Q&A

Q. Roof Venting in a Wet Climate

I'm planning to reroof an expanded Cape Cod on a barrier island off the East Coast, where strong winds and moisture from the ocean are common. Not only are the shingles stained with mold, but the underside of the roof sheathing above the knee-wall area is also moldy, although we found no roof leaks. We also had some water and mold issues in the crawlspace, which have been corrected. We've removed the fiberglass batts a previous owner had stapled between the rafters and plan to replace the sheathing. Because the rear shed roof is almost flat, the roofing contractor advises against using a ridge vent for fear wind-blown rain will enter. There is no room for gable vents. Should I keep the soffit vents even without ridge or gable vents? How can I ventilate the knee-wall area, prevent mold growth, and help cool the second floor?

A. *Contributing editor Paul Fisette responds:* You have an interesting set of challenges, all related to your coastal climate's extended periods of high moisture and relative humidity. The mold inside the knee space indicates that the relative humidity there reaches 70 percent, the threshold above which mold and mildew will grow. In your case, I don't think ventilation is a good solution. In fact, venting could make the situation worse. The outside air contains a lot of moisture, so it's unlikely to dry out your damp interior spaces.

I think the smartest approach would be to redefine the thermal envelope by installing a continuous air barrier and insulation along the outermost boundary of the shell. With this strategy, everything inside the structural shell will stay close to the same temperature and relative humidity as your living space. I would advise filling the stud and rafter bays with a spray-foam insulation; this will minimize air leakage through the sheathing and help keep the interior dryer and cooler in the summer. (While dense-pack cellulose would typically also work fine, I might opt for spray foam given the damp climate.) You can close off the soffit vents.

It's also important to keep the crawlspace as dry as possible and to make sure there are no air leakage paths coming from it. Otherwise, moisture will be transported into the living space through plumbing and wiring penetrations and other pathways.

Replacing the shingles may not ultimately prevent future mold growth on the roof surface, given the damp outdoor air. But using mold- and algae-resistant shingles would be a good precaution.

Q. How to Hide Rough Drywall Finish Showing Through Paint

A recent customer wanted to do his own painting and used an airless sprayer to apply primer to the bare drywall. He then rolled on the finish paint, but now he's complaining that the surface is rough wherever the drywall finisher sanded. He is blaming the drywall contractor, but I'm not sure that's fair, as I haven't had the problem before with this drywall sub.

A. *Drywall contractor Myron Ferguson responds:* Something similar happened to me in the past. I taped a house to a Level 4 finish, which should have been good enough because the rooms were relatively small. The homeowner then hired a friend who had an airless paint sprayer to spray on the primer. He applied a thin coat that left the surface a little rough, especially where the paper was roughed from sanding. This is perfectly common when spraying on primer. It's easily corrected by sanding with a fine-grit paper before the finish paint is applied; or it can be prevented by backrolling as the paint is sprayed.

In this case, neither action was taken, and a low-sheen finish paint was applied. The rough areas were visible and I was blamed for doing a poor sanding job. And in fact, if I had given specific advice on painting before I left the job, I would have saved everybody a lot of trouble.

A heavy-bodied primer like USG's Tuff-Hide Primer-Surfacer would have prevented the problem, even if it were only sprayed and not backrolled. These primers work well to hide taped joints and sanded paper because they are applied thick — typically 15 to 20 mils. Ultimately I was able to fix the problem by sanding the top coat and having the painter apply another coat of the finish paint.

With drywall jobs I now always ask the G.C. how the owners plan on decorating before I give a bid on the job. I find out whether high-gloss paints will be used, whether the painting will be done professionally, if the paint will be sprayed or rolled, and what the customers' expectations are. If they expect a top-notch finish, I quote a level 5 finish, which is easy to obtain with a thick-bodied drywall primer.