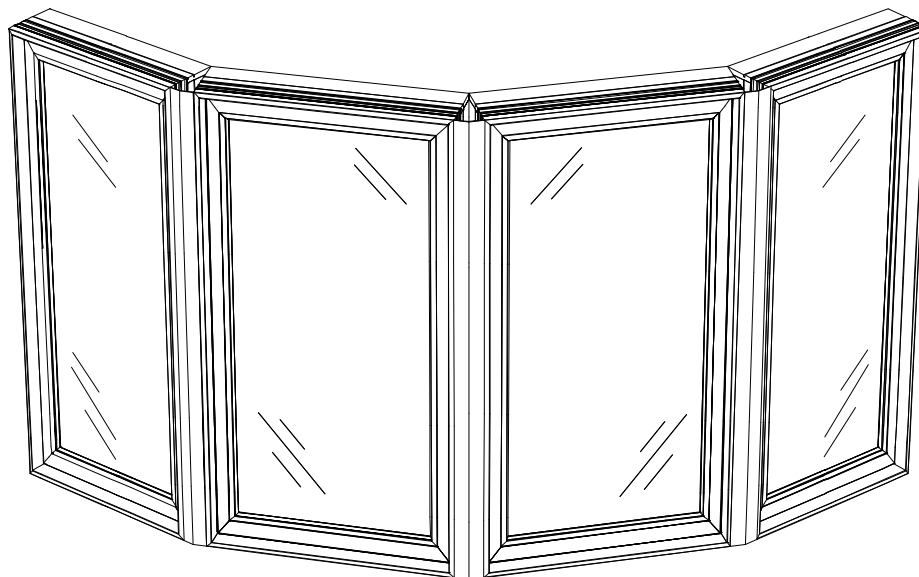
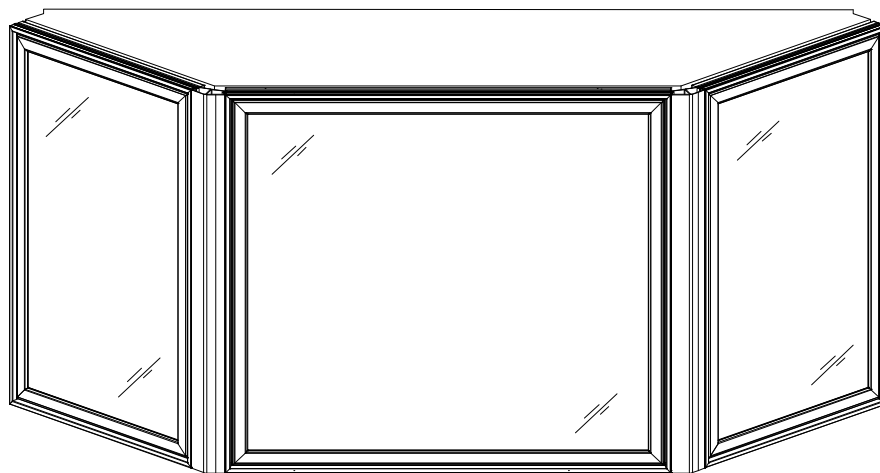


# Elevate Bow / Bay

## Installation Instructions



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**MARVIN** 

**ATTENTION: Specifications and technical data are subject to change without notice.**

**IMPORTANT!** Read these instructions thoroughly before beginning to install your Marvin Elevate Bow or Bay unit. Failure to install 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 Integrity products is the sole responsibility of the installer, contractor, structural engineer, architect, building owner and/or consumer. After installation is completed, these instructions should be retained by the building owner. For additional information, consult your local Integrity dealer.

**IMPORTANT:** 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. The methods contained herein may not be appropriate for all performance requirements. Selection of the appropriate fastening method is the sole responsibility of the installer, contractor, structural engineer, architect, building owner and/or consumer.

**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! This product can expose you to chemicals including methanol, 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! 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](http://www.P65Warnings.ca.gov)**

**NOTE:** Numbers listed in parentheses ( ) are metric equivalents in millimeters rounded to the nearest whole number.

**CAUTION:** Large Bow or Bay units will require more than one person to install the unit. Adequate help for the size of unit being installed is required.

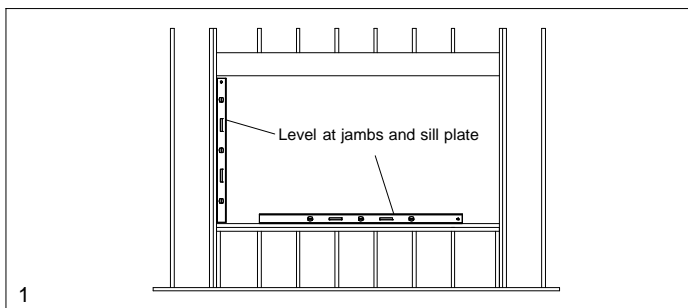
**CAUTION:** It is absolutely imperative that a support platform be constructed below your Bow or Bay unit. Additionally, the main support should be located directly under the sill of the Bow or Bay unit.

