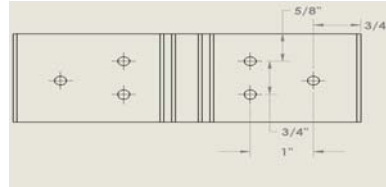


Vertical and Horizontal Mulling Instructions for the 1"x3.25" Aluminum Tube Mullion

This mullion is used where a structural mullion is needed to withstand high wind loads. This mullion is listed on the Florida Building Council (FBC) website FL#8627.1. The following instructions show the windows in a masonry opening; however this mullion can also be used in a wood opening as well. As with any Mullied window assembly; please allow a minimum of 1/2" clearance for width and height from the rough opening, to ensure a proper fitting window assembly. The procedure shown below is for Vertical (Window next to window) Mulling; the procedures are the same for same for Horizontal Mulling (window over window), except the orientation is rotated 90 degrees.

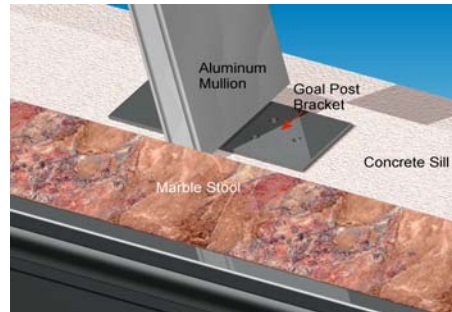
1 Drilling the Bracket

For masonry openings drill a 5/16" hole (wood openings drill a 3/16" hole) in each bracket in the specified locations. Two (2) brackets will need to be processed.



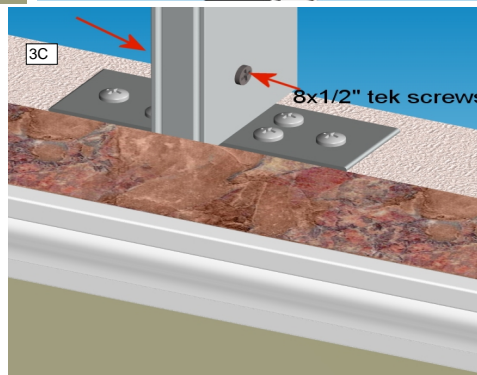
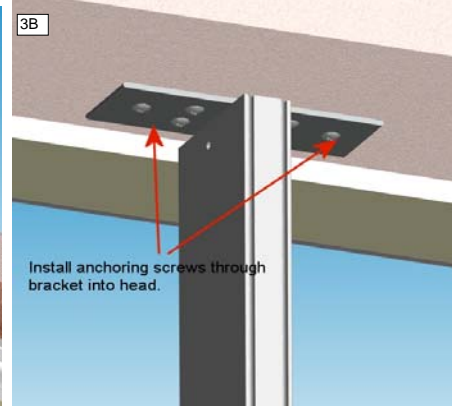
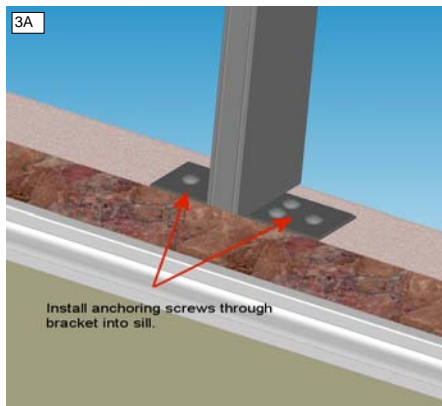
2 Mounting the assembly

Mark the center of the opening at the sill. Bring the mullion assembly (including both brackets inserted into the ends of the mullion) to the center of the opening. Place the mullion assembly flush to the edge of the stool and mark the bracket location at the sill and head. Remember to make sure that the mullion is plumb and level when marking the location.



