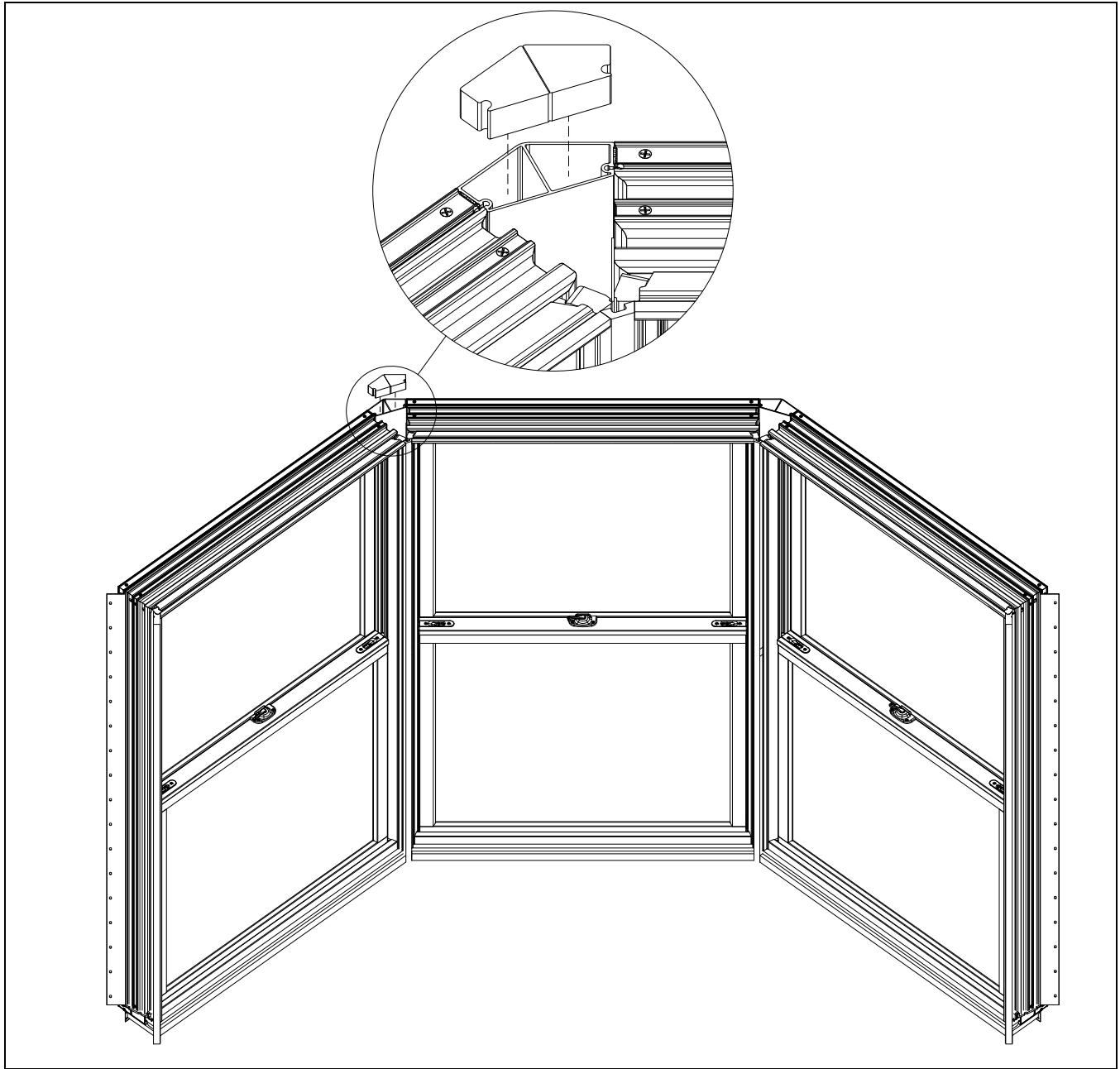


# Elevate Double Hung Bay

## Assembly and Mulling Instructions

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## Before You Begin



### WARNING!

This product can expose you to chemicals including titanium oxide, which is known to the state of California to cause cancer. For more information, go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).



### WARNING!

Always practice safety! Wear the appropriate eye, ear, and hand protection, especially when working with power tools.



### WARNING!

This product can expose you to chemicals including methanol, which is known to the state of California to cause birth defects or other reproductive harm. For more information, go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

### IMPORTANT

Read these instructions thoroughly before beginning to mull your Elevate Double Hung Bay unit. Failure to assemble and mull as recommended will void any warranty, written or implied. Regional applications and standards may vary, therefore Marvin is not responsible for interpretations of local codes and/or ordinances. Installation of Marvin products is the sole responsibility of the installer, contractor, structural engineer, architect, building owner and/or consumer. For additional information, consult your local Marvin dealer.