**WARNING:** Practice safety! Wear safety glasses or goggles and appropriate hearing protection when installing or performing adjustments to an Integrity product.

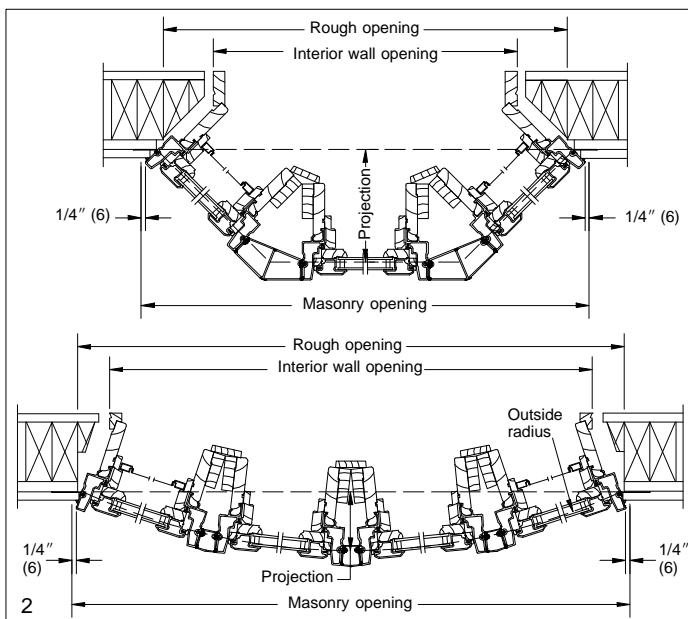
**IMPORTANT:** All windows and doors must have properly installed flashing systems and sealant at unit perimeter in accordance with accepted and proven construction methods.

**IMPORTANT:** While Integrity Windows and Doors does not control the style of platform support to be constructed, all bow and bay applications must have support located beneath the unit that follows the angle or radius projection of the unit. The support platform **MUST** extend directly under the sill of the unit to provide continuous support. **AN ELEVATE BOW/BAY IS NOT IN ANY APPLICATION ABLE TO SUPPORT ITSELF.**

- Care should be taken to ensure opening is square and sill plate is level. See illustration 1.



- When framing rough opening, obtain dimensions from unit as shown in illustration 2. Masonry openings (MO) should be 1/2" (13) wider and 1/4" (6) higher than outside measurement of frame.



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## YOU WILL NEED TO SUPPLY

Safety glasses	Hearing protection
Level	Hammer
Square	Tape measure
Caulking gun	Small standard screwdriver
2" Roofing nails	Fiberglass insulation
Utility knife	Wood shims
Perimeter sealant <sup>1</sup>	Low expansion foam insulation <sup>2</sup>
Backing material (foam backing rod)	
Seam seal tape (air barrier applications)	
Flexible self sealing adhesive panning material	
Self sealing adhesive flashing	

**NOTE:** The instruction steps to follow are related to installing an Elevate Bow/Bay mullied assembly. Please refer to specific unit instructions accompanying the assembly for detailed operation, maintenance and care information.

## INSTALLATION PREPARATION

**NOTE:** It is the sole responsibility of the installer, contractor, structural engineer, architect, building owner and/or consumer to construct/install the platform for their Bow or Bay unit.

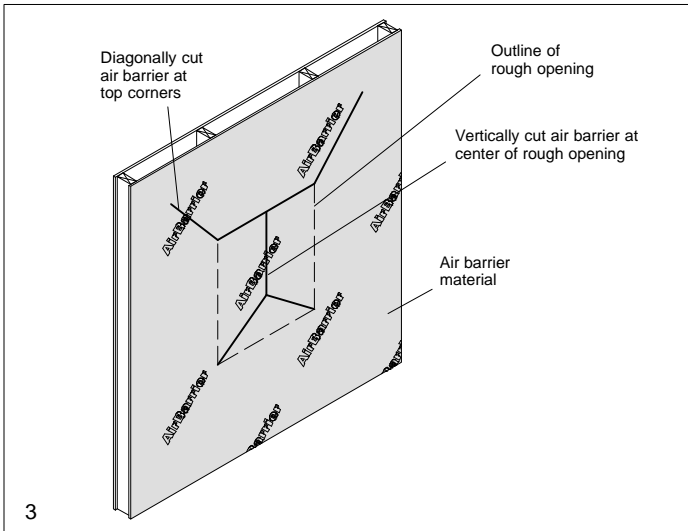
<sup>1</sup>Sealant must be Grade NS Class 25 per ASTM C920 and compatible with building exterior and window surface

<sup>2</sup>Use low expansion foam insulation only. Must comply with ASTM E2112, section 5.9.2.

