Letters

Modular Myths

To the Editor:

This letter is in response to Building With Style, 2/90, entitled "Why Factory-Built Housing Will Succeed—Someday."

Speaking for the members of the New England Building Systems Council, a group of modular manufacturers located here in the Northeast, I take considerable exception to some of the points made by Mr. Tully. He says, "From the beginning, advocates of factory-built housing promised cheaper, better, and faster housing. None of these goals have been met…" A rather rash statement considering the facts that are available.

First: We don't build cheaper homes, but we do tend to build them less expensively than comparably constructed, site-erected homes. The savings, while not spectacular, come primarily in the areas of materials and construction financing—materials because we buy in larger quantities, direct from the manufacturers, and construction financing because the time that the bulk of the construction money is out is shortened to a matter of weeks, rather than months. Lesser, yet significant, savings are found in the reduction of theft of materials at the site, since the building is 95% complete when it reaches the site; bank inspection fees since these site inspections are reduced significantly; cost of plans because most of us provide those as part of the package; and call-backs and punch lists since our homes are not only inspected by our in-plant quality control people, but also by independent, third-party engineering firms that act for the particular state involved.

Second: We do build better homes. We have to, because we continually have to fight against those who remain uninformed about the product, not to mention the fact that we place modules on transporters, ship them great distances, and then lift the modules with a crane and place them on a foundation. The strength and structural integrity that are built into homes constructed by New England manufacturers is phenomenal. In addition, because we're building inside, out of the weather, the kiln-dried lumber we use for framing stays kiln-dried. Building inside also gives us the opportunity to reverse the order in which some building steps are taken, letting us make the homes more energy efficient.

Third: We do build them faster. Depending on the size of the production line and the level at which a modular manufacturer is building, a home may be on the line as little as a week or as much as two weeks. When it rolls off the line, that home is plumbed, wired, carpeted, painted, even wallpapered: ready for the finishing touches and connections to be made in a matter of days on-site.

Mr. Tully also speaks about design limitations and refers to "the abortive Operation Breakthrough of the 1970s." Things have changed: this is 1990, not 1970. The homes being constructed today by those of us here in New England bear little, if any, resemblance to modular homes constructed in the 1970s.

Today's modular home may be any style, any size, any number of floors, any design configuration that you can imagine. The flexibility of today's manufacturer is limited only by the imagination of the prospective buyer.

Your article has painted us with a wide brush, a brush that was probably made in the 1970s when this industry was in its infancy. Working with architects and good New England builders out in the field, we can, and do, create any type of building from simple home to complex hotel, from duplex to multi-family, with any type of finish details that are required, and we do it on time and on budget.

Jack Donnelly, Chairman
New England Building
Systems Council
Concord, N.H.

Correction

The article "Framing a Gable Dormer," (JLC, 4/90) stated that the plumb cut on a valley rafter is the same as on a common rafter "looking at it from an elevation view." While this is true, we should have pointed out and clearly illustrated that the plumb cut on a valley rafter is laid out at a different angle than the plumb cut on the commons.

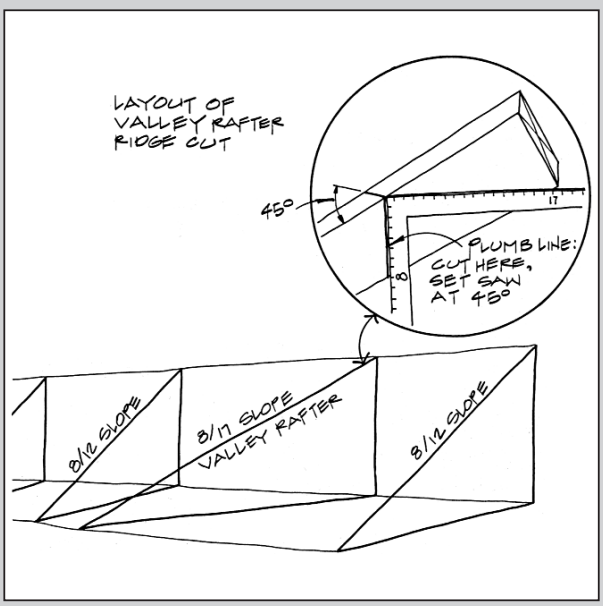
Because the valley rafter sits at a shallower pitch than the commons, its plumb line is changed proportionately, as pointed out to us in a letter from builder David Barker, in Hallowell, Maine—who also suggested we bone up on our roof geometry.

The pitches are different because the run of a valley rafter is longer than the run of a common, while the rise is the same. On a standard valley with same-slope roofs, the valley rafter has 17 (16.97) inches of run for every 12 inches of run on a common (17 = 12 x $\sqrt{2}$). Therefore, on an 8/12 roof, as shown in the article, a valley rafter has an 8/17 slope and should be cut on an 8/17 plumb line—not on an 8/12 line, as shown. Similarly, a valley rafter on a 5/12 roof should be cut at 5/17; a 6/12 at 6/17; a 7/12 roof at 7/17; and so on—for equal pitch roofs.

The article correctly stated that the valley rafter should be cut with the saw set at 45°. The corrected illustration (based on Figure 2 in the article) is shown below.

In addition, an arithmetic error appears in the equation used to calculate the length of the short valley rafter. The correct length of the common is 6.61 feet (not 8.25 feet), making the length of the short valley rafter 8.60 feet.

Sorry about the confusion. And yes, David, we'll be sure to bone up on our geometry. Take a look at "Production Roof Cutting" in the May 1990 issue.—The Editors



Railing Requirements

To the Editor:

Your June 1989 article on decks ("All Decked Out") omitted the code requirements for the height of a railing and the maximum allowable opening in the rail. The latter is not, as far as I can find, in the Massachusetts Code, but local inspectors insist on a maximum opening of about 9 inches in any direction.

John Bassett
Brookline, Mass.

According to Bob McClure, a senior staff engineer with Building Officials and Code Administrators, BOCA requires "guards" of at least 42 inches high around open residential decks built 30 inches or more above grade. "Guards" can be solid partitions, horizontal rails, or rails with vertical balusters.

The 1990 code was recently updated and now restricts the maximum allowable openings in guard rails to 4 inches so small children can't fall through the rail.

A call to Floyd Apodaca, a structural engineer at the International Conference of Building Officials (ICBO), confirmed that these same requirements hold for the ICBO Residential Code (Chapter 17.11). Mr. Apodaca reminded us that any specific code questions should be referred to the local official who really holds jurisdiction in your area.—The Editors

Shower Base Sought

To The Editor:

I read your article on shower pans with great interest ("Leakproof Shower Pans," 11/89). I agree that the pans are the weak link in otherwise long-lasting showers.

I'm not sold on plastic pans, however. I am looking for an enameled cast-iron shower *base*. Built of the same materials as a standard tub, it would eliminate the need for a potentially troublesome pan and would allow the use of many types of surround such as tile or plastic.

I have found such bases in plastic, fiberglass, sheet metal, and concrete, but my suppliers have never heard of one in enameled cast iron. Can anybody help?

John R. Kelley
Eureka, Calif.

We have one more material to add to your list of materials used for preformed (or in this case, precast) shower bases—terrazzo—but we've never seen an enameled cast-iron version. Anyone else?
—The Editors ■

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.