*NOTE: If replacement parts become necessary, please contact your local Marvin dealer.*



### WARNING!

Drilling, sawing, sanding or machining wood products can expose you to wood dust, a substance known to the State of California to cause cancer. Avoid inhaling wood dust or use a dust mask or other safeguards for personal protection. For more information go to [www.P65Warnings.ca.gov/wood](http://www.P65Warnings.ca.gov/wood).

*NOTE: When specifying or considering the structural load requirements for windows and doors, it is important to consider the method of fastening the unit(s) into the opening. Selection of the appropriate fastening method is the sole responsibility of the installer, contractor, structural engineer, architect, building owner and/or consumer.*



### CAUTION!

It is absolutely imperative that a support platform be constructed below your Elevate Double Hung Bay unit. Additionally, the main support must be located directly under the sill of the Bay.

### IMPORTANT

Do not allow strong detergents, ammonia, solvents, chemicals or other harsh cleaning substances to come in contact with Ultrex surfaces as they can cause damage. If you wish to maintain the finish gloss of the Ultrex exterior, wash with soap and water and apply a coat of non-abrasive automotive wax.






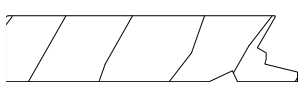
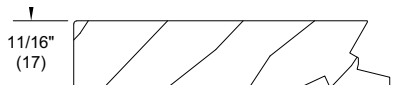
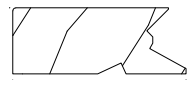

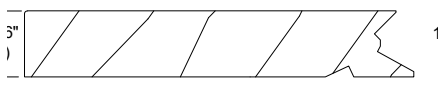
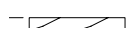
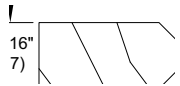
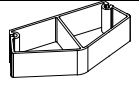

### IMPORTANT

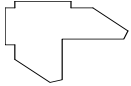



Practice safety! Wear safety glasses or goggles and appropriate hearing protection when installing or performing adjustments to an Marvin window or door product.

## You Will Need to Supply

- Safety glasses
- Tape measure
- Hammer 1/8" punch or small nail set
- 2d finish nails
- Industrial scissors or aviation shears
- Pencil or fine line marker
- 3/16" x 1" 18 gauge staples w/gun, 1/2" x 1/2" 18 gauge staples w/gun and 1/2" x 1 1/2" 16 gauge staples w/gun
- Hearing protection
- 15/16" x 1" 16 gauge staples w/gun
- #8 x 1 1/4" flathead wood screws
- Power miter saw w/metal blade (or equivalent)
- Wood saw (hand or power circular)
- APA rated AFG-01 spec. (or equivalent) adhesive and High quality silicone sealer/caulk w/gun
- 3"- 4" ruler/straight edge

## Standard Parts Shipped with Mull Kit

<u>Illustration (Not to scale)</u>	<u>Part description</u>	<u>Part/Profile Number</u>
	Interior Top Trim	W7002
	Interior Sill Trim	W6110
	30° Vertical Interior Trim	W1174
	45° Vertical Interior Trim	W1244
	30° 4 9/16" Jamb Extension	W9075
	30° 6 9/16" Jamb Extension	W9072
	30° 6 13/16" Jamb Extension	W9077
	45° 4 9/16" Jamb Extension	W9076
	45° 6 9/16" Jamb Extension	W9074
	45° 6 13/16" Jamb Extension	W9078
	Jamb Filler (Used on side jambs of center unit)	311423751200
	Wood Sill Filler Block	W8952
	30° Mull Connector Block	A168
	45° Mull Connector Block	A167
	Sill/Side Jamb Nailing Fin	V112

	Nailing Fin Corner Gasket	11869513 (package of four)
	30° Mull Foam Plug	10500106
	45° Mull Foam Plug	10500106
	Mulling Pin	A330
	Drip Cap/Nailing Fin	V119

## Calculating Outside Width of Jamb Extension

<b>Jamb to Jamb Conversion Chart</b>			
<b>45 Degree Bay</b>		<b>30 Degree Bay</b>	
Flanker Call Number Width	Outside Jamb Extension Conversion	Flanker Call Number Width	Outside Jamb Extension Conversion
22	37 15/32	22	30 13/16
26	44 25/64	26	36 15/32
30	51 5/16	30	42 1/8
32	54 25/32	32	44 61/64
34	58 1/4	34	47 25/32
36	61 23/32	36	50 39/64
38	65 11/64	38	53 7/16
42	72 7/64	42	59 7/64
50	85 61/64	50	70 27/64
54	92 57/64	54	76 5/64
62	106 3/4	62	84 9/16

### For Standard Call Size Units:

1. Locate the appropriate measurement conversion on the chart for your mull kit (30 or 45 degree); listed by FLANKER unit CALL NUMBER WIDTH (first two digits of the call number).
2. Add CENTER unit CALL NUMBER WIDTH (first two digits of the call number) to flanker measurement conversion (found in step 1) to obtain jamb extension overall outside width in inches (Metric conversion to mm= Dim.(in) x 25.4).