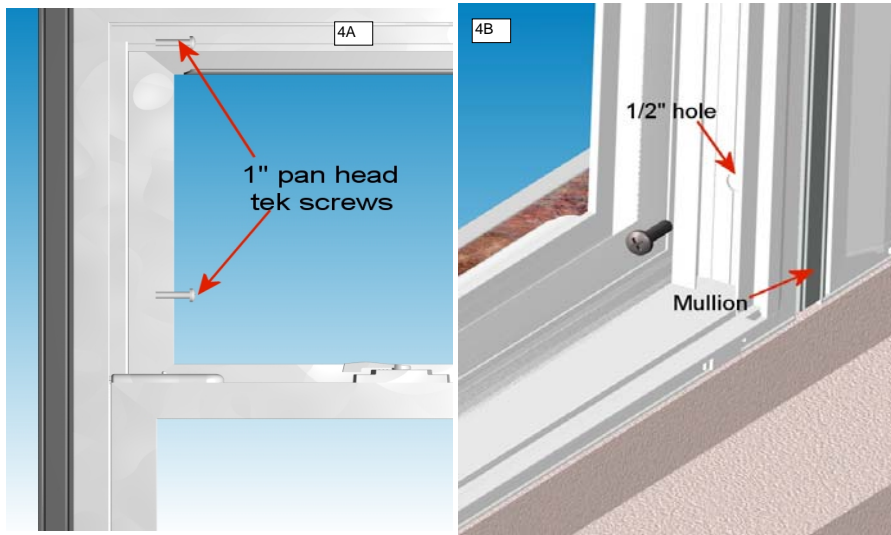
3 Anchoring the Bracket

Install (6) 1/4" x 2-1/4" Tapcons (wood openings use #8 x 2-1/2" pan head screws) through the bracket and into the sill of the opening. **Fig 3A** Level and plumb the mullion and repeat the procedure for the head of the opening. **Fig 3B** Once this is installed secure the mullion to the bracket with (2) # 8 x 1/2" low profile tek screws on either side of the mullion. Repeat procedure with the head end. **Fig 3C**



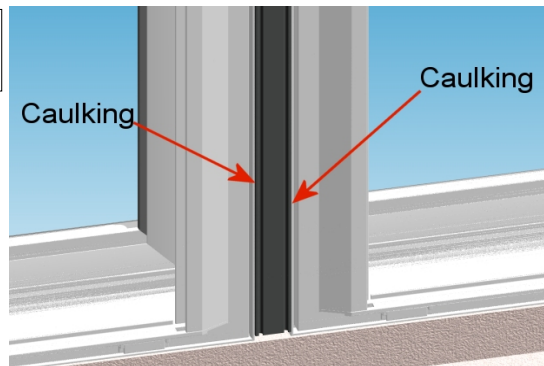
4 Installing the windows

Now that the mullion structure is in, place one window into the opening. Level and plumb the window to the mullion. *Clamps may be used to secure window the mullion prior to screw installation.* Secure a #10 x1" tek screw through the jamb and into the mullion; the locations for this screw is approximately 3" below the inside of the head of the window and 1-1/2" above the center of the window in the interior track. **Fig 4A** At a position 3" above the sill, drill a 3/16" hole all of the way through the jamb on the exterior track. Using the 3/16" hole as a pilot; drill a 1/2" hole through one layer of the extrusion (this hole is a finish hole and a hole plug will be installed in it). Next secure the screw though the extrusion and into the mullion. **Fig 4B** Insert the hole plug into the hole to finish. Repeat the same procedure with the next window.



5 Caulking the Window mull Joint

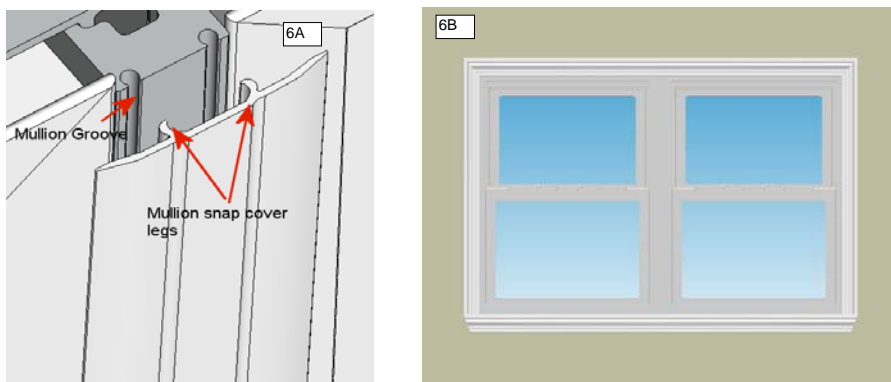
Where the windows and mullion meet, apply a bead of caulking to the entire joint area (Exterior only).



