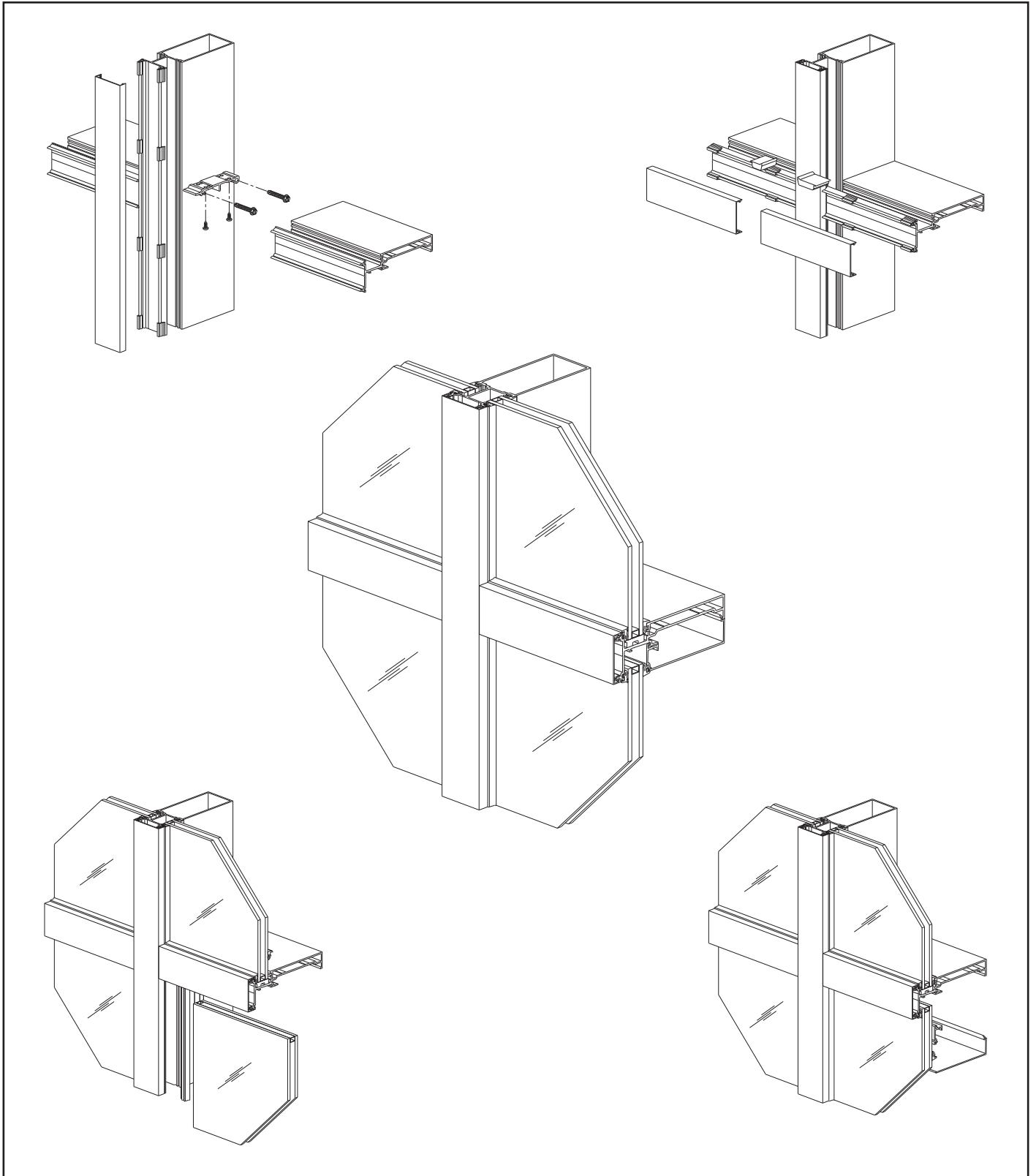


YCW 750 IG Inside Glazed Curtain Wall System



Installation Manual


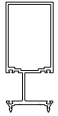

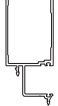
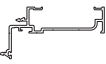
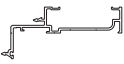
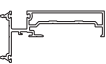
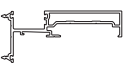
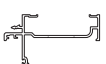
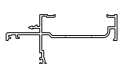
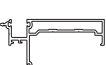
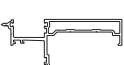

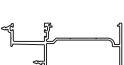




TABLE OF CONTENTS

Installation Notes	Page ii
PARTS DESCRIPTION	
YCW 750 IG Framing Members	Pages 1 to 3
YCW 750 IG Accessories	Pages 4 & 5
YCW 750 IG Fasteners	Page 6
FRAME FABRICATION	
Frame Types/Anchoring Methods	Pages 7 & 8
Fabricate Vertical Mullions	Pages 9 to 11
Shear Clips for Horizontals.....	Page 12
Using Optional Reinforcement Sleeve	Page 13
Fabricate Head & Sill.....	Page 14
Fabricate Intermediate Horizontal	Page 15
Fabricate Horizontal/Vertical Covers	Page 16
Fabricate Vertical for Splices.....	Page 17
FRAME INSTALLATION	
Typical Vertical Splice	Page 18
Install Vertical Face Cover	Page 19
Install Mullion End Caps	Page 20
Install Jamb & Vertical Mullions.....	Pages 21 & 22
Install Wind Load / Dead Load Anchors.....	Pages 23 to 25
Head / Horizontal / Sill Attachment	Page 26
90° Outside Corner Assembly	Page 27
Perimeter Sealant.....	Page 28
Install Jamb Face Covers.....	Page 28
GLAZING	
Install Joint Plugs.....	Page 29
Install Horizontal Face Covers	Page 30
Install 1/4" Glazing Adaptors	Page 31
Install Exterior Gaskets.....	Page 32
Install Side & Setting Blocks.....	Page 33
Install Glass & Anti-Walk Blocks	Page 34
Install Interior Gaskets & Cover.....	Page 35
Optional Outside Glazing Instructions	Page 36
Reglazing Instructions	Page 37
DOOR SUB-FRAME INSTALLATION	
Install Door Sub-Frame	Page 38






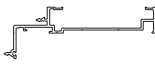
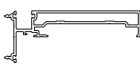
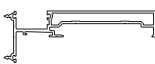
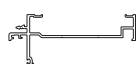
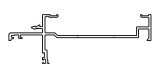
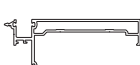







Installation Notes

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. Entrances are to be installed plumb, square, level and true.
11. If any questions arise concerning YKK AP products or their installation, contact YKK AP for clarification before proceeding.
12. 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.
13. Cutting tolerances are plus zero (0"), minus one thirty second (-1/32") unless otherwise noted.
14. Check our website, www.ykkap.com, for the latest installation manual update prior to commencing work.

FRAMING MEMBERS

1/4" GLAZING (3-3/4" BACK DEPTH)			1" GLAZING (3-3/4" BACK DEPTH)		
	Mullion 2-1/2" x 3-3/4"	E9-3307		Mullion 2-1/2" x 3-3/4"	E9-3305
	Jamb 2-1/2" x 3-3/4"	E9-3308		Jamb 2-1/2" x 3-3/4"	E9-3306
	Head 2-1/2" x 3-3/4"	E9-3320		Head 2-1/2" x 3-3/4"	E9-3317
	Horizontal 2-1/2" x 3-3/4"	E9-3321		Horizontal 2-1/2" x 3-3/4"	E9-3318
	Head For Outside Glazed 2-1/2" x 3-3/4"	E9-3329		Head For Outside Glazed 2-1/2" x 3-3/4"	E9-3327
	Horizontal For Outside Glazed 2-1/2" x 3-3/4"	E9-3330		Horizontal For Outside Glazed 2-1/2" x 3-3/4"	E9-3328
	Sill 2-1/2" x 3-3/4"	E9-3322		Sill 2-1/2" x 3-3/4"	E9-3319
	Interior Cover For Head & Horizontal	E9-3335		Interior Cover For Head & Horizontal	E9-3335
	Flush Filler For Sill	E9-3336		Flush Filler For Sill	E9-3336

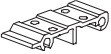

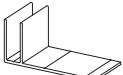
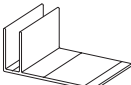

FRAMING MEMBERS

1/4" GLAZING (5-1/4" BACK DEPTH)			1" GLAZING (5-1/4" BACK DEPTH)		
	Mullion 2-1/2" x 5-1/4"	E9-3303		Mullion 2-1/2" x 5-1/4"	E9-3301
	Jamb 2-1/2" x 5-1/4"	E9-3304		Jamb 2-1/2" x 5-1/4"	E9-3302
	Head 2-1/2" x 5-1/4"	E9-3314		Head 2-1/2" x 5-1/4"	E9-3311
	Horizontal 2-1/2" x 5-1/4"	E9-3315		Horizontal 2-1/2" x 5-1/4"	E9-3312
	Head For Outside Glazed 2-1/2" x 5-1/4"	E9-3325		Head For Outside Glazed 2-1/2" x 5-1/4"	E9-3323
	Horizontal For Outside Glazed 2-1/2" x 5-1/4"	E9-3326		Horizontal For Outside Glazed 2-1/2" x 5-1/4"	E9-3324
	Sill 2-1/2" x 5-1/4"	E9-3316		Sill 2-1/2" x 5-1/4"	E9-3313
	Interior Cover For Head & Horizontal	E9-3334		Interior Cover For Head & Horizontal	E9-3334
	Flush Filler For Sill	E9-3162		Flush Filler For Sill	E9-3162

FRAMING MEMBERS

 <p>Interior Glass Stop For 1/4" & 1" Glazing</p>	<p>E9-3331</p>	 <p>Glazing Pocket Filler For 1/4" Glazing</p>	<p>E9-3342</p>
 <p>Interior Glass Stop For 1/4" Glazing of 1" Glazing Pockets</p>	<p>E9-3332</p>	 <p>Glazing Pocket Filler For 1" Glazing</p>	<p>E9-3341</p>
 <p>Exterior Glass Stop For Outside Glazing & Reglazing</p>	<p>E9-3333</p>	 <p>Angle (1" x 1") For 90° & 135° Corners</p>	<p>E9-9302</p>
 <p>Glazing Adaptor For 1/4" Glazing</p>	<p>E9-3340</p>	 <p>Angle (1-1/2" x 1-1/2") For 90° Corners</p>	<p>E9-9303</p>
 <p>Face Cover</p>	<p>E9-3351</p>	 <p>Transom Bar Elastomer Weathering E2-0051 Included</p>	<p>AS-0402</p>
 <p>Perimeter Face Cover For 1/4" Glazing</p>	<p>E9-3353</p>	 <p>Door Jamb</p>	<p>E9-2344</p>
 <p>Perimeter Face Cover For 1" Glazing</p>	<p>E9-3352</p>	 <p>Snap-In Door Stop Elastomer Weathering E2-0051 Included</p>	<p>AS-0417</p>















ACCESSORIES

	Shear Clip For 3-3/4" Back Depth Horizontal	E1-1350		Mullion End Cap For 1/4" Glazing	E1-1360
	Shear Clip For 3-3/4" Back Depth Head & Sill	E1-1351		Mullion End Cap For 1" Glazing	E1-1359
	Shear Clip For 5-1/4" Back Depth Head, Horizontal & Sill	E1-3019		Mullion "T" Anchor For 3-3/4" Back Depth	E1-1229
	Shear Clip For 3-3/4" Back Depth Horizontal at Door	E1-3503		Mullion "T" Anchor For 5-1/4" Back Depth	E1-1208
	Shear Clip For 5-1/4" Back Depth Horizontal at Door	E1-3504		Mullion "F" Anchor For 3-3/4" Back Depth	E1-1230
	Splice Sleeve For 3-3/4" Back Depth Vertical, 6" Long	E1-1354		Mullion "F" Anchor For 5-1/4" Back Depth	E1-1233
	Reinforcement Sleeve For 3-3/4" Back Depth Vertical, 29" Long	E1-1355		Wind Load Anchor Refer to Shop Drawings for Anchor Dimensions Steel with Zinc Oxide Paint	E1-1204*
	Splice Sleeve For 5-1/4" Back Depth Vertical, 6" Long	E1-1352		Dead Load Anchor Refer to Shop Drawings for Anchor Dimensions Steel with Zinc Oxide Paint	E1-1205*
	Reinforcement Sleeve For 5-1/4" Back Depth Vertical, 29" Long	E1-1353		Wind Load/Dead Load Anchor Slip Pad	E3-0103
	Splice Sleeve For Face Cover	E1-1356		Jamb Anchor Plate	E1-3536
	Splice Sleeve For Perimeter Face Cover, 1" Glazing	E1-1357		Glazing Gasket 1/4" Face Clearance	E2-0801
	Splice Sleeve For Perimeter Face Cover, 1/4" Glazing	E1-1358		Wedge Glazing Gasket 1/4" Face Clearance	E2-0802




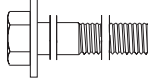

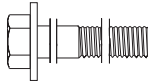


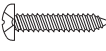





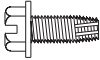
* Note: Project specific part number.

Exact size of anchors should be determined from loads calculated on each individual curtain wall frame.

ACCESSORIES

 <p>Wedge Glazing Gasket For Outside Glazing 1/4" Face Clearance</p>	<p>E2-0808</p>	 <p>Joint Plug For 1/4" Glazing Deep Pocket</p>	<p>E2-0804</p>
 <p>Setting Block For 1/4" Glazing</p>	<p>E2-0054</p>	 <p>Joint Plug For 1" Glazing Shallow Pocket</p>	<p>E2-0805</p>
 <p>Setting Block For 1" Glazing</p>	<p>E2-0040</p>	 <p>Joint Plug For 1" Glazing Deep Pocket</p>	<p>E2-0803</p>
 <p>Side Block For 1/4" Glazing</p>	<p>E2-0192</p>	 <p>Isolator Tape (1/8" x 7/16") Use with E9-3352 & E9-3353</p>	<p>E2-0239</p>
 <p>Side Block For 1" Glazing</p>	<p>E2-0166</p>	 <p>Isolator Tape (1/8" x 11/16") Use with 90° Inside Corner</p>	<p>E2-0356</p>
 <p>Spacer For 1/4" Glazing Pocket Filler</p>	<p>E2-9907</p>	 <p>Anti-Walk Block Use at Deep Pockets</p>	<p>E2-0807</p>
 <p>Joint Plug For 1/4" Glazing Shallow Pocket</p>	<p>E2-0806</p>	 <p>Thermal Isolator Clip</p>	<p>E3-0037</p>

FASTENERS

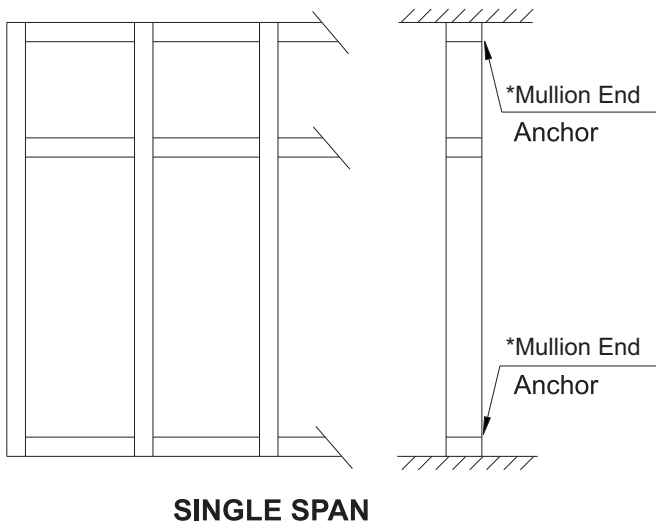
	#8-32 x 1/2" FHTCS Stainless Steel, Type F For attachment of face cover splice	FF-0808		1/4" – 20 x 1-3/4" HWHS Type F, Zinc Plated Steel For attachment of Standard Shear Clips to Vertical	HF-2528 -W1
	#10 x 5/8" FHSMS Type F, Zinc Plated Steel For attachment of 90° Inside Corner	FC-1010		1/2"-13 x 2" HWHMS Zinc Plated Steel, For Attachment of Windload/ Deadload Anchor at Jamb	HM-5032
	#12 x 3/4" FHSMS Type F, Zinc Plated Steel For attachment of Splice Sleeve	FC-1212		1/2"-13 x 4-1/2" HWHMS Zinc Plated Steel, For Attachment of Windload/ Deadload Anchor at Mullion	HM-5072
	#10 x 5/8" PHSMS Type AB, Zinc Plated Steel For attachment of 90° & 135° Corners	PC-1010		1/2"-13 Nut HHMS Zinc Plated Steel For Attachment of Mid-Anchors (Wind Load / Dead Load)	HM-5000
	#10 x 1" PHSMS Type AB, Zinc Plated Steel For locating Splice & Reinf. Sleeves	PC-1016		1/2" Flat Washer Zinc Plated Steel, For Attachment of Mid-Anchors (Wind Load / Dead Load)	WW-5000
	#12 x 1/2" PHSMS Type AB, Zinc Plated Steel For attachment of Shear Clips to Horizontal	PC-1208		1/2" Lock Washer Zinc Plated Steel, For Attachment of Mid-Anchors (Wind Load / Dead Load)	WS-5000
	#12 x 5/8" PHSMS Type AB, Zinc Plated Steel For attachment of Door Jamb to Vertical	PC-1210		1/4" Lock Washer Zinc Plated Steel For Attachment of "J" Anchor	WS-2500
	1/4" – 20 x 5/8" HWHS Type F, Zinc Plated Steel For attachment of Shear Clips, E1-1200 & E1-1206, to Vertical	HF-2510 -W1			

FRAME FABRICATION

FRAME TYPES / ANCHORING METHODS:

Note: The following is a guideline for types of frames. Refer to the shop drawings or consult YKK AP for exact layout of frames.

These installation instructions are to be used in conjunction with approved shop drawings. Consult shop drawings for anchorage of mullions to structure.



Smaller units may be assembled on the ground and tipped in place.

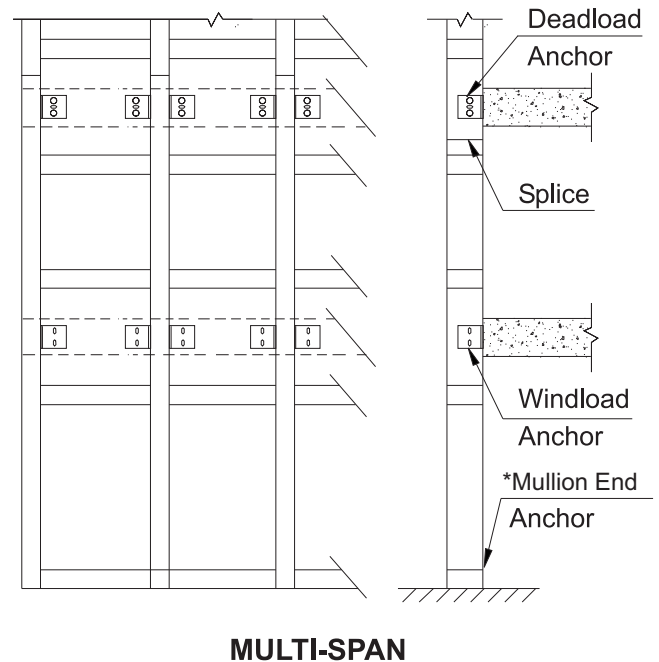
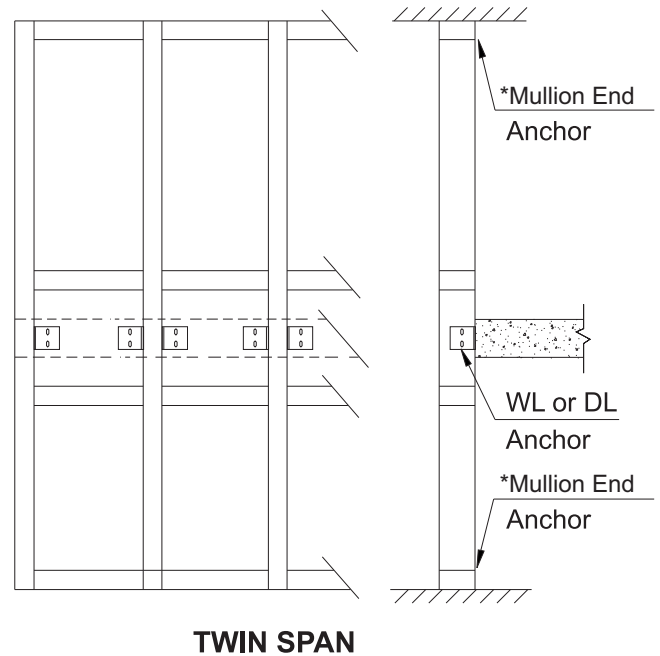
Note: If YKK does not prepare the shop drawings for the project, a qualified engineer must approve all anchors and mullions for wind load and dead load.