### For Special Sizes:

Measure your flanker unit width (F) and center unit width (C) and Input them into one of the following formulas:

30 Degree Bay:  $F * 1.732 + C + .724 = \text{Jamb to Jamb}$

45 Degree Bay:  $F * 1.414 + C + .917 = \text{Jamb to Jamb}$

## Mulling Preparation

1. Remove plastic and cardboard shipping wrap from units to be mulled, carefully inspect for hidden damage. Remove nailing fin from each unit, discard. Install nailing fin supplied on flanker outer side jambs. Lock all sash locks and lay units interior side up on a smooth level table or floor in the configuration desired.
2. Measure, cut, and apply mull filler on center unit to full length of both side jambs, align filler with interior jamb liner face. Fasten filler to jamb liners with 1/2" x 1/2" 18 gauge staples spaced 6" (15) apart. See [Figure 1](#).

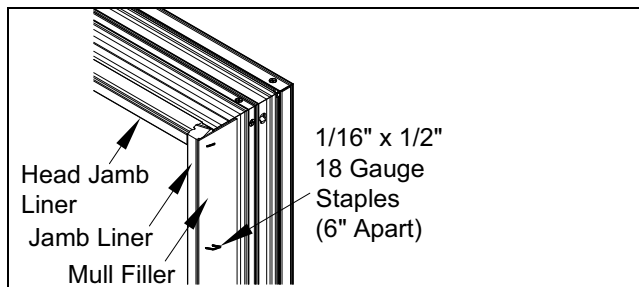


Figure 1

3. Measure the length of exterior Ultrex overall frame height. Cut the mull connector blocks to length (if needed) using a power miter saw with metal cutting blade (or equivalent). Subtract 1" (25) from the frame height and cut the mull connector pins to length, if needed.
4. Stand units on a smooth level surface in configuration desired. **BE SURE TO RECHECK CONFIGURATION SET UP TO ENSURE PROPER MULLING ORDER.**

## Mulling Procedures

1. Position mull connector block (with mull tape applied) flush with exterior face of side jamb to be mulled. Align accessory kerfs and carefully tap mulling pin into kerfs using a wood block and hammer. Repeat at each mullion. Countersink mulling pins 1/2" (13) using an 1/8" punch or small nail set. See [Figure 2](#).

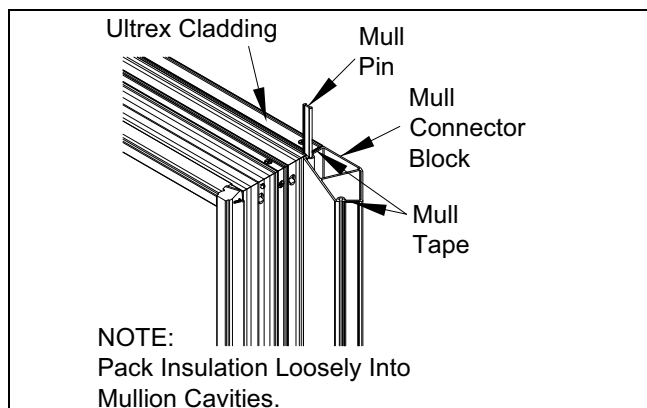


Figure 2

2. Cut jamb extensions the same length as jamb fillers applied in step 2 in the Mulling Preparation section and position on each end unit to outer side jamb. Align jamb extension with outer edge of jamb filler. Attach jamb extension using 3/16" x 1" 18 gauge staples spaced 6"-8" (152-203) apart. See [Figure 3](#).

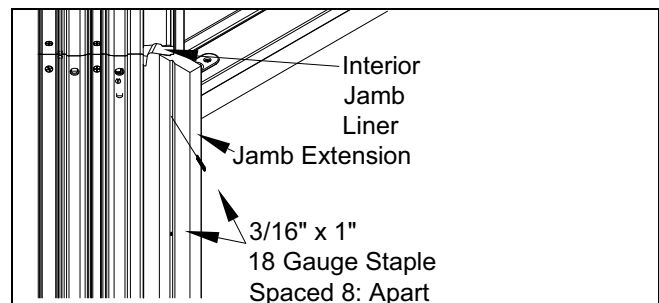


Figure 3

3. Refer to conversion chart on page 4 for proper jamb to jamb dimension (measured from outside to outside of jamb extension). Check jamb to jamb measurement at top and bottom of the assembly, it must be equal. Diagonal measurements of interior must also be equal to ensure mulled assembly is square. See [Figure 4](#).