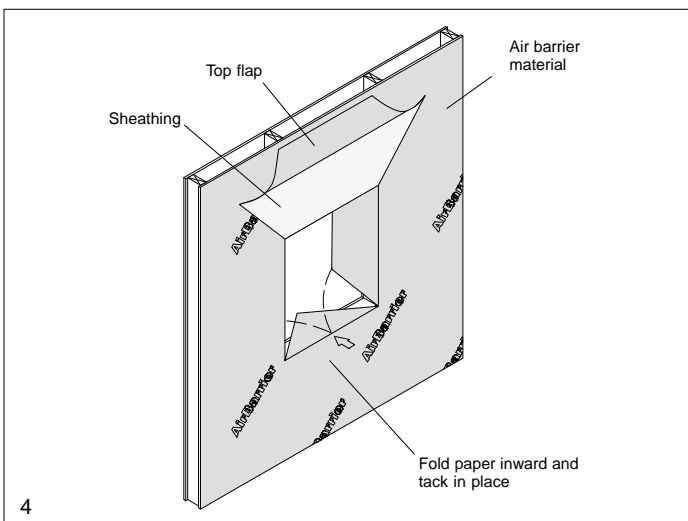
## ROUGH OPENING PREPARATION – AIR BARRIER

**NOTE:** The following procedures outline the recommended method to prepare the rough opening for construction applications using a continuous air barrier system. For construction applications using building paper skip to the section, “Rough Opening Preparation–Building Paper”.

- When trimming away the air barrier at openings, first cut across the top of the rough opening the entire width of the head jamb. Then cut from the bottom corners at 45 degree angles toward the center of the opening. Where the angled cuts meet, continue the cut vertically to the head jamb. Cut the top corners diagonally away from the opening. See illustration 3. **DO NOT cut air barrier diagonally from corner to corner in an “X” fashion.**

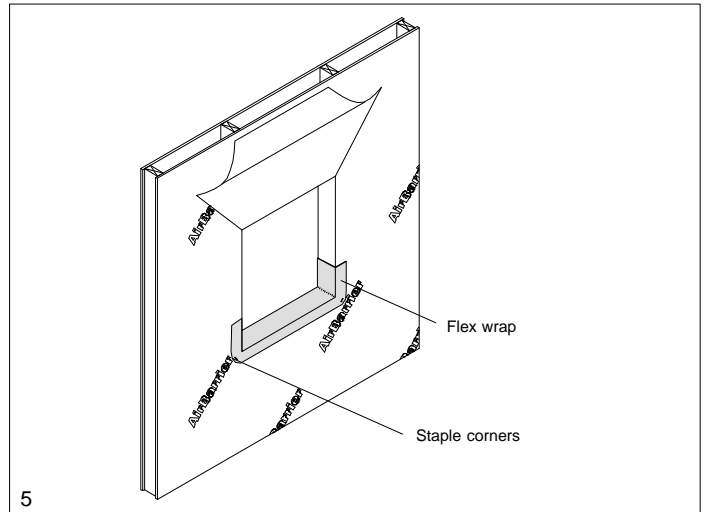


- Wrap barrier to the interior and tack in place. Do not tack barrier at head jamb. Fold the flap up and tack in place or tuck beneath. This will allow the top flap to fit over the head jamb flashing after installation. See illustration 4.

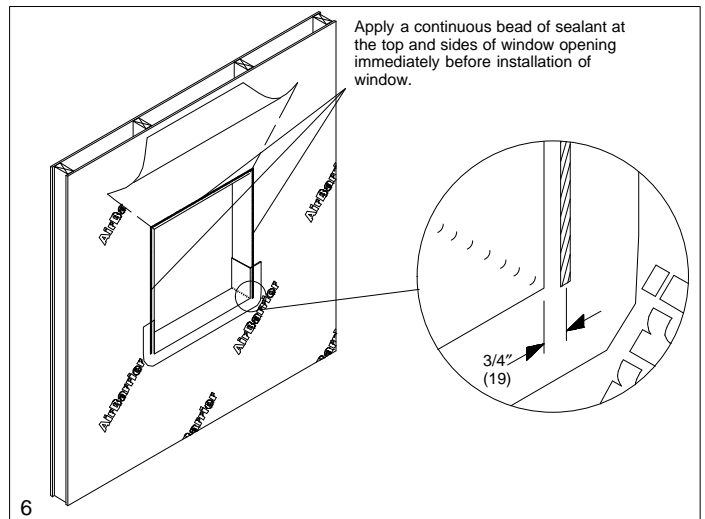


- Use appropriate width flexible self sealing adhesive membrane to pan the sill. Make the piece long enough to ride up the jambs at least 4” (102) on each side. Fold the wrap out onto the exterior as shown in illustration 5. Staple the exterior corners of the sill panning to hold the wrap in place until the adhesive cures.

**NOTE ON PANNING THE SILL:** If a flexible adhesive membrane is not used to pan the sill, be sure to properly seal the bottom corners of the rough opening. Then use regular adhesive membrane along with relief cuts to properly pan the sill. If pan flashing is to be used, install now.