*Mullion end attachment will be “F” and/or “T” anchors. Refer to shop drawings or consult YKK AP.

Note: Structure must be capable of resisting all loads imposed by anchor reactions.

Fabrication of YCW 750 IG varies depending on which anchors are required for a given project.

Larger units require being stick assembled in place.



FRAME FABRICATION

Using mullion end anchors:

YCW 750 IG has two possible end anchoring conditions: "T" for intermediate mullions and "F" for jamb mullions.

"Door Jamb" anchors are used with mullions at a door jamb and are specified by the approved shop drawings or P.E. calcs.

Jamb and intermediate mullions should be pre-assembled with shear clips, end anchors, and steel or aluminum reinforcing if necessary.

Framing members:

-Open back members are used for all head, horizontal and sill members to slide over the shear clips.

Head Members (1/4" Glazing):

E9-3320 & E9-3329 for 3-3/4" back depth
E9-3314 & E9-3325 for 5-1/4" back depth

Head Members (1" Glazing):

E9-3317 & E9-3327 for 3-3/4" back depth
E9-3311 & E9-3323 for 5-1/4" back depth

Horizontal Members (1/4" Glazing):

E9-3321 & E9-3330 for 3-3/4" back depth
E9-3315 & E9-3326 for 5-1/4" back depth

Horizontal Members (1" Glazing):

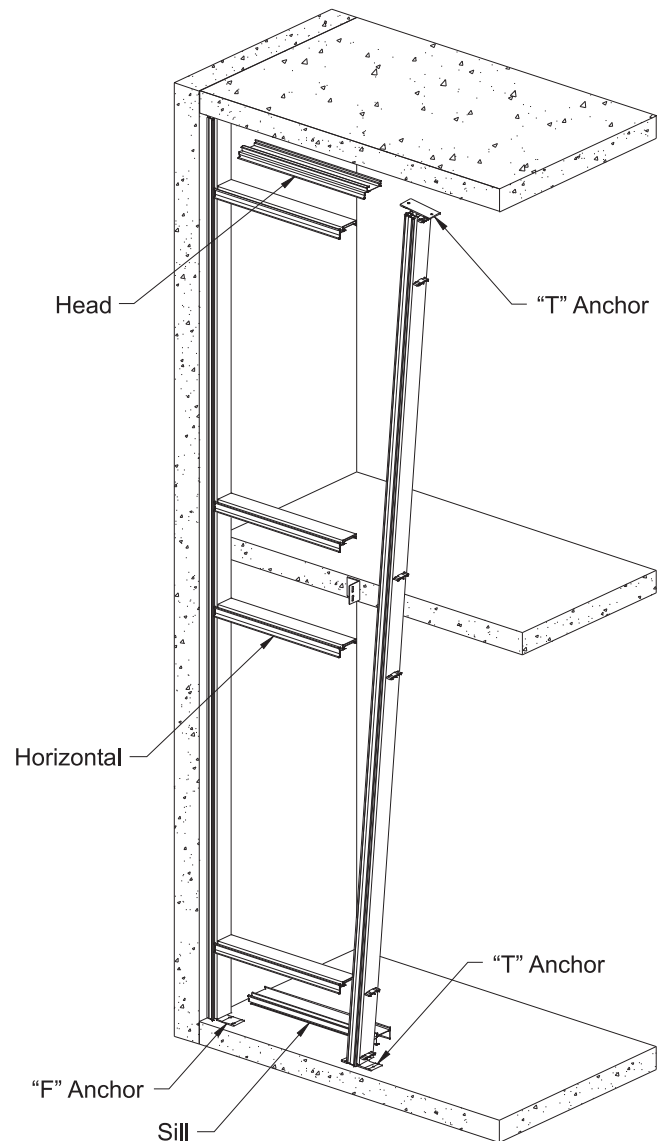
E9-3318 & E9-3328 for 3-3/4" back depth
E9-3312 & E9-3324 for 5-1/4" back depth

Sill Members (1/4" Glazing):

E9-3322 for 3-3/4" back depth
E9-3316 for 5-1/4" back depth

Sill Members (1" Glazing):

E9-3319 for 3-3/4" back depth
E9-3313 for 5-1/4" back depth



Note: When using stick built construction, check for plumb, level, and overall frame width every fifth mullion. This helps to avoid the build up of cumulative tolerance errors. Also check that all anchors are secure and firmly attached to the building.

FRAME FABRICATION

FABRICATE MULLIONS FOR 3-3/4" BACK DEPTH

STEP 1

-Cut all intermediate and jamb mullions to dimensions as shown on shop drawings.
Allow 1/2" for splices and 1/2" caulk joint around the perimeter of the frame.

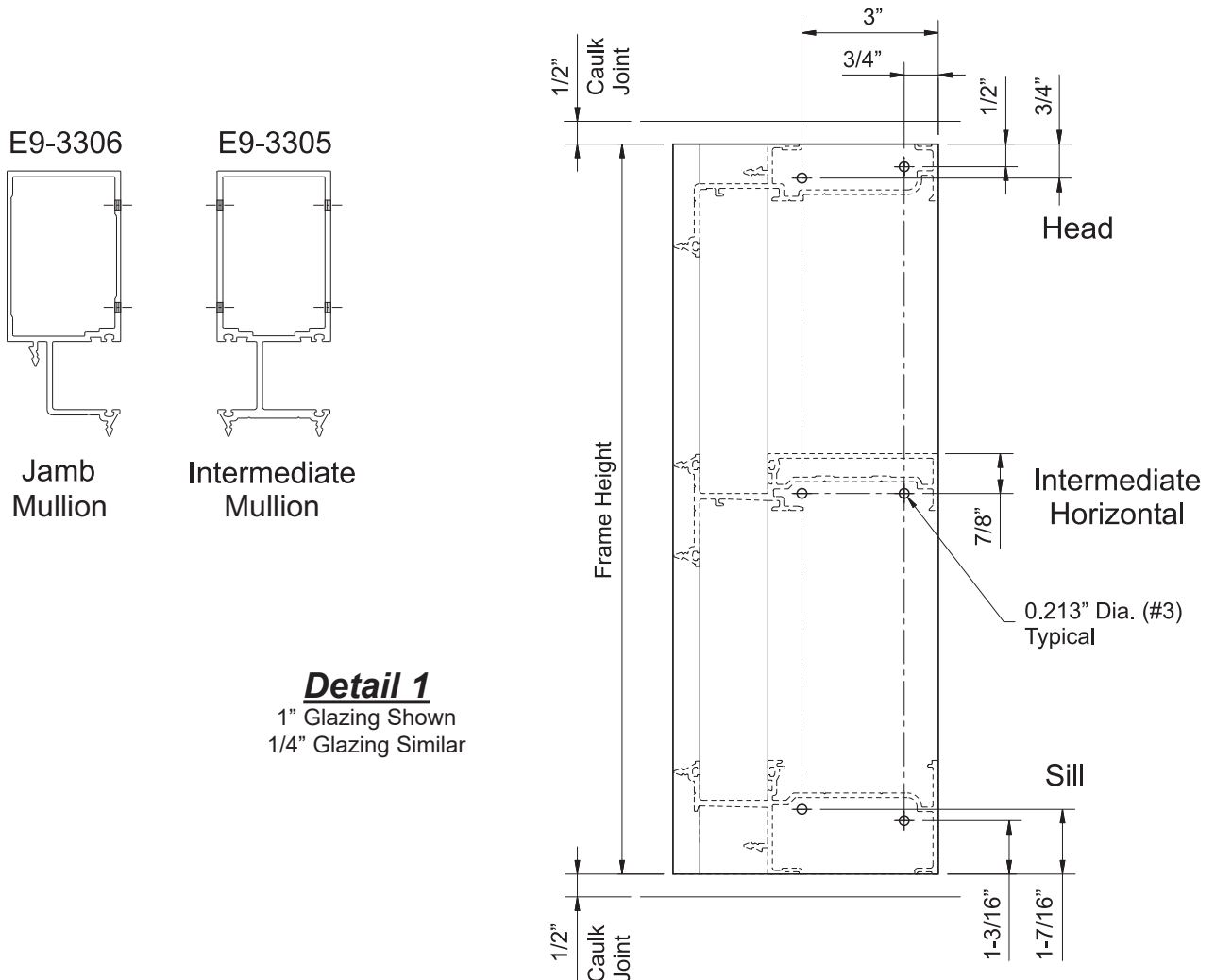
Note: Mullion at door jambs are sealed against the substrate at the sill without a shim space at that location.

STEP 2

-Mullion hole locations for attachment of shear clips, E1-1350 & E1-1351, are shown below:
E1-1351 for head & sill and E1-1350 for intermediate horizontals.

-Locate and drill 0.213" diameter (#3 drill bit) holes in the locations indicated in **Detail 1**, or use a short piece of head, horizontal and sill with shear clip attached as a template.

Note: Hole locations for shear clips vary for head, horizontal and sill conditions.
Also note that the holes for the head and sill shear clips **do not** line up.



FRAME FABRICATION

FABRICATE MULLIONS FOR 5-1/4" BACK DEPTH

STEP 1

-Cut all intermediate and jamb mullions to dimensions as shown on shop drawings.
 Allow 1/2" for splices and 1/2" caulk joint around the perimeter of the frame.

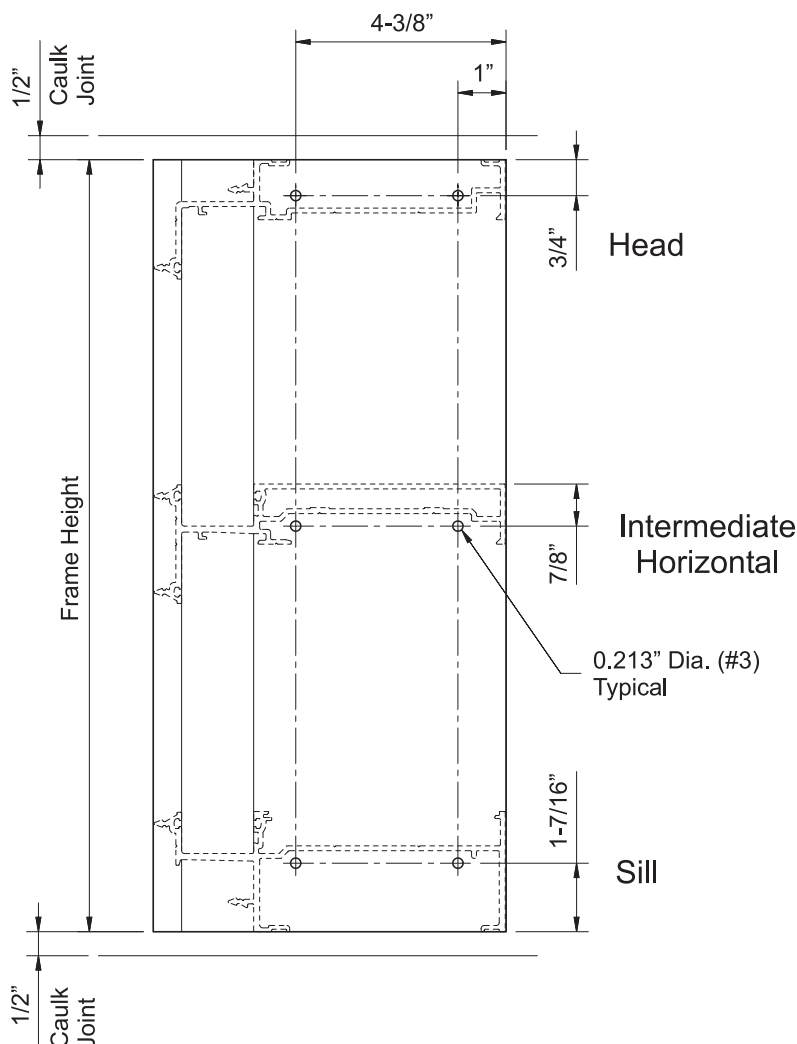
Note: Mullion at door jambs are sealed against the substrate at the sill without a shim space at that location.

STEP 2

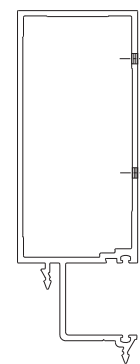
-Mullion hole locations for shear clips, E1-3019, are shown below:

-Locate and drill 0.213" (#3) dia. holes for HF-2528-W1 screws in the locations indicated in **Detail 1**, or use a short piece of head, horizontal and sill with shear clip attached as a template.

Note: Hole locations for shear clips vary for head, horizontal and sill conditions.

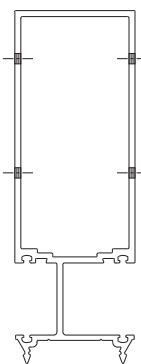


E9-3302



Jamb Mullion

E9-3301



Intermediate Mullion

Detail 2
 1" Glazing Shown
 1/4" Glazing Similar

FRAME FABRICATION

FABRICATE MULLIONS FOR DOOR JAMBS

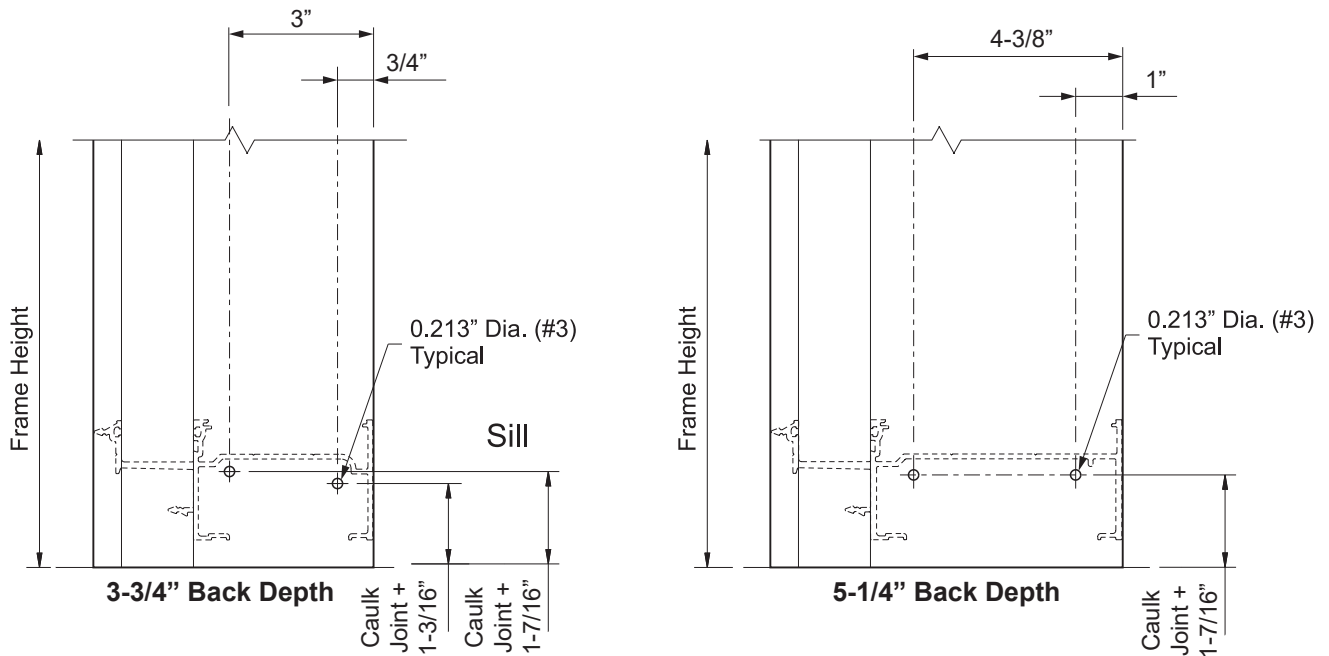
STEP 1

-Cut all intermediate and jamb mullions to dimensions as shown on shop drawings.
Allow 1/2" for splices and 1/2" caulk joint at the top of the frame.

STEP 2

-Mullion hole locations for shear clips at the sill are shown below. All other fabrication for shear clips is the same as previously shown.
-Locate and drill 0.213" (#3) dia. holes for HF-2528-W1 screws in the locations indicated in **Detail 3**, or use a short piece of head, horizontal and sill with shear clip attached as a template.

Note: Hole locations for shear clips vary for head, horizontal and sill conditions.



Detail 3

1" Glazing Shown
1/4" Glazing Similar

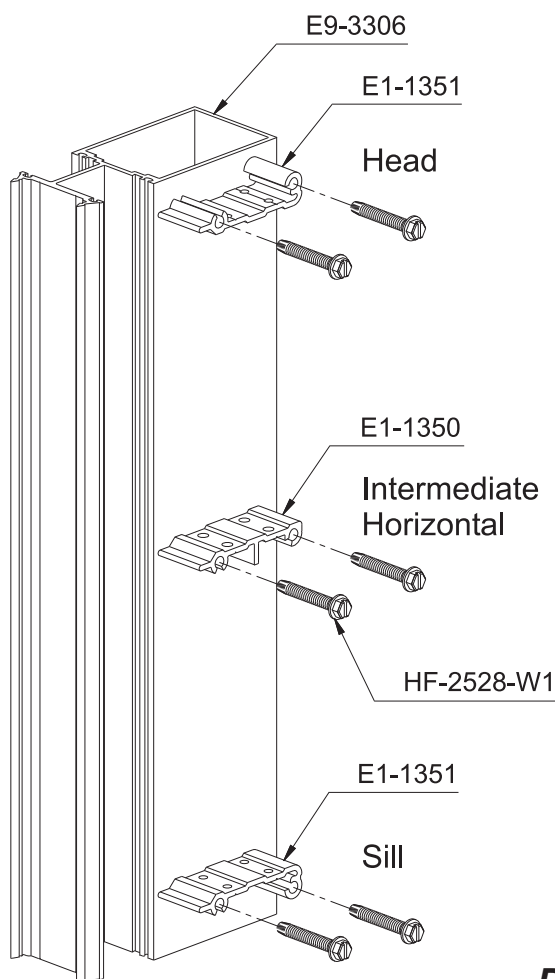
FRAME FABRICATION

**STEP 3
SHEAR CLIPS FOR HORIZONTALS**

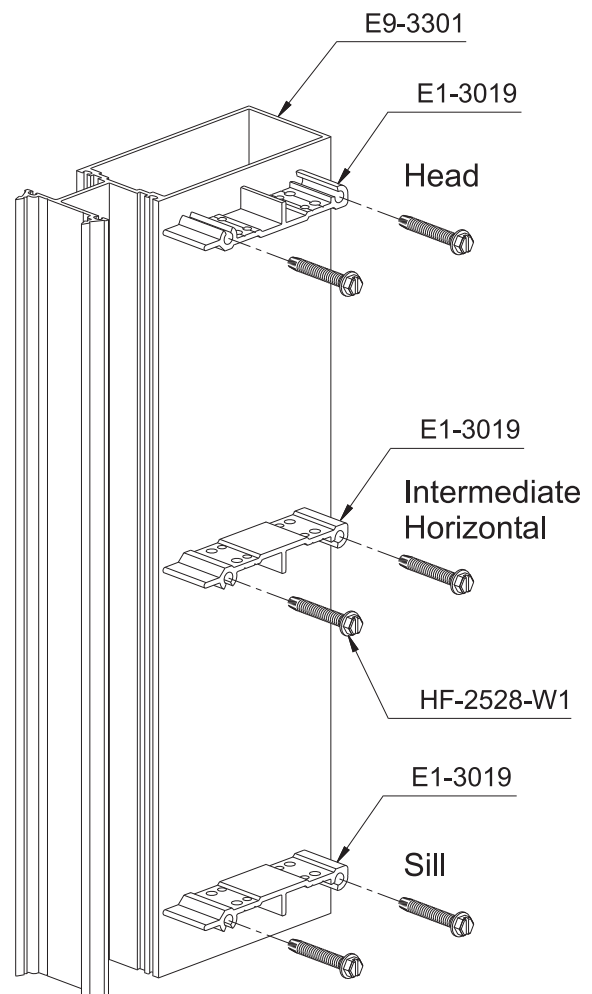
- Attach shear clips to the mullions using two HF-2528-W1 screws for each clip:
 - E1-1350 for 3-3/4" back depth intermediate horizontals.
 - E1-1351 for 3-3/4" back depth head and sill members.
 - E1-3019 for all 5-1/4" back depth horizontal members.