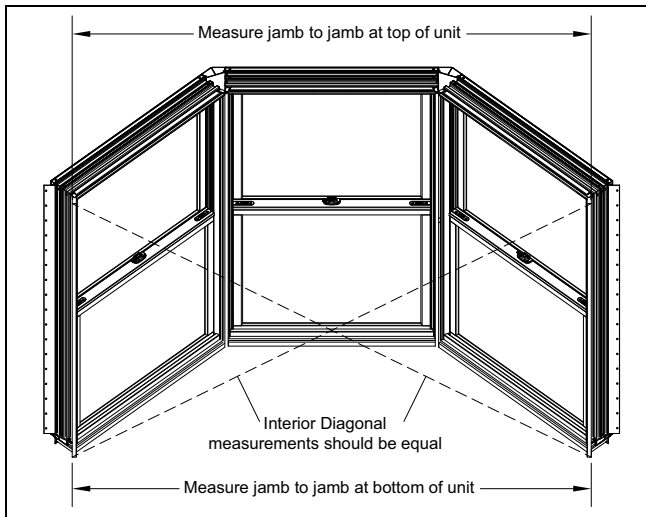


Figure 4

## Head/Seat Board Application

1. Place head board blank on top of mullered assembly and align interior edge flush with jamb extension. Temporarily fasten head board to jamb filler or jamb extension on a flanker unit, recheck jamb to jamb measurement, temporarily fasten other side of head board to jamb filler or jamb extension. Trace along exterior face of Ultrex frames, flanker unit outer side jambs, and jamb extension on the board. Remove temporary fasteners from head board.

2. Lay head board on a flat surface with tracing lines up. To form a final cutting line, measure in 1 1/2" (38) toward interior from lines drawn when tracing exterior face of Ultrex frames. Lay out cutting lines along setback measurements on the head board to intersect with side jamb lines previously traced (side jamb/jamb extension lines are cut as traced). Cut out head board and use as a template to cut out seat board. See [Figure 5](#).

*NOTE: When tracing head board on seat board blank, make sure the finished side will be to the interior when fastened to the unit.*