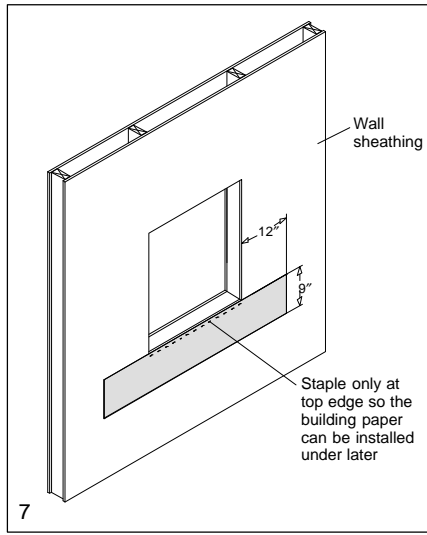
- Apply a continuous bead of sealant (see recommended sealant on page 1) 3/4” (19) from the top and sides of the window opening. **Do not apply sealant to rough opening bottom.** See illustration 6. Proceed to the “Installing the Window” section.



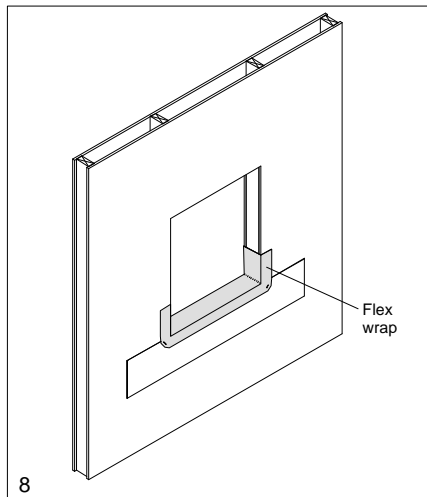
## ROUGH OPENING PREPARATION – BUILDING PAPER

**NOTE ON BUILDING PAPER APPLICATIONS:** Apply the main courses of building paper after the window has been installed.

7. Cut a 9" (229) wide strip of building paper approximately 24" (610) longer than the window rough opening width. Center the strip at the sill even with the bottom of the rough opening and staple along the top edge only. See illustration 7.

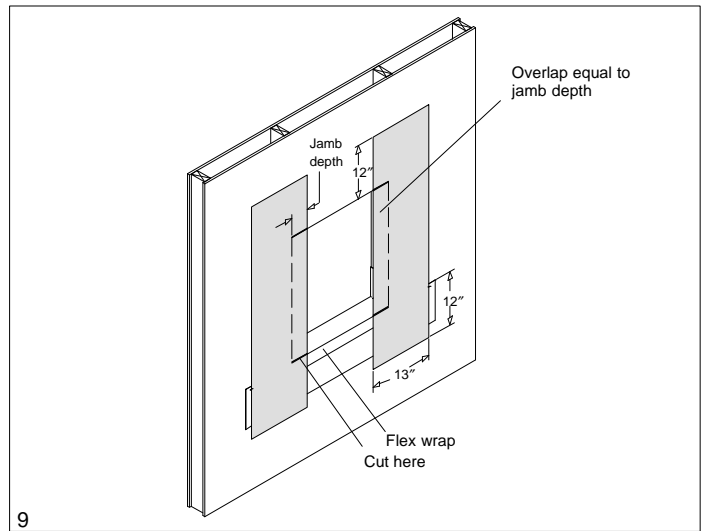


8. Use appropriate width flexible self sealing adhesive membrane to pan the sill. Make the piece long enough to ride up the jambs at least 4" (102) on each side. Fold the wrap out onto the exterior as shown in illustration 8. Staple exterior corners of the sill panning to hold the wrap in place until the adhesive cures.

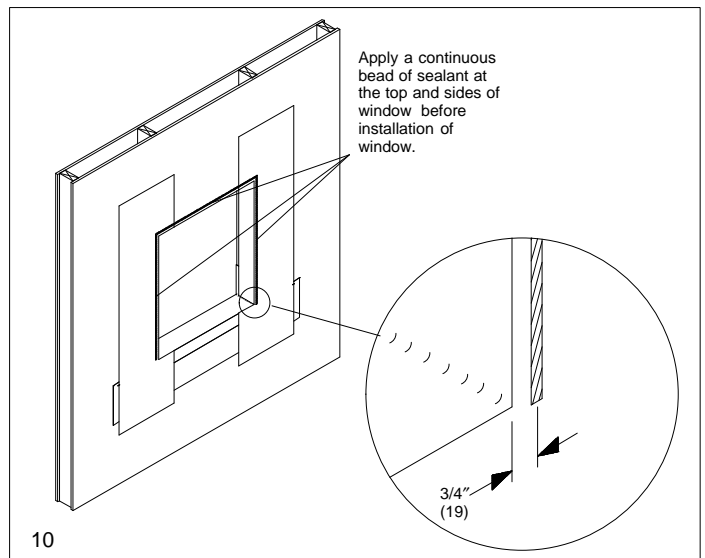


**NOTE ON PANNING THE SILL:** If a flexible adhesive membrane is not used to pan the sill, be sure to properly seal the bottom corners of the rough opening. Then use regular adhesive membrane along with relief cuts to properly pan the sill. If pan flashing is to be used, install now.

9. Cut a 13" (330) piece of Grade "D" building paper 24" longer than the rough opening height (adjust width for jamb depth). Tack the pieces in place overlapping the rough opening by as much as the jamb depth. Use a utility knife to cut the paper even at the head jamb and sill then tack in place. See illustration 9.