See **Detail 4**.

3-3/4" BACK DEPTH



5-1/4" BACK DEPTH



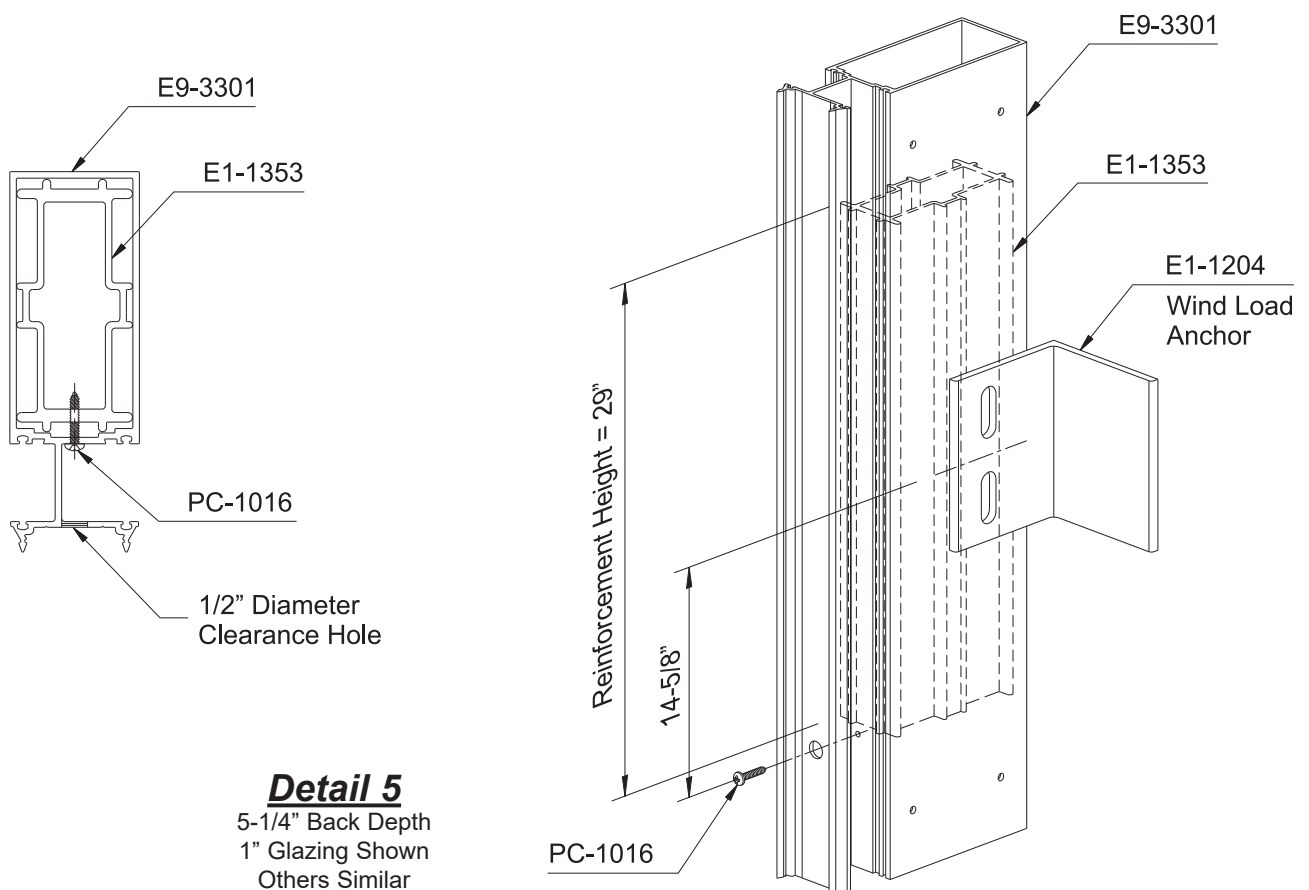
Detail 4
1" Glazing Shown
1/4" Glazing Similar

FRAME FABRICATION

STEP 4 USING OPTIONAL REINFORCEMENT SLEEVE

If engineering calculations require the mullions to be reinforced with additional aluminum, reinforcement sleeve, E1-1355 for 3-3/4" back depth or E1-1353 for 5-1/4" back depth, may be used at wind load / dead load points.

Checking stress levels at point load areas will require different anchors or possibly steel reinforcing. A qualified engineer, should do these calculations.



- Reference your shop drawings for the exact location of the centerline of the wind load or dead load anchors. From the centerline measure down 14-5/8" along the outside face of the mullion and mark the location centered across the mullion.
 - Drill a 0.161" diameter (#20 drill bit) hole through the outside and inside face of the mullion.
 - Drill a 0.500" diameter clearance hole through the outside face of the mullion only.
 - Install a PC-1016 fastener into the inside face to properly locate the reinforcement sleeve.
- See **Detail 5**.

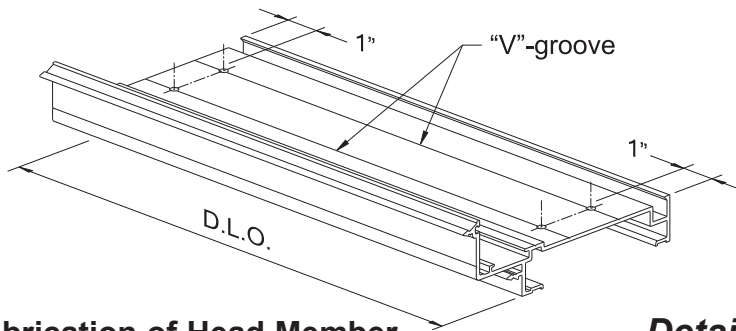
FRAME FABRICATION

STEP 5 FABRICATE OF HEAD & SILL MEMBERS

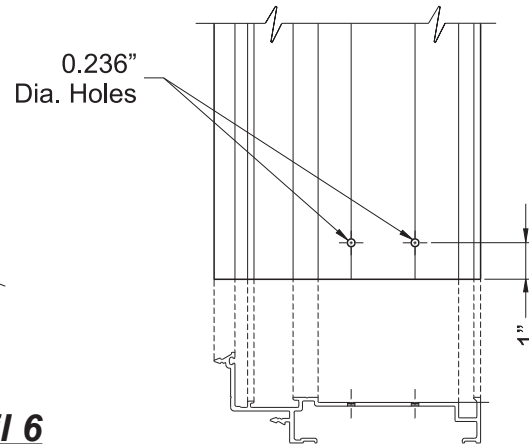
- Cut head and sill members to the daylight opening between verticals.
- Cut all glass stops, flush fillers and interior covers to the daylight opening minus(-) 1/32". Interior covers, E9-3334 & E9-3335, and flush fillers, E9-3162, are only required in vision areas.
- Drill 0.236" diameter (#B drill bit) holes 1" from each end of the head and sill members along the "V"-grooves.
- Weep holes must be drilled for the sill members:
- Drill 0.313" diameter (#O drill bit) weep holes 3" from each end and one in the middle of the mullion along the "V"-groove on the outside face of the sill member. 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.

Note: The head member must be turned over so that the "V"-grooves are facing up.
Drill appropriate size clearance holes at each end of the mullion according to shop drawings or engineering calculations to clear anchor bolts and nuts.

See **Detail 6**.



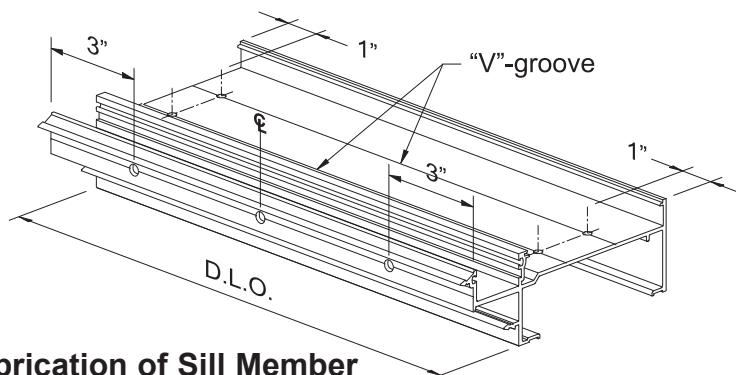
Fabrication of Head Member



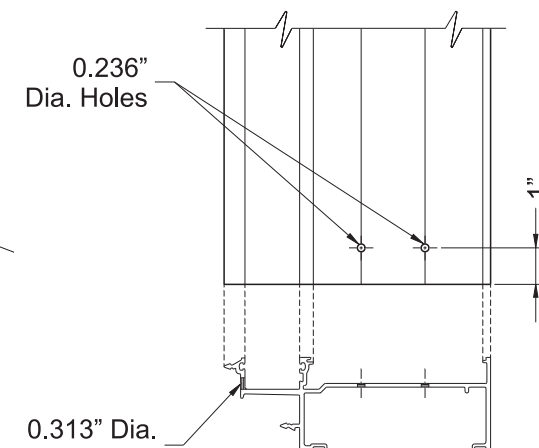
E9-3311 Shown (Turned Over)
Others Similar

Detail 6

5-1/4" Back Depth
1" Glazing Shown
Others Similar



Fabrication of Sill Member



E9-3313 Shown
Others Similar

FRAME FABRICATION

STEP 6 FABRICATE OF INTERMEDIATE HORIZONTALS

- Cut horizontal members to the daylight opening between verticals.
- Cut all glass stops, flush fillers and interior covers to the daylight opening minus(-) 1/32". Interior covers, E9-3334 & E9-3335, are only required in vision areas.
- Drill 0.189" diameter (#12 drill bit) holes 1" from each end of the horizontal members along the "V"-grooves.

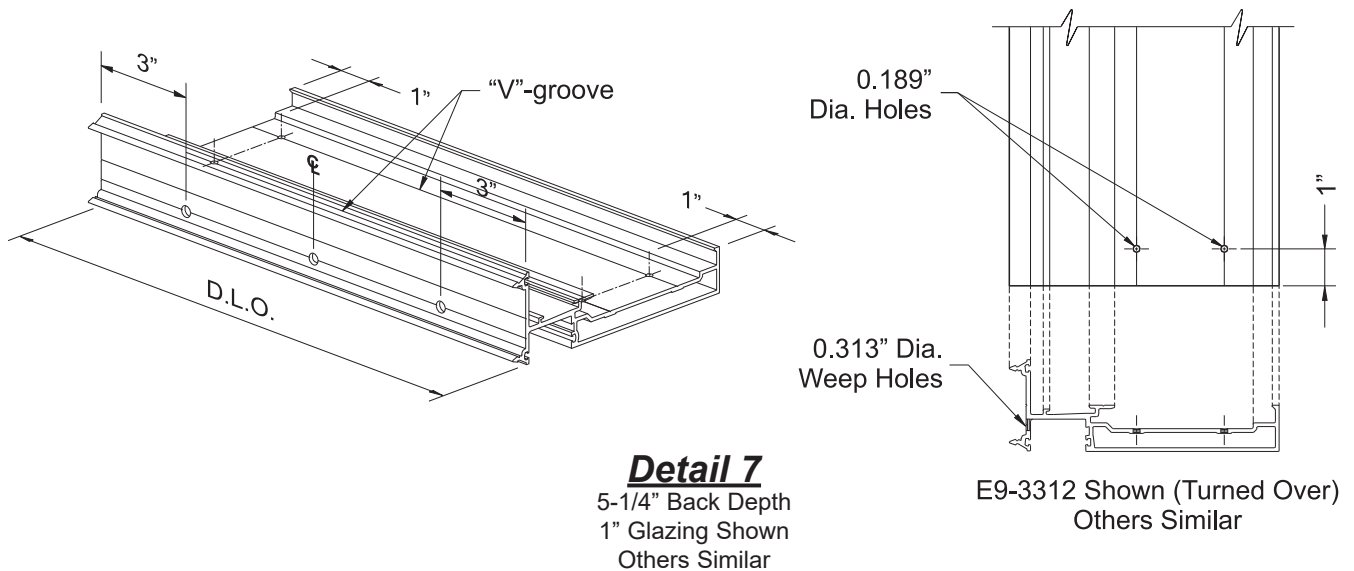
Caution: Holes drilled to attach intermediate horizontals are smaller than those drilled to attach head & sill members.

Note: The horizontal member must be turned over so that the "V"-grooves are facing up.

- Weep holes must be drilled for the intermediate horizontal members:
- Drill 0.313" diameter (#0 drill bit) weep holes 3" from each end and one in the middle of the mullion along the "V"-groove on the outside face of the horizontal member. 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.

See **Detail 7**.

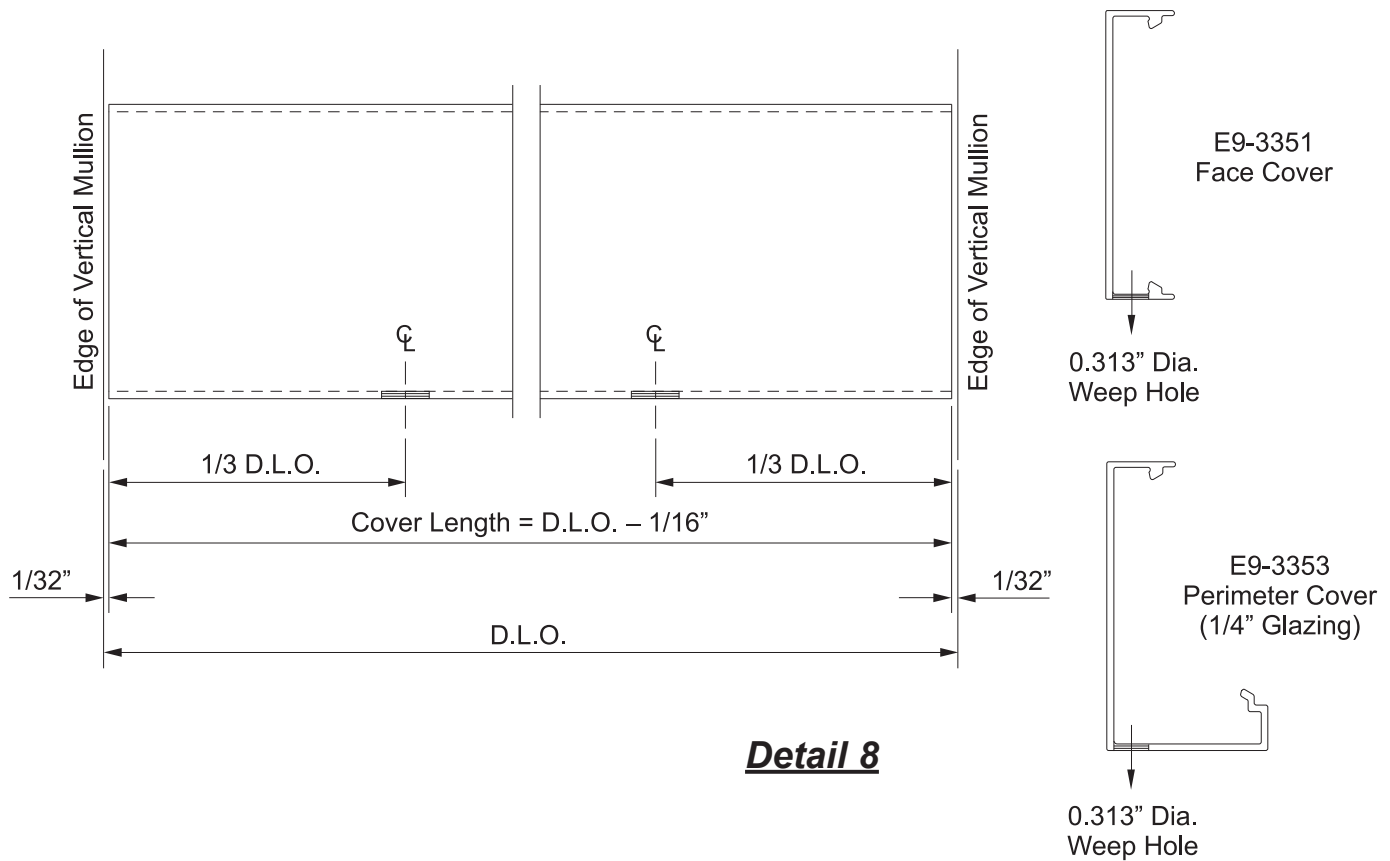
Fabrication of Horizontal Member



FRAME FABRICATION

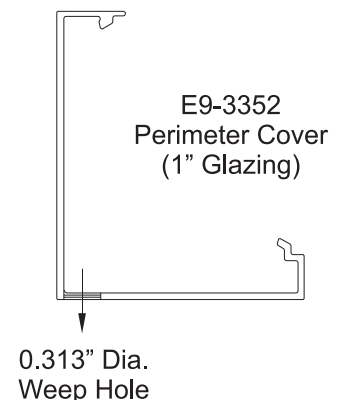
STEP 7 FABRICATE HORIZONTAL FACE COVERS

- Cut all horizontal covers to daylight opening between verticals minus(-) 1/16".
- Drill two 0.313" diameter (#0 drill bit) weep holes at 1/3 points of cover.
- See **Detail 8**.



STEP 8 FABRICATE VERTICAL FACE COVERS

- Cut vertical covers to the same length as the mullions **unless the mullions are spliced**.
- If the mullions are spliced, cut covers to accommodate for expansion joint or butt splice.
- See Typical Vertical Splice, **Detail 10** on **Page-18**.



FRAME FABRICATION

STEP 9 FABRICATE MULLION FOR SPLICES

Install splice locator screw:

- From the top of the vertical measure down 2-7/8" along the outside face of the mullion and mark the location centered across the mullion.
- Drill a 0.161" diameter (#20 drill bit) hole through the outside and inside face of the mullion.
- Drill a 0.500" diameter clearance hole through the outside face of the mullion only.
- Install a PC-1016 fastener into the inside face to properly locate the splice sleeve.

