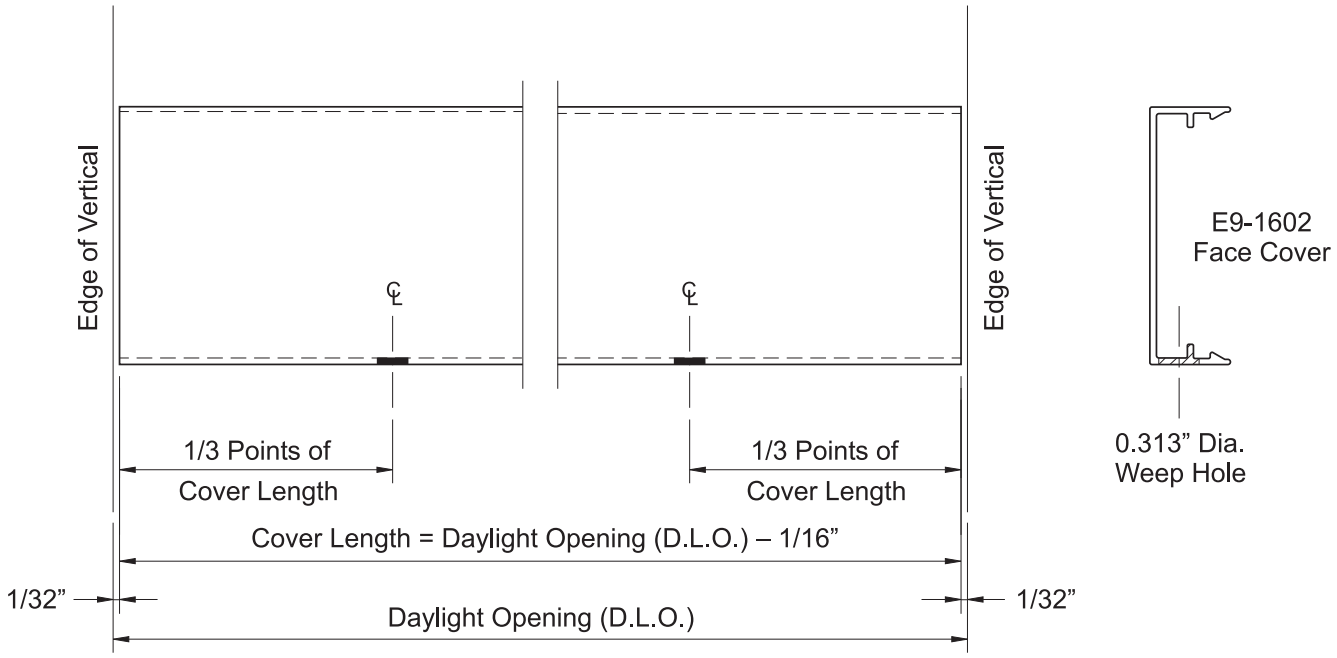
-Cut vertical and jamb pressure plates to the same length as the mullions unless verticals are spliced.
-If mullions are spliced, cut pressure plates to accommodate for 1/2” expansion joint as shown in **Step 9** on **Pages 18 & 19**.
-Drill additional attachment holes to ensure that end holes are 1-1/2” from each end.

FRAME FABRICATION

STEP 8
FABRICATE FACE COVERS

Horizontal Face Covers:

-Cut horizontal face covers to the daylight opening between verticals minus(–) 1/16”.
-Drill two 0.313” diameter weep holes at 1/3 points of cover as shown below.
See **Detail 10**.



Detail 10

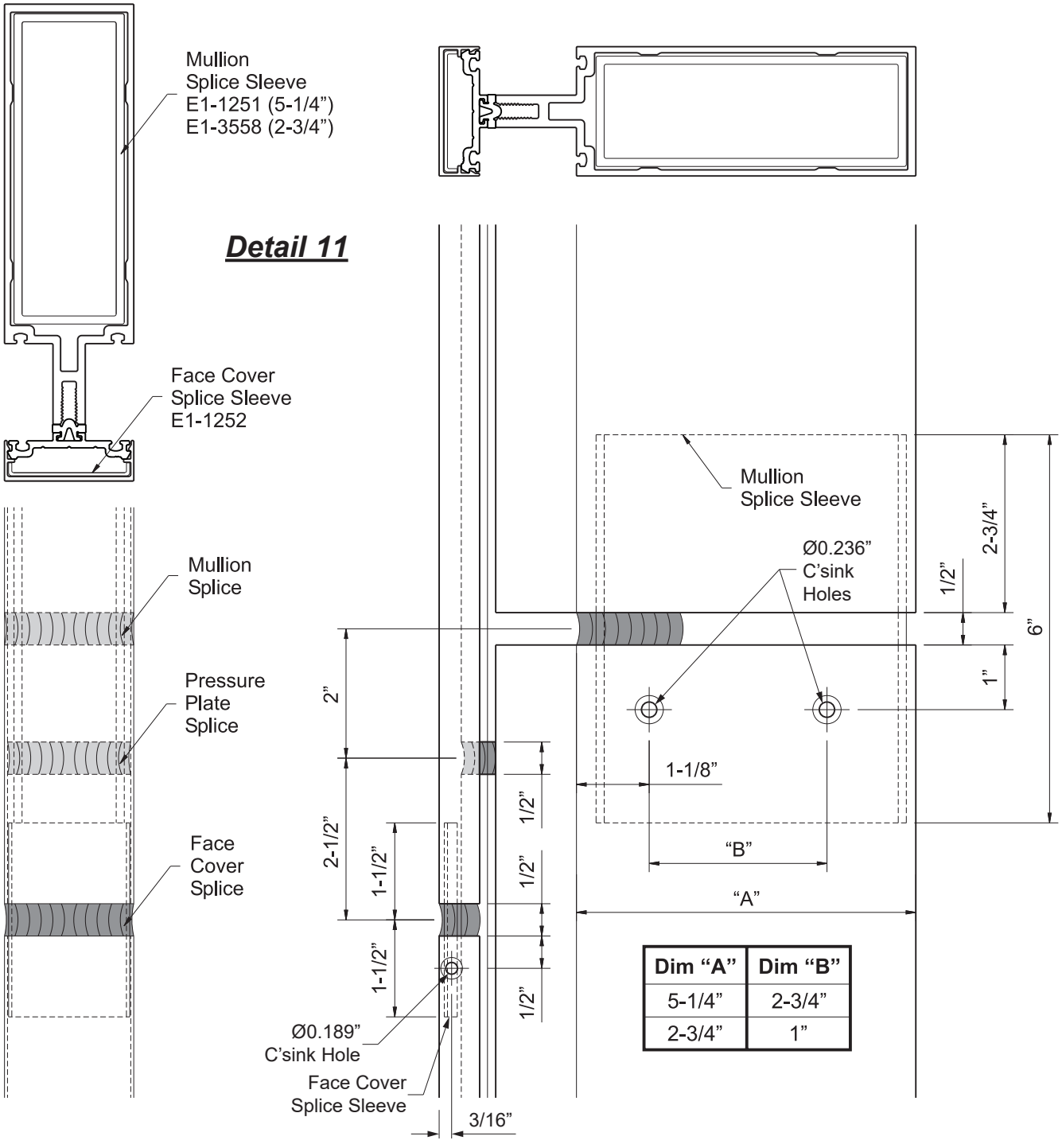
Vertical Face Covers:

-Cut vertical face covers to the same length as the mullions unless the mullions are spliced.
-If mullions are spliced, cut vertical covers to accommodate for the 1/2” expansion joint as shown in **Step 9** on **Pages 18 & 19**.

FRAME INSTALLATION

STEP 9
TYPICAL MULLION SPLICE

Stagger Mullion, Pressure Plate, & Cover Splice Joints as Shown Below In Detail 10:



Dim "A"	Dim "B"
5-1/4"	2-3/4"
2-3/4"	1"

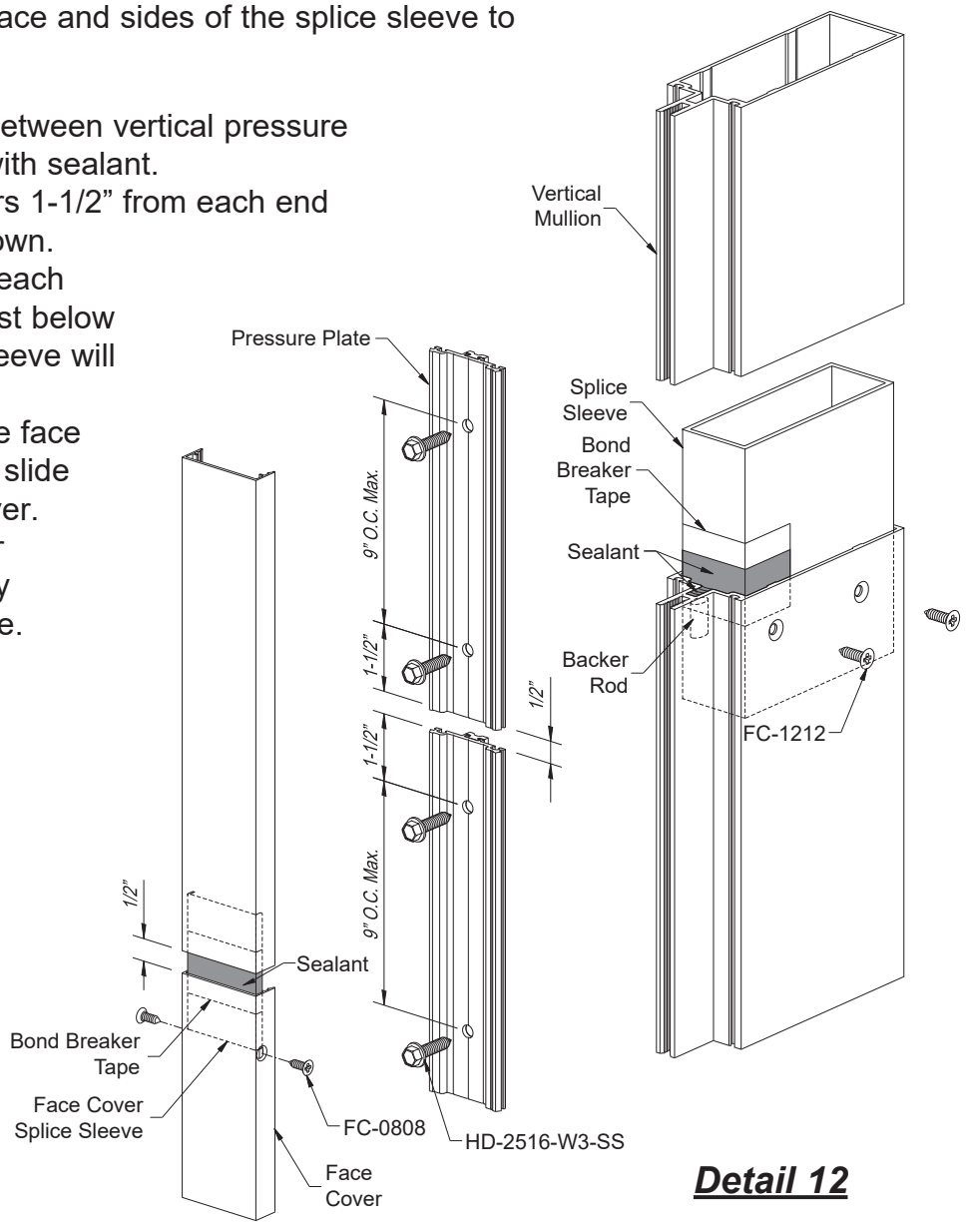
FRAME INSTALLATION

STEP 9 (Continued)
TYPICAL VERTICAL SPLICE

-Clean all surfaces as recommended by sealant manufacturer.
-Apply bond breaker tape to the face of the splice sleeve at its midpoint (3” from top or bottom).
-Lower the splice sleeve into top of lower mullion 2-3/4” and attach with two FC-1212 fasteners on both sides of the mullion as shown below in **Detail 12**.
-When using 1” glazing mullions, stuff a small piece of backer rod 1/2” down the cavity behind mullion tongue and pump in sealant to fill the cavity.
-Apply sealant to the face of splice sleeve on the upper half and carefully slide the upper mullion down onto the splice sleeve. Place a 1/2” temporary shim between the mullions to locate them.
-Secure the upper mullion to the mid anchors and remove the temporary shims.
-Apply and tool sealant to the face and sides of the splice sleeve to create a water tight joint.

