

the layers of foam have the potential to form a three-dimensional network of airflow paths. Closed cell spray foam is used to connect the rigid foam board at difficult transitions (to window openings, portions of uneven surface brick, and the joist/floor areas).

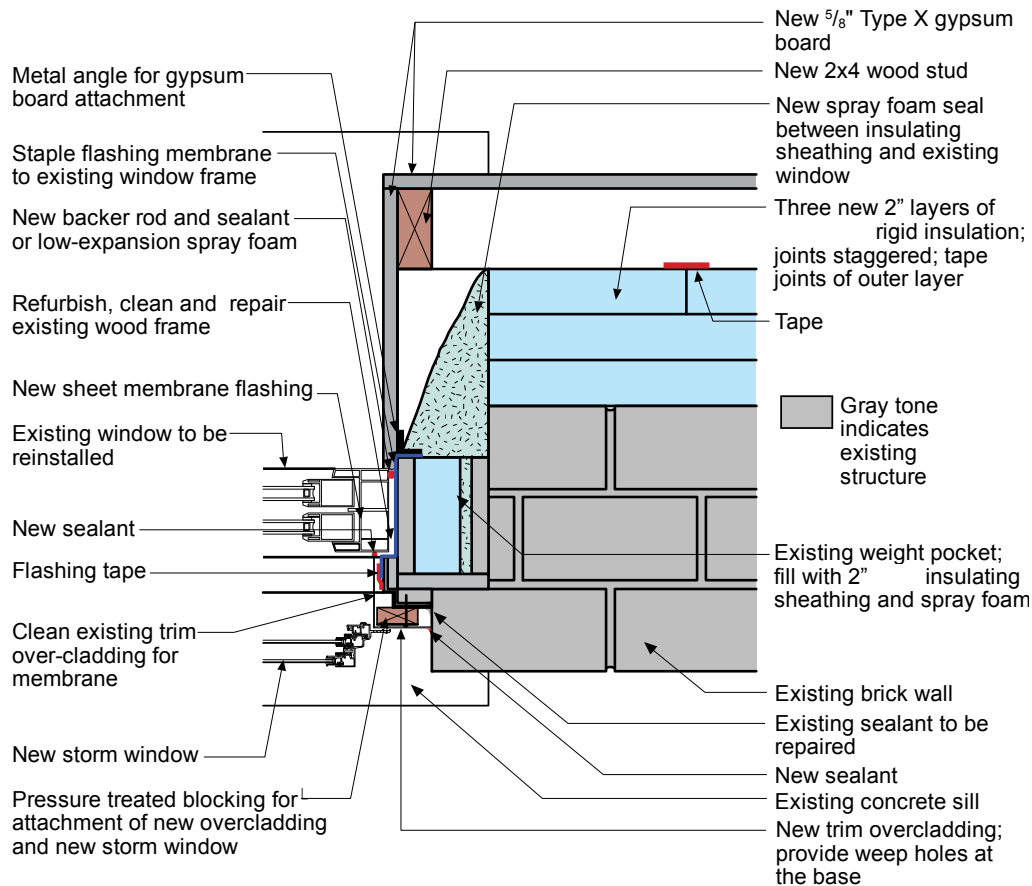


Figure 7: Window jamb retrofit detail, showing spray foam “fillet”

Other wall penetrations, such as the outside air supply/exhaust duct for the unit-by-unit heat recovery ventilators, should be treated in a similar way, with a spray foam seal between the duct and the rigid foam board.

Wall-to-Roof Air Barrier

Continuity of the air barrier at the wall-to-roof interface is critical to prevent interior air leakage into the roof assembly. Figure 8 shows the air barrier connection from the wall to the retrofitted flat roof assembly (with a masonry parapet). The connection is made via ccSPF, which “caps” the edge of the rigid insulation at the wall and connects it to the underside of the roof deck and the masonry parapet.

On the top side of the roof, a layer of self-adhered membrane is installed under the layers of rigid insulation and wrapped up the parapet, to provide an air barrier at the underside of the “roof sandwich” discussed above. This air barrier is actually somewhat redundant, given the spray foam installed from the underside; therefore, the assembly could be modified.