Letters

Help for Housing

To the Editor,

I would like to take this opportunity to introduce to those who are not aware of its existence, an organization called Habitat for Humanity International. It is a non-profit, ecumenical Christian house-building ministry whose objective is to eliminate poverty housing from the world and make decent shelter a matter of conscience. Now that may sound like a pretty big goal, but in its 12 years of existence Habitat for Humanity International has grown to over 200 local affiliates in U.S. and Canadian cities and over 40 sponsored projects in 18 developing countries.

All the projects are dependent upon volunteer help, whether it be in providing volunteer labor, materials, or building expertise on the actual building projects, or in helping in the administration of the local affiliates. Here in Providence, R.I., the local affiliate is rehabilitating two duplexes, is in the process of building a new duplex, and will be starting a second new duplex in December 1988. Ninety-five percent of all the work is done on Saturdays with volunteer help!

I strongly urge any of your readers and advertisers who are interested in this housing ministry to contact Habitat for Humanity International's headquarters, Habitat and Church Streets, Americus, GA, 31709; 912/924-6935, for more information or the location of the local affiliate in their area.

Donald R. Woods
R.I. Affiliate Habitat for Humanity
Warwick, R.I.

We applaud the efforts of your organization, and have reported on it in the October 1987 issue (page 7) and again on page 64 of this issue. Good luck with your program.—Editor

The Right Subfloor is Critical

To the Editor,

The American Plywood Association (APA) wishes to respond to Howard Brickman's article "Success With Hardwood Flooring," which appeared in the October 1988 issue of The Journal. Although the piece was informative and well written, Mr. Brickman made several points regarding subflooring that we would like to comment on.

As a trade association representing approximately 80 percent of the structural panel industry, APA is well aware of the problems that can occur when oak flooring is not carefully installed over wood-based subfloor. Our research and experience has shown that the installation and care of the subfloor, prior to nailing down oak flooring, are critical to obtaining good performance of the floor system. Our experience and findings agree with Mr. Brickman's statement that "other than proper construction techniques, the moisture content (MC) of the subfloor components will probably have more impact on the long-term appearance of the flooring than any other single factor."

We have found that installing oak flooring over a wet wood subfloor, regardless of subfloor type, increases the potential for future problems. When driven into a wet subfloor panel, flooring nails will loosen as the panel dries in service. Loose nails very often lead to movement of the flooring, which can cause floor squeaks to occur. As Mr. Brickman points out, moisture from the wet subfloor will be absorbed by the oak flooring, possibly causing cupping, crowning or compression set. To help prevent these occurrences, APA recommends that the subfloor be allowed to dry out if it has become wet. Moisture content of the subfloor can be checked with a moisture meter prior to installing the oak flooring.

Mr. Brickman indicates that composite panel sheathing materials (presumably OSB, waferboard, etc.) do not have sufficient nail-holding ability for installation of oak flooring. Testing conducted by APA, as well as by the USDA Forest Products Laboratory and the University of Illinois, indicates that the fastener-holding performance of plywood, waferboard, and OSB are equivalent. This is further evidenced by plywood, waferboard, and OSB all meeting the same nail-withdrawal criteria specified under APA Performance Standards for Rated Sheathing and Sturd-I-Floor.

A recent APA publication, *Structural-Use Panels As Subflooring Under Oak Floors*, reviews APA recommendations and the performance of APA Structural-Use panels under oak floors. The publication is available to your readers by contacting the APA Technical Services Division, P.O. Box 11700, Tacoma, WA 98411.

Alexander L. Kuchar
Senior Scientist
APA
Tacoma, Wash.

Radiant-Floor Hardware

To the Editor:

In "Focus on Energy," Radiant Floor Heating Update in the October 1988 issue, Alex Wilson mentions a "microbubble resorber" manufactured by Spirex. Can I have the address and/or phone number of this company or of a source for this product?

Robert Yourish
Port Townsend, Wash.