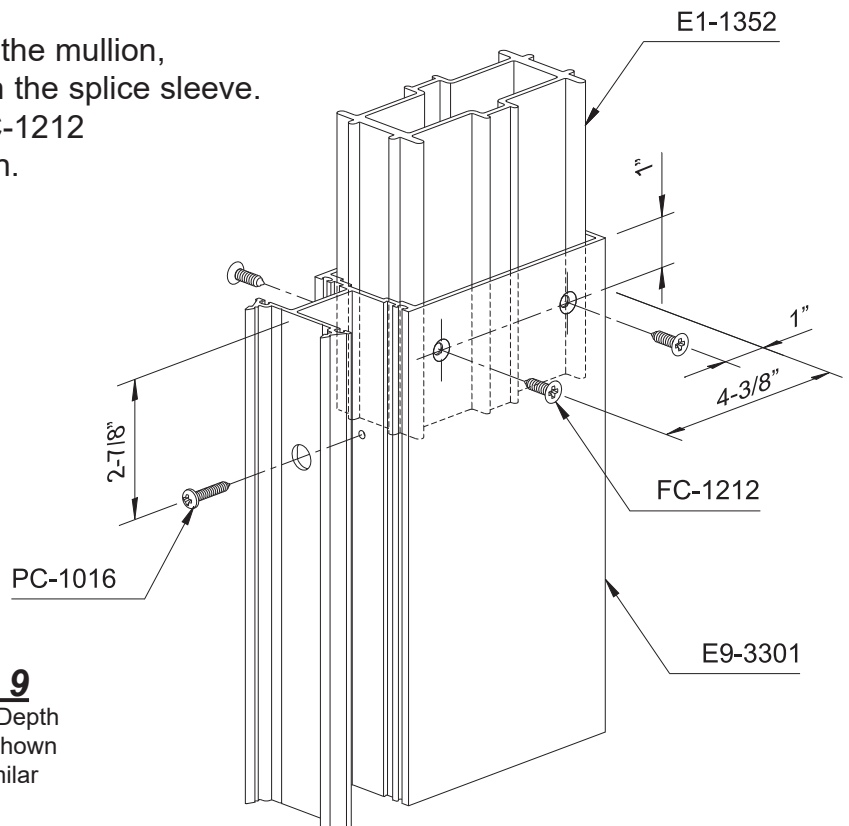
Drill holes for splice attachment:

- From the top of the vertical measure down 1" and draw a line across the side of the mullion.
- For 5-1/4" deep mullions mark a location along this line 1" from the back of the mullion; mark a second location along this line 4-3/8" from the back of the mullion.
- For 3-3/4" deep mullions mark a location along this line 11/16" from the back of the mullion; mark a second location along this line 3" from the back of the mullion.
- Drill a 0.236" dia. (#B drill bit) hole at each location and countersink for a #12 flathead fastener.
- Repeat the previous steps on the other side of the vertical.

Install splice sleeve:

- Carefully slide the splice sleeve, E1-1352 or E1-1354, down into the end of the mullion.
- Using the holes previously drilled in the mullion, drill 0.189" dia. (#12 drill bit) holes in the splice sleeve.
- Attach the splice sleeve with two FC-1212 fasteners on each side of the mullion.

See **Detail 9**.



Detail 9

5-1/4" Back Depth
1" Glazing Shown
Others Similar

FRAME INSTALLATION

STEP 10 TYPICAL MULLION SPLICE

- Clean all surfaces as recommended by the sealant manufacturer.
- Apply bond breaker tape to the faces of the splice sleeves.

Assemble Mullion Splice:

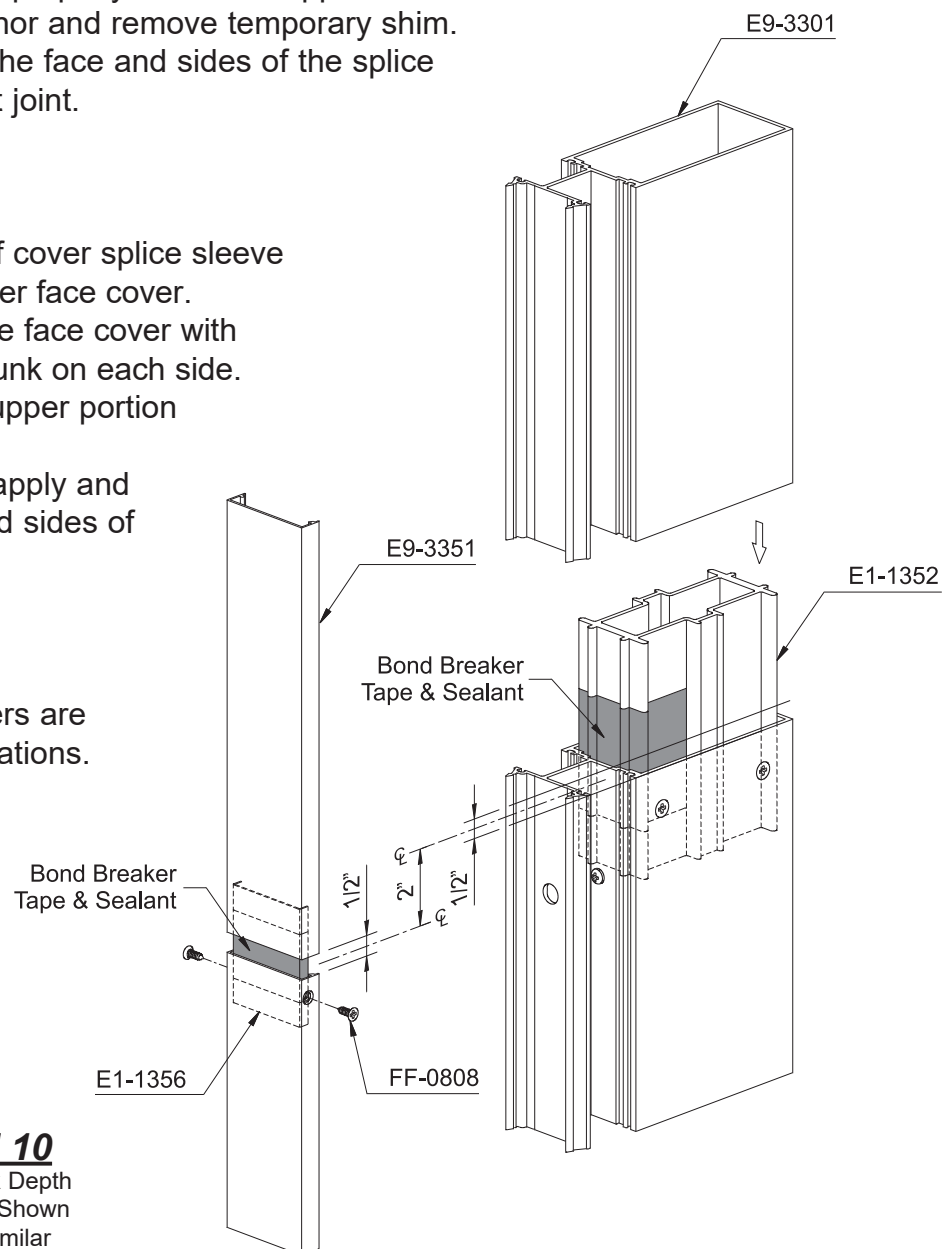
- Apply sealant to the projected portion of the splice sleeve.
- Carefully slide the next mullion down onto the splice sleeve.
- Use a 1/2" temporary shim to properly locate the upper mullion.
- Secure upper mullion to anchor and remove temporary shim.
- Apply and tool sealant onto the face and sides of the splice sleeve to create a water tight joint.

Assemble Cover Splice:

- Install lower face cover.
- Apply sealant to lower half of cover splice sleeve and slide it down into the lower face cover.
- Attach the splice sleeve to the face cover with a FF-0808 fastener countersunk on each side.
- Apply bond breaker tape to upper portion of cover splice sleeve only.
- After installing upper cover, apply and tool sealant onto the face and sides of the splice sleeve.

See **Detail 10**.

Note: Mullions and face covers are staggered at splice locations.



Detail 10

5-1/4" Back Depth
1" Glazing Shown
Others Similar

FRAME INSTALLATION

STEP 11 INSTALL VERTICAL FACE COVERS

-Snap the thermal isolator clips, E3-0037, onto the jamb and mullions 3" from each end and no more than 12" on center. See **Detail 11**.

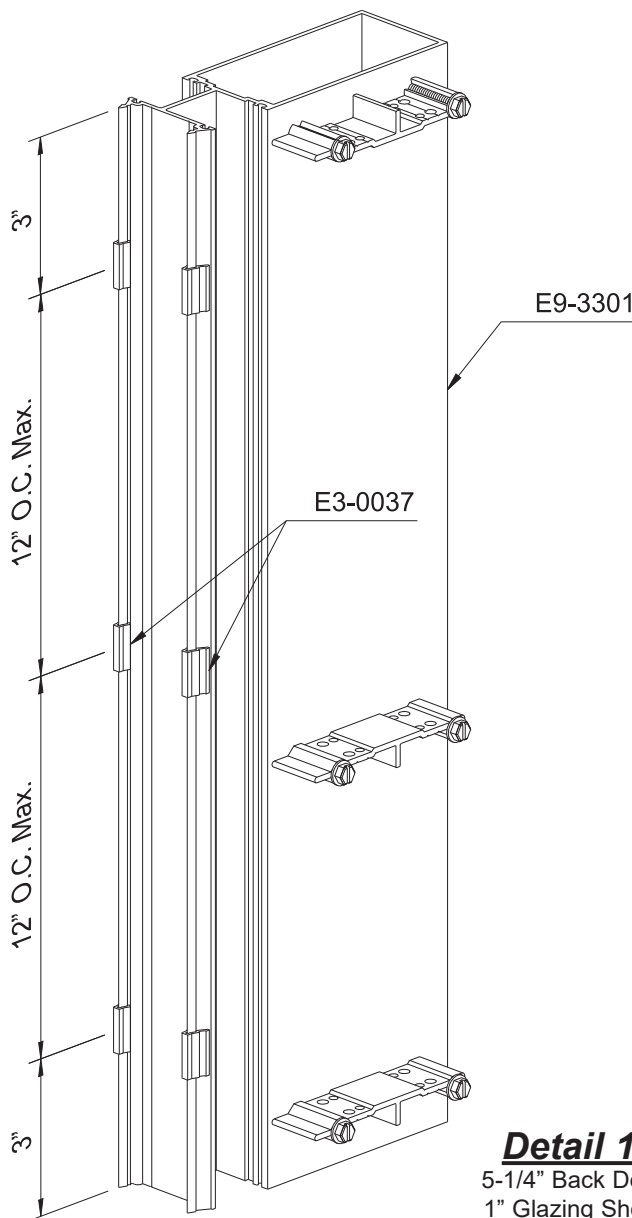
-Snap on exterior vertical covers, E9-3351, using a mallet and a clean scrap piece of lumber. Start at one end and carefully tap in the vertical cover working down to the other end.

-To prevent vertical face covers from walking due to thermal expansion and contraction, an anti-walk screw must be installed for each vertical face cover installed.

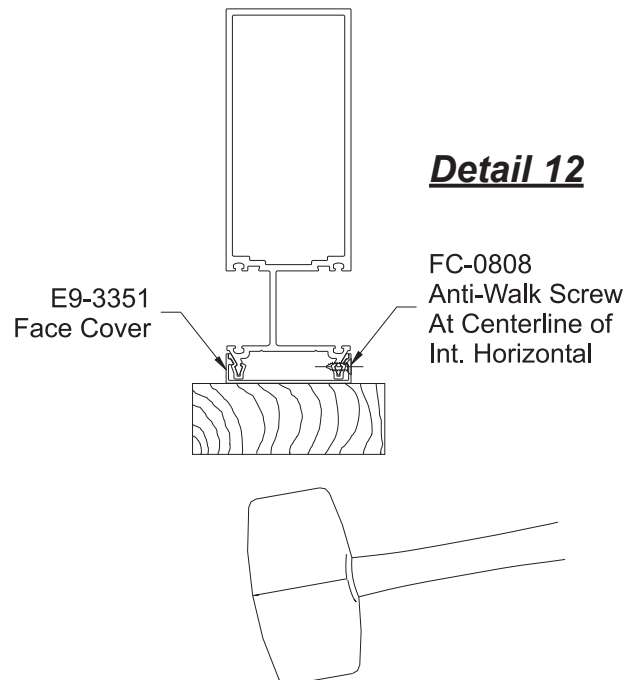
-Drill a 0.141" dia. hole through the cover and mullion and install a FC-0808 fastener at the center of the intermediate horizontal closest to the midpoint of the vertical face cover.

See **Detail 12**.

Caution: Do not attach face covers to jamb mullions at this point. Perimeter sealant must be applied before jamb face covers can be attached.



Detail 11
5-1/4" Back Depth
1" Glazing Shown
Others Similar



FRAME INSTALLATION

STEP 12 INSTALL MULLION END CAPS

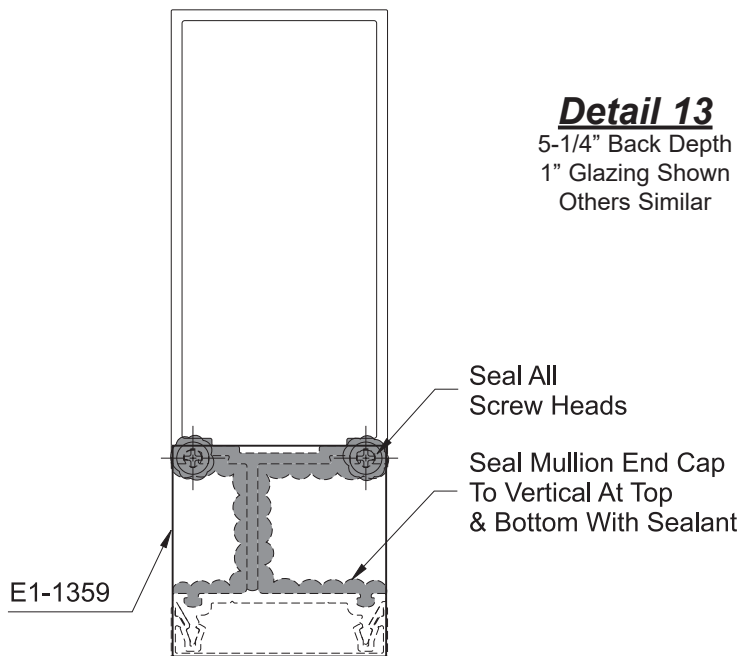
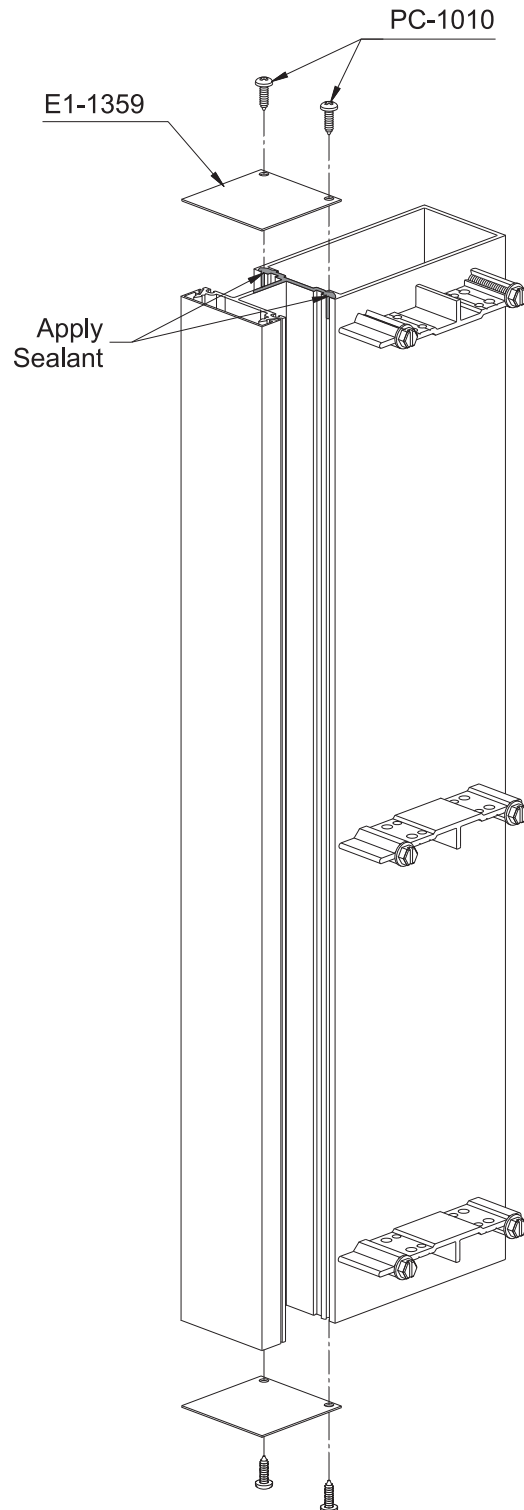
-Apply sealant at the top and bottom of mullions and jambs along the back face from reglet to reglet and along the mullion web prior to installing the mullion end caps:

- E1-1359 for 1" glazing.
- E1-1360 for 1/4" glazing.

-Install the mullion end caps onto the mullion at the top and bottom using two PC-1010 fasteners prior to erecting the verticals.
-Seal all screw heads.

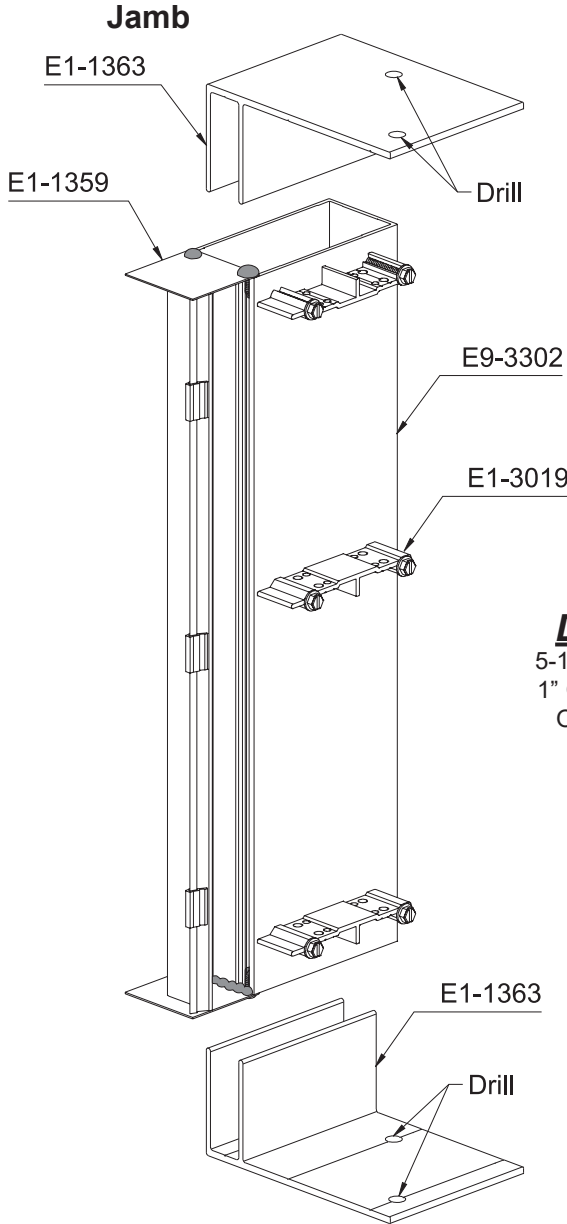
-Apply and tool sealant along the intersection of the end cap and vertical at the top and bottom of the mullion.

See **Detail 13**.