6 Applying the Mullion Cover

This is the last step in the mullion building process. As can be seen the mullion has a groove and the Mullion snap cover has prongs; these prongs fit into the mullion groove. **Fig 6A** The mullion cover is the length of the window from the factory; if needed trim to fit a particular application.

Apply the mullion cover by starting at the top of the window and work the mullion cover into the mullion until it is secured all the way to the bottom of the window. Sometimes excess weld flash is present at the weld joints remove this flash with utility knife; this will ensure a tight fit for the mullion cover. Repeat this process with the interior cover. The Completed window is shown in **Fig 6B**.

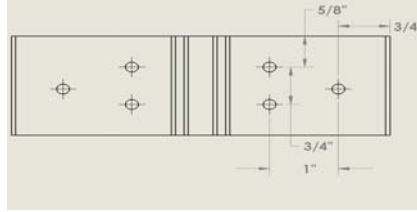


Tee Mulling instructions using the 1" x 3.25" Aluminum Tube Mullion

This mullion is used where a structural mullion is needed to withstand high wind loads. This mullion is listed on the Florida Building Council (FBC) website FL#8627.1. The following instructions show the windows in a masonry opening; however this mullion assembly can also be used in a wood opening as well. As with any Mullied window assembly; please allow a minimum of 1/2" clearance for width and height from the rough opening, to ensure a proper fitting window assembly. The procedure shown below is for Tee Mulling (Window over two (2) lower windows).

1 Drilling the Bracket

For masonry openings drill a 5/16" hole (wood openings drill a 3/16" hole) in each bracket in the specified locations. Four (4) brackets will need to be processed.



2 Locating the Horizontal Mullion Assembly

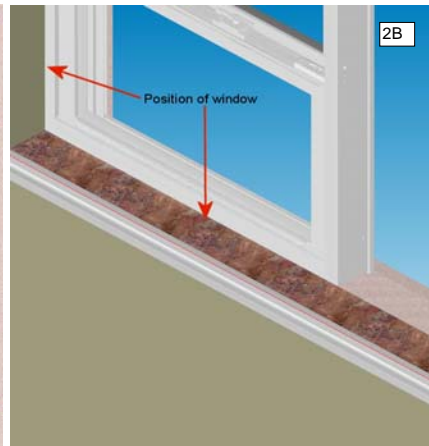
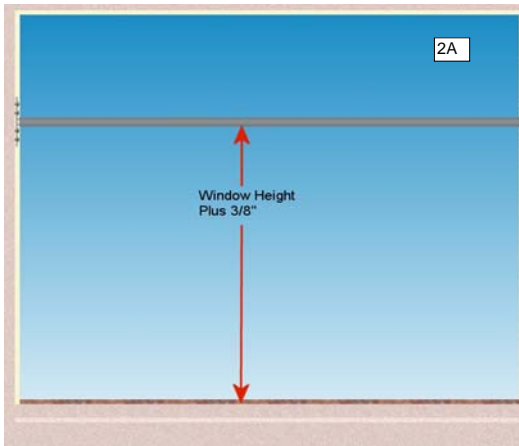
Before assembling the mullion there are 2 specific areas that need to be measured and marked:

A) The window height plus 3/8" (From the Sill to the bottom of the horizontal mullion) **Fig 2A**

B) The distance inside the opening where the face of the window will be positioned (usually flush to the stool board) **Fig 2B**.