Alex Wilson Responds:

The "Spirovent" referred to is manufactured by Spiro Research BV-USA, 429 Kay Ave., Addison, IL 60101; 312/941-3433. It is installed inline with the boiler and ventilates dissolved gases by forcing water through a spirally-wound arrangement of wires and purging bubbles at the high point. Cost is in the $60 to $100 range. The Spirovent is available from Thermal Options, Inc., 802/254-4559, Exotech Design, 401/849-2107, and Heatway Systems, 800/255-1996.

Resource Group for Remodeling

To the Editor:

In my article, "Keeping Employees Motivated," which appeared in the August 1988 issue of your journal, I stated that I attributed my success to the International Remodeling Contractors Association, Inc. and that anyone interested in becoming a member could contact me.

I was unaware of the response that I would generate and was caught speechless on my first telephone call—from a gentleman from New Jersey.

Since then I have had calls from Rhode Island, Connecticut, and

Editorial

Affordability Problems Belong to Everyone

For those fortunate enough to own a rapidly appreciating home, the only affordability crisis may be on the covers of today's newspapers and magazines—and perhaps in the statistics that flow profusely from the federal government.

For those that don't already own, the pressures are acutely felt. Perhaps your own children can't afford to buy a home in the town they grew up in. And to the least fortunate—such as those who lost their federally subsidized units due to market-rate conversion—the crisis is as real as a cold sidewalk.

The statistics tell part of the story. Although the average homeownership rate has dipped only slightly over the past decade, the rate of ownership among younger families has dropped sharply. For example, the rate for 35 to 39 year olds has dropped from about 71 percent in 1980 to 64 percent in 1987. The numbers tell similar stories for all potential buyers up to their mid-40s.

Rents, too, are high—keeping many young families from saving the money needed for a down payment.

Numbers for the homeless are harder to come by. A recent study by the Urban Institute estimates the number of homeless nationwide at 600,000. Most experts believe that the numbers are growing, although no hard data exist.

It's clear that federal involvement is needed for any sweeping changes. In the Reagan years, federal housing assistance was cut by some 60 percent. But regardless of the federal posture, there's much that can be done on the local level.

In Boston, developers and the city are exploring the possibility of equity sharing—a program whereby a private "co-investor" puts up the down payment on a property in exchange for 50 percent of the future appreciation. The new owner pays all carrying costs, and both the community and the individuals benefit from the pride of homeownership.

In the Seattle area, a network of banks is offering a flexible low-interest credit line to contractors interested in rehabbing abandoned houses in target neighborhoods. The banks then assist with marketing the homes and helping the moderate- and low-income buyers obtain publicly subsidized loans.

Here in Vermont, the University of Vermont, along with town and state government, is seeking ways to convert 21 buildings from a decommissioned army base into affordable housing units.

Another program builds houses on state-donated land, with no-interest loans up to $15,000 to be repaid when the house is sold.

The list goes on. What all these programs hold in common is creativity, commitment, and the will of public officials and private businesses to make things happen.

From an industry standpoint, these programs help because they get people into the housing market where they can build equity and better their lot—rather than keeping them permanently locked out.

Participating builders stand to gain, too, with the guarantee of steady, predictable work, and with little risk and no marketing worries. With affordable units, the biggest marketing challenge will likely be how to manage the lottery to select the lucky buyers.—Steven Bliss

Maine all requesting information. So I am writing this letter in the hope that these and future callers read it.
For anyone interested in this organization, please take the time and write to Mr. Daniel Miller, Executive Director, P.O. Box 17063, West Hartford, CT 06117, or telephone him at 203/233-7442 regarding the annual convention and seminars being held in Atlantic City from Feb. 1-3, 1989. If you are to succeed, you owe it to yourselves to learn from the best educators.

Gail L. Hermann, President
Designs by Ultimate Living, Inc.
Foster, R.I.

Certification Programs for Remodelers

To the Editor:

In the August 1988 issue of New England Builder, reference is made to the certification programs currently available to professional remodelers. Unfortunately, the certification program sponsored by the National Association of the Remodeling Industry (NARI) was omitted.

