BY DAVE COYNE

Drip edge installed tight to the fascia was directing water behind the gutters **(1, 2)**, causing saturation and major damage in the house walls **(3)**. To fix the problem, the author first had to strip away and replace the siding and sheathing.

Photos by Dave Coyne; illustration by Tim Healey

What a Long, Strange Drip It's Been

A few years ago, my company was called to look at a modest, pre-fab ranch-style house with a water-intrusion problem. The homeowner suspected a roof leak. Inside the house, water was staining ceilings and walls and running down windows, and there was a smell of mildew. A few years earlier, another contractor had reshingled the roof (over existing shingles), installed replacement windows, and re-sided the house exterior with vinyl siding.

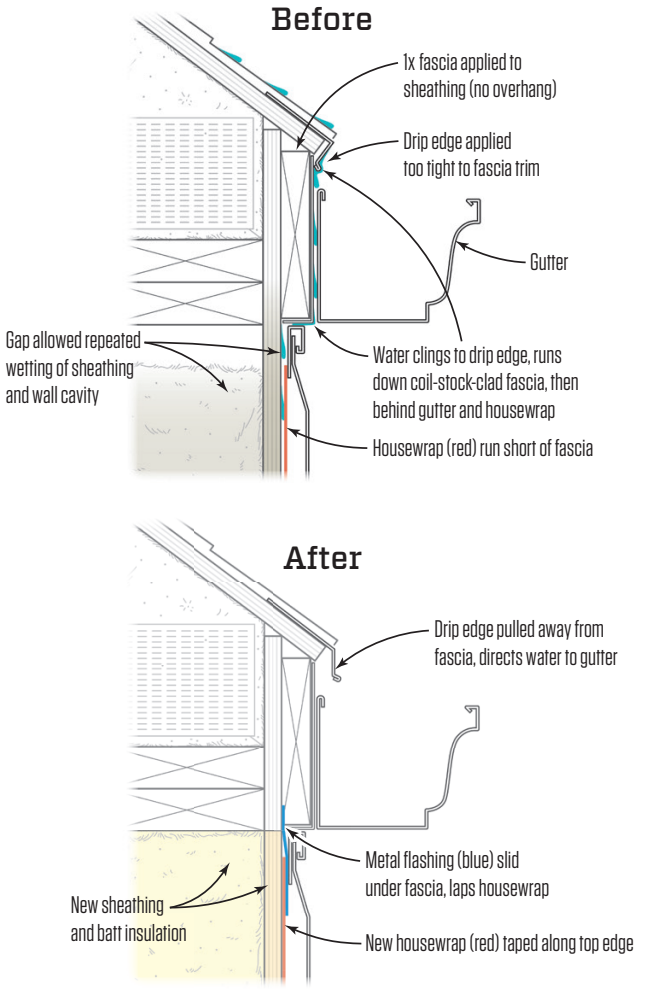
What we found when we inspected the roof was not a roof leak. Instead, the trouble had begun with the installation of the drip edge and gutters. One simple oversight started the entire problem: The drip edge was applied too tight to the fascia trim. I couldn't even fit a fingernail between the drip edge and the fascia board. That meant that the water would run straight down off the roof, wrap around the drip edge and onto the coil-wrapped fascia, and run down behind the gutter instead of falling into the gutter where it was supposed to go.

But that was just the beginning of the trouble. There was no roof overhang on this house. And when the water reached the bottom of the fascia, which was applied tight to the house walls, it would seep back to the sheathing.

There was no flashing installed that could direct the water back out away from the house or down onto the housewrap, which had been cut so it butted up against the bottom edge of the one-by fascia rather than running up behind it. Once the water reached the crucial seam where fascia met sheathing, it dripped down behind the housewrap.

Water soaked the sheathing. Over the years, the water rotted the sheathing in multiple places. When we removed the sheathing, we found rot around all the windows below the eaves, and some even on the gable-end windows. Housewrap on the walls stopped short of the windows, and wasn't integrated into any kind of tape or flashing. The window trim was installed in a way that let water penetrate to the sheathing and the window openings.

Water had soaked the insulation at the bottom of the wall, creating a habitat for ants and the insects that feed on them. In many places, even the framing



The author installed a working drainage plane using tape-sealed housewrap to keep the house walls dry, flashing below the fascia trim and pulling the roof drip edge away from the roof to direct rainwater into the gutters.

was saturated and rotted, blackened by rot to the point that it looked as if it had been burned.

In an ideal world, of course, this house would have had a roof overhang, and that would have helped. It would also have been a really good idea, when first trimming the fascia along the eaves, to have made an additional one-inch bend in the bottom edge of the wrap so that it returned to lie flat against the sheathing (a common trim treatment that we've all seen plenty of times). But even without those obvious touches, this house would have been OK if the roof-to-wall connection had been well flashed, the walls had been properly wrapped, and the windows had been properly flashed and sealed.

In this case, our scope of work didn't include reroofing or replacing the drip edge. We did go around the house and pull and bend the lower edge of the drip edge away from the fascia as much as the material would allow, to facilitate dripping into the gutter instead of behind it.

But our main project was to remove all the siding and sheathing, repair rot (including reframing windows), replace the bug- and mold-infested insulation, resheathe the building, construct a working drainage plane, and flash all the windows correctly into the housewrap.

To manage water that might still make its way from the roof edge back to the house wall, we added a piece of metal flashing extending behind the fascia to direct water out onto the housewrap if it managed to make its way back to the wall. We extended the housewrap up at the top of the wall, high enough that it fell behind this piece of flashing.

Now the house is tight and dry. But had the roofers initially left a half inch of space between the bottom flange of the drip edge and the fascia, the homeowner might have been spared this ordeal and a significant expense.

Of course, the drip-edge detail is not the only factor in the damage here. The previous contractor did many things wrong, and if you look at the number of circumstances that had to align in order to create this much damage, the lack of a roof overhang is certainly one of them. If the house had an overhang, things probably would not have gotten this bad. The fascia itself could have been damaged, if it were a wood fascia, but the water couldn't have traveled back to the house as easily, and the major damage to the wall below would most likely have been avoided.

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