-Leave a 1/2” expansion joint between vertical pressure plate splices and fill the joint with sealant.
-Locate pressure plate fasteners 1-1/2” from each end of pressure plate splice as shown.
-Install a FC-0808 fastener on each side of the lower face cover just below where the face cover splice sleeve will be positioned.
-Apply bond breaker tape to the face of the cover splice sleeve and slide it down into the lower face cover.
-Prior to snapping on the upper portion of the face cover, apply sealant to the face of the splice.
-Leave a 1/2” expansion joint between face cover splices.
See **Details 11 & 12**.

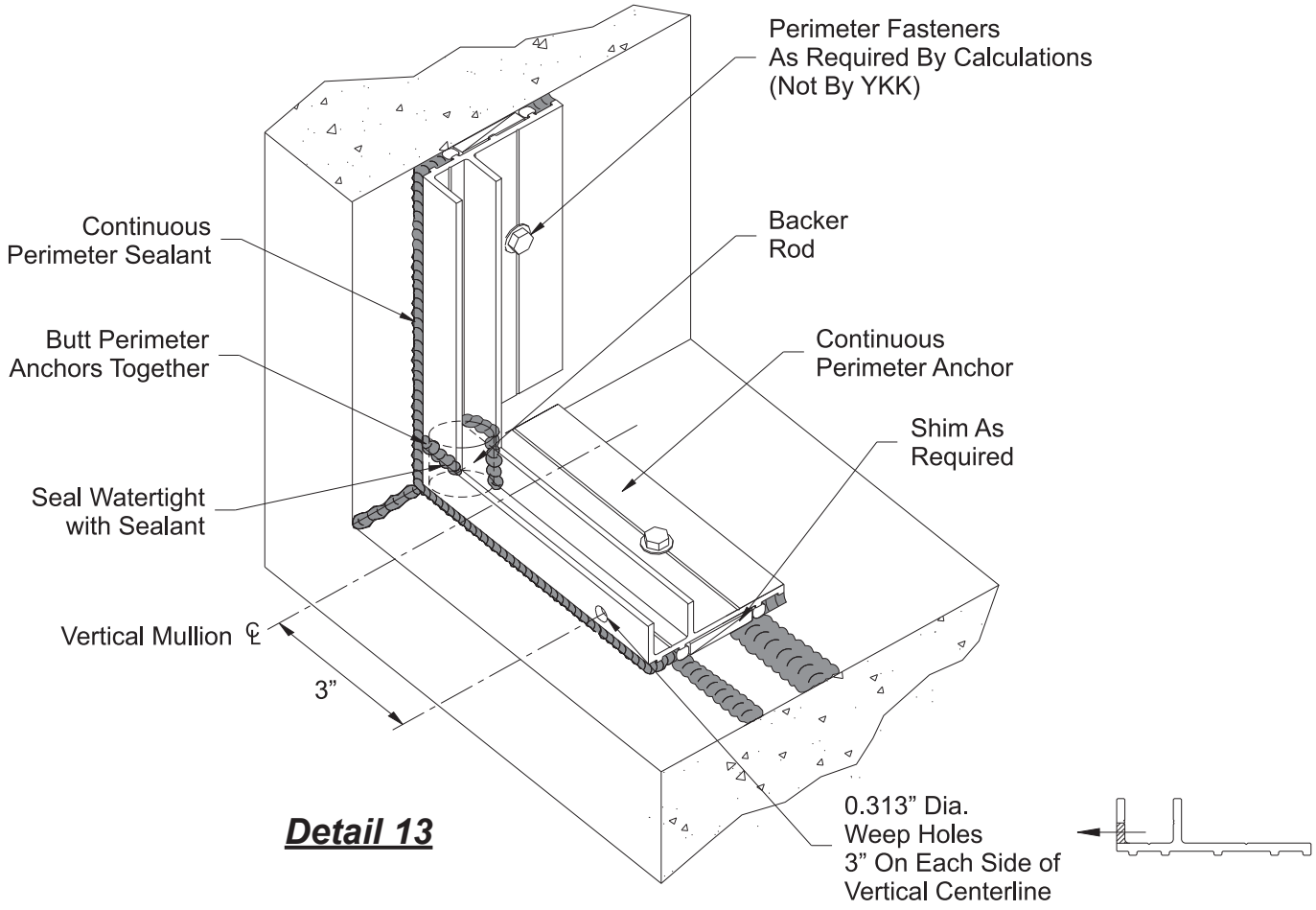
Note: Face covers, pressure plates, and mullions are staggered at splice locations.



Detail 12

FRAME INSTALLATION

STEP 10
INSTALL CONTINUOUS PERIMETER ANCHOR



Detail 13

-Cut perimeter anchors to size:
Head and sill anchors stop 1/8” short of the rough opening.
Vertical jamb anchors butt in between head and sill anchors.
-Prepare structure for anchor attachment.
-Install perimeter anchors with appropriate perimeter fasteners. Refer to shop drawings or engineering calculations for type and spacing of fasteners. Shim as required to install anchors level.
-When splicing head and sill pieces together, leave 3/8” joint for expansion and install a small piece of backer rod that has been buttered with sealant on the front, back, and bottom at the joint.
-Run continuous sealant along the perimeter between the anchors and the substrate.
-Seal corners of butted perimeter anchors watertight with sealant.
-Butter a small piece of backer rod with sealant on all sides that touch the anchors. Then push the piece of backer rod into place and tool excess sealant that comes through the cracks.
-Field drill 0.313” diameter weep holes in perimeter anchor (exterior face only) at sill 3” from the center line of the vertical on each side.
See **Detail 13**.

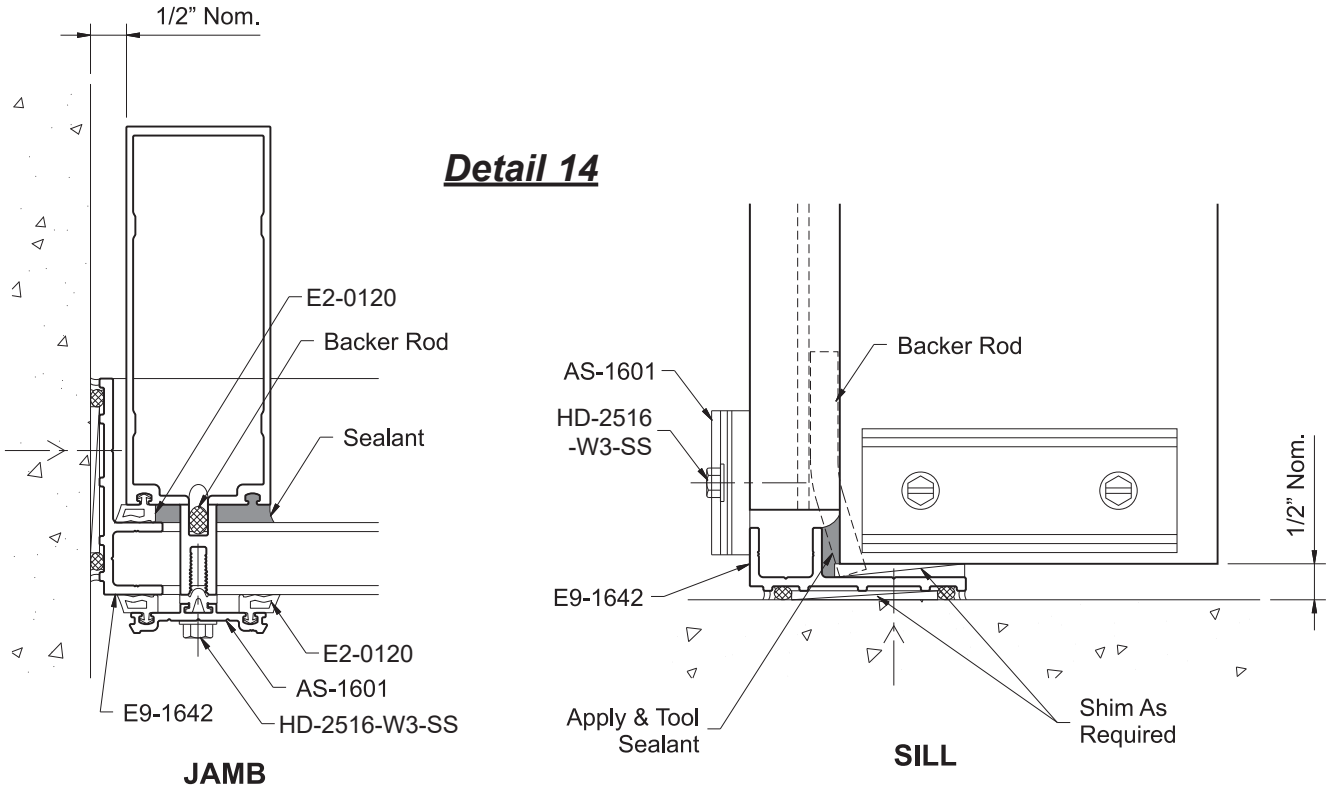
FRAME INSTALLATION

STEP 11
JAMB/VERTICAL INSTALLATION
WITH PERIMETER ANCHORS

-The notched ends of vertical mullions for 1” glazing leaves the interior of the mullion exposed and must be plugged prior to installation.
  -Install a small piece of backer rod into the notched out space directly behind the tongue at the top and bottom of the vertical mullions.
  -Push the backer rod into the opening at the face of the mullion.
  -Apply and tool sealant to seal off the opening made by the notch.

-Install interior gasket, E2-0120, to jamb mullion (jamb side only) the full length of the mullion.
-Position jamb into opening as shown in **Detail 14**.
-Seal the gap between the perimeter anchor and vertical glazing pocket(s) with sealant (one side for jambs - both sides for intermediate verticals).
-Cut 2” long pieces of pressure plate assembly, AS-1601, and exterior glazing gasket, E2-0120, to use as temporary retainers.
-Install them at the top and bottom of the mullion with HD-2516-W3-SS fasteners.
-Repeat this step for all jamb and vertical mullions.
See **Detail 14.**