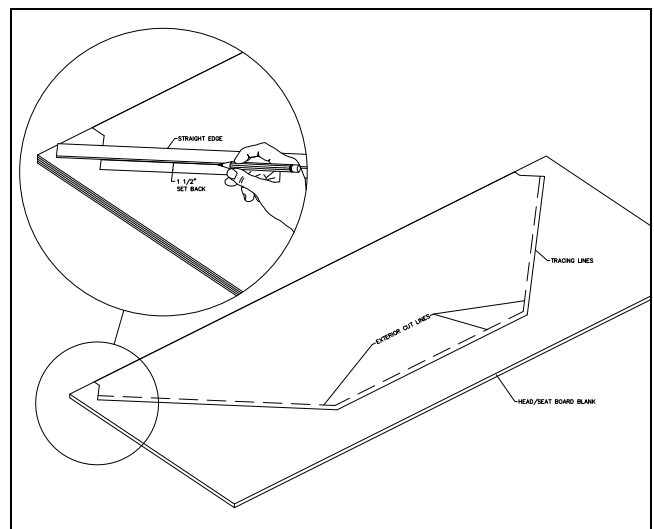


Figure 5

3. Apply 3/16" bead of caulk/adhesive on each head jamb of unit. See [Figure 6](#).

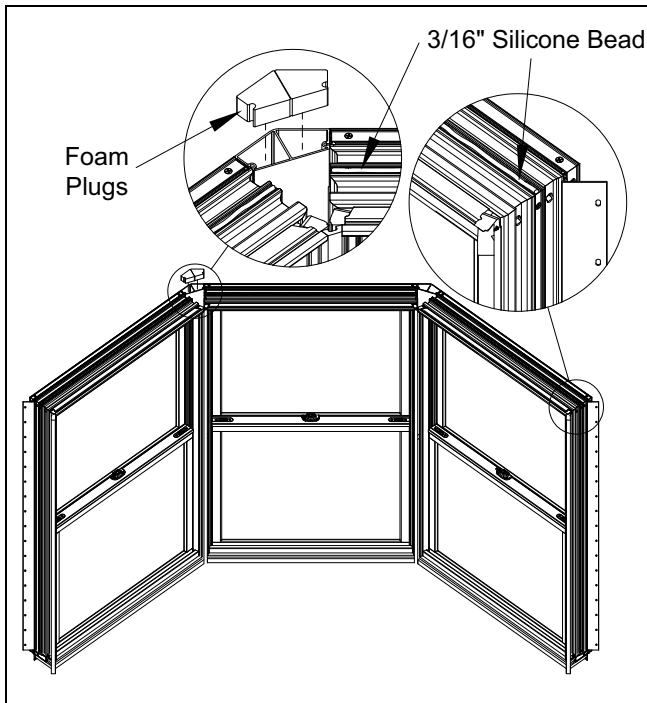


Figure 6

4. Check jamb to jamb and diagonal measurements to be sure they are correct (see step 1 in this section). Position head board on unit and align interior edge flush with jamb extensions. Attach at flanker outer side jambs, jamb filler, and jamb extension using 1/2" x 1 1/2" 16 gauge staples (3-4 on each side) or use #8 x 1 1/4" screws in pre-drilled holes (3-4 on each side). Trace screw lines on head board at 2 1/2" (64) and 5" (127) from exterior edge of frames. Attach using #8 x 1 1/4" flat head screws spaced 6"-8" (152-203) on each line. See Figure 7.



**CAUTION!**

Do not countersink screws into head/seat boards. Keep flush with exterior surface.

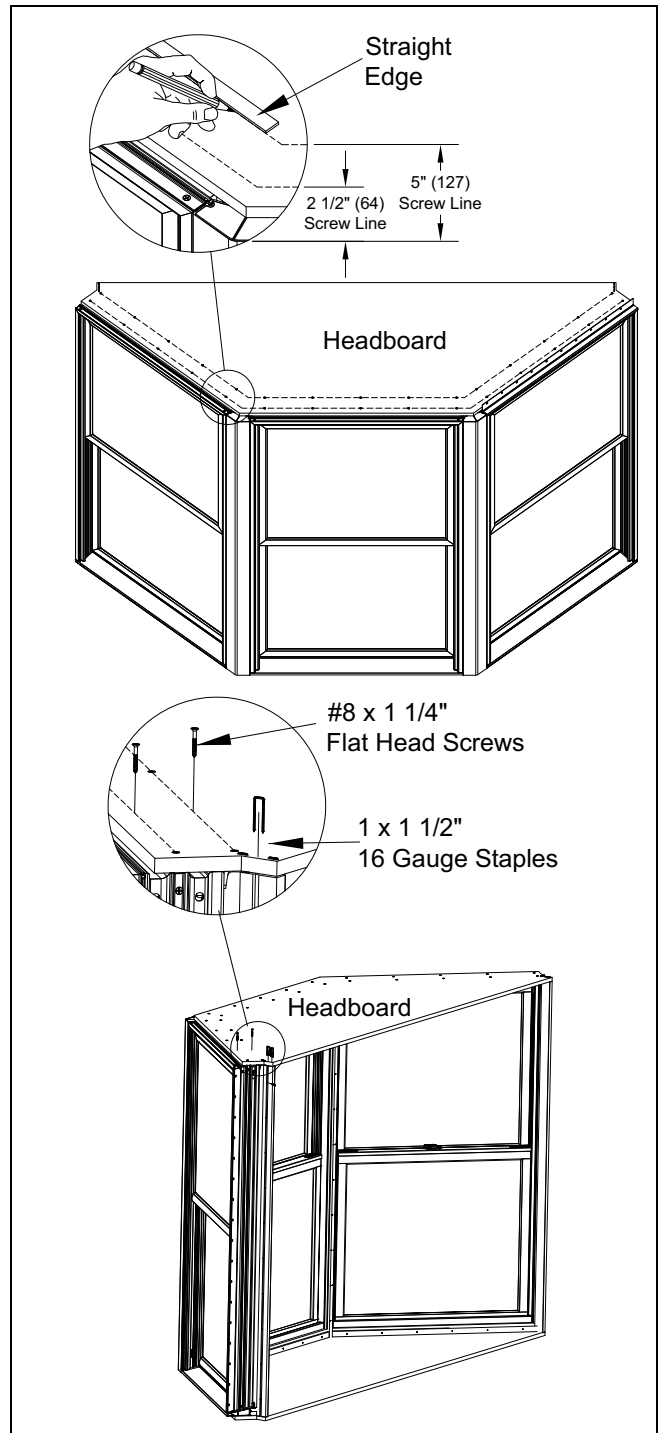


Figure 7

5. Turn muller assembly over to expose sills. Remove shipping blocks from sill of each unit. Measure, cut, and apply sill filler blocks to full length of sill on each unit flush with interior face. Attach with 3/16" x 1" 18 gauge staples spaced 4" (102) apart. See Figure 8.