10. Apply a continuous bead of sealant (see recommended sealant on page 1) 3/4" (19) from the top and sides of the window opening. Do not apply sealant to rough opening bottom. See illustration 10.

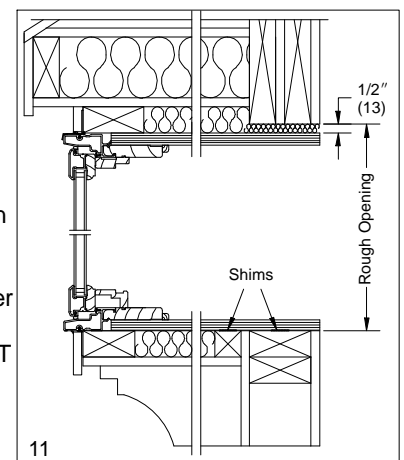


## INSTALLING THE UNIT

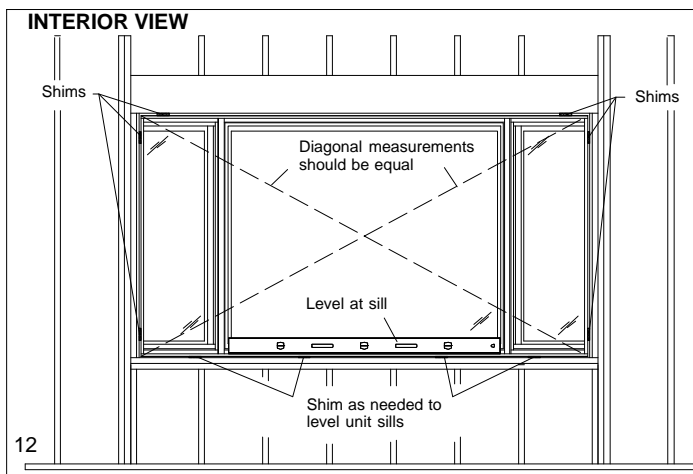
11. For frame construction, the support platform for the Bow or Bay must follow the radius or the angle of the particular unit and be located directly under sill. The support platform should be level, however, the sill can be shimmed to bring the unit level after placing in the rough opening. See illustration 11.

**CAUTION: All bow/bay seatboards must be fully supported.**

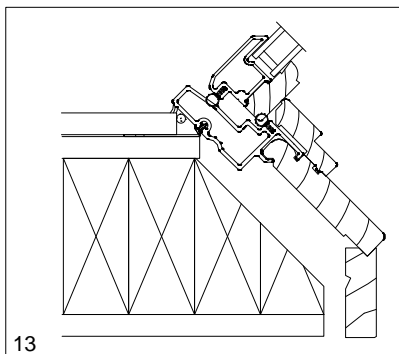
12. Before placing the Bow or Bay onto the platform, ensure the platform area below the unit is properly insulated. Do not pack tightly. See illustration 11. Position the factory applied nailing fin/drip cap in the upright position per instructions provided with product. **DO NOT APPLY NAILING FIN CORNER GASKETS AT THIS TIME.**



- With appropriate help, lift the Bow or Bay onto the platform. Check to make sure unit is square. Ensure jambs are straight and plumb and sill is level. Check interior diagonal measurements for the entire frame. Adjust as necessary by applying shims to the corners 4" (102) to 6" (152) from the sill and head jamb. Check the sills of all units to be sure they are level, if needed shim under the sill and seat board of the bow/bay every 6" (152) to 8" (203). See illustration 12.



- When window frame is square and plumb, nail through the jamb nailing fin a maximum of 6" from the upper corners. Do NOT drive nails all the way in. See illustration 13. If your unit is secured by brackets\* start at the interior upper corners and attach with two #8 x 1 1/2" flathead wood screws.

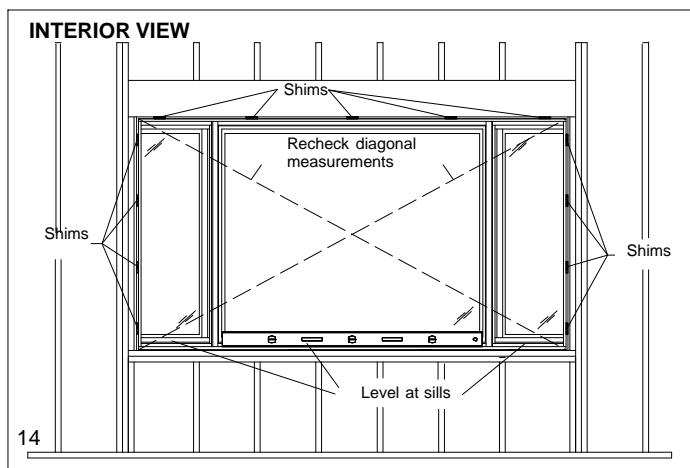


\* Specific installation instructions are supplied with product.

### PERMANENTLY SECURING UNIT

- Recheck interior diagonal measurements again. The Bow or Bay unit must be level. If square and the sash operate smoothly place shims around the jambs, head jambs, sills, and head/seat boards approximately every 15" (381). Shims must be placed 4" (102) to 6" (152) on either side of each corner (if not done in step 6). See illustration 14.