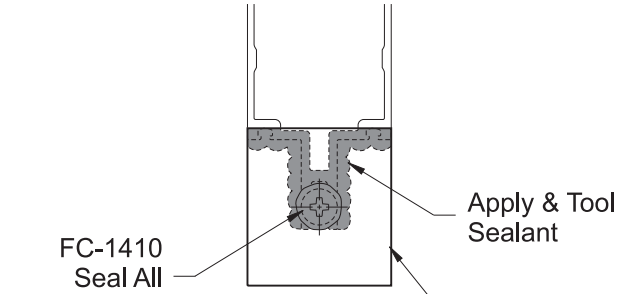
Detail 14



FRAME INSTALLATION

STEP 12
JAMB/VERTICAL INSTALLATION
WITH MULLION END ANCHORS

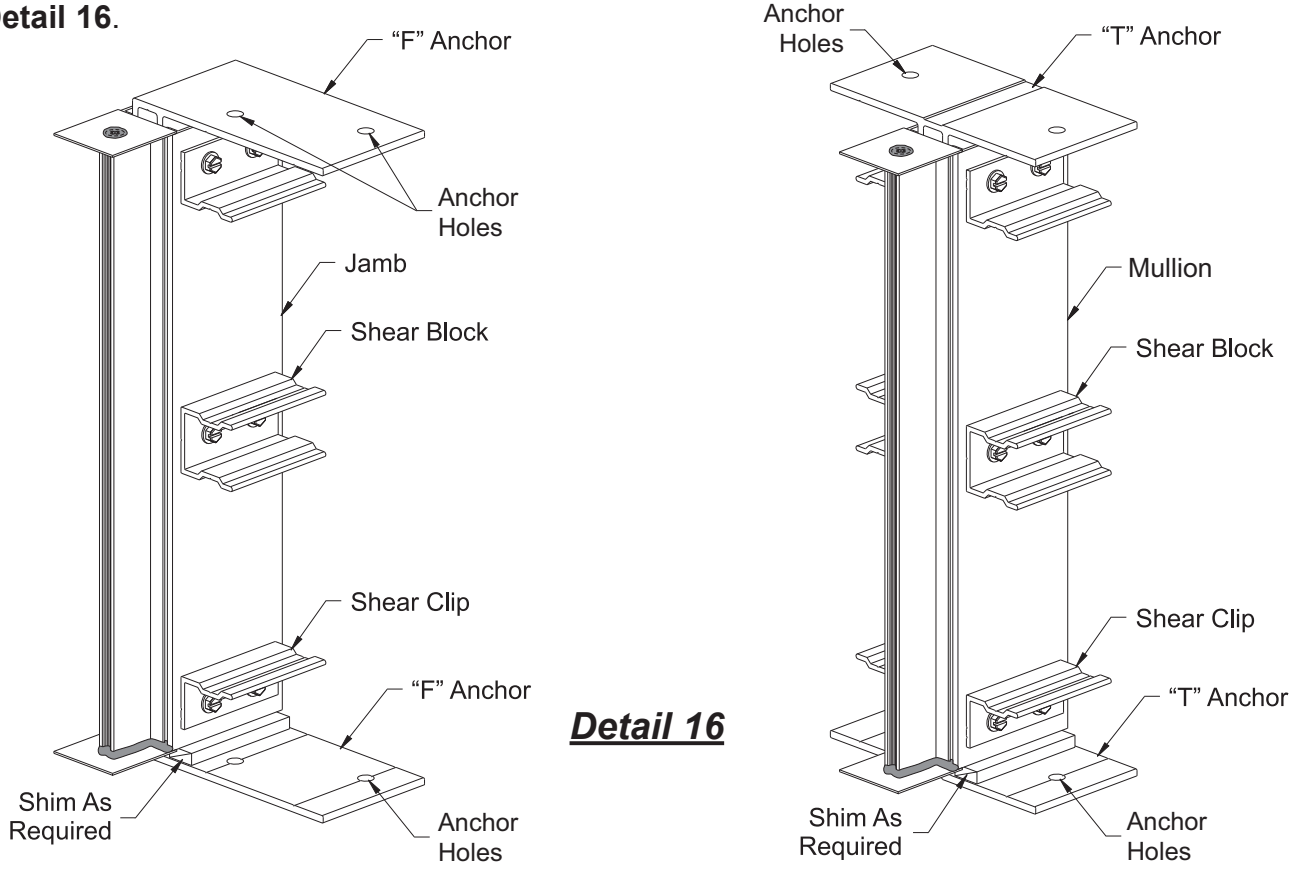
-Clean all contact surfaces as recommended by sealant manufacturer.
-Apply sealant into the screw raceway and along the front edge of the mullion at each end.
-Prior to erecting mullions, install mullion end caps, E1-1290, at the top and bottom of the mullions with FC-1410 fasteners.
-Seal all screw heads with sealant.
See **Detail 15**.



Detail 15

Note: End caps are not required at the bottom of the door jamb mullions as they run flat against the substrate.

-Insert mullion “T” and “F” anchors into the top and bottom of the mullions before erecting them into the opening.
-Erect and locate the jamb and mullions and temporarily attach them to the structure. All mullions must be installed plumb and true.
-Field drill holes in “T” and “F” anchors for the appropriate anchor fasteners according to shop drawings or engineering calculations. Consult YKK if load requirements are in question.
See **Detail 16**.



Detail 16

FRAME INSTALLATION

STEP 12A
VERTICAL INSTALLATION
AT DOOR JAMB END ANCHORS

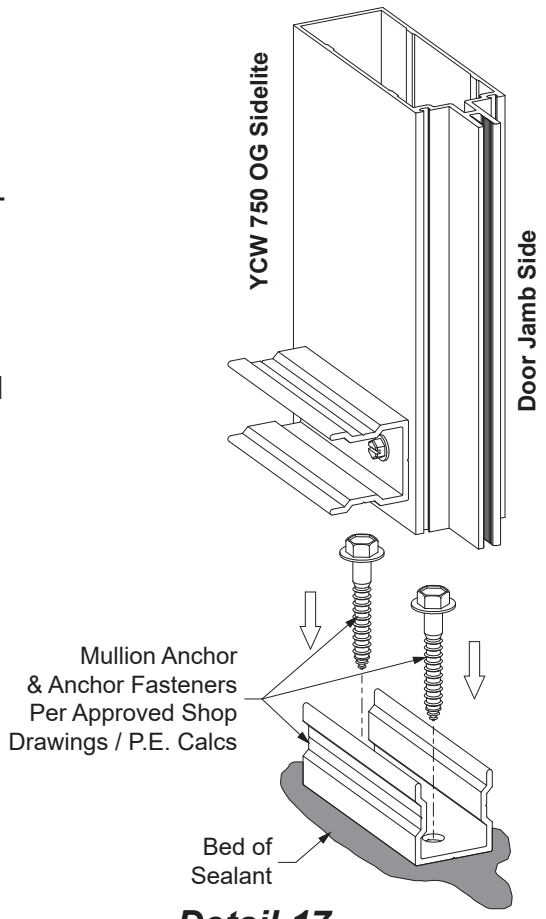
The mullions at the door jambs are set directly upon the sill substrate without any shims and are sealed against the substrate. The anchors to be used at this location are specified by the approved shop drawings and or P.E. calculations.

-Locate the mullion anchor for the door jamb and install it to the substrate according to the approved shop drawings and P.E. calculations.

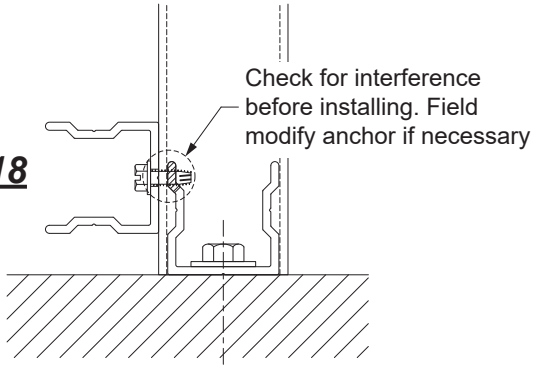
Note: if using a shear block as a mullion anchor, check to ensure the sill shear block fasteners will not cause interference. Field modify the shear block anchor as required.
See **Detail 18**.

-Clean all contact surfaces as recommended by sealant manufacturer.
-Set the mullion on the anchor, directly onto the sill substrate in a bed of sealant. Do not use shims at this location.
See **Detail 17**.

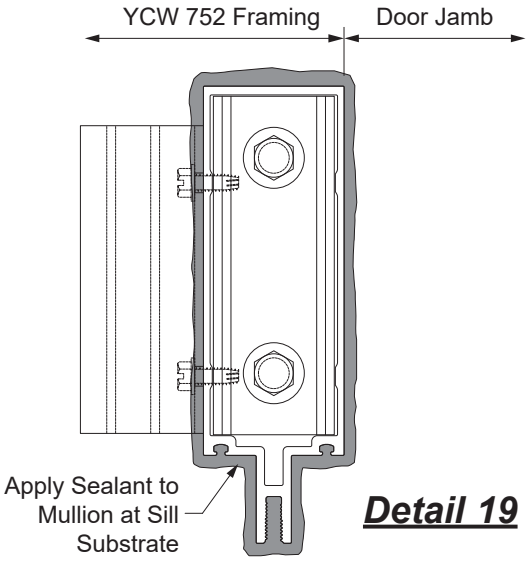
-Refer to the approved shop drawings for any additional fasteners required at anchor.
-Tool sealant at the bottom of the mullion at the sill substrate around the perimeter of the mullion.
See **Detail 19**.



Detail 17



Detail 18

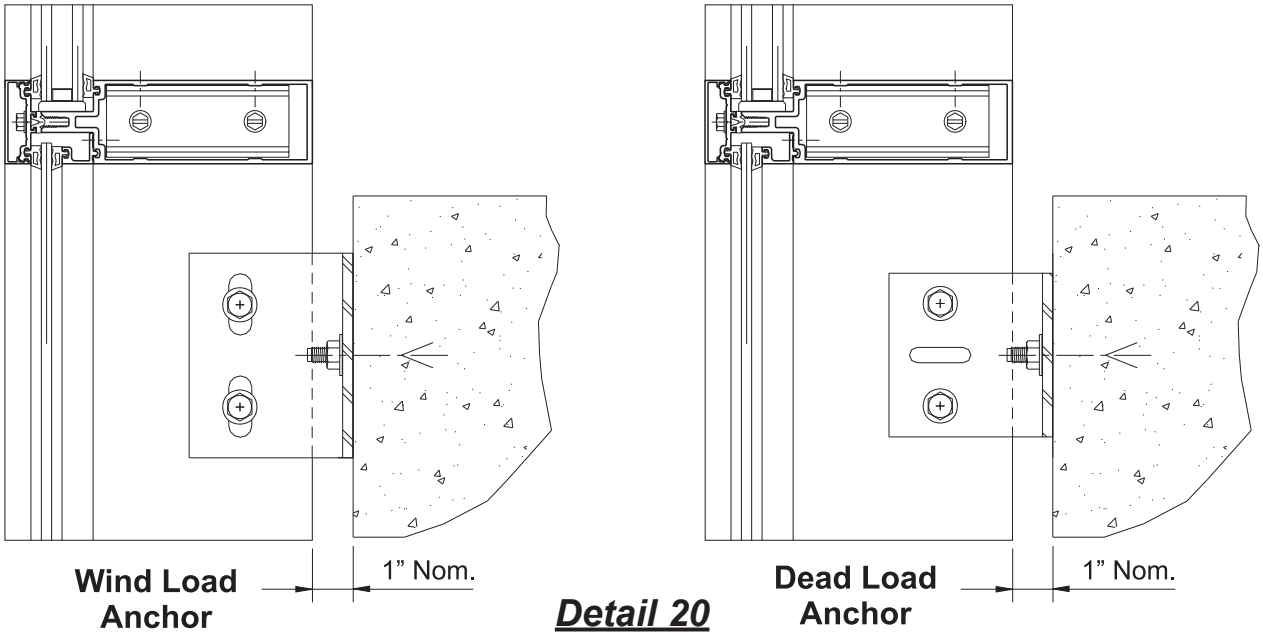


Detail 19

FRAME INSTALLATION

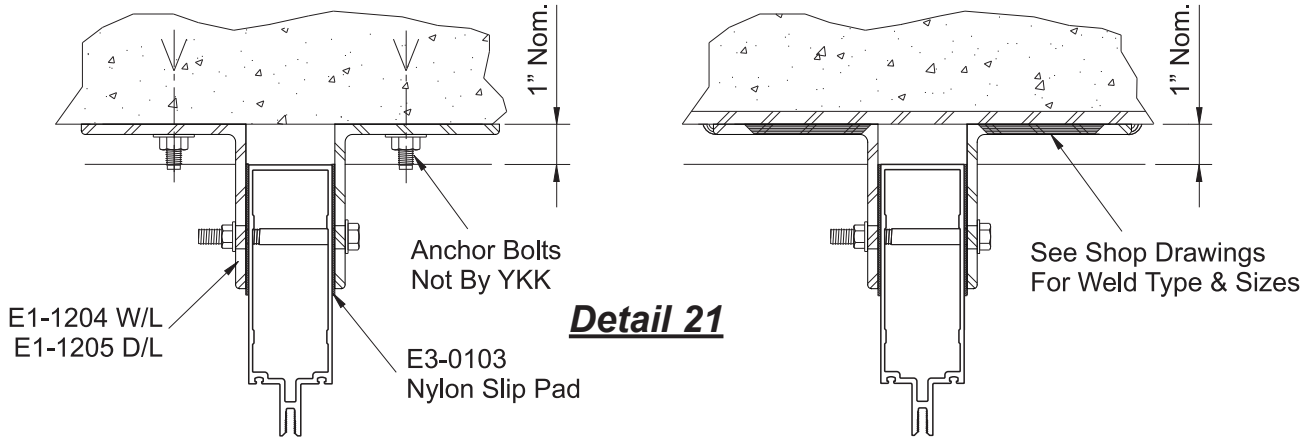
STEP 13
INSTALL WIND LOAD / DEAD LOAD ANCHORS

-Install steel wind load and dead load anchor clips. Anchor clips are normally template or line set before mullions are hung. Outstanding leg of clip must be set at 90° to offset line.
The back of the vertical mullion should set 1” from the anchoring substrate.
See **Detail 20**.