In the past twelve months alone NARI has certified over 500 professional remodelers. In fact, the NARI program was the first (and only) of its kind for nearly five years, beginning in 1983. In 1987 NARI developed a body of knowledge from more than 20 industrial disciplines from which the industry's first testing program was designed and implemented.

In the past few years the remodeling industry has made several strides toward establishing credibility—in the eyes of various trades and in the eyes of the homeowner. It is through programs such as the ANRI CR and the National Kitchen and Bath CKD that remodelers receive the education necessary to raise and continually enhance their level of professionalism and experience.

James A. Tolliver, Executive Director
NARI
Arlington, Va.

Compound Cuts for Wood Gutters

To the Editor:

I enjoyed John Leeke's article on wood gutters and would like to add a piece to it.

Occasionally one finds the wood gutter is part of a cornice detail in which the gutter miters into a rake molding descending the gable of the building. Because the rake and the gutter are applied to different surfaces they must be of different profiles to achieve the miter.

Figure 1 shows a method for finding the shape of a rake molding to fit an established gutter. The gutter shape is traced full scale onto a piece of paper.

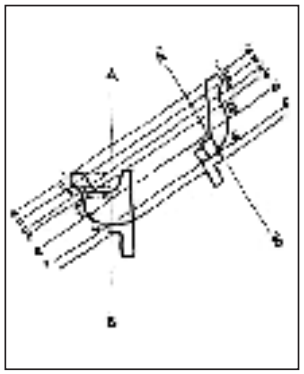


Figure 1

From the upper outer point of the gutter draw a line at the pitch of the roof, line a a'. At prominent points along the gutter draw a line at the pitch of the roof, line a a'. At prominent points along the gutter profile, draw lines parallel to a a', lines b b', c c', etc. The more lines drawn, the sharper will be the projected shape. From the face of the fillet draw plumb line A B. Draw A'B' at a right angle to the pitch line. Measure the distance from point 1 to line A B on a line perpendicular to A B, as indicated by the dotted lines. Lay out this distance on line a a' measuring from A'B' to establish point 1'. Do the same with the other points. Drawing a line through points 1', 2', 3', etc., gives the shape of the rake molding.

In most cases the rake molding shape will differ from the standard "crown" or cyma recta moldings readily available. In this case the rake will have to be custom made. Once the molding is in hand it is a straightforward matter to make a simple box for mitering the rake molding and the gutter.

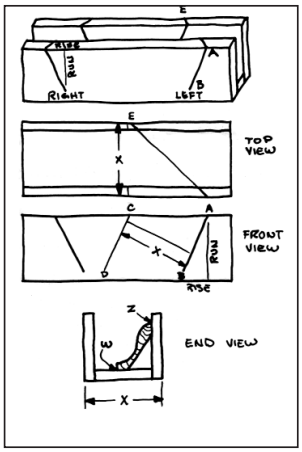


Figure 2

The angle on the face of the box in Figure 2 is the plumb-cut of the common rafter. The angle across the top of the box can be found in a number of ways. perhaps the most direct is as follows: At the plumb line AB lay out a line perpendicular to AB and make it the same length as the miter box is wide. At its end point lay out a second plumb line CD. Square across the box from C to point E and join A and E.

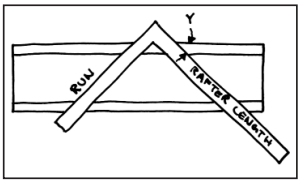


Figure 3

Another method is to use the framing square: Take the rafter length on the blade and run on the tongue and mark on the tongue (see Figure 3). A third method is to find angle y: Tangent angle = run divided by rafter length and then use a protractor to lay out angle y.

Mark the plumb cuts "right" and "left" as shown in Figure 2. The miter marked right will fit the gutter on the right side of the gable. Place the molding upside-down in the box as shown to the right of Figure 2. Check to insure that bevel z fits closely to the side of the box; some brads along point w will serve to keep the rake in position.