**NOTE:** Proper shimming is extremely important. Under shimming can cause the unit to sag out of square, over shimming will result in bowed jambs, head jamb and sill. All of these conditions can contribute to improper operation and poor performance of unit.



- Complete fastening of nailing fin around the frame. Drive fasteners in at top corners and space additional fasteners a maximum of 8" (203) apart around unit perimeter. Install the four nailing fin corner gaskets (per instructions included).

**IMPORTANT:** Nailing fin is not designed to be a weatherproof flashing.



**CAUTION:** Installations in severe environments may require additional fasteners or alternate methods of securing the unit. Check local codes and consult a structural engineer for proper procedures. Marvin Windows & Doors can offer technical assistance to consultants. Contact your local Marvin dealer for details.

- Cut off shims flush with the interior of the side jambs, head jambs and sills or head and seat boards to allow application of interior trim.
- Fill the gaps loosely between the window frame and framing members on interior with fiberglass insulation.

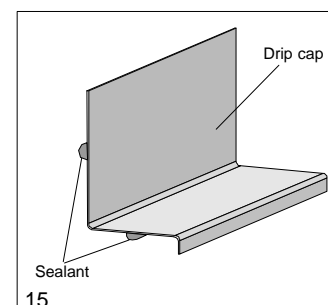
**NOTE:** Foam type insulation may be used to form an infiltration seal as required by some building codes. However, a low expansion type foam should be used in conjunction with fiberglass insulation.

**CAUTION:** When using expanding foam insulation it is very important not to bow head/seat boards or the side jambs of the unit.

- Install drip cap along exterior head jambs of the unit. (purchased as an option from Integrity or supplied by others.) A separate drip cap is not needed if applied nailing fin/drip cap is used.

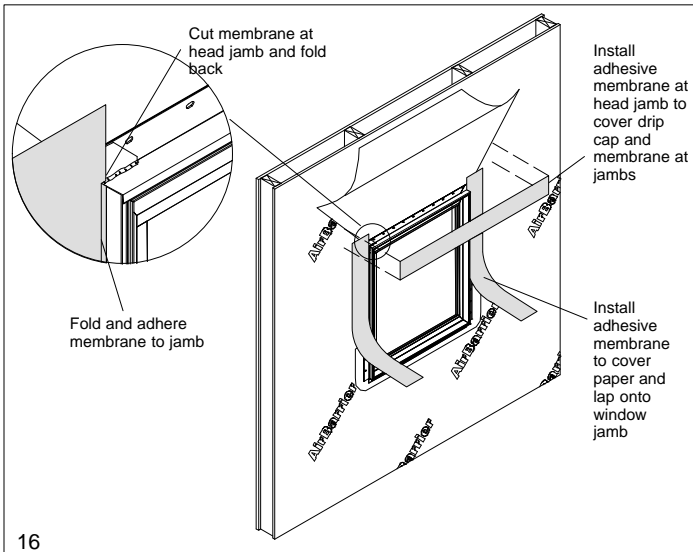
### SEALING THE INSTALLATION – AIR BARRIER

- If not done already, install a drip cap along the head jamb or head jamb casing. Be sure to apply a bead of sealant along the back sides of both vertical and horizontal surfaces of the cap that come in contact with the window, window casing, and/or sheathing. See Illustration 15.



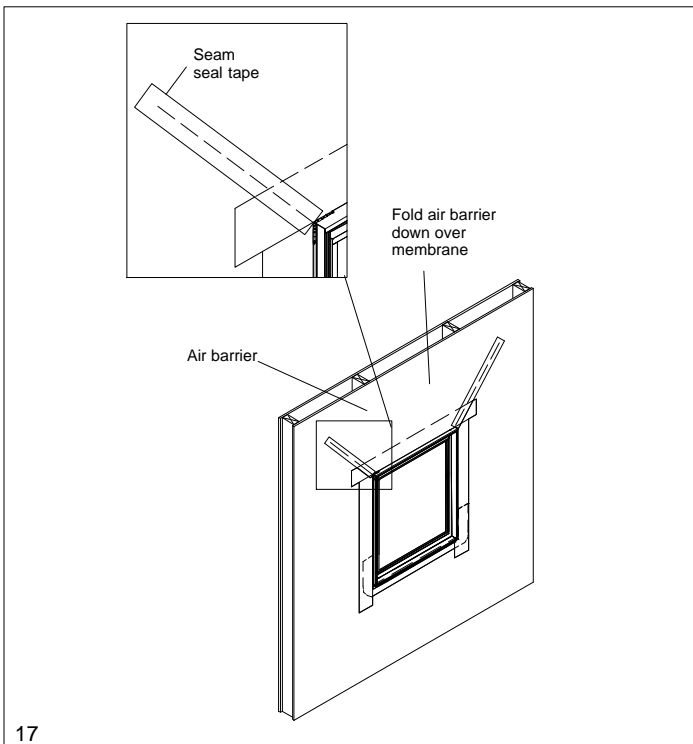
**IMPORTANT:** Nailing fin is not designed to be a weatherproof flashing.