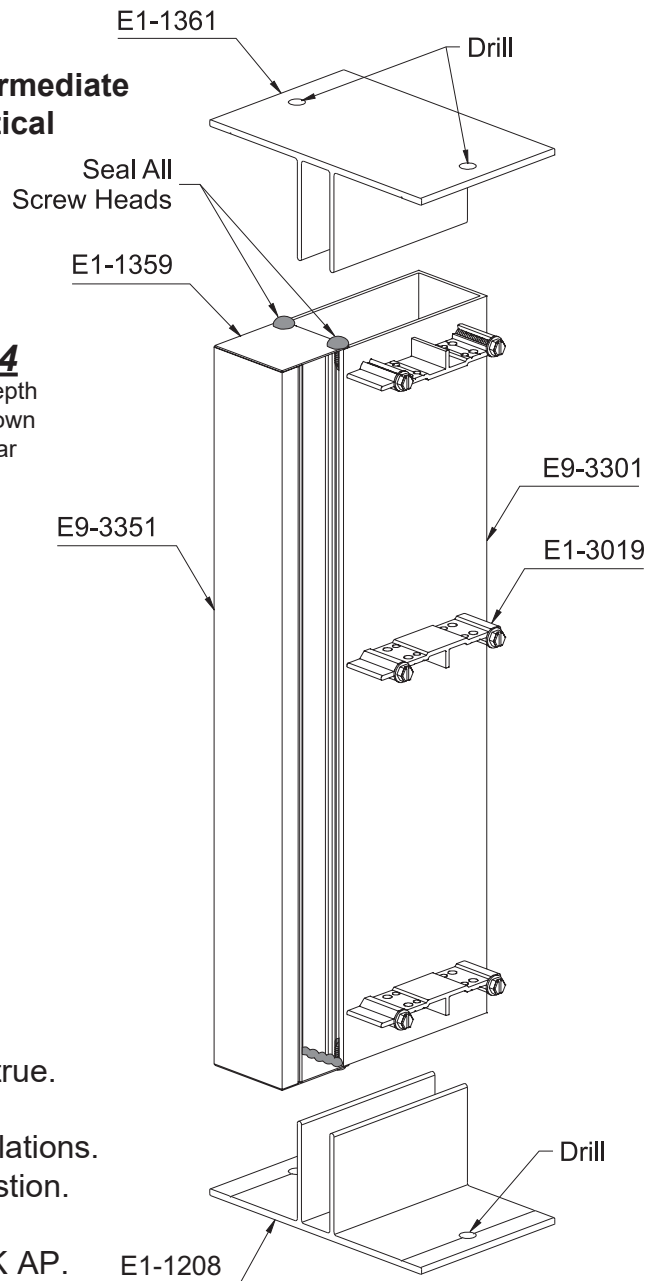
FRAME INSTALLATION

STEP 13
INSTALL JAMB & VERTICAL MULLIONS



-Insert mullion “T” anchors, E1-1208 (5-1/4” back) or E1-1229 (3-3/4” back), and “F” anchors, E1-1233 (5-1/4” back) or E1-1230 (3-3/4” back), into the top and bottom of intermediate and jamb mullions before erecting the mullion into the opening.

Intermediate Vertical



Detail 14
5-1/4” Back Depth
1” Glazing Shown
Others Similar

- Erect and locate the jambs and verticals and temporarily attach them to the structure.
- Note:** All mullions must be installed plumb and true.
- Drill holes in “T” and “F” anchors for appropriate anchor fasteners according to engineering calculations. Consult YKK AP if load requirements are in question.
- Install anchor fasteners per job requirements.
- Note:** Anchor fasteners are not supplied by YKK AP. See **Detail 14**.

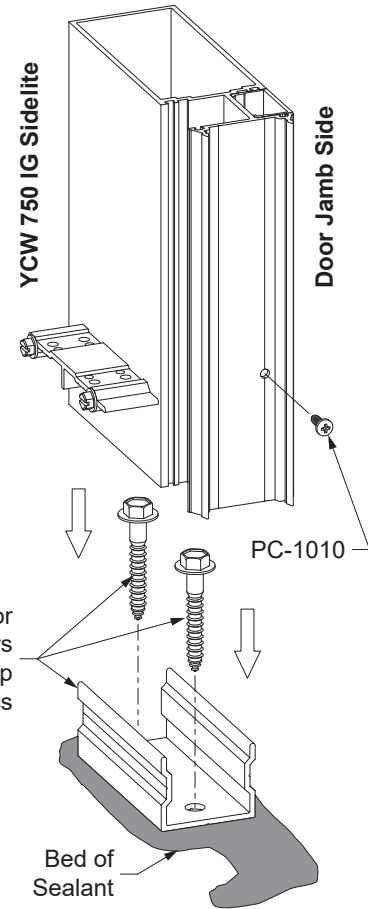
FRAME INSTALLATION

STEP 13A VERTICAL INSTALLATION AT DOOR JAMB END ANCHORS

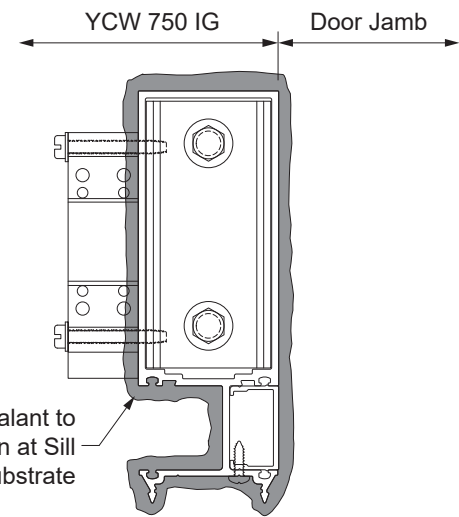
The mullions at the door jambs are set directly upon the sill substrate without any shims and are sealed against the substrate. The anchors to be used at this location are specified by the approved shop drawings and or P.E. calculations.

- Locate the mullion anchor for the door jamb and install it to the substrate according to the approved shop drawings and P.E. calculations.
- 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. Avoid using shims at this location. See **Detail 15**.

- 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 16**.



Detail 15
5-1/4" Back Depth
1" Glazing Shown
Others Similar



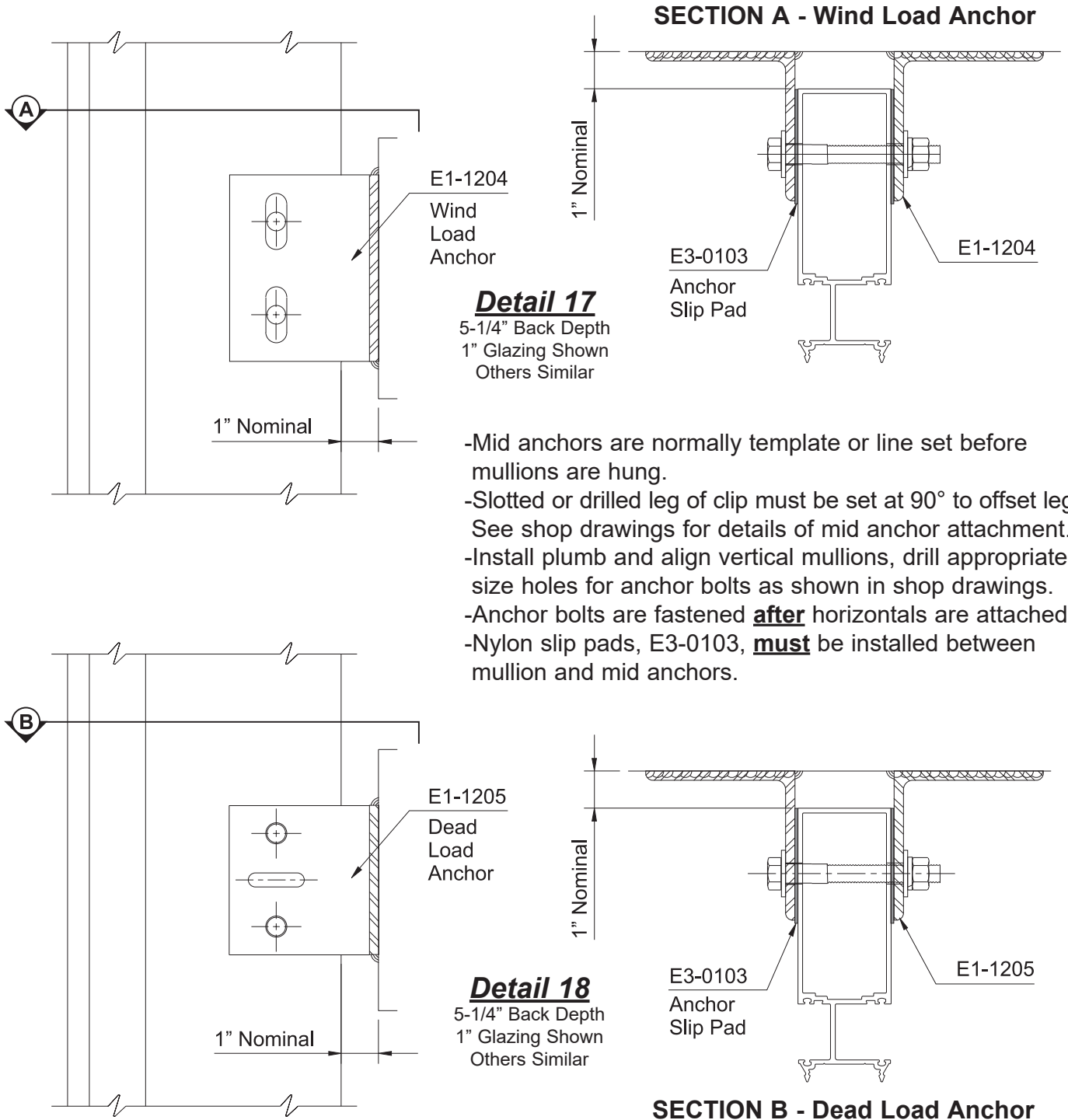
Detail 16
5-1/4" Back Depth
1" Glazing Shown
Others Similar

FRAME INSTALLATION

STEP 14 INSTALL WIND LOAD / DEAD LOAD ANCHORS

- Install steel mullion mid anchors:
Wind load anchor, E1-1204. See **Detail 14**.
Dead load anchor, E1-1205. See **Detail 15**.

Note: Required anchors and bolt size will vary based on project requirements. Consult a qualified engineer or YKK AP.

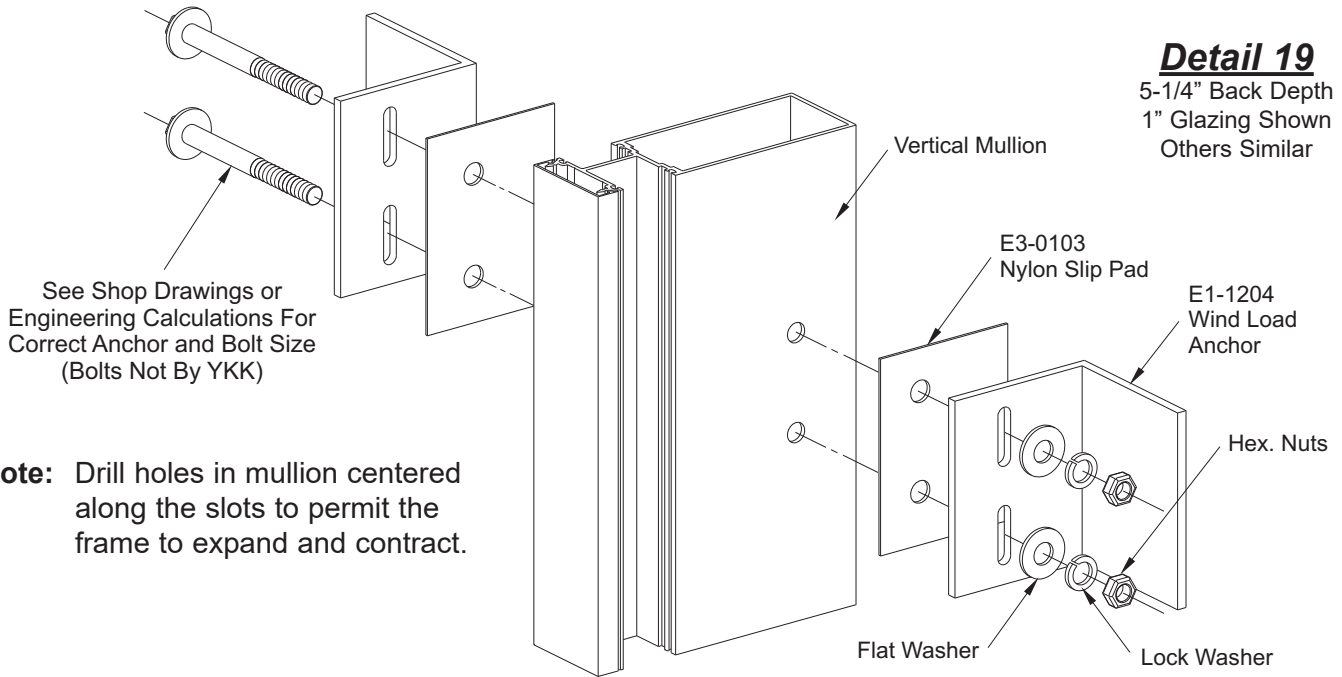


- Mid anchors are normally template or line set before mullions are hung.
- Slotted or drilled leg of clip must be set at 90° to offset leg. See shop drawings for details of mid anchor attachment.
- Install plumb and align vertical mullions, drill appropriate size holes for anchor bolts as shown in shop drawings.
- Anchor bolts are fastened **after** horizontals are attached.
- Nylon slip pads, E3-0103, **must** be installed between mullion and mid anchors.

FRAME INSTALLATION

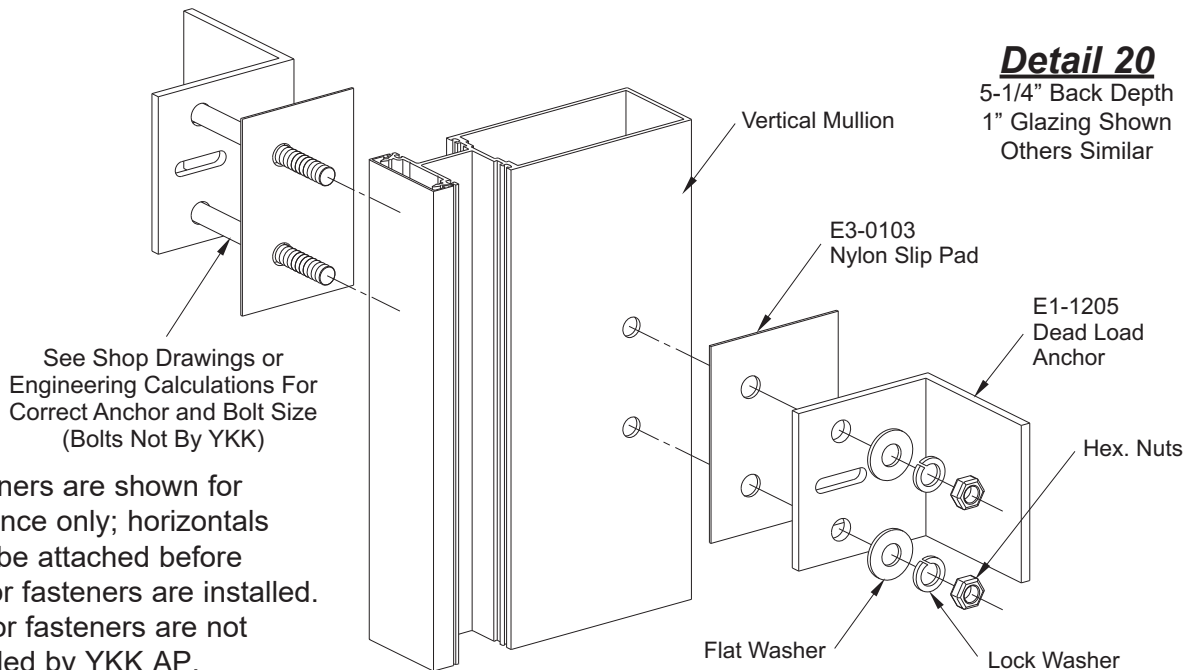
**STEP 14 (Continued)
INSTALL WIND LOAD / DEAD LOAD ANCHORS**

TYPICAL WIND LOAD ANCHOR



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

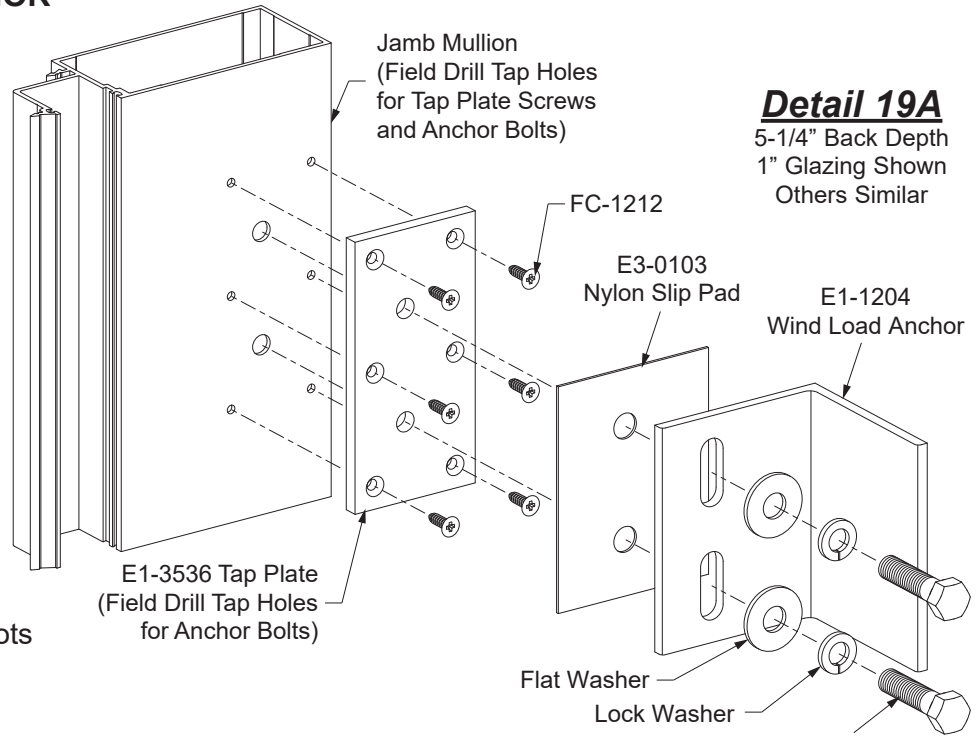
TYPICAL DEAD LOAD ANCHOR



Note: Fasteners are shown for reference only; horizontals must be attached before anchor fasteners are installed. Anchor fasteners are not provided by YKK AP.

FRAME INSTALLATION

JAMB WIND LOAD ANCHOR



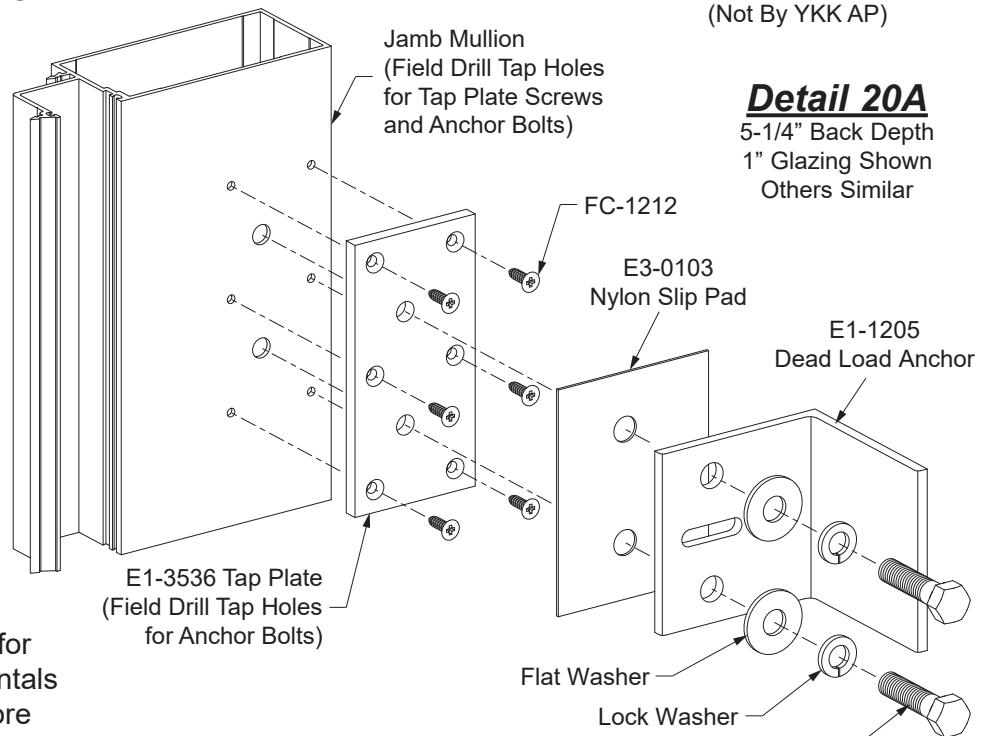
Detail 19A

5-1/4" Back Depth
1" Glazing Shown
Others Similar

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

See Shop Drawings or
Engineering Calculations
For Correct Bolt Size
(Not By YKK AP)

JAMB DEAD LOAD ANCHOR



Detail 20A

5-1/4" Back Depth
1" Glazing Shown
Others Similar

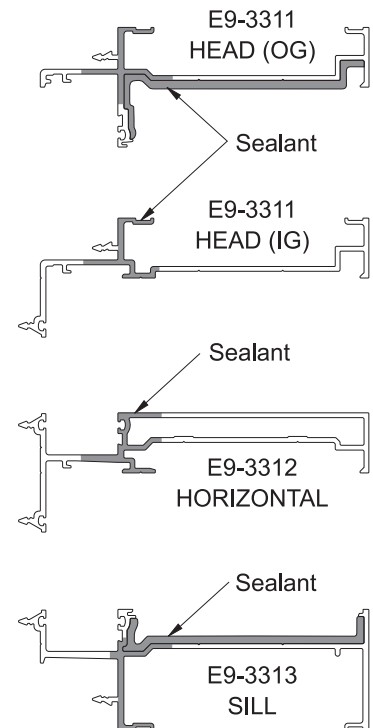
Note: Fasteners are shown for reference only; horizontals must be attached before anchor fasteners are installed. Anchor fasteners are not provided by YKK AP.