Detail 20

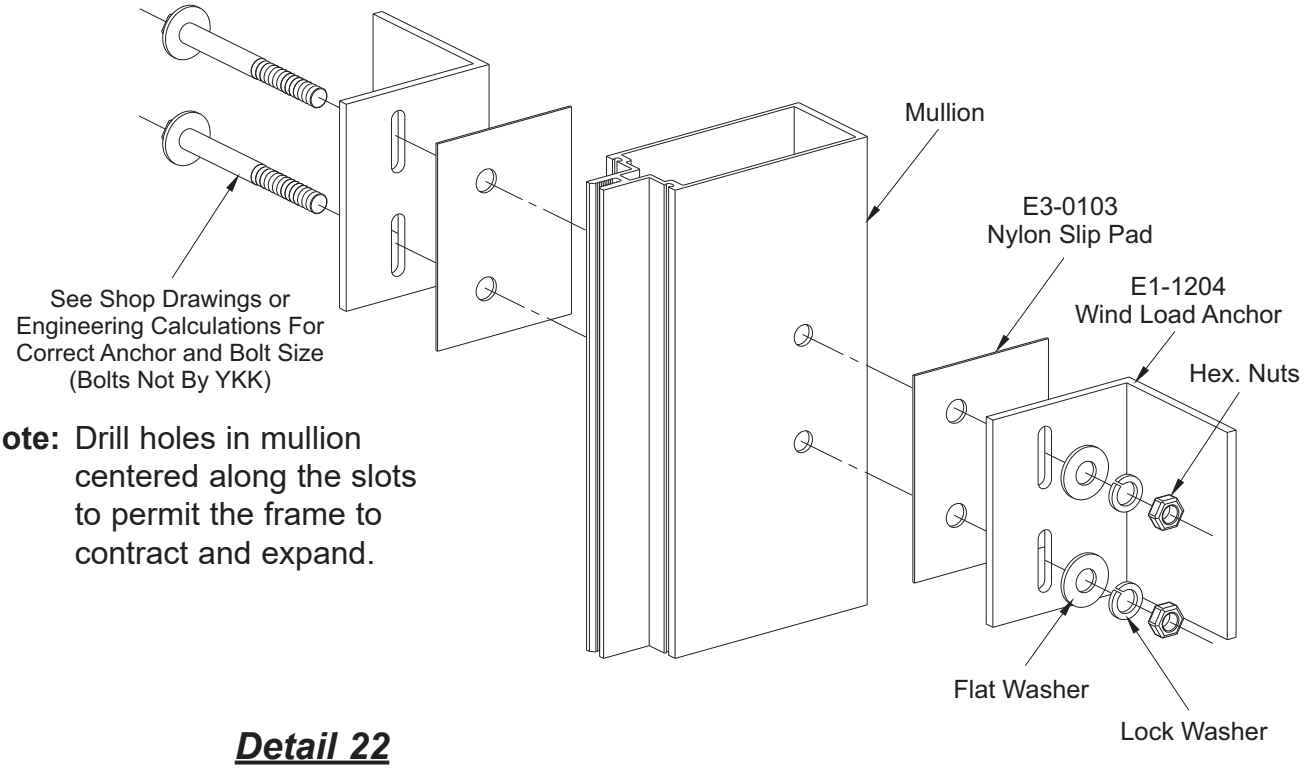
-Install, plumb, and align vertical mullions. Drill and install appropriate diameter anchor bolts. If shop drawings are not prepared by YKK AP, all anchors and bolts must be checked by a qualified engineer.
-Nylon slip pads, E3-0103, must be installed between mullion and anchor.
See **Detail 21**.



Detail 21

FRAME INSTALLATION

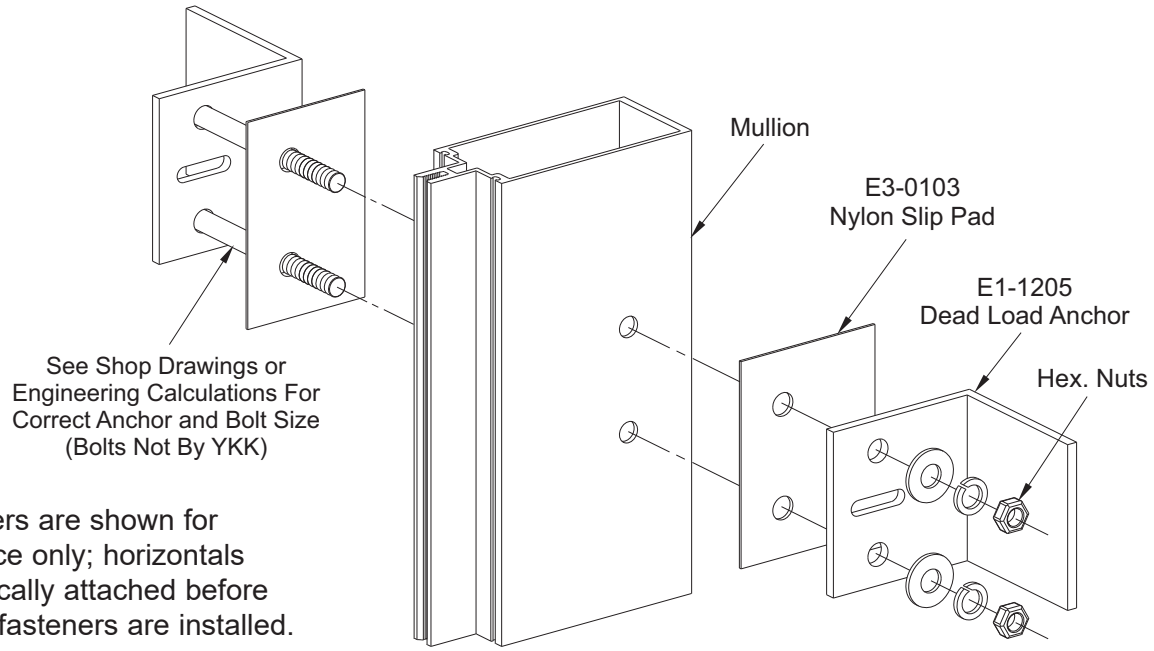
TYPICAL WIND LOAD ANCHOR



Note: Drill holes in mullion centered along the slots to permit the frame to contract and expand.

Detail 22

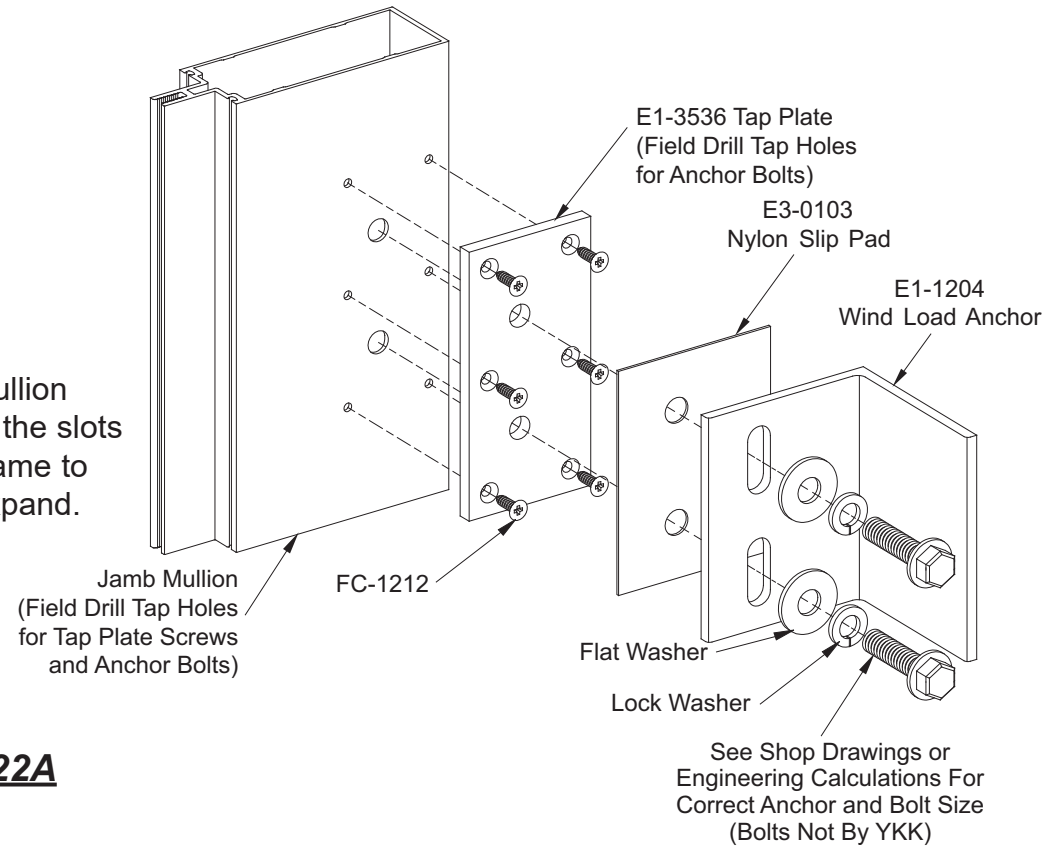
TYPICAL DEAD LOAD ANCHOR



Note: Fasteners are shown for reference only; horizontals are typically attached before anchor fasteners are installed.

FRAME INSTALLATION

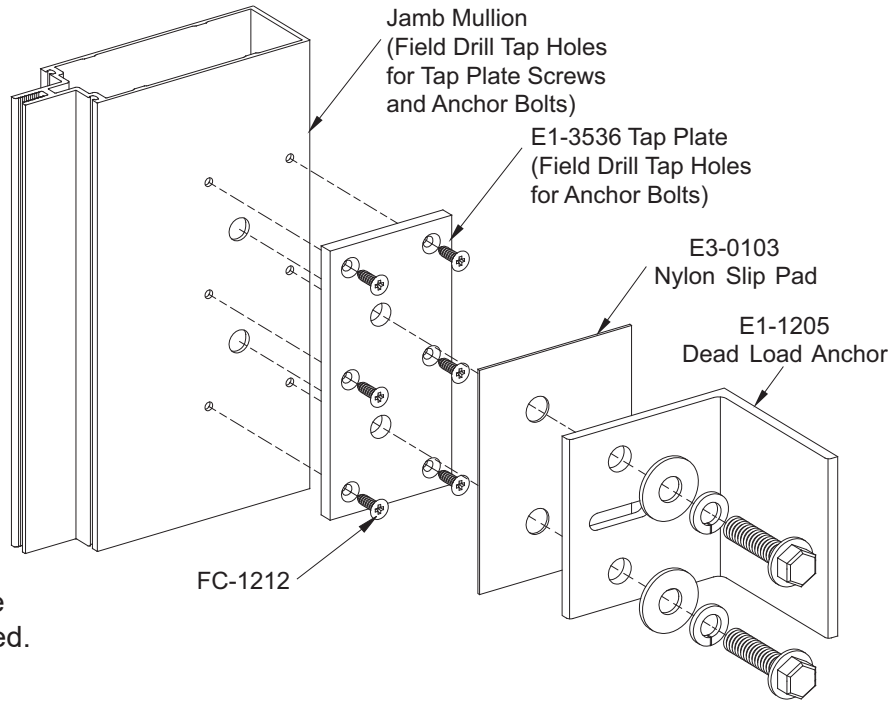
JAMB WIND LOAD ANCHOR



Note: Drill holes in mullion centered along the slots to permit the frame to contract and expand.

Detail 22A

JAMB DEAD LOAD ANCHOR



Note: Fasteners are shown for reference only; horizontals are typically attached before anchor fasteners are installed.

FRAME INSTALLATION

STEP 14
ATTACH HORIZONTAL MEMBERS

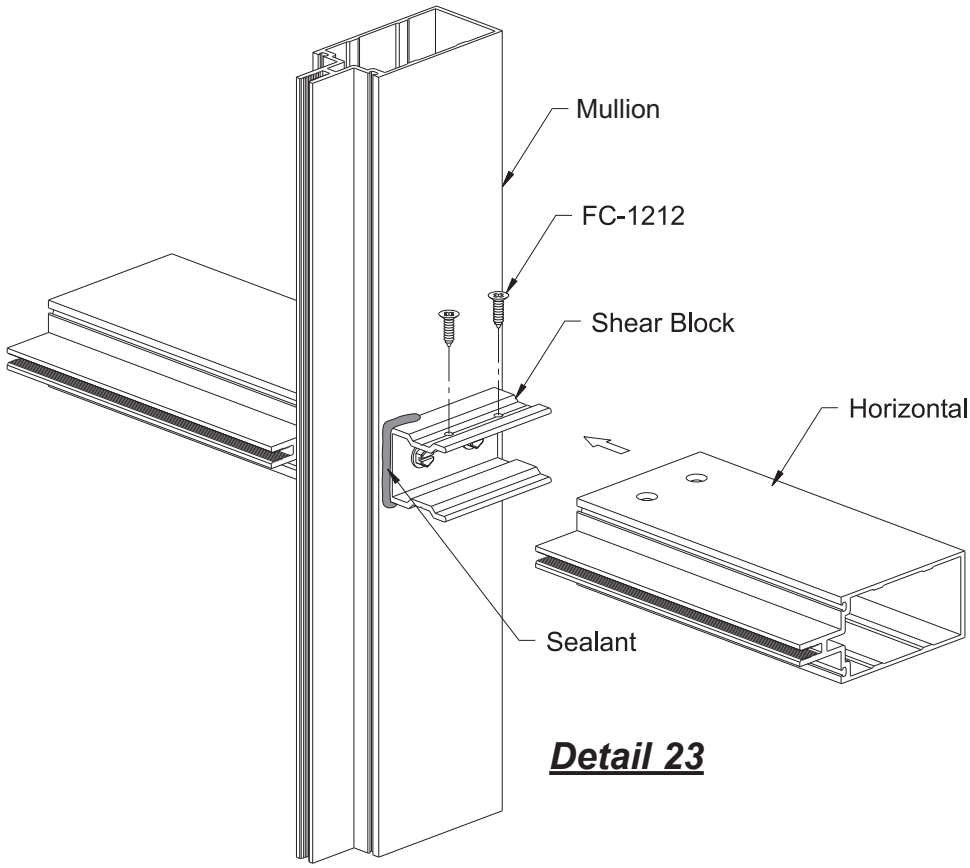
-Slide the horizontal members towards the mullions making sure that the glazing pockets line up and transfer the hole locations on top of the horizontal to the shear block.
-Remove the horizontal and drill a 0.189” dia. (#12 bit) hole at each hole location.