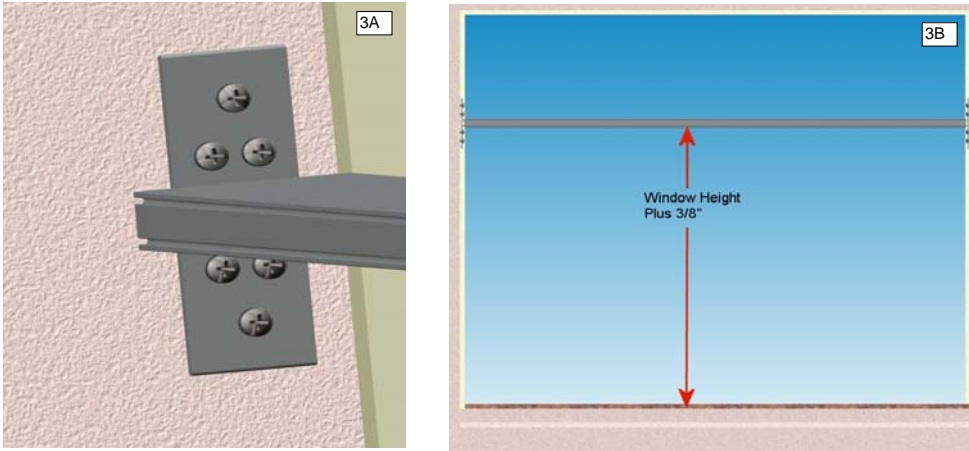
Once these measurements have been located the mullion structure can be assembled. Remember the interior face of the window will be flush with the mullions.

Install the Horizontal mullion in the opening by securing (6) 1/4 x 2-1/4" tapcons into the masonry opening (wood openings use #8 x 2-1/2" pan head screws).



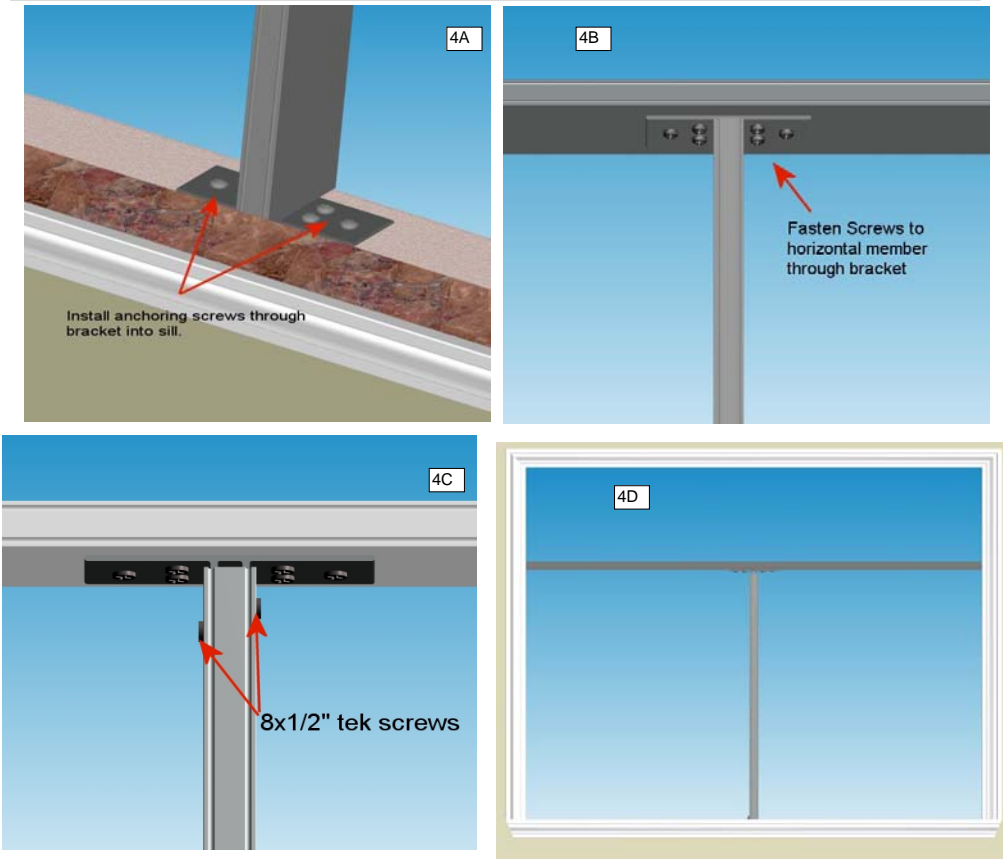
3 Installing the Horizontal Mullion

Bring the horizontal mullion assembly into the opening with brackets inserted in both ends of the mullion. Position the mullion where needs to be (Window height plus 3/8" and where the window will be positioned within the opening); secure one bracket side then secure the other side. **Fig 3A** Make sure the mullion is level to maintain the 3/8" clearance. **Fig 3B**