See Shop Drawings or
Engineering Calculations
For Correct Bolt Size
(Not By YKK AP)

FRAME INSTALLATION

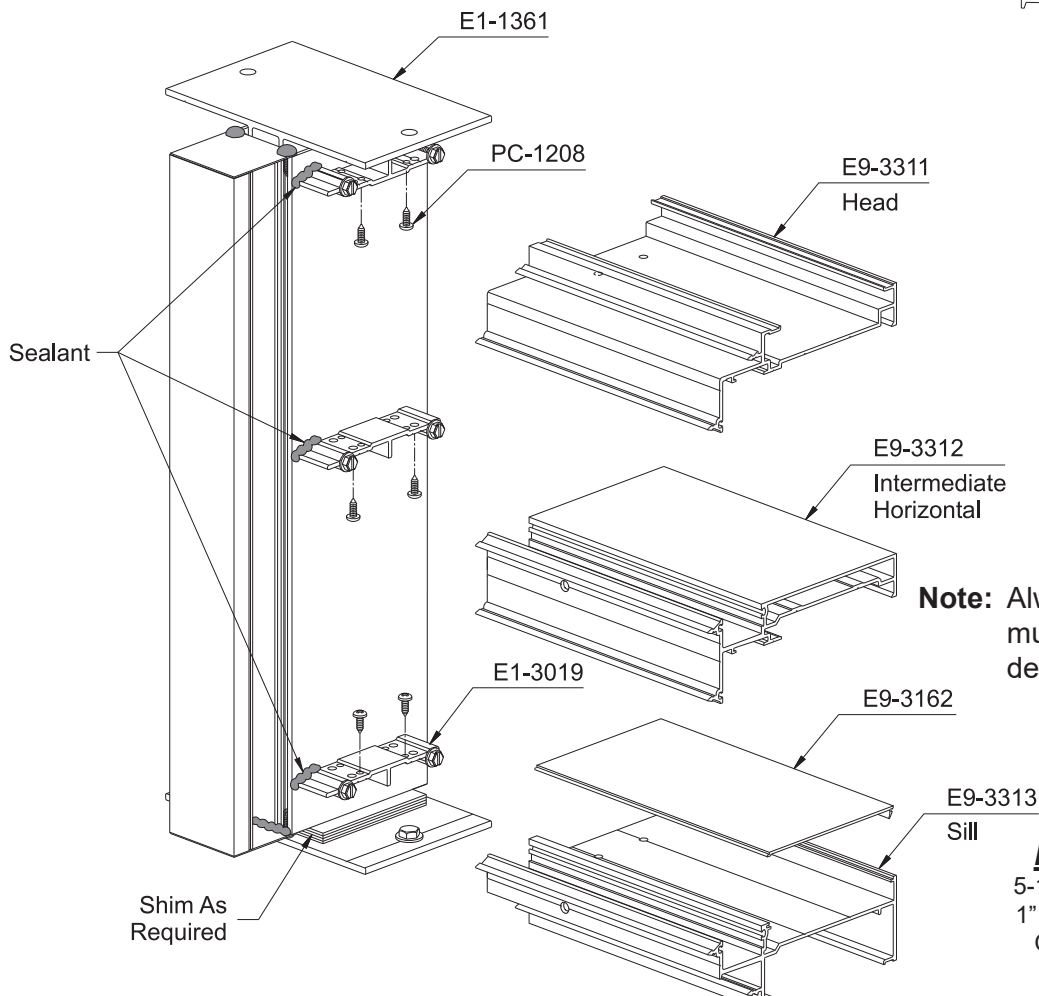
STEP 15 HEAD/HORIZONTAL/SILL ATTACHMENT

- Clean all contact surfaces with cleaner and method approved by sealant manufacturer.
 - Apply silicone to the ends of the horizontals as shown in **Detail 21** before attaching to the shear clips.
 - Just prior to attaching the horizontals, apply sealant to the front of the shear clips as shown in **Detail 22**.
 - Attach the head, intermediate horizontal, and sill to the shear clips with two PC-1208 fasteners at each end.
 - Tool and wipe away any excess sealant.
- See **Detail 22**.
- Apply and tool sealant along the joint where the optional outside glazed head and sill meet the vertical.
- See **Detail 21**.



Detail 21

5-1/4" Back Depth
1" Glazing Shown
Others Similar



Note: Always shim underneath the mullion to transfer glazing dead loads to the foundation.

Detail 22

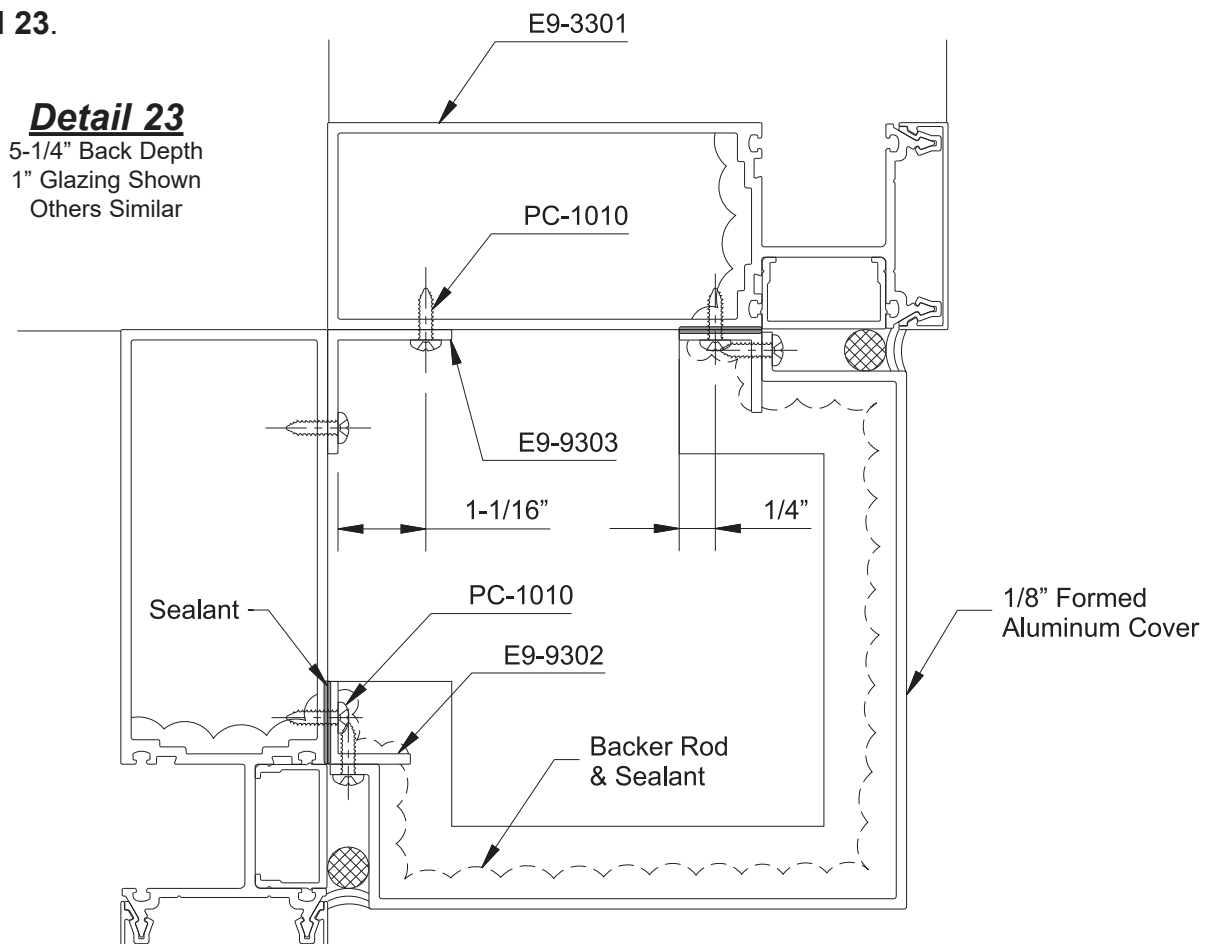
5-1/4" Back Depth
1" Glazing Shown
Others Similar

FRAME INSTALLATION

STEP 16 90° OUTSIDE CORNER ASSEMBLY

- Locate both mullions perpendicular to each other as shown in **Detail 23**.
- Anchor vertical ends with appropriate end anchors. Refer to shop drawings for mid anchors.
- Insert glazing pocket filler, E9-3341 (1" glazing) or E9-3342 (1/4" glazing), into the shallow pocket of the corner mullions.
- Position angle E9-9303 into corner between the two mullions and fasten both legs every 18" o.c. and 3" from each end using PC-1010 fasteners.
- Apply a 3" bead of sealant to the inside leg of angle E9-9302 at each end and position angle E9-9302 flush with the face of the verticals and fasten to the verticals every 18" o.c. and 3" from each end using PC-1010 fasteners.
- Position the formed aluminum cover into place and fasten with PC-1010 fasteners every 18" o.c. and 3" from each end.
- Do not span formed aluminum cover more than 12'-6"; leave 1/2" joint between spans of 12'-6".
- Clean area around joint using cleaner and method approved by sealant manufacturer. Priming may be required for certain finishes.
- Compress backer rod into the 1/2" joint. Apply and tool sealant to the joint.

See **Detail 23**.



FRAME INSTALLATION

STEP 17

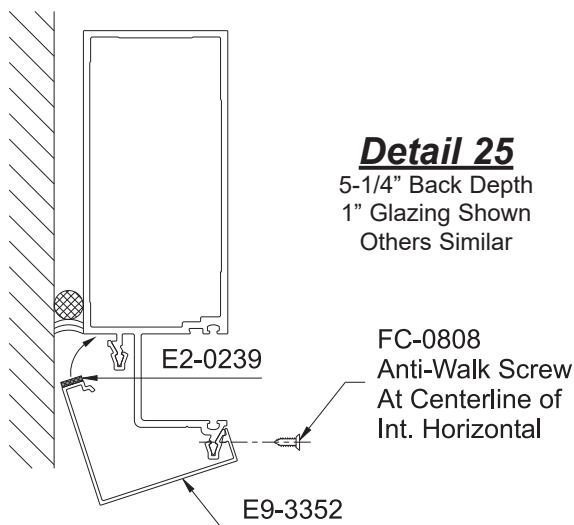
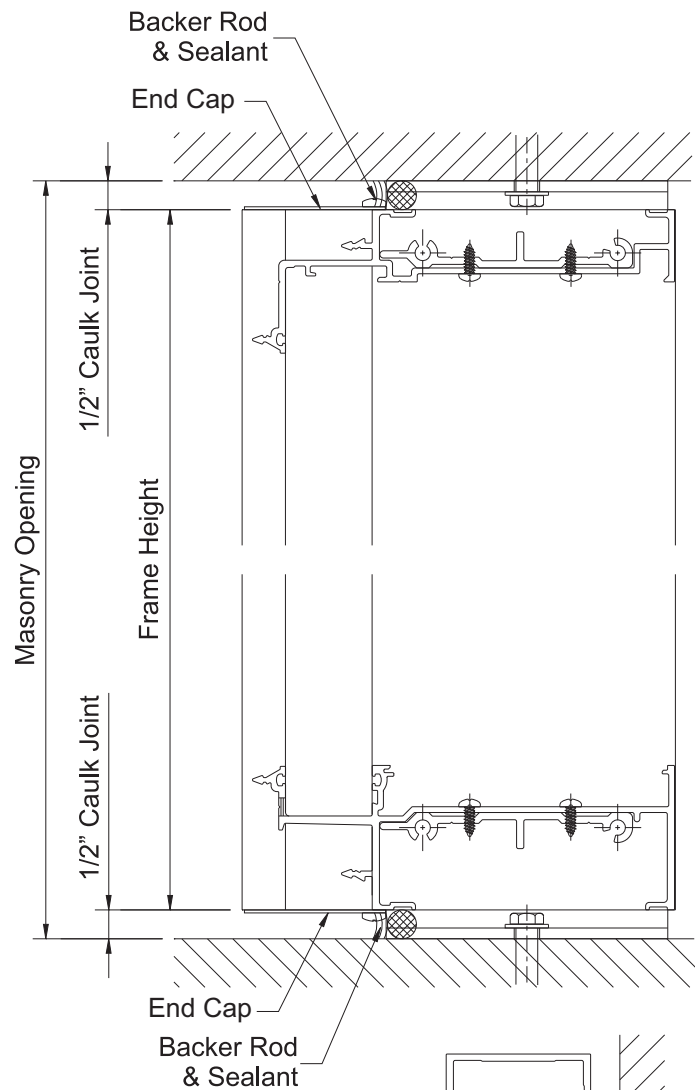
APPLY PERIMETER SEALANT

- Position backer rod around perimeter of frame.
 - Clean around the perimeter of the frame with cleaner and method approved by sealant manufacturer.
 - Apply and tool sealant to the perimeter of the frame. Make sure sealant does not contact the thermal isolator clips or extrusion leg.
 - Wipe off any excess sealant immediately.
- See **Detail 24**.

STEP 18

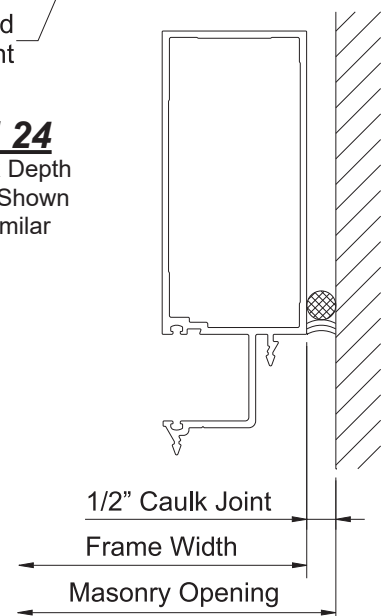
INSTALL JAMB FACE COVER

- Install glazing tape, E2-0239, onto the inside leg of the perimeter face cover - E9-3352 for 1" glazing or E9-3353 for 1/4" glazing.
 - Install jamb face covers by first setting the cover on the inside thermal clip, and then rolling it over to engage with the thermal isolator clips on the jamb side.
 - Drill a 0.141" dia. hole through the cover and jamb and install an anti-walk screw, FC-0808, at the center of the intermediate horizontal closest to the midpoint of the jamb face cover.
- See **Detail 25**.



Detail 24

5-1/4" Back Depth
 1" Glazing Shown
 Others Similar



GLAZING

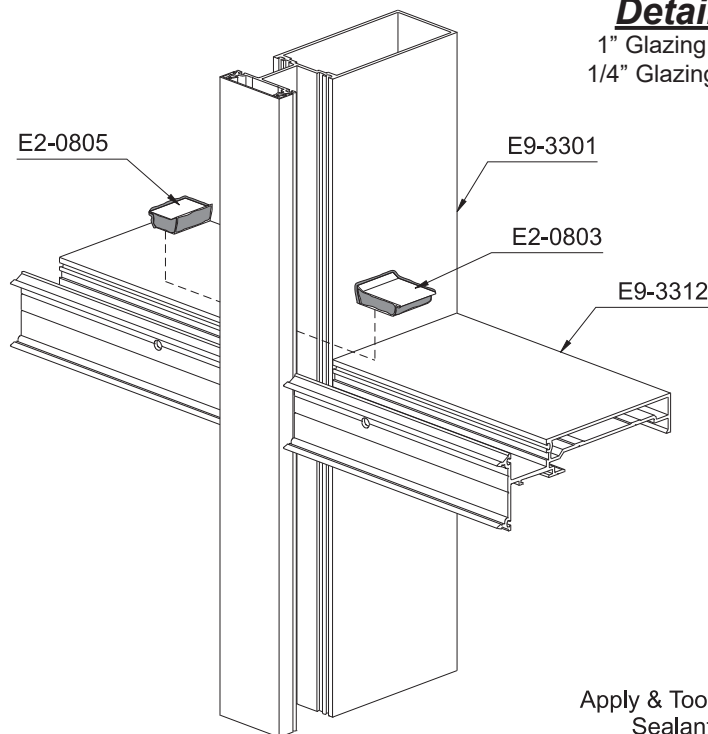
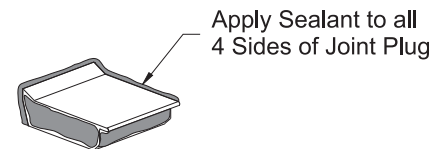
STEP 19 INSTALL JOINT PLUGS

-The opening where the horizontal glazing pocket meets the vertical glazing pocket must be plugged and sealed with joint plugs, at all intersections including head and sill:

- E2-0803 for 1" glazing deep pockets.
- E2-0804 for 1/4" glazing deep pockets.
- E2-0805 for 1" glazing shallow pockets.
- E2-0806 for 1/4" glazing shallow pockets.

See **Detail 26**.

Note: Clean all contact surfaces with cleaner and method approved by sealant manufacturer.



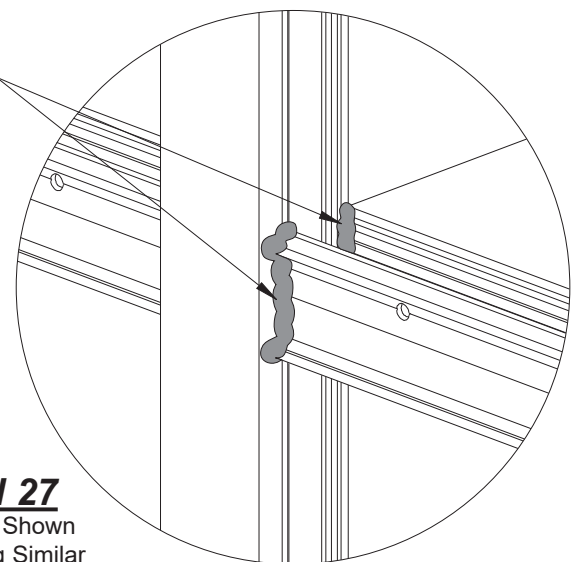
Detail 26
1" Glazing Shown
1/4" Glazing Similar

- Apply silicone sealant to all four contact sides of the joint plug.
- Install the joint plug into the cavity. Press down until the bottom lip of the joint plug touches the horizontal.
- Apply and tool sealant to completely cover the top of the joint plug.
- Tool the excess sealant along the edges of the joint plug to seal the cavity.

- Apply sealant to vertical and horizontal joints.
- Tool the sealant where the face of the horizontal meets the mullion down to the end dam.
- Tool the sealant where the pressure plate meets the mullion face cover to complete the seal at this joint.

See **Detail 27**.