-Just prior to attaching the horizontal members to the mullion, apply sealant to the front of the shear block as shown below.

Note: Before applying any sealant, clean aluminum surfaces using cleaner and method approved by sealant manufacturer.

-Slide the horizontal back against the mullion and attach it to the shear block with two FC-1212 fasteners at each end.
-Tool and wipe away any excess sealant at the vertical to horizontal joints.

See **Detail 23**.



Detail 23

FRAME INSTALLATION

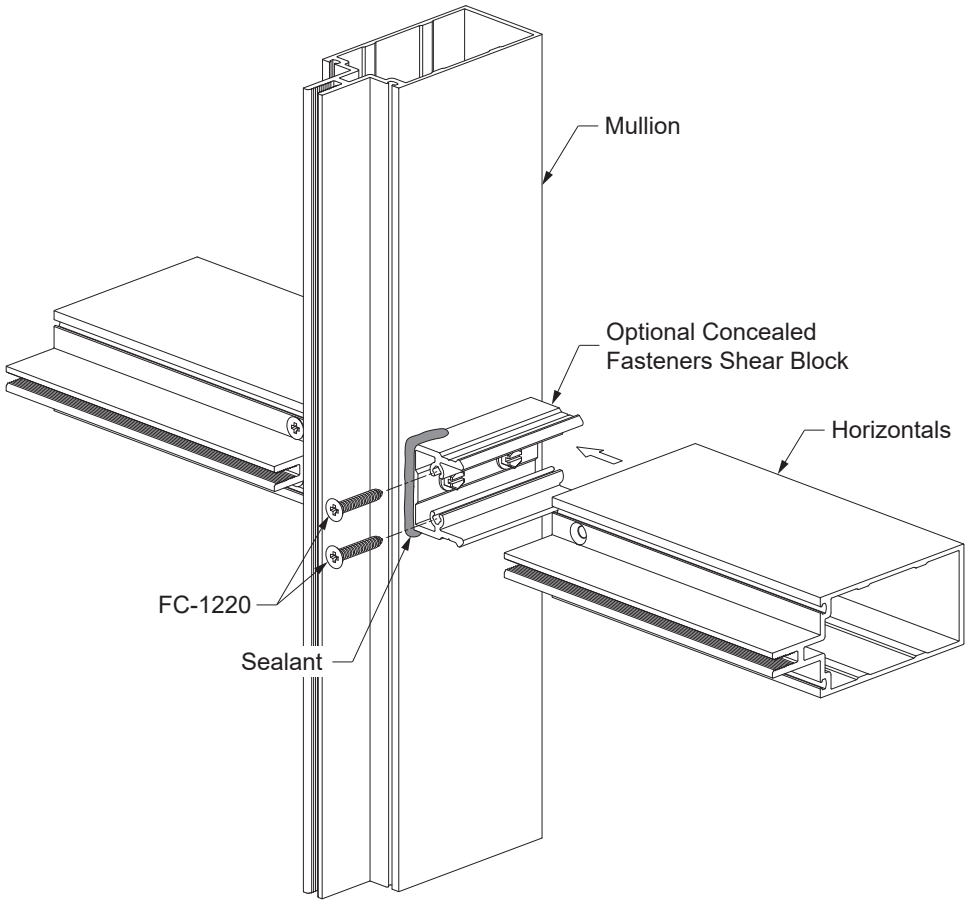
STEP 14 (Continued)
ATTACH HORIZONTAL MEMBERS

If Optional Concealed Fastener Shear Blocks Are Used:

Attachment of horizontals is similar to that of exposed fasteners, except the horizontals are fastened at the front of the shear blocks with (2) FC-1220 fasteners per shear block.

Seal the screw heads of the FC-1220 fasteners. Tool sealant smooth and remove excess sealant from the gasket reglet areas.

See **Detail 24**.



Detail 24

FRAME INSTALLATION

STEP 14 (Continued)
ATTACH HORIZONTAL MEMBERS

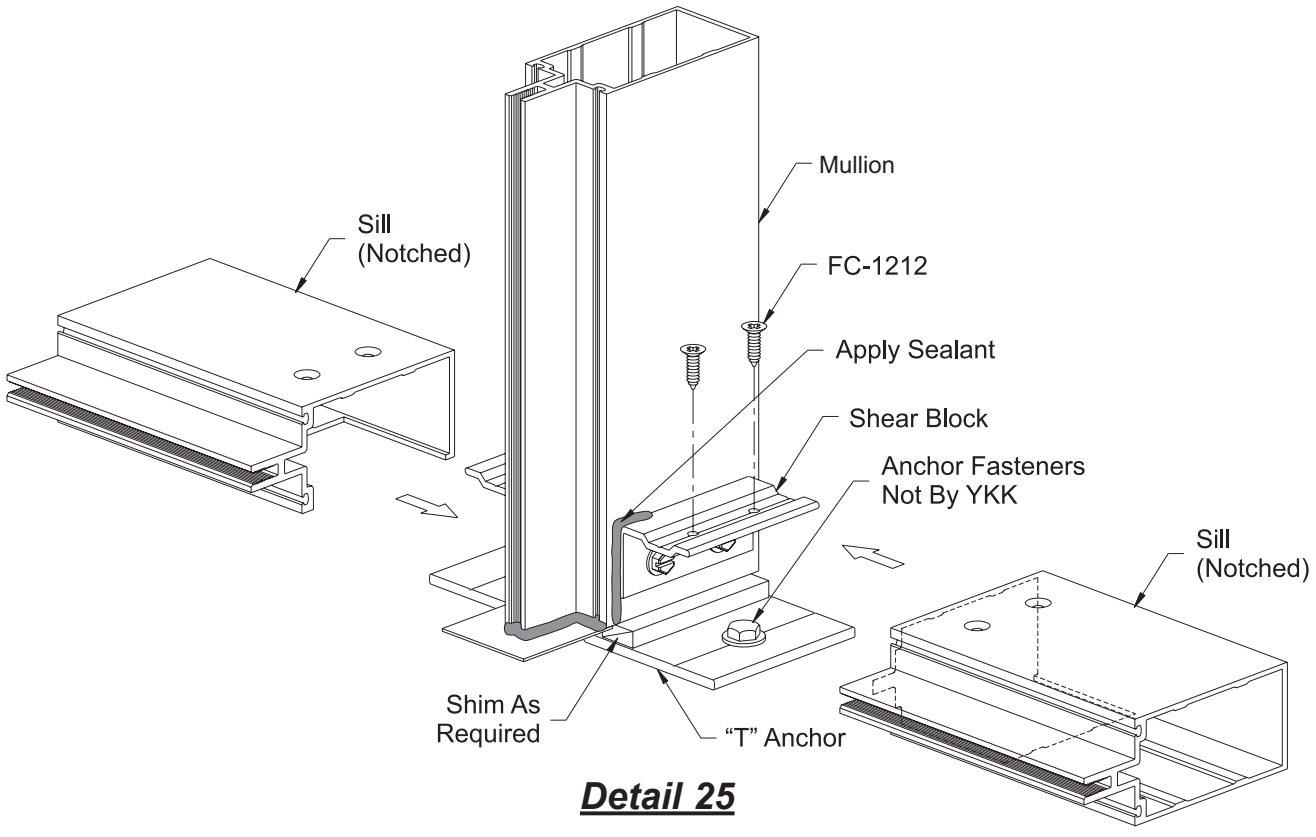
At Head and Sills:

-Mullion end anchors must be installed before head and sill members are attached.
-Provide anchor fasteners as per job requirements. See approved shop drawings or engineering calculations for appropriate anchor fasteners.
-Install the anchor fasteners as recommended by fastener manufacturer.

-Attach head and sill members to the shear clip according to the procedures previously shown in **Detail 23** with the notched out portion facing the anchors.

See **Detail 25**.

Caution: There must always be a shim under the mullion to transfer glazing dead loads to the foundation.



Detail 25

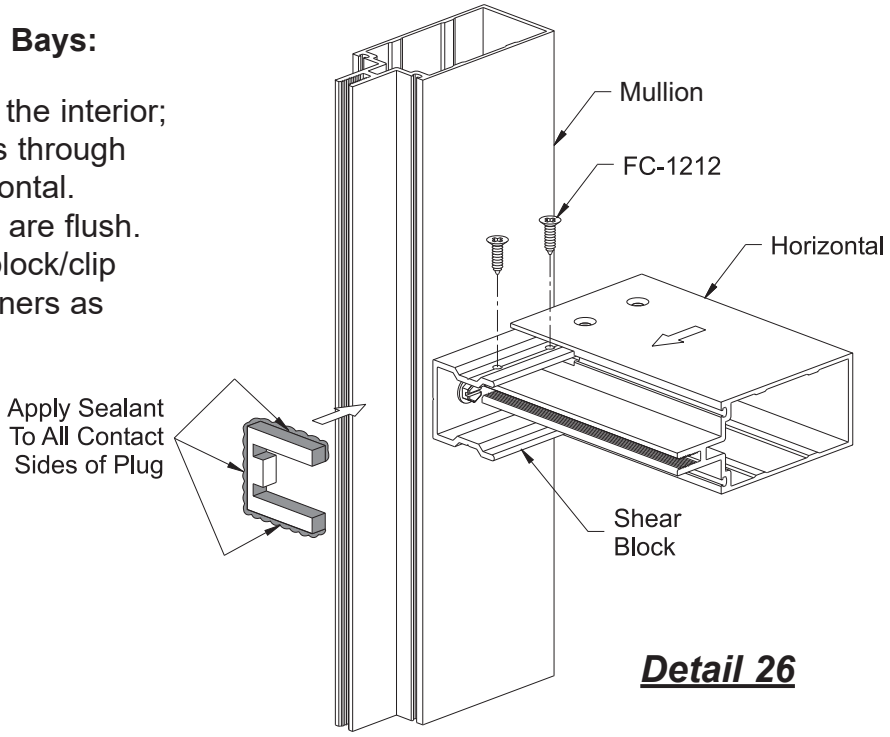
FRAME INSTALLATION

STEP 14 (Continued)
ATTACH HORIZONTAL MEMBERS

For One Piece Horizontals at End Bays:

-Slide the horizontal into place from the interior; the shear blocks should easily pass through the E-Slots at the ends of the horizontal. Make sure that the glazing pockets are flush.
-Attach the horizontal to the shear block/clip at each end with (2) FC-1212 fasteners as previously instructed.

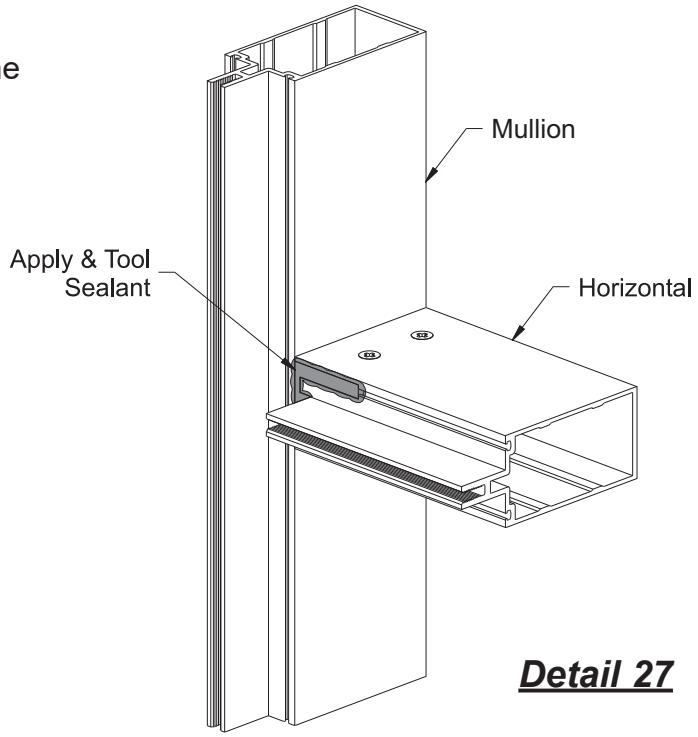
See **Detail 26**.