21. Apply nailing fin corner gaskets to each corner of the nailing fin. Follow instructions on back of gasket. (Units with clad flat casing do not use corner gaskets.)
22. Lap vertical strips of self sealing adhesive membrane onto the unit or casing and out over the air barrier. Make small cuts at the head jamb to allow the membrane to fold back onto the exterior. See illustration 16.
23. Install another layer of adhesive membrane lapping onto head jamb of unit and over sheathing. Membrane flashing at head jamb should extend and cover flashing membrane previously installed at jambs. See illustration 16.



16

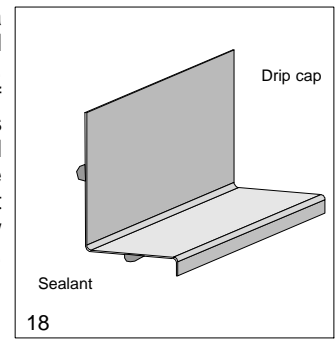
24. Fold head jamb air barrier down over the head jamb flashing. Apply seam seal tape over the diagonal cut in air barrier. Make sure the tape laps onto the unit or casing. Tape and seal any seams and fasteners directly above the unit. See illustration 17. Proceed to the **“Final Sealing Procedures”** section.



17

## SEALING THE INSTALLATION – BUILDING PAPER

25. If not done already, install a drip cap along the head jamb or head jamb casing. Be sure to apply a bead of sealant along the back sides of both vertical and horizontal surfaces of the cap that come in contact with the window, window casing, and/or sheathing. See illustration 18.

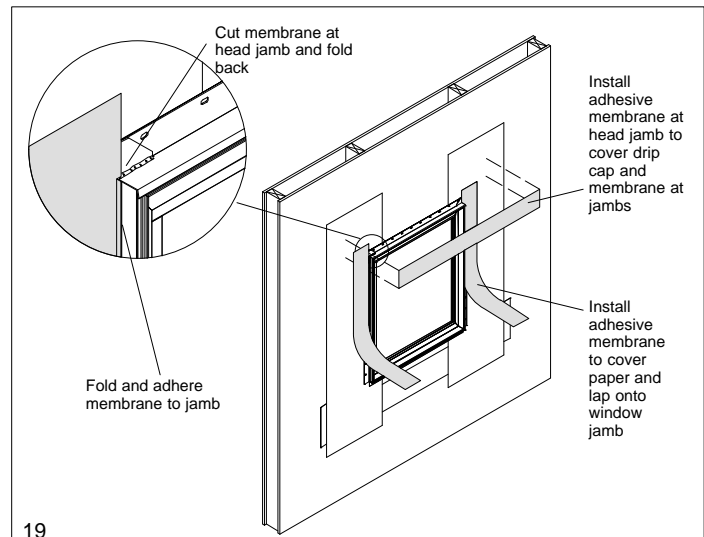


18



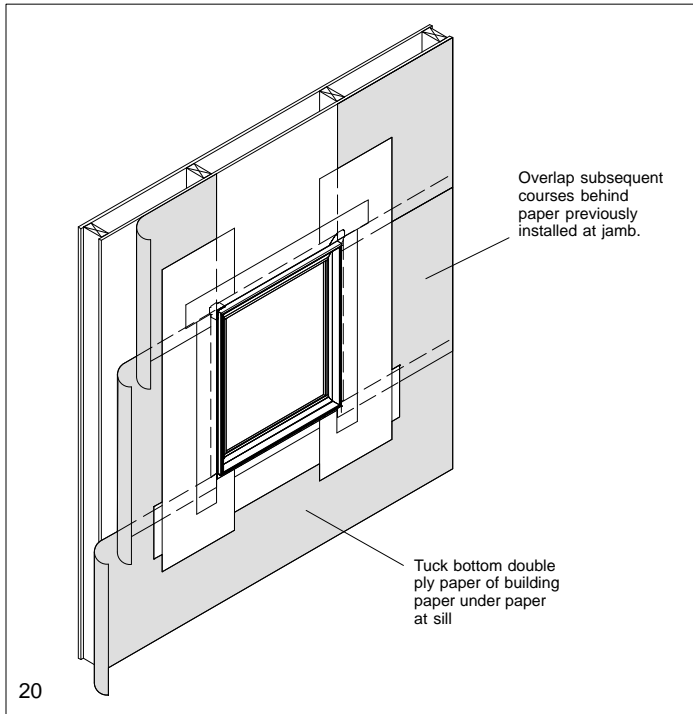
**IMPORTANT:** Nailing fin is not designed to be a weatherproof flashing.

26. Apply nailing fin corner gaskets to each corner of the nailing fin. Follow instructions on back of gasket. (Units with clad flat casing do not use corner gaskets.)
27. Lap vertical strips of self sealing adhesive membrane onto the unit or casing and out over the air barrier or building paper. Make small cuts at the head jamb to allow the membrane to fold back onto the exterior. See illustration 19.
28. Install another layer of adhesive membrane lapping onto head jamb of unit and over sheathing. Membrane flashing at head jamb should extend and cover flashing membrane previously installed at jambs. See illustration 19.

