Removing self-adhering membranes

Reroofing often involves removing self-adhering membranes, but doing so can damage roof decks

by Mark S. Graham

NRCA's Technical Services Section frequently receives inquiries regarding reroofing situations and whether existing self-adhering underlayments originally applied directly over roof decks need to be removed before installation of new steep-slope roof coverings. If you are involved with reroofing steep-slope roof systems, you should be aware of some of the considerations applicable to these situations.

What is recommended

It generally is understood when tearing off an existing roof covering and replacing it with a new roof system that the tear-off is intended to include removal of all layers of existing roofing materials down to the roof deck surface. However, once a self-adhering underlayment has been in place for some time, it usually becomes firmly bonded to wood substrates and cannot be readily removed. Removing firmly adhered self-adhering underlayment often results in delaminating or otherwise damaging wood substrates.

Addressing this situation, *The NRCA Roofing Manual: Steep-slope Roof Systems—2009* states: "During reroofing, self-adhering polymer-modified bitumen sheet underlayment may not be able to be removed completely from the existing roof deck without damaging the roof deck."

Building codes generally require complete removal of all layers of existing roofing materials where roof system removal is required. The International Building Code's 2003, 2006 and 2009 editions state: "New roof coverings shall not be installed without first removing all existing layers of roof coverings … ."

Similar language also appears in the International Residential Code for One- and Two-family Dwellings.

In 2008, the Asphalt Roofing Manufacturers Association (ARMA) issued a technical bulletin (ARMA Form No. 226-RR-08), "Self-adhering Underlayment Removal Prior to Steep Slope Re-roofing." In the bulletin, ARMA indicates it is recommended to remove existing self-adhering underlayment in situations where it can be pulled up without damaging the roof deck.

The ARMA bulletin goes on to indicate if one layer of self-adhering underlayment is in place and cannot be removed without damaging the roof deck, installing a second layer over the existing self-adhering underlayment is permissible. However, the ARMA bulletin recommends laps be offset between the existing and new self-adhering underlayment to minimize material buildup. Also, the new self-adhering underlayment should be "feathered in" by extending the new self-adhering underlayment upslope a minimum of 8 inches beyond the existing underlayment.

If more than one layer of existing self-adhering underlayment is in place, the ARMA bulletin recommends complete removal of the existing self-adhering underlayment. If complete removal cannot be accomplished without damaging the roof deck, the ARMA bulletin indicates complete removal and replacement of the deck in the area of the self-adhering underlayment may be necessary.

Caution

It is important to realize the recommendation to leave existing self-adhering underlayment in place may conflict with the applicable building code. In situations where existing self-adhering underlayment is encountered, it may be useful to consult with the (building department) authority having jurisdiction for any specific requirements or interpretations it may have.

Also, it may help to consult the primary roof covering's manufacturer to determine whether it has any requirements or guidelines other than those contained in the ARMA bulletin. In some instances, the authority having jurisdiction may defer to manufacturer recommendations.

I encourage you to be aware and cautious of these possibly conflicting considerations regarding existing self-adhering underlayment in steep-slope roof system removal situations.

For a link to ARMA's technical bulletin, log on to www.professionalroofing.net.

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