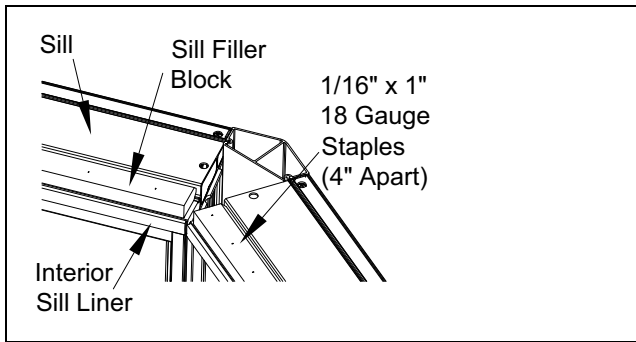


Figure 8

6. Fill mullion cavities loosely with fiberglass insulation (do not over pack). See [Figure 6](#).

### IMPORTANT

Do not use expanding foam type insulation in this application.

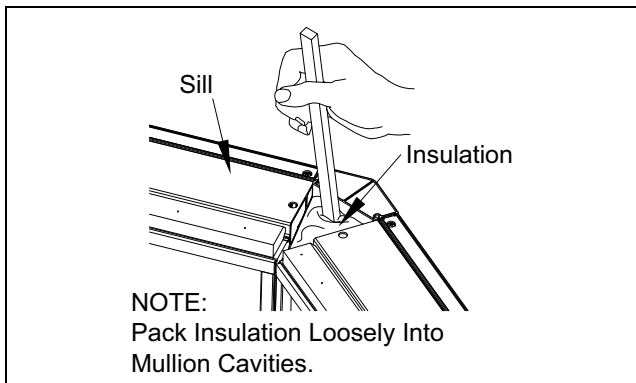


Figure 9

7. Put a small amount of silicone sealer inside mull connector cavities where foam plugs are to be positioned to hold plugs in place. Insert mull connector foam plugs in mull connector blocks. Repeat at each mullion. Apply 3/16" (5) bead of caulk/adhesive 2 1/4" (57) in from exterior edge of unit sills. See [Figure 6](#).

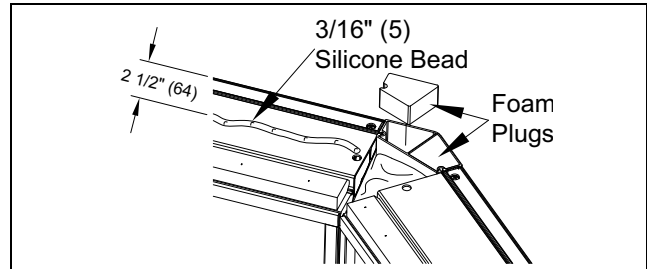


Figure 10

8. Repeat step 5 except, USE ONLY ONE ROW OF SCREWS AT 5" (127) SETBACK TO ATTACH SEAT BOARD.

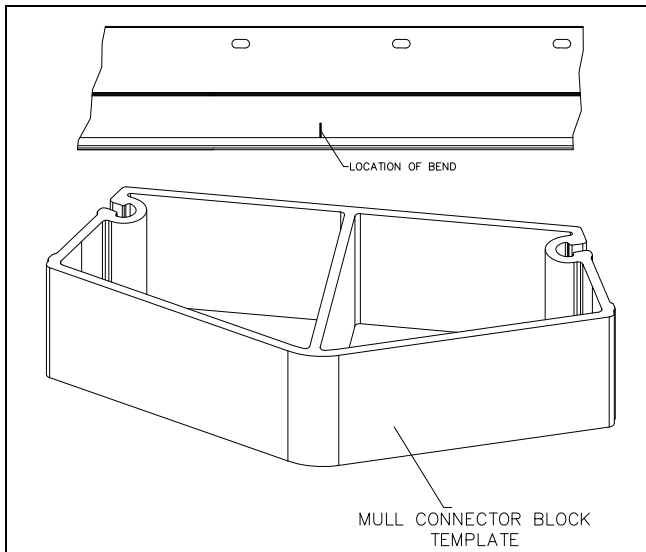
9. Measure and cut nailing fin for sills of each unit, set aside for later use.

## Final Mulling Procedures

1. Turn unit over. A continuous nailing fin/drip cap must be notched out at mulls in order to follow head jambs of the unit. Center a lineal piece of nailing fin/drip cap long enough to span the entire unit at the midpoint of the center unit head jamb. Hold in place and mark the exterior center point of each adjacent mull connector block on beige surface of the drip cap.