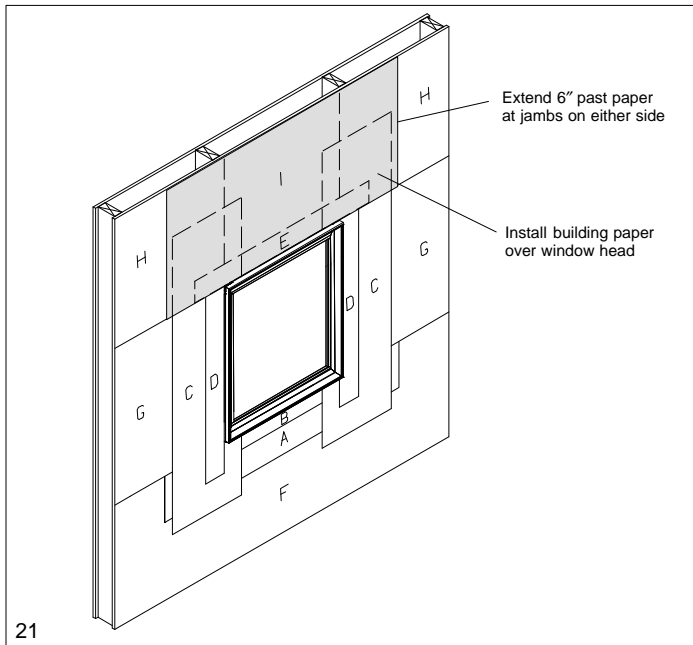


19

29. Tuck a double ply layer of building paper under the sill flashing. At the jambs, install a double ply roll beneath the jamb flashing overlapping the previous course by at least 2". Continue installing courses beyond the height of the window unit as shown. See illustration 20.



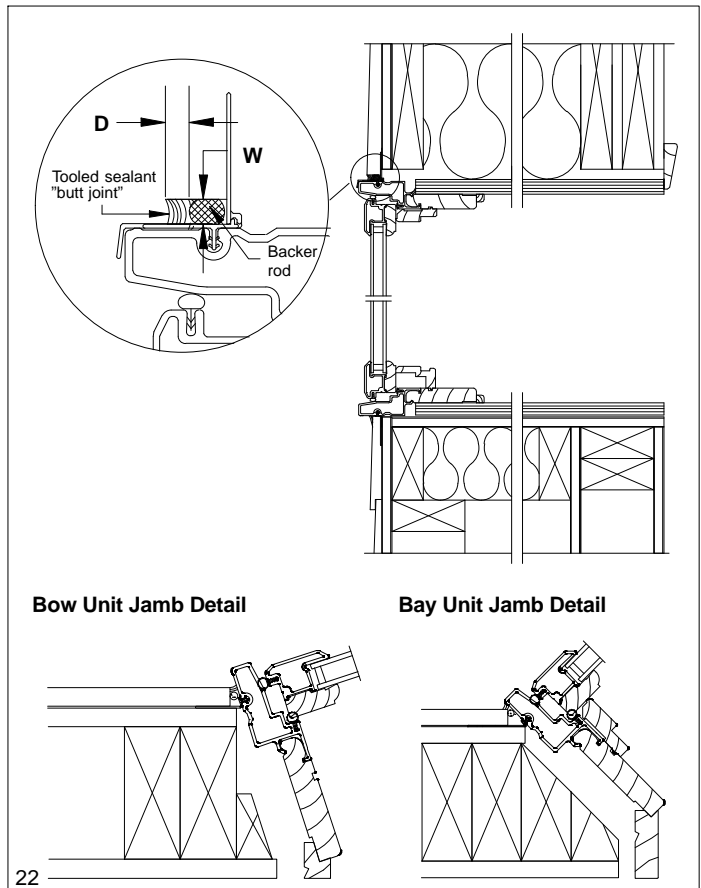
30. Size and cut a double roll of building paper to bridge the opening between the paper courses at the sides. This course should extend past the paper previously installed by at least 6". See illustration 21. Proceed to the "Final Sealing Procedures" section.



## FINAL SEALING PROCEDURES

31. Complete enclosure of the top and bottom of the bow/bay unit. After exterior finish or siding is installed, apply sealant around the exterior perimeter of the unit frame or casing. As needed, insert backing material between the frame or casing and the structure to provide a proper sealant joint. Sealant depth must be equal to width between unit and exterior finish material (brick and masonry apply). Always refer to the manufacturers recommendations for proper surface preparation and application. See illustration 22.

**IMPORTANT!** Perimeter sealant must be Grade NS Class 25 per ASTM C920 and compatible with the window /door product and the finished exterior(s) of the building. Using improper sealant could result in sealant failure causing air and water infiltration.



## ***IMPORTANT:***

*The instruction steps enclosed are related to installing a Marvin Elevate bow/bay unit.*

*Please refer to specific unit instructions accompanying this document for detailed operation, maintenance, care, and warranty information.*

### **Installation Questions:**

For Additional installation information contact your local distributor/dealer.

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