Q&A

Q. Is Veneer Plaster Compatible With Drywall?

Can you skim-coat plaster over regular drywall? If not, is there a way to prep standard drywall so that a veneer plaster finish can be applied over it?

A. *Robin Raymer of Plasterzone.com, an author, educator, and veteran plastering contractor, responds:* Plaster-base gypsum board — or blue board — is designed for veneer-coat plaster. It has an absorbent paper face that draws moisture out of the plaster as it sets. The paper chemically reacts to the plaster applied over it, strengthening the bond between the plaster and the blue board.

Regular gypsum board — drywall — has the same core, but the paper face is slicker and less absorbent so that moisture in the joint compound dries to the air rather than being absorbed by the board. Regular gypsum board is sometimes hung with the back facing out in the mistaken belief that this gives the board more suction and gripping power for the plaster.

Like many other plastering contractors, I'm often called in to do one- or two-coat veneer plastering where drywall has been hung instead of blue board. In such cases, some contractors will first apply a latex bonding agent to the drywall (regardless of whether it's been reversed), but I've had good success just plastering right over the drywall. I've compared notes with other contractors about literally hundreds of thousands of board feet of plaster applied over both blue board and drywall, and have discovered that in practice there's very little difference in how blue board and drywall react to the plaster.

However, since drywall tends to absorb less moisture, I've found that the texture stays wet longer when I base-coat and do sand-finish texturing the same day. So I add an accelerator to the texture to help it stiffen, which allows me to finish it out faster.

Otherwise, your primary concern should be that the boards are properly hung. Broken boards and gaps always present a challenge, whether the finish is joint compound or plaster.

Q. Green Alternatives to Traditional Building Materials

I live in northern coastal California, in the heart of the redwoods. We're currently remodeling a simple structure (in a highly visible town-square location) into an elaborately detailed storefront, in keeping with the surrounding 1880s architecture. While all the vintage storefronts (and their framing) are constructed of old-growth redwood, we would like to use modern alternatives — such as engineered products — that would be more environmentally responsible. Since the exterior will be painted, the panels, columns, and crown and detail moldings can be built with any product that will withstand our moist climate. Do you have any recommendations?

A. *Michael Anschel, owner of Otogawa-Anschel Design-Build in Minneapolis, which specializes in older urban homes and in green design and building practices, responds:* Begin with engineered framing material, such as finger-jointed studs, glulams, LVL, and LSL (laminated strand lumber).

Not only can you often reduce the quantity of material used (by framing on 24-inch centers and by using longer lengths than are possible with standard sawn 2-by lumber), but engineered framing products are straight and true, and recent advances in glue technology give me

GOT A QUESTION?

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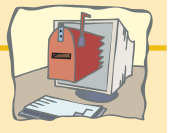

complete confidence in their long-term performance.

On the exterior, my favorite alternative to clear cedar or redwood is finger-jointed cedar. Available in wide widths and long lengths, it has a beautiful smooth surface to work with, while the perfectly straight boards make trimming out long runs a snap. While most people use this material only if they are painting, I happen to like its patchwork quality when stained.

Another alternative to wood — one that suits many basic applications — is fiber cement. Panel and trim products are available in both smooth and wood-grain finishes, and some also come prefinished, either from the manufacturer or from aftermarket companies that work with local lumberyards.

Bugs don't find fiber cement especially tasty, and it weathers well, is fire-resistant, and holds paint better than wood. In a wet climate like yours, though, you'll still need to pay attention to detailing to avoid moisture-related problems.

Where termites and rot are a significant problem, you might want to consider trim made from cellular PVC. This material can be easily cut, carved, sawn, twisted, and sanded, and it holds paint well. If installed properly, it also hides its expansion and contraction issues pretty well.

Although the manufacturing process is mildly toxic, PVC trim gets its LEED points (a green-building rating system created by the U.S. Green Building Council) from being long-lasting and durable — so durable, in fact, that it will likely long outlive the building on which it is installed.

There are some building materials, such as decking and tongue-and-groove exterior flooring, that are made from 95 percent to 100 percent recycled HDPE (high-density polyethylene) plastic. These materials are very durable, won't rot, won't expand when wet, won't splinter, and — unlike wood-plastic composites — can be recycled again and again.

For posts and columns, consider ones made from cast resin or an extruded aluminum. Both materials have structural qualities and can be used to carry significant weight.

You might be able to find some of the items you need at a local salvaged-building-materials outfit. If you don't have such a place nearby, check online, where you'll find a number of sources. What It's Worth (512/328-8837, www.wiwpine.com), for instance, specializes in pine mill stock, posts, and beams.

When we need to have a specific trim profile, we contact an FSC-certified mill and have the wood milled in the exact quantity required. For a healthy listing of companies that manufacture or supply these types of alternative products, we refer to our copy of *Green Building Products: The GreenSpec Guide to Residential Building Materials* (edited by Alex Wilson and Mark Piepkorn; New Society Publishers).

Q. Offsetting Bearing Walls

There's a framing rule of thumb I've used for years that says it's okay to offset a second-story bearing wall from the first-story bearing wall below, as long as you don't offset it by more than the depth of the joist. We use this rule for standard dimensional lumber, but would it also apply to wood I-joists?

A. *Gary Schweizer, PE, a senior engineer with iLevel by Weyerhaeuser, in Charlotte, N.C., responds:* Wood I-joists actually need to be designed to account for the offset wall load. The rule of thumb you mention is a code provision (2006 IRC 502.4) for conventional construction and is applicable to all rectangular joists (sawn lumber, structural composite lumber, glulams, and so on), but it doesn't apply to I-joists.

Generally speaking, sawn-lumber joist spans are limited by bending or deflection in the middle of the span, rather than by shear or bearing at a support; the additional load due to the offset wall does not result in an overstress condition.

However, an I-joist by design is optimized for material usage and performance, which results in conditions where the spans may be limited by shear or bearing capacity.

Because the added load from an offset wall could result in an overstress condition, most I-joist manufacturers recommend stacking bearing walls directly over supports below and including blocking panels or squash blocks (vertical 2x4s) between the joists to transfer the load from the wall above.