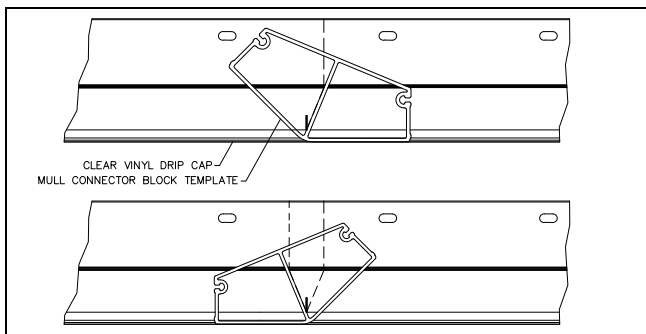
2. Place the marked nailing fin/drip cap on a flat surface. A short section of mull connector block is used as a template to mark the cutting angles so a notch can be removed from the beige drip cap/nailing fin, this will allow the drip cap to bend around the mulls while leaving the clear vinyl (visible edge) continuous and intact. See [Figure 11](#).





**Figure 11**

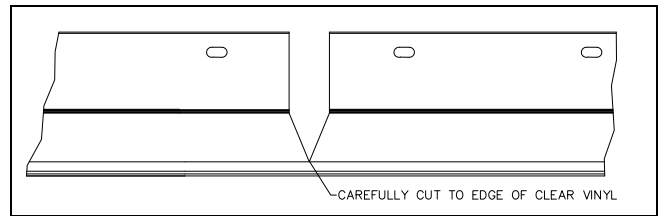
**3.** Place the center member of template on the drip cap at mark. While keeping the mark and center member aligned, hold one side of the template along the clear vinyl edge and scribe along the center member on beige portion of the drip cap. Next pivot the opposite side of template along clear vinyl edge of drip cap and scribe along the center member. From the point at which each angled mark meets the nailing fin portion scribe lines straight across the nailing fin (this line should be perpendicular to the edge of the drip cap). See [Figure 12](#).



**Figure 12**

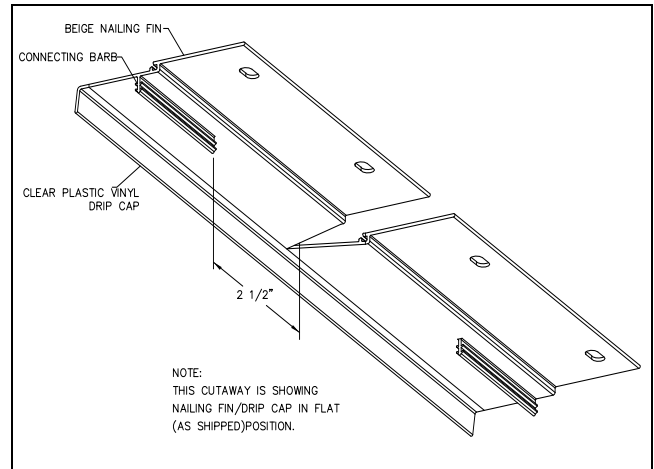
**4.** The two lines scribed on the drip cap should make a "V" notch, with the tip of the "V" starting where the clear and beige vinyl meet at the center mark from step 3. Repeat step 4 at the other mullion center mark.

**5.** Cut out areas marked with an industrial scissors or aviation shears. **DO NOT CUT THROUGH CLEAR VINYL SECTION OF DRIP CAP**, except when trimming off at ends of flanker units. See [Figure 13](#)



**Figure 13**

**6.** The bottom connecting barb of nailing fin/drip cap must be cut away at each mullion block approximately 2 1/2" on each side of notch removed. See [Figure 14](#).



**Figure 14**

**7.** Prior to attaching drip cap, place a bead of silicone sealer/caulk on center member of the mull connector blocks, this will help seal the drip cap.

**8.** Apply nailing fin/drip cap to head jambs of unit. Seal top of drip cap at mullion cuts with a small bead of silicone sealer/caulk. Cut excess nailing fin/drip cap at ends flush with side jambs. Temporarily fasten sill nailing fin previously cut in step 1 to top of head board using tape or 1/2" fasteners (do not fasten if unit is to be installed at mulling site).

**9.** Fasten interior mulled side jambs with 15/16" x 1" 16 gauge staples spaced 4"-6" (102-152) apart. Place staples diagonally into jamb liners so interior mull trim will cover the staple heads. See [Figure 15](#).