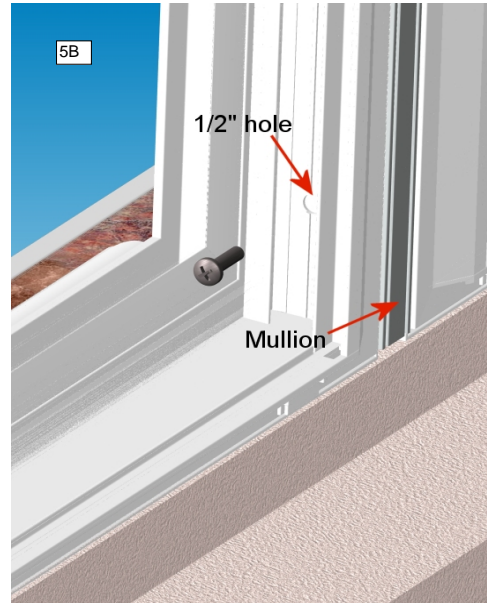
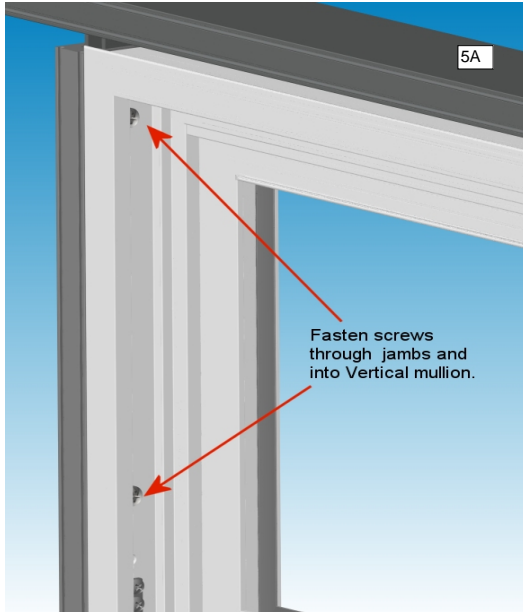
4 Installing the Vertical Mullion

Bring the Vertical mullion assembly; (including each bracket inserted at each end) position the mull so that the front faces of each mullion are flush. Level the mullion and then secure the sill portion to the masonry sill, utilizing (6) 1/4" x 2-1/4" tapcon screws (wood openings use #8 x 2-1/2 pan head screws). Again making the vertical mullion plumb and level, attach the head portion of the mullion by securing (6) #8 x 1" low profile tek screws through the bracket into the horizontal mullion. **Fig 4B** Install the 8x1/2" low profile tek screws into side of mullion and into the bracket legs. **Fig 4C** Repeat this installation for the sill end. Completed mullion structure. **Fig 4D**



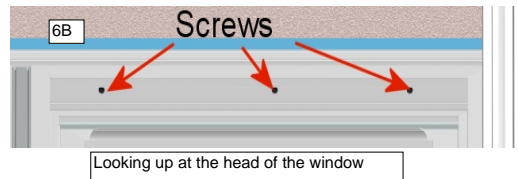
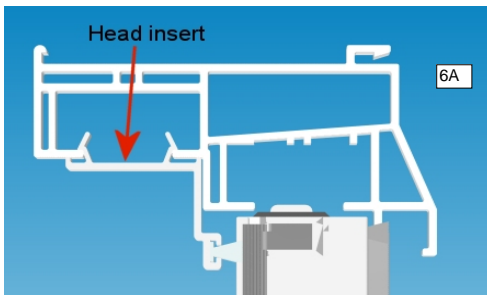
5 Installing lower windows to the Vertical Mullion

Bring the first window into the opening and plumb the window frame up to the vertical mullion. **Step 1**) At a location 3" below the head of the window and 1" above the center of the window on the interior track of the window, drill a 3/16" pilot hole through the window frame (do not drill into mullion). Keeping the front face flush to the vertical mullion face secure the # 10 x 1" Low profile tek screw through the window frame and into the mullion. There are two screws installed into the interior track of the window. **Fig 5A.** **Step 2**) At a location 3" below the center of the window and 3" above the sill drill a 3/16" pilot hole through the window frame (do not drill into mullion). Follow up by drilling a 1/2" hole through both of the pilot holes; drill through the first wall of the frame extrusion only. Screw a #10 x 1" tek screw through each of the holes and into the mullion. **Fig 5B** Apply the provided hole plugs to finish the covering of these holes. Repeat Step 1 and Step 2 for the opposite window.