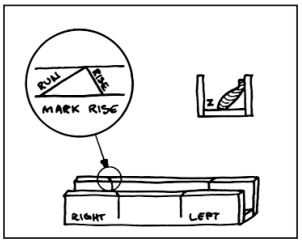


Figure 4

To miter the moldings at the top of the gable a second box must be constructed. On this box the angles on the top of the box are the same as the rafter plumb cut. The cuts in the face of the box are made square to the box's top edge. The molding is placed in the box right side up with the bevel at z lying flat on the bottom of the box (see Figure 4). Brads along point z will keep the molding in proper position. The miter for the top cut of the molding piece on the left side of the gable is marked left.

These techniques are a combination of what I've learned from other carpenters, read in books, and from my own experience.

Robert Rix
Arlington, Va.

Tips for Venting Tight Houses

To the Editor:

Your august issue was packed with great articles, as usual. I have designed quite a few very energy-efficient homes since 1979, and would like to share my thoughts on "no-frills fresh air."

1) Run exhaust ducts down and out instead of up or through the wall—this greatly reduces passive chimney-effect losses when the fan is off. Also, moisture-laden air escaping from leaky exhaust ducts will not end up condensing in your unheated attic space.

2) To lick noise: a) use a central exhaust fan that is oversized and run at partial speed via a speed controller—larger, slower-moving fans are quieter; b) use flex-duct connections on each side of the fan to dampen transmittal of fan noise; c) to avoid transmitting fan vibration to the building structure, flexibly mount or suspend the fan on the building structure, or, better yet, lag-bolt the fans with concrete anchors to the basement wall.

3) A well-conceived central exhaust system permits the future installation of a heat-recovery device by gathering all exhaust air to one point before discharge from the building.

4) Very tight homes need balanced supply and exhaust fans in order to prevent backdrafting of non-sealed combustion appliances, especially woodstoves. Passive inlet air devices must be quite large to overcome the tendency of even a modestly-sized fan to reverse the natural draft process. Some range fans, such as a Jenn-Aire, will almost suck a tight house inside out without a makeup fan! I often dump untempered fresh air behind a woodstove, both to temper the air and avoid drafts.

5) I like a control system consisting of a simple on-off switch, a fan speed control, and a crank timer in each bathroom. Wire the crank timers so that when they are on, the speed control is bypassed and the fan is kicked up to full speed for the time selected. This lets the owner select a continuous, low-level ventilation rate that goes to full speed only when needed. Finally, I agree wholeheartedly that you should aim to build a house as tight as possible and provide controllable, quantifiable ventilation systems, rather than do a lot of handwaving about how you're going to avoid all the indoor air pollution nasties by not building "too tight."

Marc Rosenbaum, P.E.
Energysmiths
Meriden, N.H.

New Name is Perfect

To the Editor:

When I saw the name change on the September cover, the first thing I thought about was your new acronym. You've gone from NEB to JLC, and that reminded me of this story:
As the two-man crew who installed my kitchen cabinets worked, they kept checking with each other on measurements, level, plumb...One of them would hold up the cabinet while the other one checked the mark. "How's the length?" Shirtless asked.

"JLC," Skinny responded.

"Is it plumb?"

"JLC," said Skinny, as he screw-gunned the cabinet to the wall.

This kept up for a while, and finally I asked them. "What's JLC?"

"Jamie Lee Curtis," said Skinny.

"What's Jamie got to do with measurements?" I asked.

"Perfect," said Shirtless. "JLC is perfect."

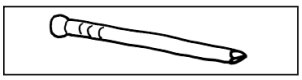
Walter Jowers
JLC Columnist
Nashville, Tenn.

Who is this Curtis fellow anyway? If his work is that perfect, we're glad to share his initials. —Editor

A Blunt Solution

To the Editor:

Problem: Nailing close to the end or edge of a board and having it split due to the wedging effect of the pointed nail.



Solution: Nipping (with end nippers) the end of the nail off so the nail is slightly blunt (as shown). But for excellent results, drive the nail with the ridge of the cut end perpendicular to the grain. That way it cuts the gram and wedges itself in like an old-fashioned cut nail.

W. A. O'Bryan
Austin, Texas

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 *The Journal*, RR 2, Box 146, Richmond, VT 05477