Detail 26

-Apply sealant to all contact sides of the E-Slot plug, E2-0146.
-Insert the E-Slot plugs into place and press them firmly against the shear blocks.
-Cover the entire slot with sealant and tool the sealant to ensure a watertight seal.

See **Detail 27**.



Detail 27

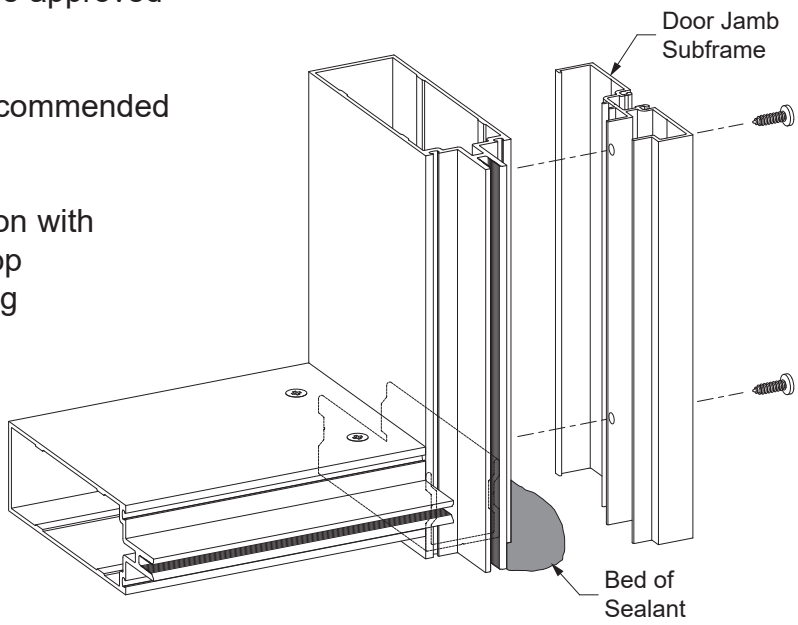
FRAME INSTALLATION

STEP 15
INSTALL DOOR SUBFRAMES

Refer to the **Entrances Installation Manual** for assembly of the door subframes. These subframes are typically glazed into the curtain wall framing at the jambs, and set directly upon the sill substrate without any shims. The subframe members are determined by the approved shop drawings.

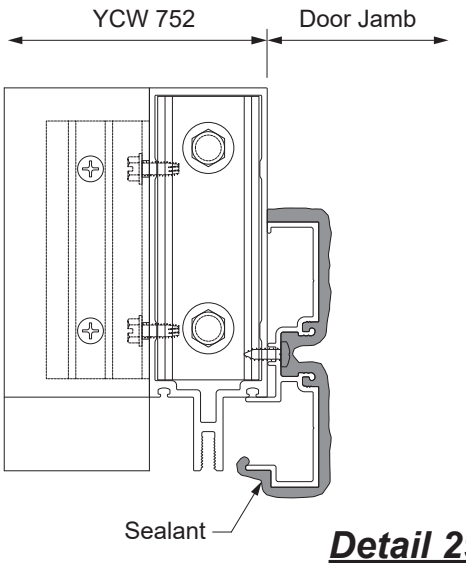
-Clean all sealant contact surfaces as recommended by the sealant manufacturer.

-Install the jamb subframe onto the mullion with fasteners according to the approved shop drawings and/or P.E. calculations, setting the subframe jambs in beds of sealant as shown in **Detail 28**.



Detail 28

-Apply and tool sealant to the bottom of the jamb subframe as shown in **Detail 29**.



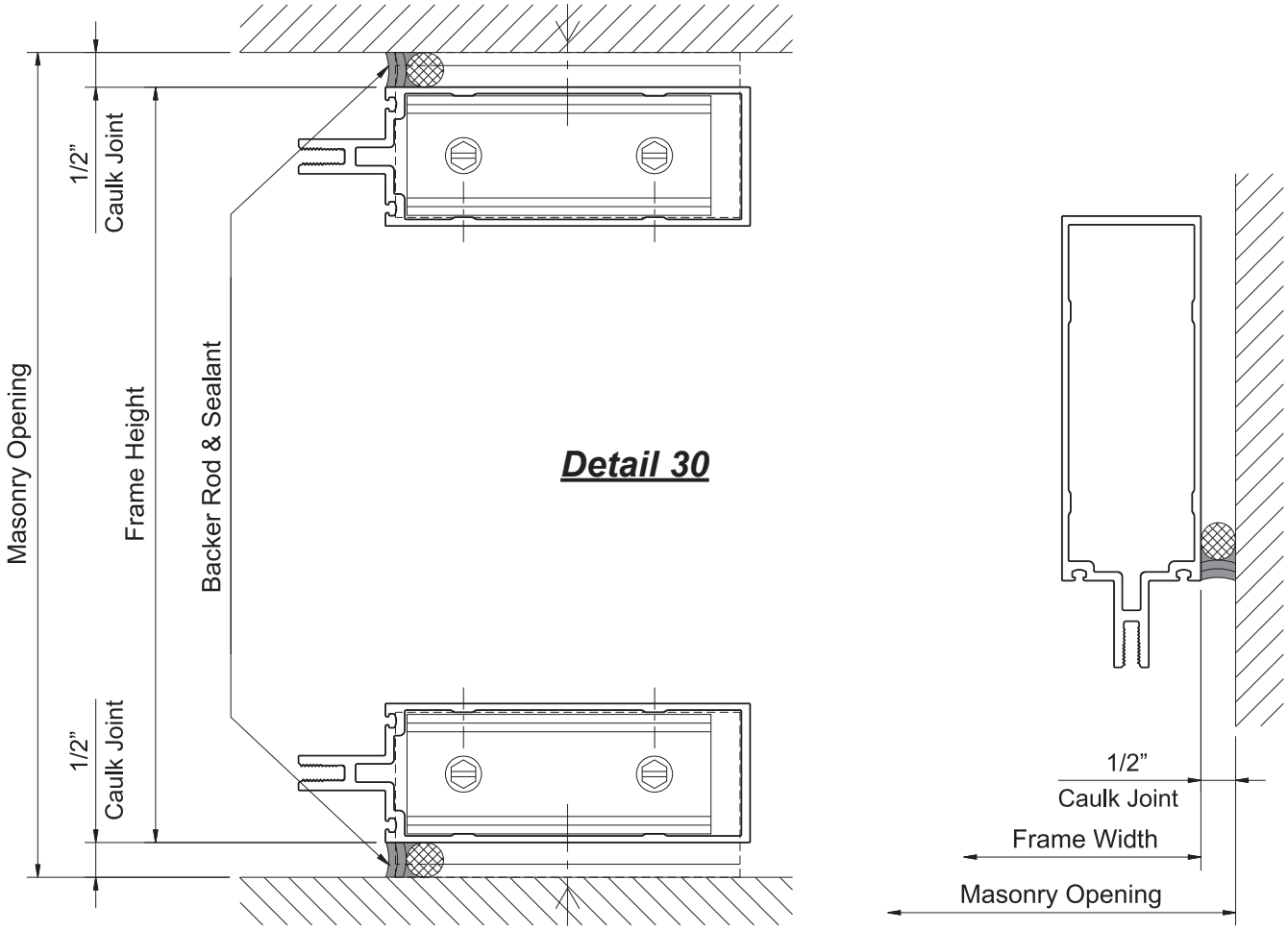
Detail 29

FRAME INSTALLATION

STEP 16
APPLY PERIMETER SEALANT

-Clean the area around the perimeter of the frame with cleaner and method approved by sealant manufacturer.
-Push in backer rod between the perimeter of the frame and the substrate about 1/4”.
-Apply sealant to the perimeter of the frame.
-Tool the sealant making sure that sealant does not get into the gasket reglets.

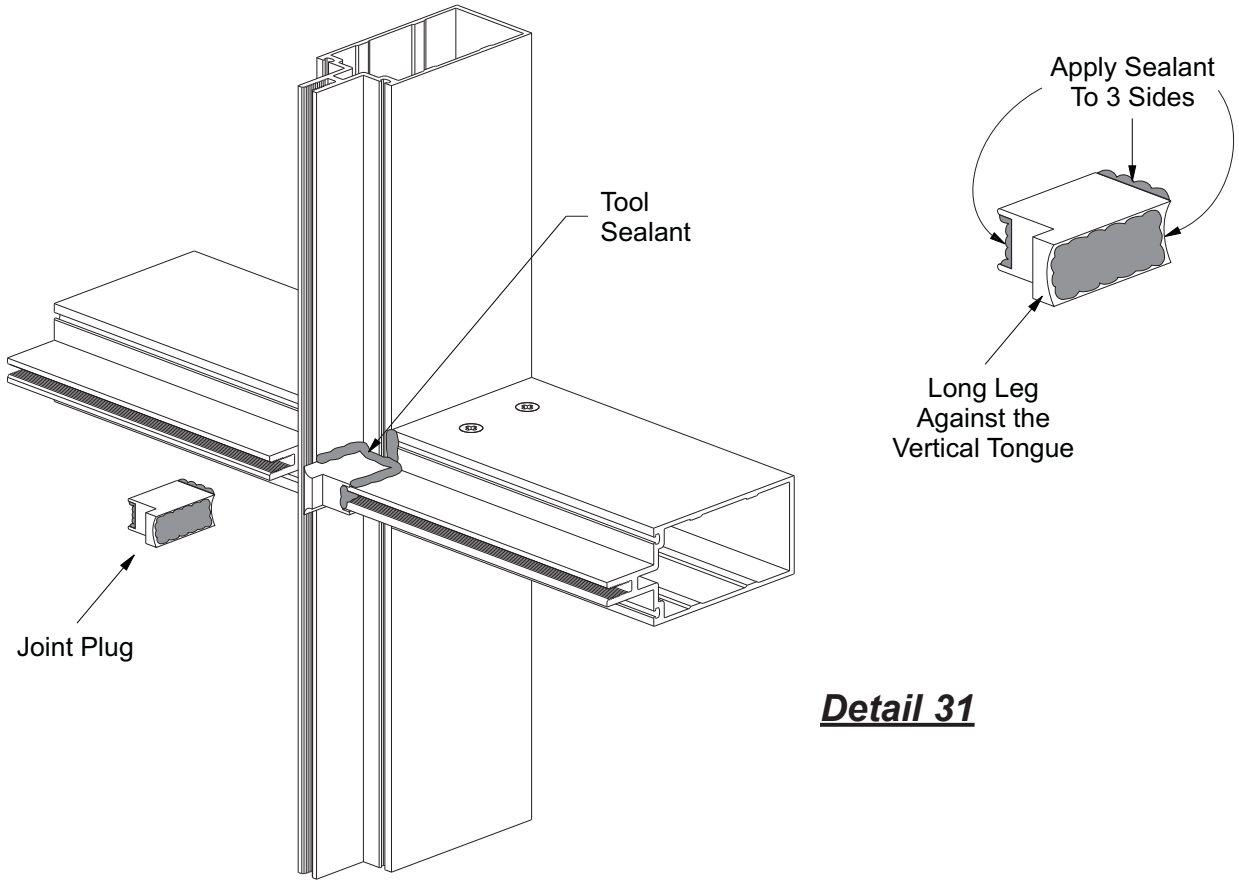
See **Detail 30**.



Detail 30

FRAME INSTALLATION

STEP 17
INSTALL JOINT PLUGS



Detail 31

The tongue of each horizontal must be sealed to the tongue of the mullions.
The space between the two tongues is closed by using joint plugs, E2-0138 for 1” glazing or E2-0285 for 1/4” glazing.

-Clean the area around the tongue intersection with an approved cleaner.
-Apply and tool sealant to the intersection of the horizontal and vertical.
-Apply sealant to the three contact sides of the joint plug and at the intersection of the mullion and horizontal glazing pocket.
-Install joint plug as shown with the long leg of plug against the vertical tongue.
-Press joint plugs firmly against face of mullion.
-Tool the sealant to ensure a watertight seal.