Apply & Tool Sealant



Detail 27
1" Glazing Shown
1/4" Glazing Similar

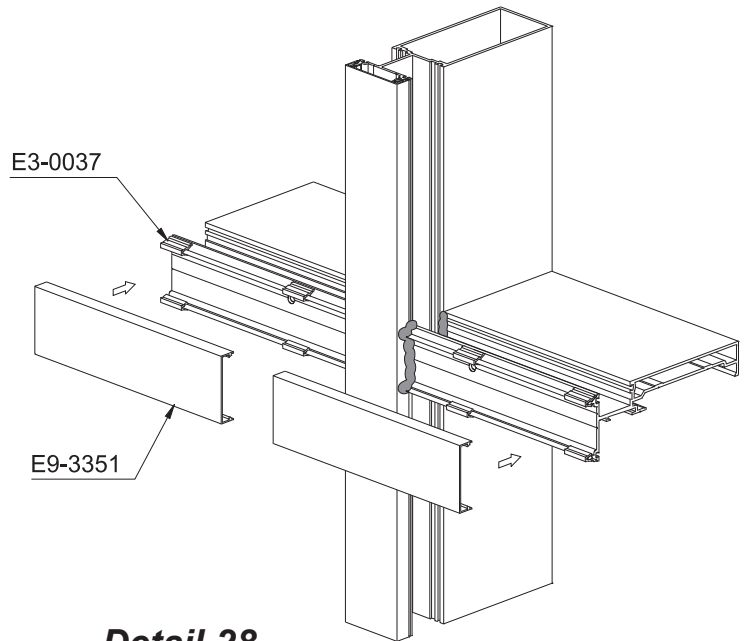
GLAZING

**STEP 20
INSTALL HORIZONTAL FACE COVERS**

For Intermediate Horizontal Covers:

- Snap the thermal isolator clips, E3-0037, onto the horizontal members 3" from each end and no more than 12" O.C.
- Snap on exterior horizontal covers, E9-3351, using a mallet and a clean scrap piece of lumber. Start at one end and carefully snap on the cover working down to the other end.

See **Detail 28**.

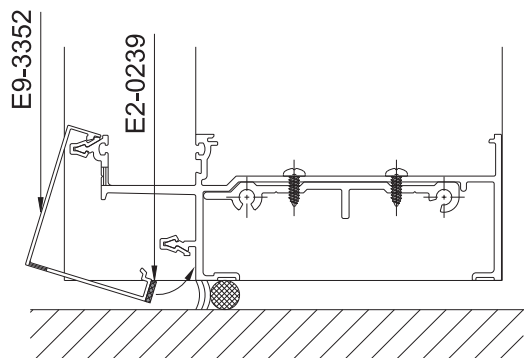
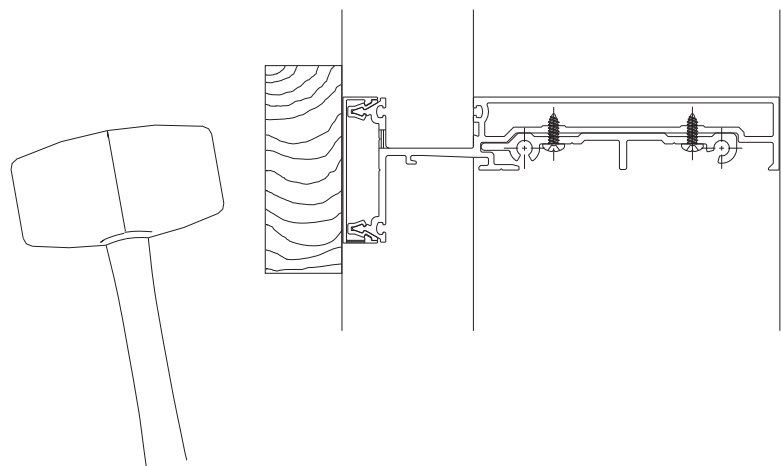


Detail 28
5-1/4" Back Depth
1" Glazing Shown
Others Similar

For Perimeter Horizontal Covers:

- Install glazing tape, E2-0239, onto the inside leg of the perimeter face cover - E9-3352 for 1" glazing or E9-3353 for 1/4" glazing.
- Install head & sill face covers by first setting the cover on the inside thermal clip, and then rolling it over to engage with the thermal clip on the outside.

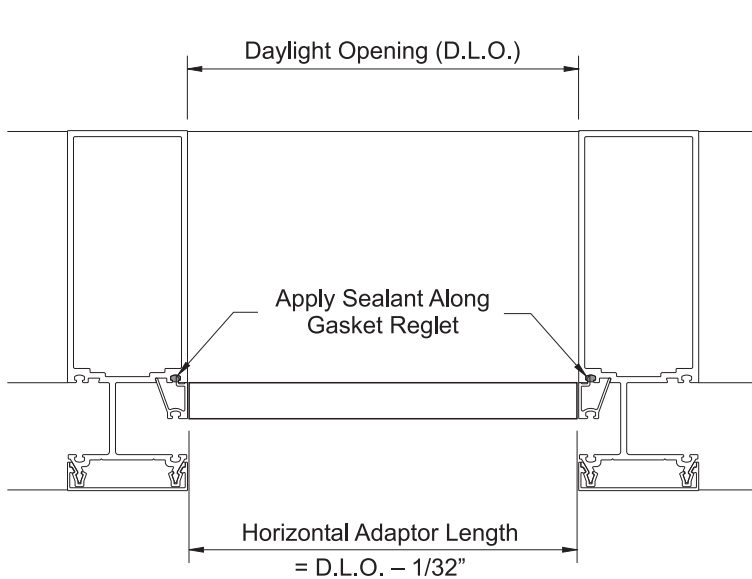
See **Detail 29**.



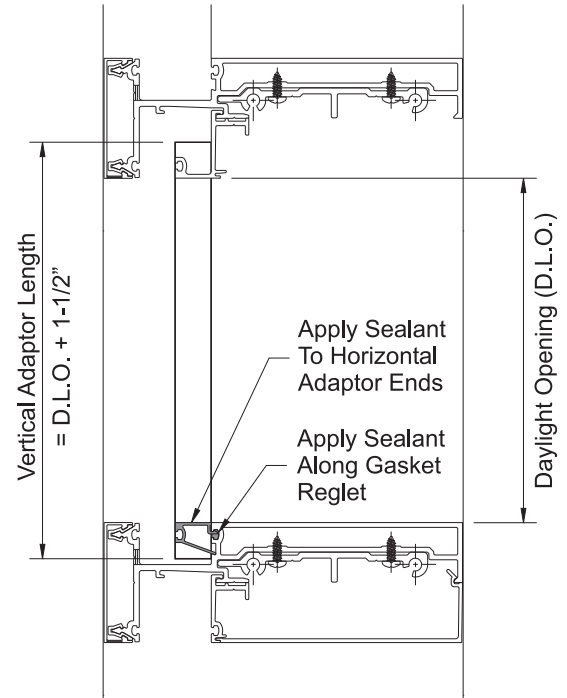
Detail 29
5-1/4" Back Depth
1" Glazing Shown
Others Similar

GLAZING

STEP 21 INSTALL 1/4" GLAZING ADAPTORS (When Required)



Detail 30



- Cut glazing adaptors for verticals:
Cut Length = Daylight Opening plus(+) 1-1/2".
- Cut glazing adaptors for horizontals:
Cut Length = Daylight Opening minus(-) 1/32".
- Run a bead of sealant along the interior gasket reglets.

Caution: Do not allow sealant to skim over before attaching glazing adaptors.

Attach the vertical glazing adaptors first:

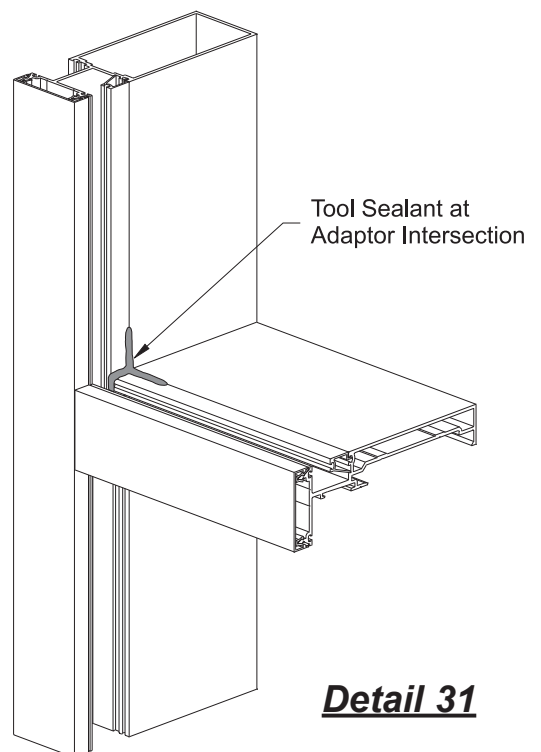
- Center the vertical adaptors in the opening.
- Insert the ball end leg of the adaptor into the recess along the face of the mullion and push the snap leg into the reglet.

Attach the horizontal glazing adaptors last:

- Apply sealant to the ends of the horizontal glazing adaptors.
- Install the horizontal adaptors.

See **Detail 30**.

- Tool the excess sealant at the intersections of the adaptors to completely seal the joint.
- See **Detail 31**.



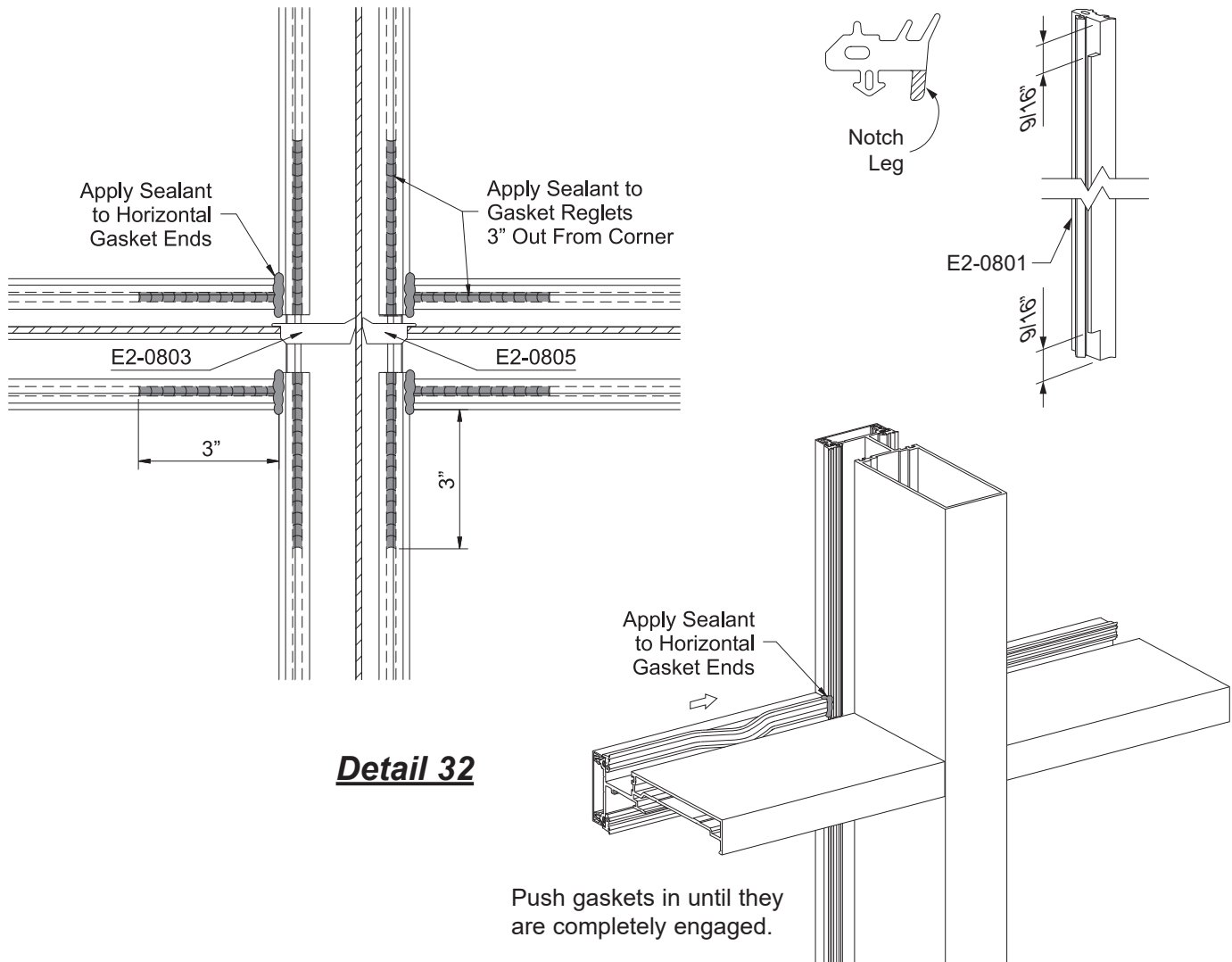
Detail 31

GLAZING

**STEP 22
INSTALL EXTERIOR GASKETS**

- Cut vertical exterior gaskets to daylight opening plus(+) 1-1/2".
- Notch 9/16" off the leg at each end of the vertical exterior gaskets.
- Cut horizontal exterior gaskets to daylight opening plus(+) 1/4" for each foot of horizontal.
- Apply sealant in gasket reglets from the gasket corner 3" out in both directions.
- Install the vertical exterior gaskets first, centered along the vertical daylight opening.
- Install the horizontal exterior gaskets.
 - Apply sealant to each end of the horizontal gasket.
 - Insert the gasket into the reglet at each end first and push each end tight against the vertical gasket. Then insert the gasket at the midpoint of the opening and push the gasket into the reglet starting at the midpoint and work towards each end.
 - Tool the sealant where the end of the horizontal gasket meets the vertical gasket.

See **Detail 32**.

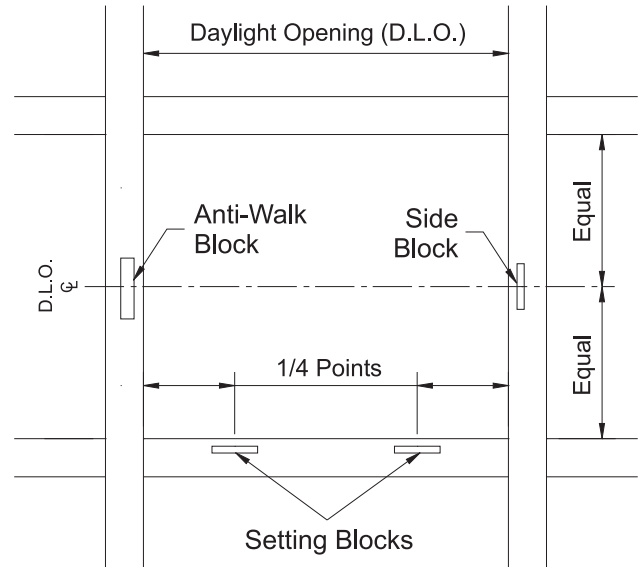


Detail 32

GLAZING

STEP 23 INSTALL SETTING BLOCKS & SIDE BLOCKS

- Install setting blocks, E2-0040 for 1" glazing or E2-0054 for 1/4" glazing, at 1/4 points of horizontal D.L.O. or according to engineering calculations.
 - Install side blocks, E2-0166 for 1" glazing or E2-0192 for 1/4" glazing, into the shallow glazing pockets of the verticals centered along the vertical daylight opening.
- See **Detail 33**.



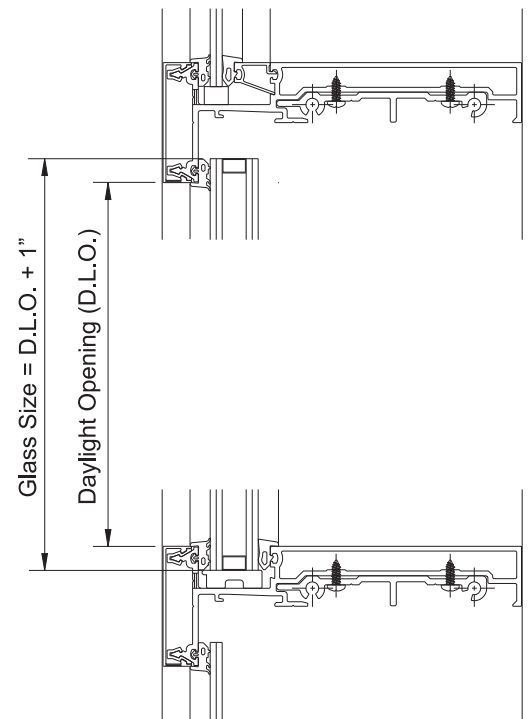
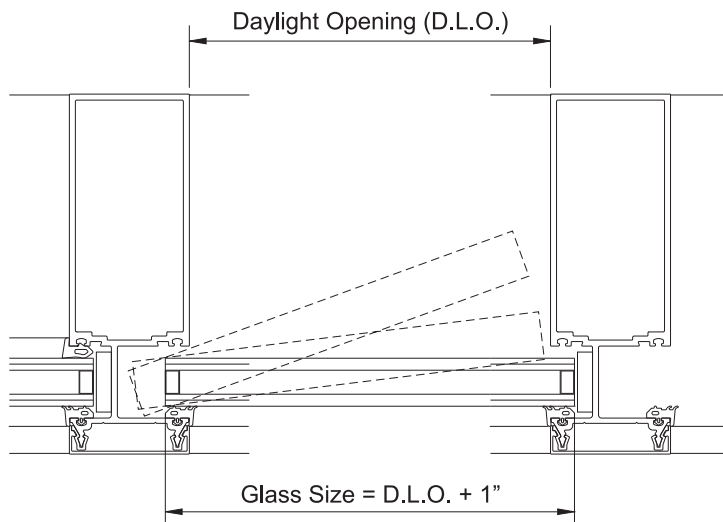
Detail 33

STEP 24 INSTALL GLASS

- Clean all glazing surfaces and joints of foreign matter and contaminants such as grease, oil, dust, frost, and dirt. Do not use water or soap to clean surfaces or to tool sealant.
 - Carefully install glass into the frame. Insert the lite into the deep pocket first, and then swing it pass the vertical into the glazing pocket. Push the glass against the side block making sure setting and side blocks are properly aligned with the glass.
- See **Detail 34**.

**GLASS SIZE =
DAYLIGHT OPENING (D.L.O.) + 1"**

Detail 34



GLAZING

**STEP 24 (Continued)
INSTALL GLASS**

-Push the glass against the exterior gaskets, and install small pieces of E2-0802 (cut down 2 to 3 inches) along the vertical to temporarily hold the glass in place.

See **Detail 35**.

-Apply sealant to the ends of the horizontal glass stops, E9-3331 for 1" glazing and E9-3332 for 1/4" glazing.

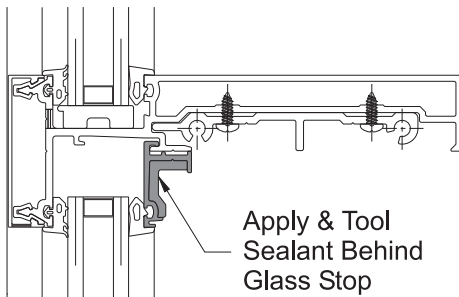
-Install the horizontal glass stops.

-Apply and tool sealant behind the glass stop to create a watertight seal.

See **Detail 36**.