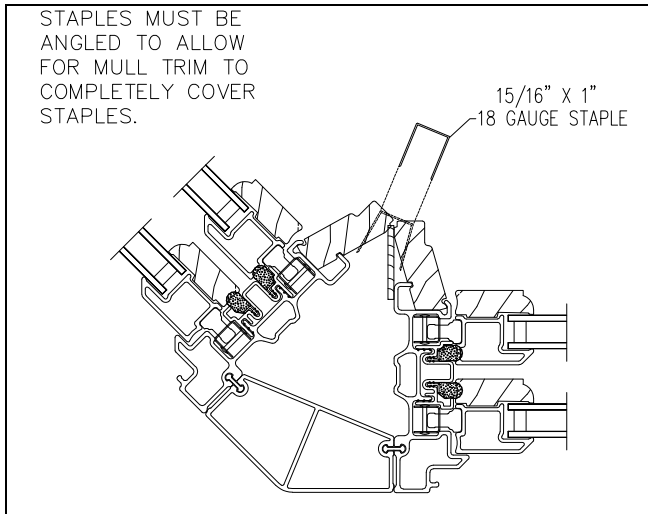


Figure 15

## Interior Mull Trim Application

1. If both a head and seat board were installed apply interior vertical and horizontal mull trim (if not, apply mull trim after unit is installed and interior casing has been applied). Measure from head to seat board and cut interior vertical mull trim to length. Center trim at mullion so reveals are equal on each side. Apply trim using finish nails spaced 6"-8" (152-203) apart, set with nail set. [See Figure 16.](#)

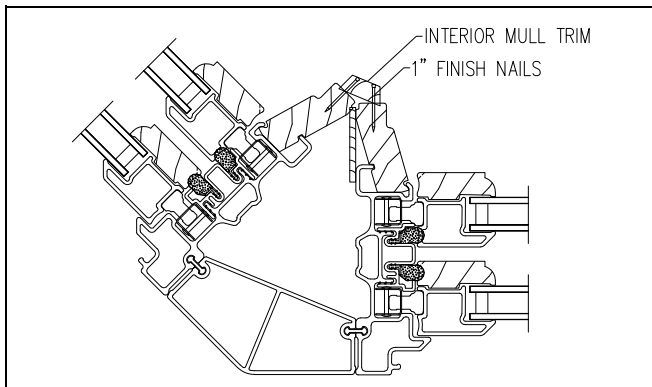


Figure 16

2. Apply head board horizontal trim and seat board horizontal trim where they meet the frames. Measure between jamb and or mull trim. Cut to length and fasten trim using finish nails spaced 6"- 8" (152-203) apart, set with nail set. Repeat on each unit. [See Figure 17.](#)

**NOTE:** If the unit is not to be installed/finished immediately it is recommended that cardboard or heavy paper be applied to head/seat board(s) to minimize handling or construction damage. Use minimum tape contact with wood to avoid adhesive contamination.

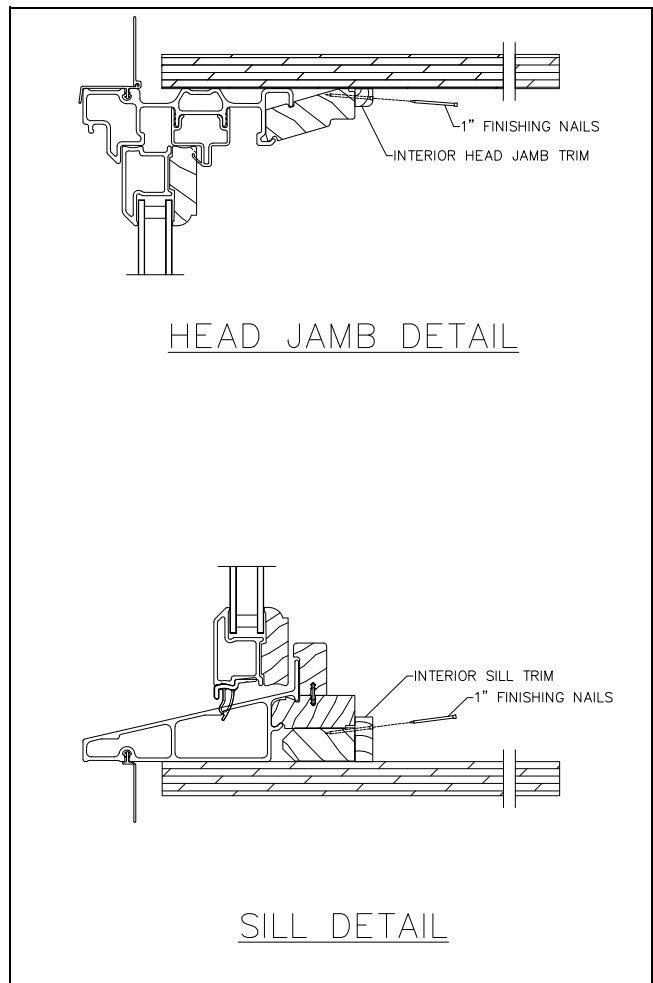


Figure 17