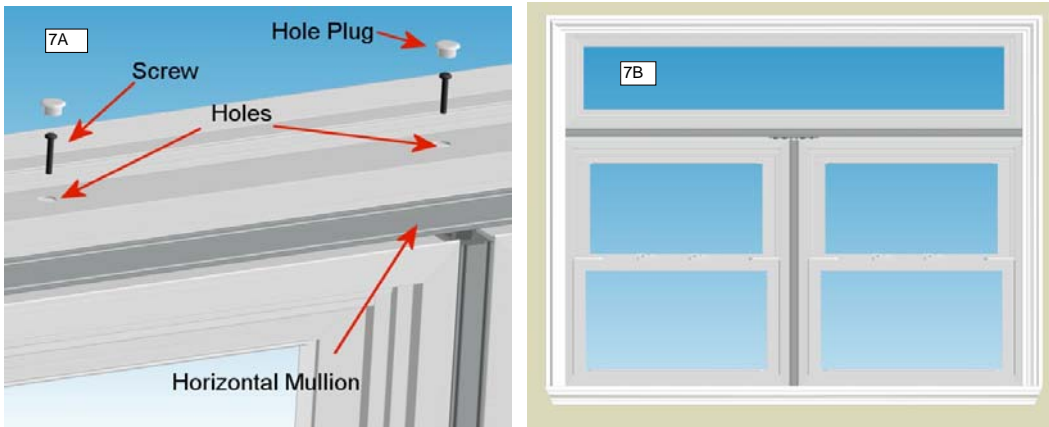
6 Installing lower windows to the Horizontal Mullion

Remove the head insert by pulling the bottom leg of the insert. **Fig 6A** Once removed, mark the positions where the screws will be inserted; screws should be inserted evenly at the head of the window. Secure the head of the window to the mullion by using (3) # 10 x 1-1/4" tek screws. Repeat this procedure with the opposite side. **Fig 6B** Once this is complete insert insulation between the mullion and the head of the window.