Detail 36

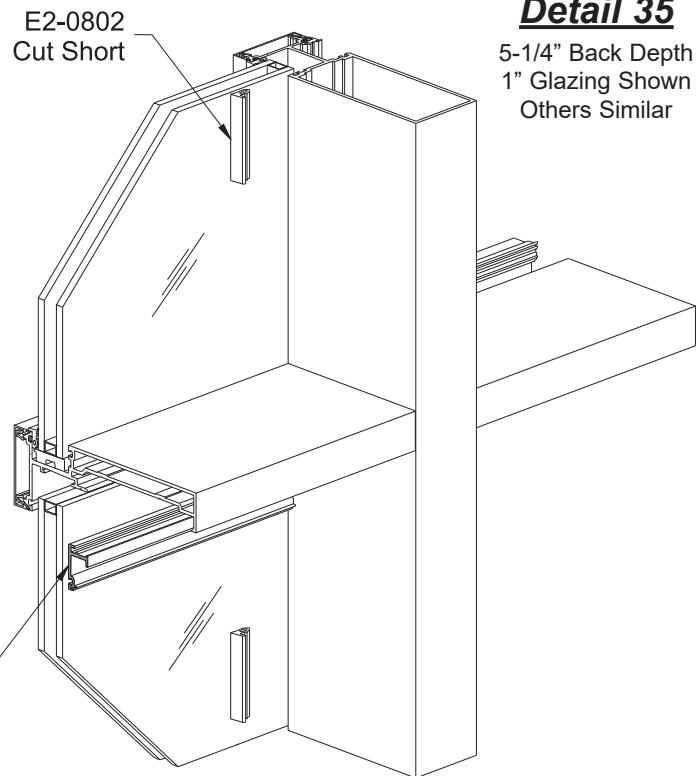
5-1/4" Back Depth
1" Glazing Shown
Others Similar



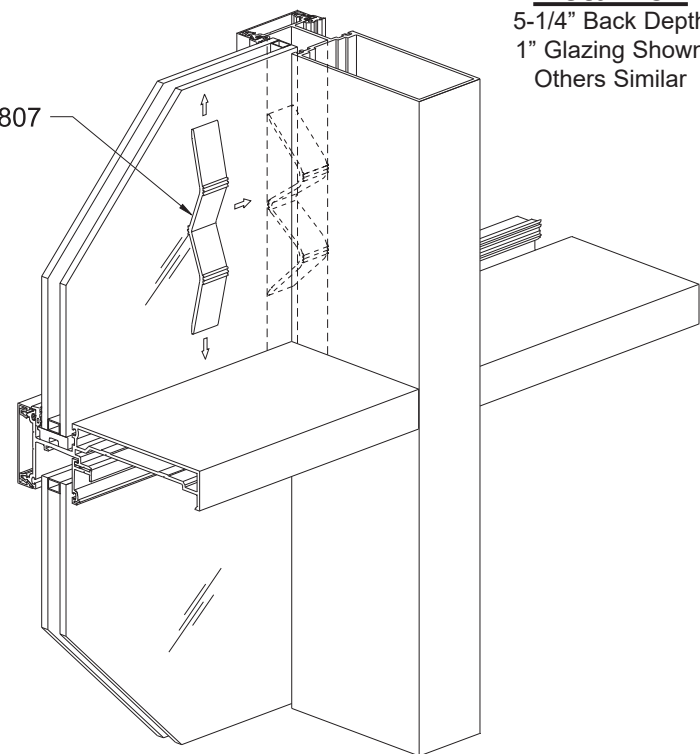
-Install one anti-walk block, E2-0807, in the deep glazing pocket of each mullion, centered along the vertical daylight opening.

-Flatten the anti-walk block against the inside surface of the glass and push it into the opening between the glass and the mullion until it is released into the glazing pocket.

See **Detail 37**.



E2-0807

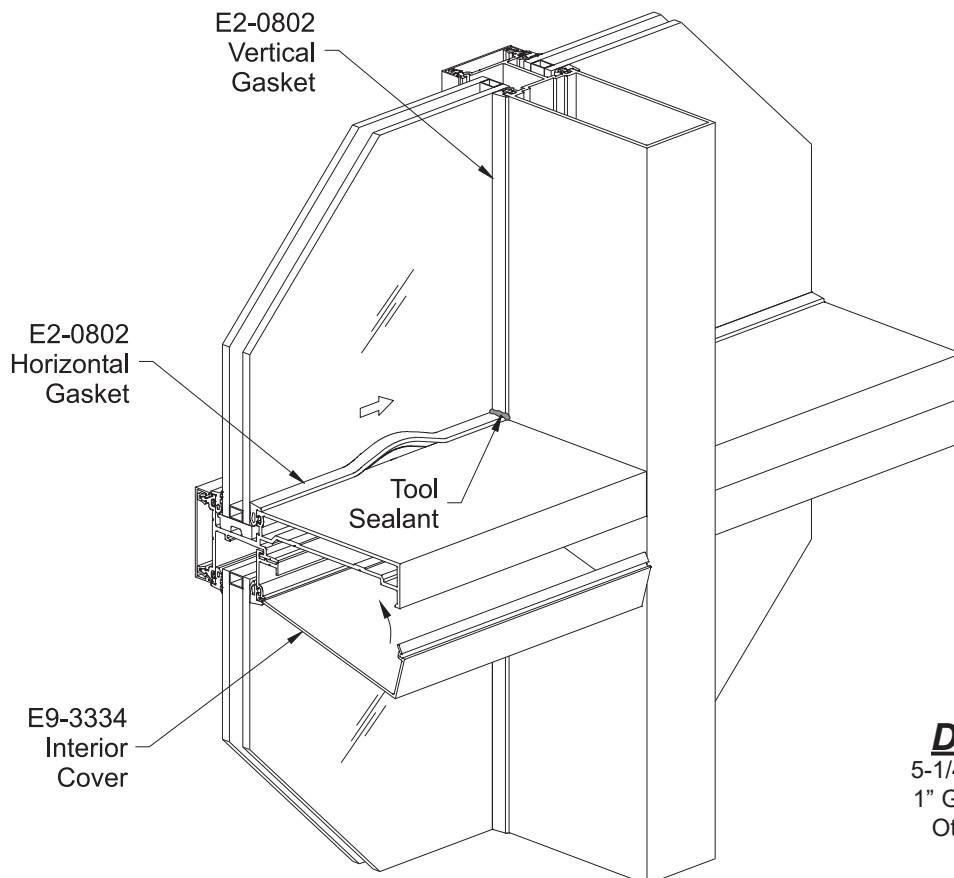


GLAZING

STEP 25 INSTALL INTERIOR GASKETS & COVER

- Cut horizontal & vertical interior gaskets to daylight opening plus(+) 1/4" for each foot of length.
 - Install the vertical interior gaskets first.
 - Insert each end and the midpoint of the gasket into the reglet.
 - Push in the remainder of the gasket working from the midpoint to the ends.
 - Install the horizontal interior gaskets next.
 - Apply sealant to the each end of the horizontal gasket.
 - Insert the gasket into the reglet at each end first and push each end tight against the vertical gasket. Then insert the gasket at the midpoint of the opening and push the remainder of gasket in working from the midpoint to the ends.
 - Tool the sealant where the end of the horizontal gasket meets the vertical gasket.
- Install the horizontal interior cover when necessary by inserting the front edge of the cover into the recess at the bottom of the glass stop and rolling it up to snap onto the back of the head or horizontal.

See **Detail 38**.



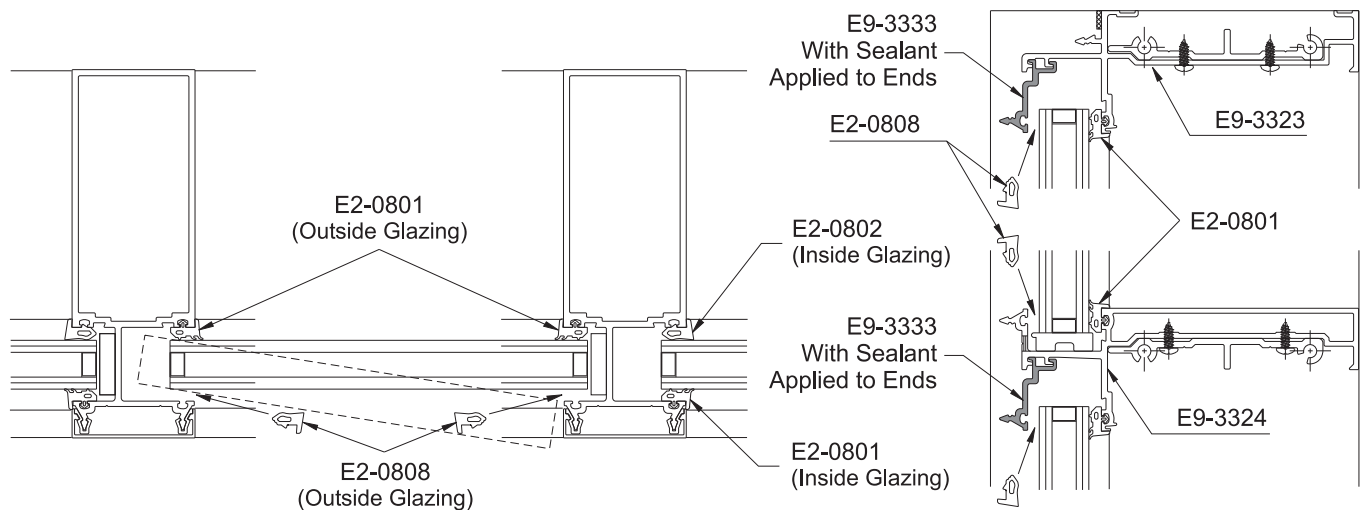
Detail 38
 5-1/4" Back Depth
 1" Glazing Shown
 Others Similar

GLAZING

STEP 26

OPTIONAL OUTSIDE GLAZING INSTRUCTIONS

YCW 750 IG is primarily an inside glazed curtain wall system. However, there are some conditions where glazing from the inside may not be possible due to interference from intermediate mullion anchors or structural posts. For these conditions, optional head and horizontal members that allow for outside glazing are available.



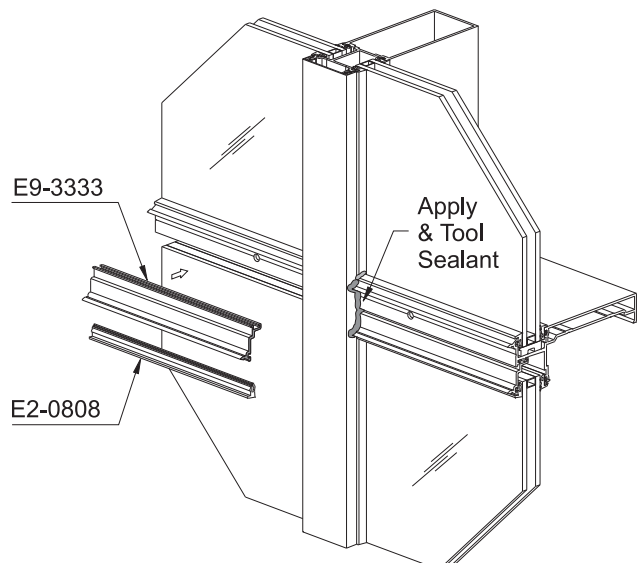
Detail 39

5-1/4" Back Depth
1" Glazing Shown
Others Similar

- Install the interior glazing gaskets, E2-0801, which is used on the exterior for inside glazing. Always install the vertical gaskets first.
 - Install setting & side blocks, glass, and anti-walk blocks as previously discussed in **Step 24**; however, the glass is now being installed from the outside.
 - Apply sealant to the ends of the exterior glass stop, E9-3333, and attach to the head and horizontal.
 - Install exterior glazing gaskets, E2-0808, not to be confused with E2-0802.
- See **Detail 39**.

- Once all the gaskets are in place, apply and tool sealant to the front of the horizontal and exterior glass stop where they meet the vertical face cover.
- See **Detail 40**.

- Attach the thermal isolator clips and horizontal face covers as previously discussed in **Step 20**.



Detail 40

GLAZING

STEP 27 REGLAZING INSTRUCTIONS

Vision Lite Reglaze (from interior):

- Remove the interior cover by pushing it forward and down to unsnap it.
- Remove the glass stop and glazing gaskets.
- Replace the broken glass with a new lite of same size.
- Reglaze the lite following the directions from **Step 22 to Step 25** using new gaskets.

Spandrel Lite Reglaze (from exterior):

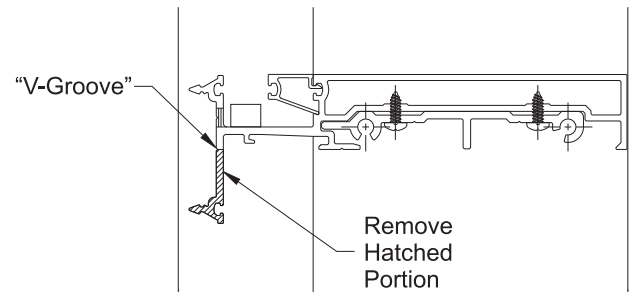
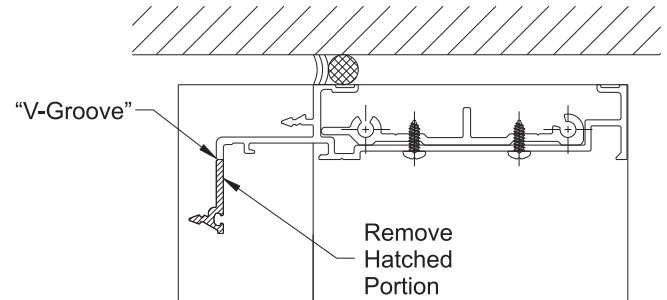
- Remove broken glass, exterior and interior glazing gaskets, and interior glass stop.
- Carefully pry off the horizontal face cover above the damaged lite.
- The bottom exterior leg of the horizontal or head member must be cut off along the "V-Groove." Be careful not to scar the vertical face cover when making this cut.

See **Detail 41**.

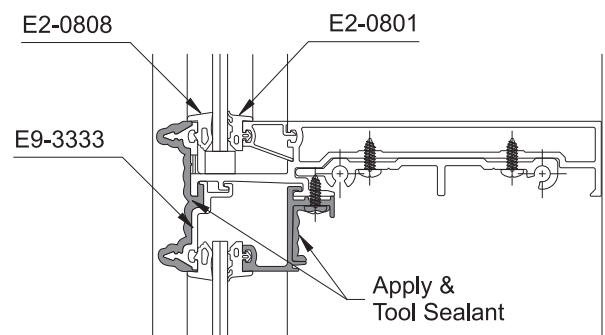
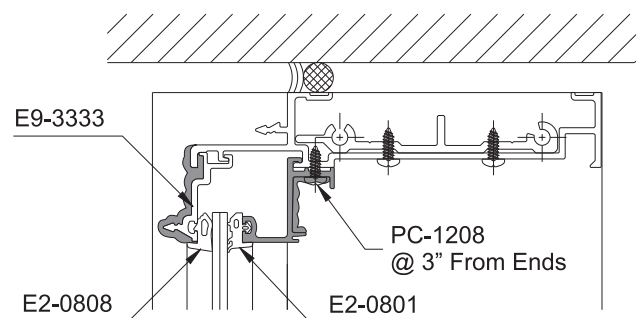
- Apply sealant to the ends of the interior glass stops and attach them to the horizontal members with a PC-1208 fastener 3" from each end. Seal the area behind the interior glass stop.
- Install interior glazing gasket, E2-0801, which is normally used on the exterior.
- Install setting & side blocks, glass, and anti-walk blocks as previously discussed in **Step 24**; however, the glass is now being installed from the outside.
- Apply sealant to the ends of the exterior glass stop, E9-3333, and attach to the head or horizontal.
- Install exterior glazing gaskets, E2-0808, not to be confused with E2-0802.
- Apply and tool sealant to the front of the horizontal and exterior glass stop where they meet the vertical face cover.

See **Detail 42**.

Install new thermal isolator clips on the head or horizontal and reattach the horizontal face cover.



Detail 41

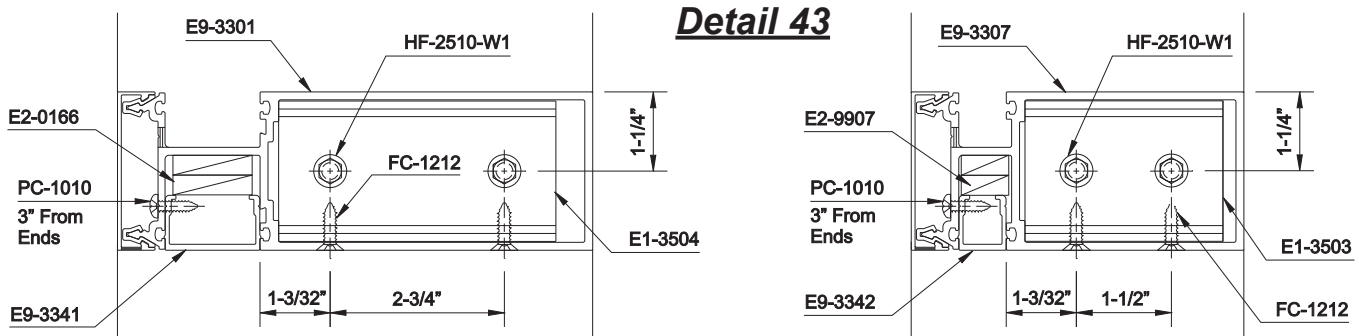


Detail 42

DOOR SUB-FRAME INSTALLATION

STEP 28 INSTALL DOOR SUB-FRAME

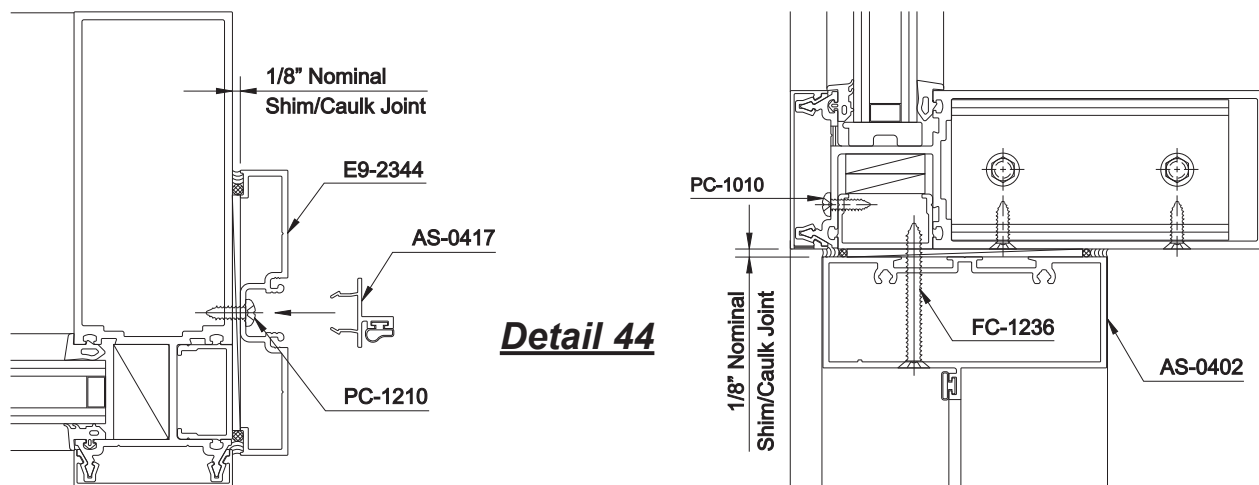
Doors are shipped assembled, and door sub-frames will be fabricated and shipped knocked down. Please refer to the Entrances Installation Manual for door installation and follow the instructions below to install the door sub-frame.



For horizontals at door transom install vertical mullions instead of horizontal members.

- Attach shear clip, E1-3504 for 5-1/4" back member or E1-3503 for 3-3/4" back member, to vertical with two (2) HF-2510-W1 fasteners as shown in **Detail 43**.
- Attach the horizontal to the shear clip from underneath using two (2) FC-1212 fasteners.
- Install glazing pocket filler, E9-3341 (1" glazing) or E9-3342 (1/4" glazing) cut to door opening width, into the glazing pockets. Use spacers, E2-0166 (1" glazing) or E2-9907 (1/4" glazing), in the deep pockets to properly locate the glazing pocket fillers.
- Fasten the pocket fillers to the mullion using PC-1010 fasteners 3" from each end as shown.
- Position the door sub-frame into place.
- Fasten the jamb, E9-2344, to the vertical using PC-1210 fasteners, 3" from each end and 12" on center. Fasten the transom bar, AS-0402, to the horizontal using FC-1236 fasteners, 3" from each end and 12" on center. Shim between the sub-frame and curtain wall frame as needed.
- Install door stop, AS-0417, into the door jambs.
- Apply and tool sealant between the sub-frame and curtain wall frame on the interior and exterior.

See **Detail 44**.



Detail 44



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