See **Detail 31**.

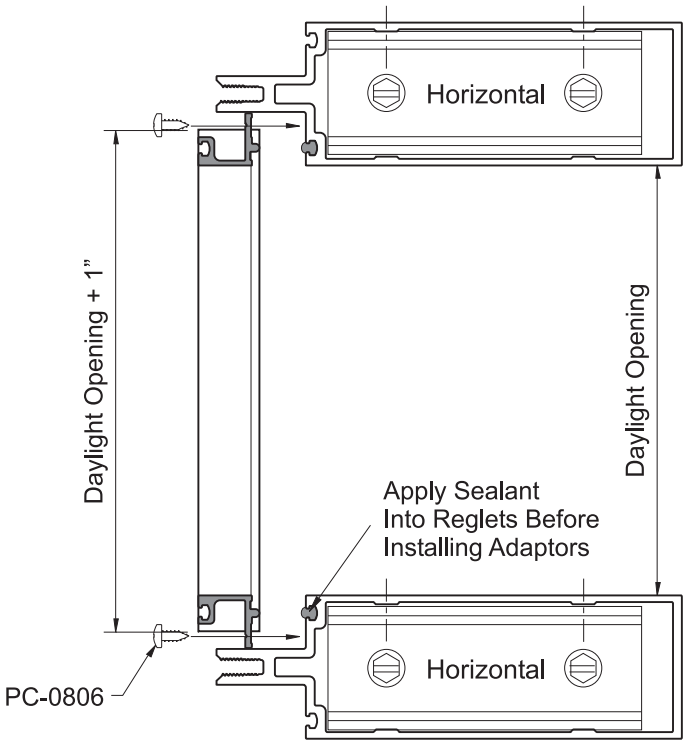
GLAZING

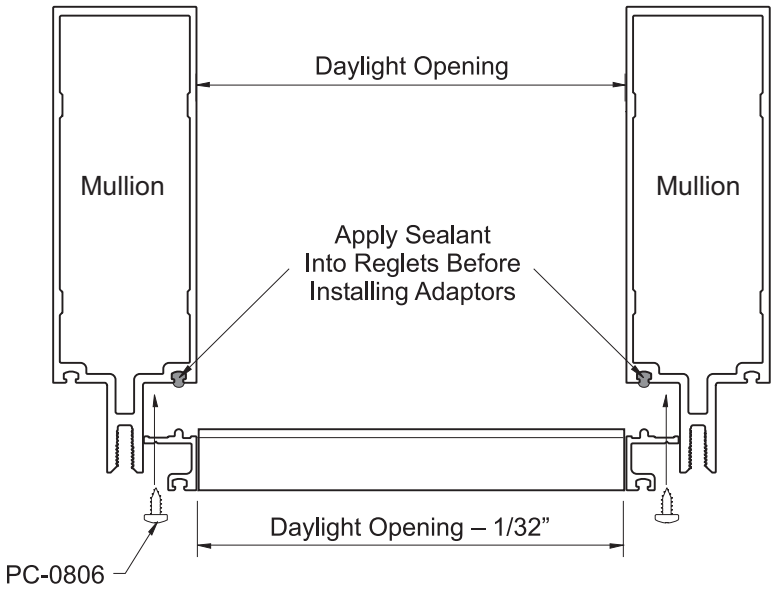
STEP 18
INSTALL GLAZING ADAPTORS
(When Required)

-Cut glazing adaptors, E9-1604, to size:
Vertical Cut Length = Daylight Opening plus(+) 1”.
Horizontal Cut Length = Daylight Opening minus(–) 1/32”.

-Predrill each adaptor with 0.189” dia. (#12) holes 2” from each end.
-Dry fit adaptors and match drill 0.141” dia. (#28) holes on mullion to receive PC-0806 screws.
-Clean the area around the mullion glazing reglet and the glazing adaptor with a cleaner approved by the sealant manufacturer.
-Apply sealant into the mullion gasket reglets and the ends of the horizontal adaptors.
-Install the adaptors with PC-0806 screws 2” from each end and at the center of the adaptor. Install the vertical adaptors first and make sure they are centered along the day light opening.
-Tool sealant at all adaptor intersections and seal all screw heads.

See **Detail 32**.





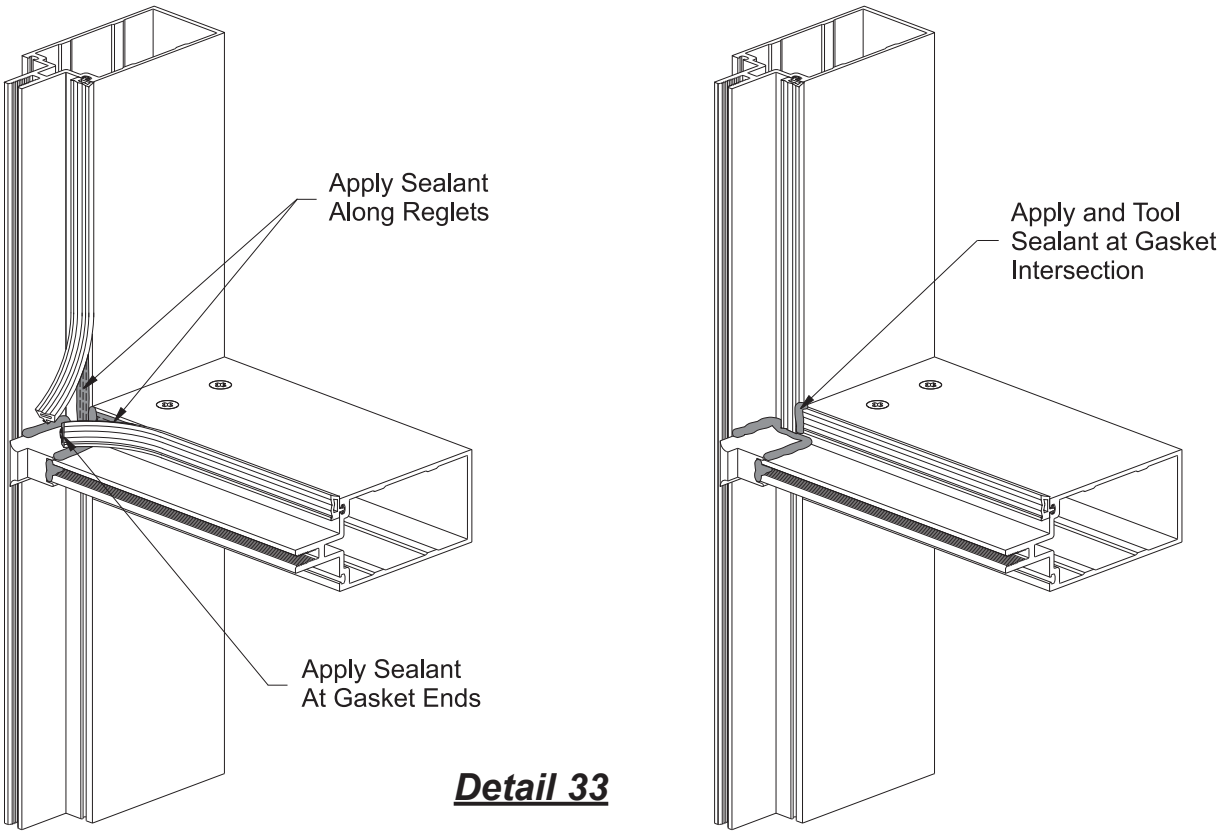
Detail 32

GLAZING

STEP 19
INSTALL INTERIOR GLAZING GASKETS

-Cut interior glazing gaskets to size:
Vertical Gasket = Daylight Opening + 1-1/4”.
Horizontal Gasket = Daylight Opening + 3/16” per each foot of opening width.

-Install vertical gaskets first, centered along the daylight opening.
-Install horizontal glazing spacers next.
-Insert the glazing spacer into the reglet at each end first.
-Snap the rest of the glazing spacer into the reglet starting at the center and work towards each end.

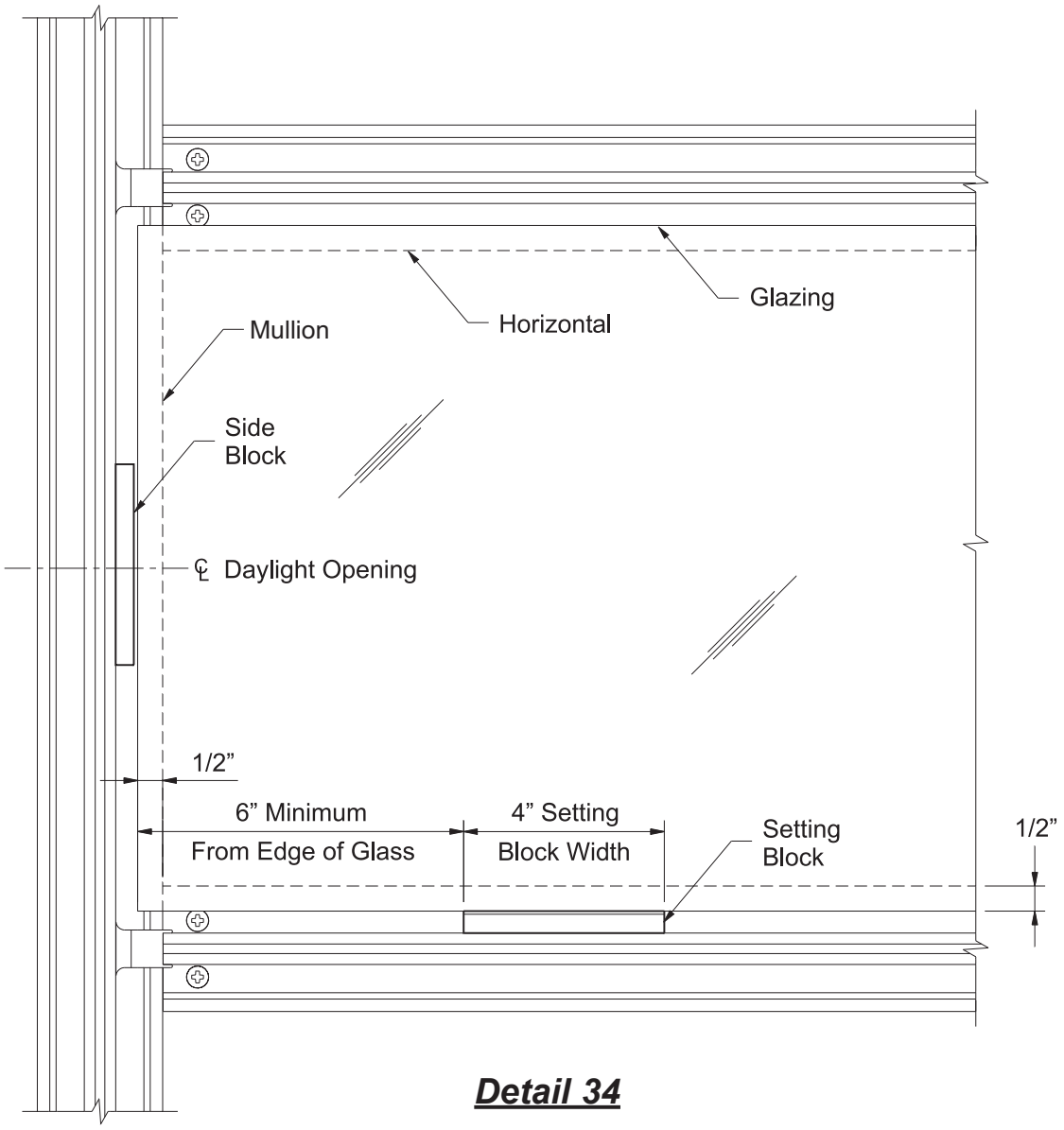


Detail 33

-Pull the last 3” of each gasket away from the reglet.
-With gasket end held out of the way, run a 2-3” bead of sealant into the reglet at the ends.
-Apply sealant at the ends of the horizontal gaskets.
-Reinsert the ends of the gaskets pressing them firmly against the face of the mullions.
-Apply and tool sealant at the intersection of the vertical and horizontal gaskets.
See **Detail 33**.

GLAZING

STEP 20
INSTALL SETTING & SIDE BLOCKS



Detail 34

-Install setting blocks, E2-0134 for 1" glazing or E2-0623 for 1/4" glazing, at 1/4 points of D.L.O. or minimum of 6" from edge of glass, whichever is greater.
Consult YKK AP for setting block requirements on units that exceed 60" x 90" or 40 sq. ft.
-Install side blocks, E2-0133 for 1" glazing centered along the daylight opening on both sides of glazing material.
See **Detail 34**.