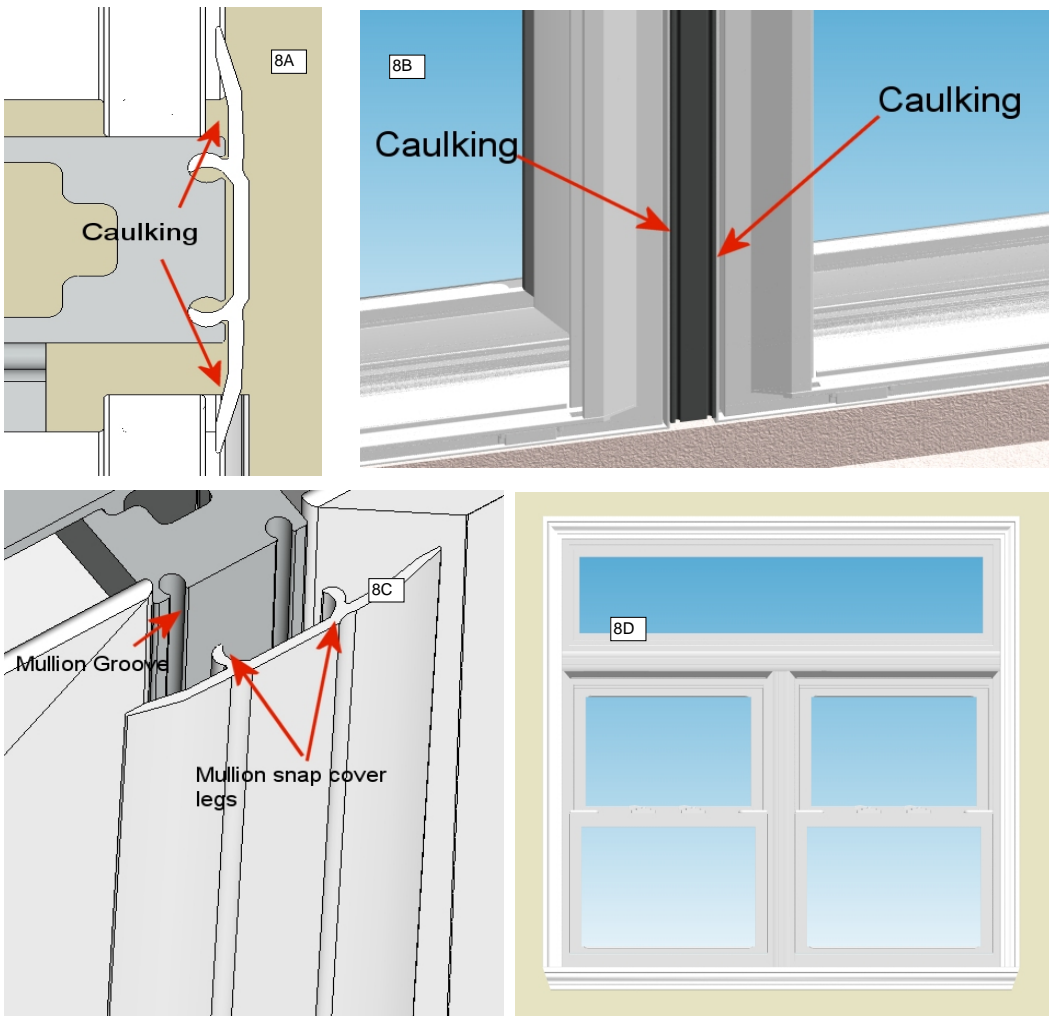
7 Installing the Transom

Install the transom window into the opening. *Follow procedure on window for head and Jamb.* Mark five evenly located points on the transom sill and drill a 3/16" pilot hole through the extrusion. Follow up by drilling a 1/2" hole at each pilot hole only through the first wall, (do not drill all the way through). Using the # 10x1" tek screw secure the sill area to the mullion by screwing through the extrusion and into the mullion. **Fig 7A** Shown is the assembled structure prior to capping of the mullion. **Fig 7B**



8 Applying the Mullion Cover

On the Exterior side of the mullion assembly; caulk the horizontal & vertical mullied window joint the entire length. **Fig 8A & 8B** The mullion cover can be applied by starting at one end of the mullion and working all way to the end, fully engaging the cover legs into the groove **Fig 8C** Use an object that will not effect the mullion cover surface, such as: the heel of the hand or "rubberized hammer". The next step is to apply the cover to the Vertical mullion. Measure the distance that will cover the exposed Aluminum Vertical mullion and cut the mullion cover to that length; apply the cover in the same manner as in the previous step. Repeat the procedure with the Interior side.



Parts list for Mulling with the 1" x 3.25" tube mullion

Side by Side or Over under

QTY	Part #	Description
1	UL0051-00	I series Aluminum Mullion
2	US-0180-00	Replacement Bracket (goal Post)
2	UL0052-XX	Mullion Snap Cover
3PKs	UZ004100	Installation screw pack 2 per mull
4	UZ013600	# 8 x 1/2" Low Profile Tek Screw
10	UZ0137-XX	#10 x 1" Low Profile Tek Screw
10	UZ0138-00	#10 x 1-1/4" Phillips Pan Hed Tek

TEE MULL

QTY	Part #	Description
2	UL0051-00	I series Aluminum Mullion
4	US-0180-00	Replacement Bracket (goal Post)
4	UL0052-XX	Mullion Snap Cover
5PKs	UZ004100	Installation screw pack 2 per mull
8	UZ013600	# 8 x 1/2" Low Profile Tek Screw
20	UZ0137-XX	#10 x 1" Low Profile Tek Screw
10	UZ0138-00	#10 x 1-1/4" Phillips Pan Hed Tek
1	UN045500	9 x12 bubble bag