

Letters



Tie-Down Details

To the Editor:

I read your publication and enjoy it very much. I am a framer, in charge of 25 men. We build homes in Kiawah Island, S.C. All the houses are custom designed with no two houses alike, as is required by the Kiawah Island Architectural Review Board. Our houses range from 2,700 square feet to 6,000 square feet. All the houses are stick-built entirely, with the exception of a few open-web floor-truss systems.

I would like to draw your attention to the article "Preventing Wind Failures" (JLC, 4/90). The diagram in the article for plywood wall sheathing does not maximize tie-down strength. We build quite a few houses on the beach and in accordance with the Southern Building Code. To provide the maximum strength, the plywood should be applied as diagrammed in the enclosed sketch. Thank you for your time. I would appreciate a response.

Tim Gochnauer
Johns Island, S.C.

David Wickersheimer Responds:

The one-story case study I used in my article was intended to show a vertical application of 4x8 structural wall sheathing panels. I agree with Mr. Gochnauer that this application does not produce the most structurally efficient solution for uplift resistance or for in-plane shear resistance, particularly where high wind loads are anticipated. The primary weakness occurs at the bottom plate of the stud wall, where a butt joint between two sheathing panels (one a filler piece) exists. The double line of nailing required is likely to split the bottom plate, unless extreme care is taken by the carpenters. This solution is probably adequate for design wind loads at or below 70 mph.

I prefer the 4x8 structural sheathing panels to be laid horizontal as suggested by Mr. Gochnauer with the filler piece somewhere near mid-height of the wall when

design wind loads exceed 70 mph. This solution results in a full panel overlapping the sill, which is anchored to the foundation. Now only one line of nails is required, and any chance of withdrawal on stud wall nails through the bottom plate is avoided. Also, the uplift load transfer is more directly engaging the dead load of the foundation.

I would suggest that blocking be added behind the free edges of the panels at the filler piece and that these free edges be nailed at the same spacing as the perimeter of the panels. The same horizontal approach can be incorporated for two-story construction.

I wish to thank Mr. Gochnauer for his insightful contribution to my article.

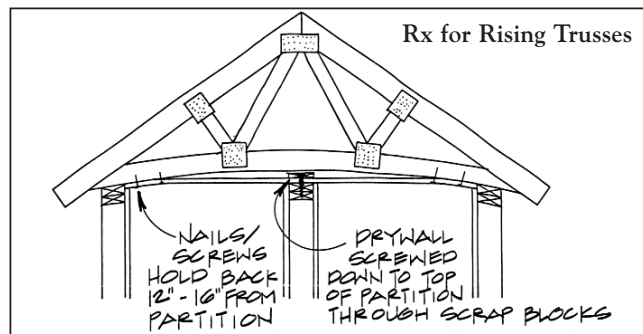
No Venting Bad Idea

To the Editor:

The article "Tight Cathedral Ceilings" (JLC, 5/90), which claims that ventilation of ceiling cavities is unnecessary, leaves me skeptical to say the least. As a full-time home inspector who has examined well over 1,000 buildings in Maine, I have been exposed to the "no-venting-necessary" school before. However, the advocates of this methodology always focus on moisture prevention, when in fact there are three good reasons to ventilate above ceilings in this climate.

The first reason is to prevent condensation of water vapor generated in the living space; I'm willing to concede that, with proper respect for preventing air infiltration, moisture problems probably can be avoided.

But what about ice damming and roof overheating? I regularly see evidence of past ice damming problems (heat wires on roofs and in gutters, chipped shingles along roof edges, moisture stains), even on supposedly ventilated roofs. It may not happen the first winter or the second, but roof heating above unvented spaces will



show up as a problem in many cases.

As for overheating of unventilated, south-facing roofs, it only takes a few dramatic case studies to illustrate the pitfalls. I have seen five years taken off the service lives of south roofs by lack of ventilation. And recently on a 15-year-old home I examined, I discovered a shingle section that looked exactly as if it had been burned off by a blowtorch. Because it was near a chimney, I at first suspected sparks from the woodstove. But my interior inspection revealed that the scorched roofing was directly above a cathedral ceiling section—with no ventilation.

Because lack of proper venting can cause serious problems in at least three ways, I must once again decline enrollment in the "no-vent" school of roof construction!

Wayne Dobb, P.E.

H. Alan Mooney & Associates
Portland, Maine

plished with drywall clips, you can install the drywall first, as you stated. Then, before the insulation is installed in the ceiling, screw down into the top plate of the partition from above (illustration below). If you use this technique, it's best to spread out the load around the individual screws. Also, make sure you mark the "no nail" zone clearly on the ceiling dry-wall.

Another approach is to use a ceiling molding to hide the crack, if that's aesthetically acceptable on the job. This molding should be attached only to the ceiling, not the walls, so it can float with the ceiling.—The Editors

Nail Gun Add-On

To The Editor:

In the article, "Tools of the Framing Trade" (JLC, 4/90), Don Dunkley said he had a flush nailer attachment put on his Hitachi guns. This sounds good to me, but I had no luck trying to locate this item for my own guns. Can you help?

Robert E. Cummings
Newhall, Calif.

Don Dunkley Responds:

The flush nailer attachment I have on my guns is made by my local power tool supplier. It's his shop-made response to the need for something simple and durable that works. He offers them as an extra on new guns for about \$15. A lot of the suppliers here in the Sacramento Valley and in southern California do the same thing.

On a Hitachi gun, it's nothing more than a one-inch-long hex nut welded an inch or so above the nose of the retractable sleeve of the safety. This nut receives a 2-inch-long, 5/16-inch carriage bolt whose head makes contact with the work. By screwing the bolt in or out and then keeping it there with a second (locking) nut, you adjust the distance of the gun's nose from the work and with it the penetration of the nail. It's easy to adjust for depth, which is affected both by the material and the type of nail, and does its job without affecting safety or performance.

Keep 'em coming...We welcome letters, but they must be signed and include the writer's address. The Journal of Light Construction reserves the right to edit for grammar, length, and clarity. Mail letters to JLC, 1233 Shelburne Road, Suite C1, South Burlington, VT 05403.