GLAZING

STEP 21
INSTALL EXTERIOR GLAZING GASKETS

-Cut exterior vertical glazing gaskets to the same length as the vertical pressure plates.
-Cut exterior horizontal glazing gaskets to daylight opening plus 1/4” per foot of opening width.
-Install vertical glazing gaskets onto the vertical pressure plates.
-Install horizontal gaskets by pushing each end into the reglet of the pressure plate. Next press center of gasket into reglet; then push gasket into reglet working from the center towards the ends.

Caution: Do not stretch the gaskets.

STEP 22
INSTALL GLASS

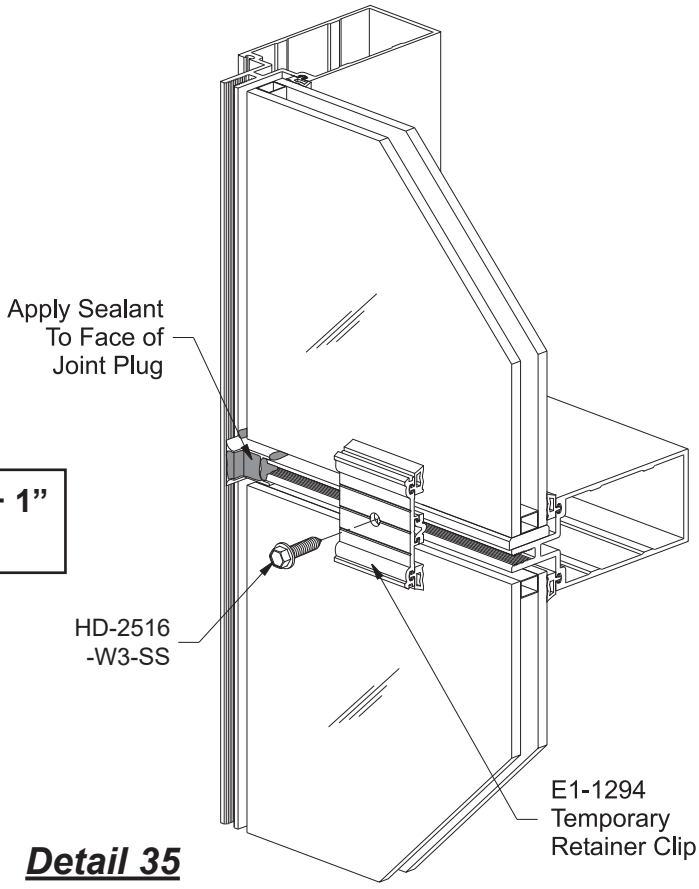
-As each lite is installed, attach a temporary retaining clip, E1-1294, in the middle of each horizontal and 4” from glass edge at each end using HD-2516-W3-SS fasteners.
-Reuse the temporary retaining clips.
-Apply sealant to the face of the joint plugs just prior to installing vertical pressure plates.

Caution: Do not allow sealant to skin over prior to installing pressure plates.

Note: Sealant must form a complete seal between the exterior gasket, pressure plate, thermal isolator, and the joint plug.

See **Detail 35**.

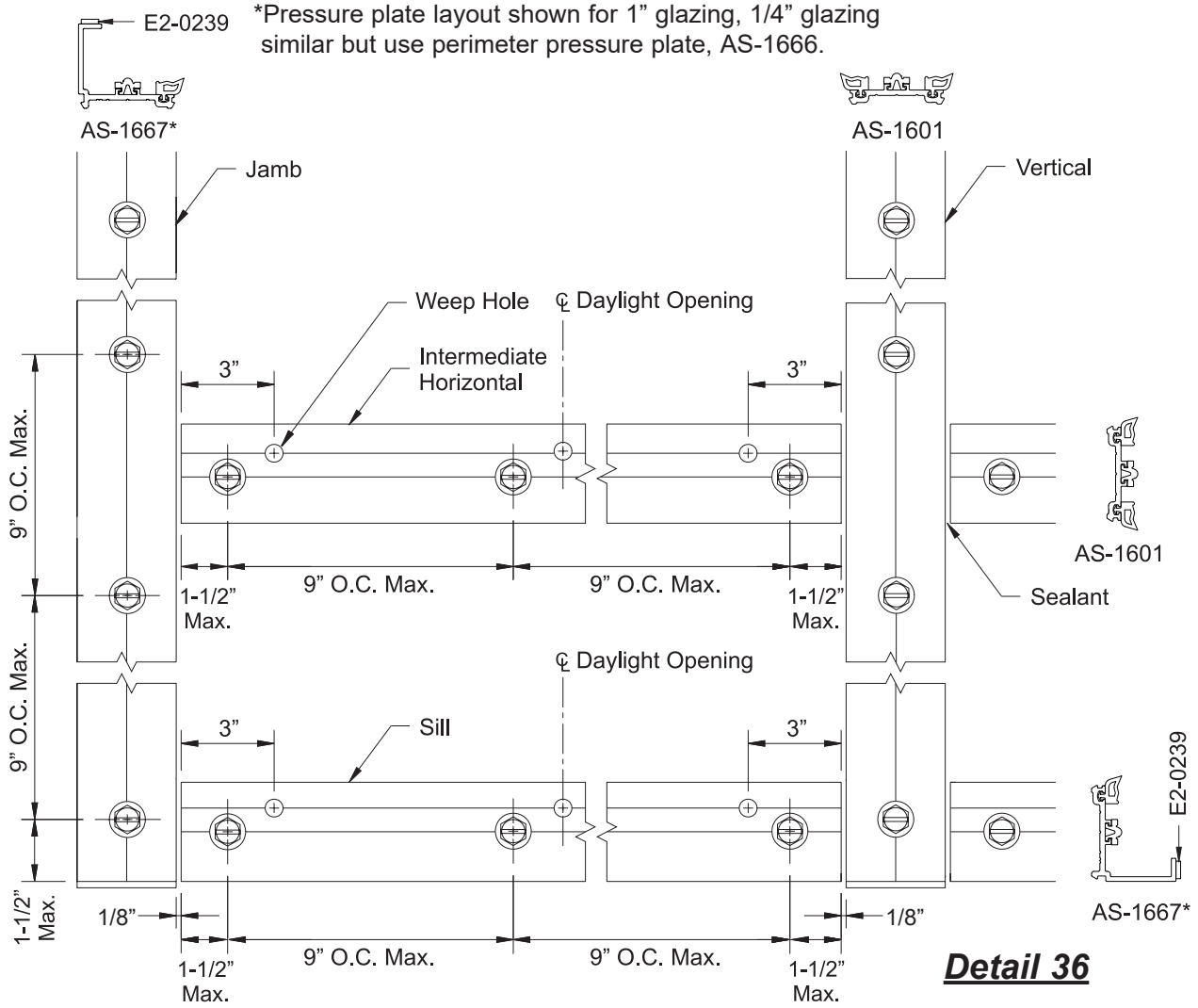
Glass and Spandrel Size = Daylight Opening + 1” horizontally and vertically.



Detail 35

GLAZING

STEP 23
PRESSURE PLATE LAYOUT AND ASSEMBLY



Detail 36

-Pressure plate stock lengths are factory punched with 0.281” diameter holes at 9” o.c. maximum. After cutting, additional holes may be required to have bolts at 1-1/2” of each end. Seal over any pressure plate holes less than 1-1/2” from the ends.
See **Detail 36**.
-Install isolator tape, E2-0239, onto the back leg of the perimeter pressure plates.
-Install vertical pressure plates using HD-2516-W3-SS bolts. Initially torque bolts to 30 inch-pounds with a speed wrench or torque limiting screw gun. Work from the bottom up.
-Torque all vertical pressure plate bolts to 50 inch-pounds.
-Snap on exterior vertical covers using a mallet and a clean scrap piece of lumber. See **Detail 37**. Start at one end and work block and mallet down the vertical.

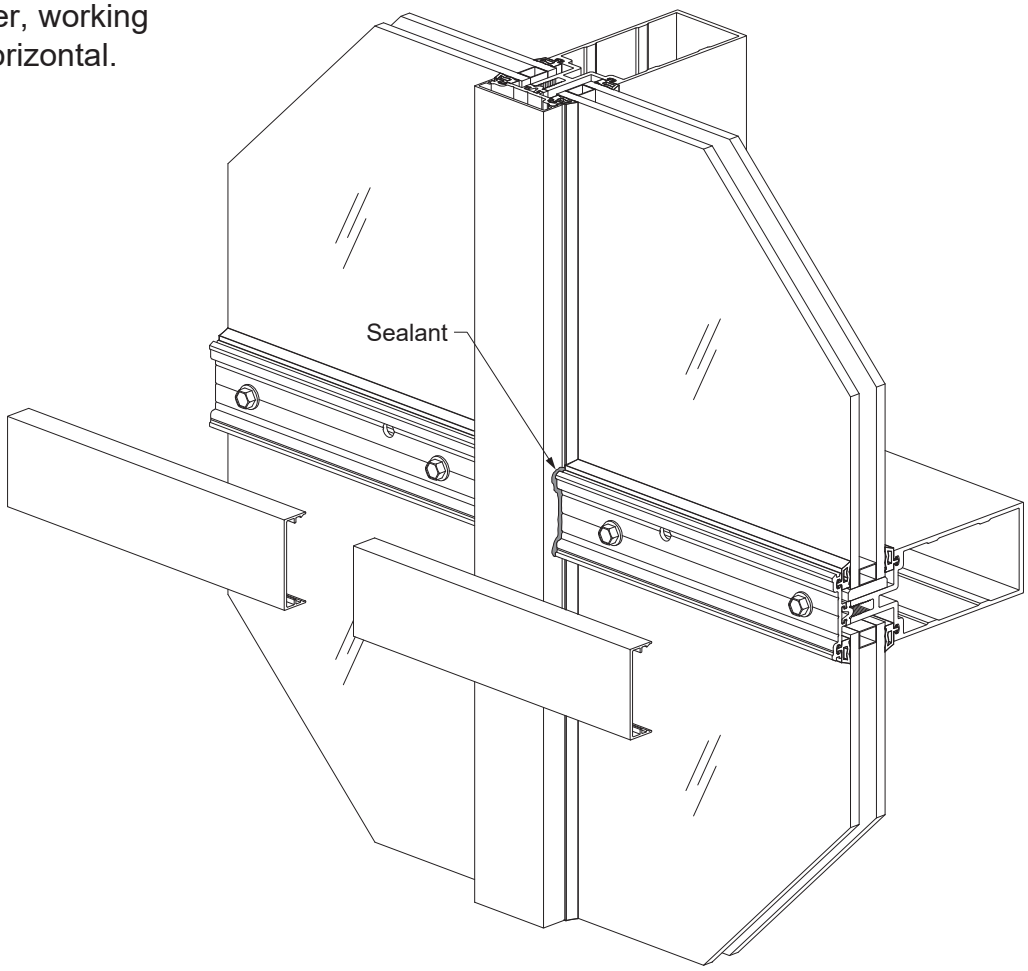
Note: Pressure plate AS-1601 must be used instead of AS-1667 or AS-1666 on the perimeter when using perimeter anchors. Mullion end caps, E1-1290, must be installed when using mullion end anchors: “F” or “T”.

GLAZING

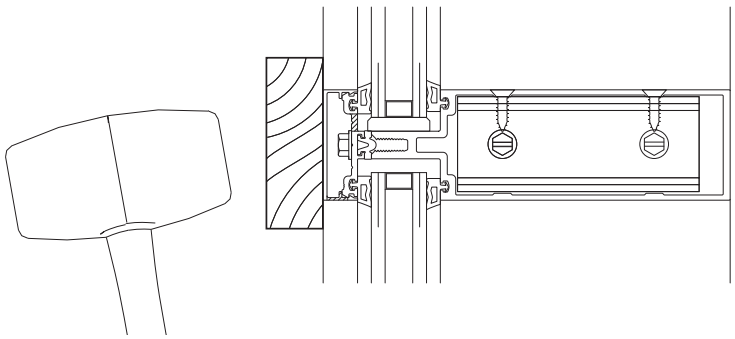
STEP 24
INSTALL EXTERIOR FACE COVERS

-Center and install horizontal pressure plates in opening, leaving a 1/8” gap at the ends.
-Starting at the center of each pressure plate, intitially torque each fastener to 30 inch-pounds. Then tighten all of the fasteners to 50 inch-pounds.
-Seal the gap at the end of the horizontal pressure plate to the vertical face cover.
-Snap on horizontal cover, working the mallet across the horizontal.

See **Detail 37**.



Detail 37



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