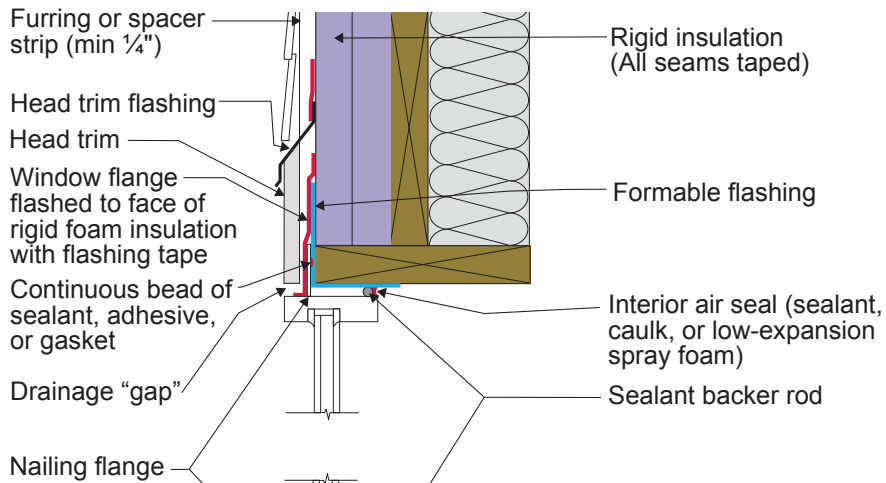
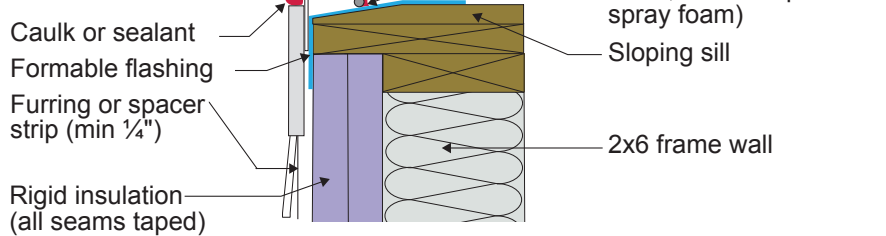


# W5A - Framed Wall with Thick Rigid Insulation and Siding (Wood, Fiber Cement, Aluminum or Vinyl)

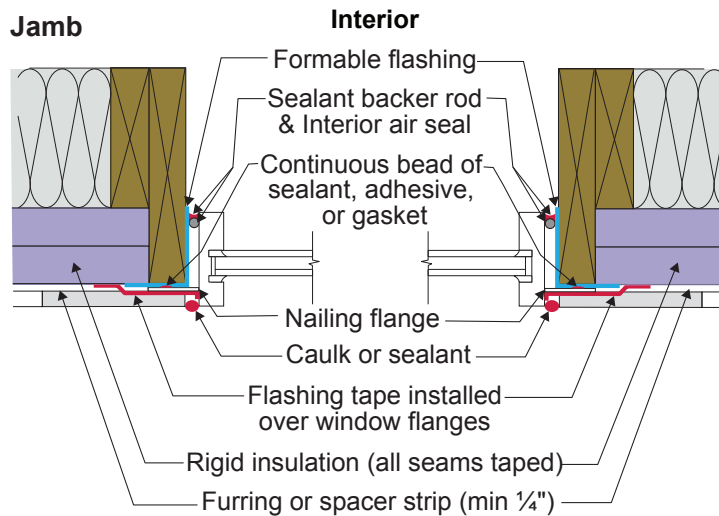
## Head



## Sill



## Jamb



## W5A - Framed Wall with Thick Rigid Insulation and Siding (Wood, Fiber Cement, Aluminum or Vinyl)

- Note: Always follow the window manufacturer's installation guidance. Not following manufacturer guidance may void the warranty.
- This is a "drained wall". The exterior face of the rigid insulation is carefully taped at all seams, allowing it to act as the water control layer. Drainage occurs between the siding and the exterior face of the rigid insulation. A drainage gap is provided by furring installed vertically over the exterior face of the rigid insulation at stud locations.
- The window openings are drained to the exterior face of the rigid foam since it is acting as the water control layer.
- The rough opening at the windowsill is sloped and flashed to the rigid foam with a formable flashing.
- The upper portion of the head trim flashing goes under the furring and is taped directly to the rigid foam with flashing tape. The furring is "cut through" by the head trim flashing, so that the furring below the flashing (behind the head trim) is separate from the furring above the flashing (behind the siding). During construction the head trim is installed first on short pieces of furring. It is flashed directly to the rigid foam as described above. The rest of the furring is installed with the siding.
- With thick rigid foam installed on the exterior, providing nailing surfaces for trim and siding can be a challenge. Furring strips are one approach to accomplish this. Some form of structural wood may be needed around the windows to accommodate trim. There are many ways to accomplish this. In the assembly shown, wide lumber is used to create the rough opening, allowing nail-able wood to extend to the exterior surface of the rigid foam but also creating a thermal bridge.
- A formable membrane connects the rigid foam to the wood frame. It should extend inwards at least past the point where the interior air seal is located around all sides of the window frame. This creates water-resistant surfaces inside the cavity between the window flanges and the interior air seal, in case any water gets behind the flanges. The head and jamb window flanges are flashed to the rigid foam using a self-adhered flashing membrane or flashing tape. The sill window flange is not flashed, to allow any water that may get behind the flanges to escape.
- This assembly relies heavily on the use of proper tapes, flashings, and membranes that will adhere securely and durably to the rigid foam. Products should only be used if they have been well-established to be appropriate for this application.
- Note the gap between the head trim and the top of the window assembly frame. This gap allows water to drain and allows the bottom of the trim to dry out more easily. If installed without this gap, capillary action can draw water into the tight space between the head trim and the window assembly frame. Note also the gap between the siding and the head trim flashing, which serves the same purposes.
- Consider installing rigid head flashing (rigid head flashing is not shown in the schematic). Rigid head flashing is similar to the head trim flashing shown in the schematic, but it goes over the top of the window frame instead of over the head trim. This is required by some manufacturers. It should be installed against the head nailing flange and over the top of the window frame. The vertical and horizontal portion of the flashing should be sealed directly to the window frame and flange with sealant. The red flashing membrane strip shown overlapping the head nailing flange in the schematic would now overlap the rigid head flashing. Use rigid head flashing with a drip edge to guide water away from the window assembly.
- Backer rod for the interior air sealant should be installed after the window is installed, leveled, and shimmed. Use the correct size backer rod.