NEW ENGLAND UPDATE

Tying Safety to Insurance

Group Approach Pays Off For Region's Builders

by Ted Cushman

Recent changes in workers comp laws have given insurance carriers new pricing flexibility in many New England states (*New England Update*, 2/96). They have also encouraged an increased emphasis on "loss control," an insurance industry term that encompasses careful management of claim payouts as well as efforts to improve safety and prevent injuries.

Builders are quickly learning that cooperation with insurance carriers can turn safety improvements into money in their pockets. One successful strategy, practiced by builder associations, is to negotiate as a group to obtain lower comp rates for members and annual rebates on premiums.

Maine. Overall comp rates in Maine have come down about 50% since reforms took hold, says Gary Hall, Vice President for Underwriting with Acadia Insurance. The biggest gains have been for safer employers who can qualify for a variety of preferential rates. "Acadia now offers four rate levels," explains Hall. "Before the reforms, there was only one rate."

But the typical small Maine builder tends to benefit the least from flexible rate structures. The low total premium paid by a small contractor doesn't attract much attention from a big insurance company. As for safety incentives, it's hard to be sure whether a small contractor's safety record reflects anything other than random chance.

C. BATES

Under new flexible pricing rules, an investment in safety equipment can pay off in lower insurance costs.

Now, however, Acadia and the Home Builders Association (HBA) of Maine are working out an arrangement to treat HBA members as a group. "We are going to collect their experience as a group and set their rate as a group," says Hall. Considered collectively, Maine's HBA members generated $400,000 in premiums last year and had only $89,000 in losses. "Looked at individually, anyone that had a loss would be considered a bad risk and the others would just be considered lucky," says Hall — so none would qualify for big discounts. But as a group, the HBA builders are an excellent risk. Under Maine's new system, Acadia plans to reward them for it.

Rhode Island. The Rhode Island Builders Association (RIBA) founded its safety group shortly after the legislature created Beacon Mutual Insurance to replace the state's collapsing private insurance industry. Members of the group are carefully screened before admission, according to chairman Ed Ladouceur, a roofing and siding contractor, and they must maintain effective safety programs. "We mandate certain safety procedures," says Ladouceur. "There are training sessions the owners and their subordinates have to take." Any subs used by members must also carry workers comp, he notes: "If a member is dealing with a sub who should have comp and does not, they get dropped from the group."

RIBA's safety group members do not get a group comp rate, explains Ladouceur: Each employer has its own experience modification and its individual rate. But the group does earn a collective rebate when premi-

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Safety Tip

The Push Stick That Pushed Back

by Chuck Green

Most tradesmen use a push stick when ripping short or narrow pieces on a table saw. In case there's a brush with the blade, the plastic or wood push stick gets nicked or mauled instead of a carpenter's fingers.

I have several commercially made push sticks of different styles. What I realized too late is that each does more than keep fingers away from blades: They are also designed to help spread any force from a kickback or jam onto a wide enough area of the hand to be absorbed safely. This is why a push stick should have a wide grip and rounded surfaces.

My accident happened while I was working with my job-site table saw, a simple 10-inch imported unit with one problem I knew about: a big open space around the blade. As a piece of wood nears the blade, it has too little support.

My shop saw has an insert that leaves only a small opening on each side of the blade, so most pieces of wood are supported better throughout the cut. Recognizing the need for support, I have also made auxiliary inserts for dado work on the shop saw. I wish that I had taken care of the portable one, too!

One day, I made up a temporary push stick on a job instead of taking the time to go outside to my van and get a real one. I was thinking only about the push stick's first function, to keep my fingers away from the blade. I cut a notch in a 2-inch-wide strip of cedar shingle and used it to push through a short, narrow piece of redwood. As I approached the end of the cut, the end of the piece was no longer supported by the saw's table, and the blade pulled it toward me and down into the gap around the blade.

Although the piece moved less than an inch, the motion was sudden and forceful. The push stick was kicked into the palm of my hand — also less than an inch, but the damage was done. I am currently recovering from tendon transplant surgery to restore full function to my pinky finger. Had I used a commercial push stick, I would probably have suffered no more than a bruise on my palm.

By the way, I've since fixed my saw table so that pieces are supported as they pass near the blade. That was quite a bit cheaper than the hand surgery. ■

CHUCK GREEN

Some table saws allow small pieces of wood to slip into the blade slot, which can lead to kickback. Note the author's push stick, which spreads the force of any kickback over a wide area of the hand.

NARI-certified remodeler Chuck Green owns and runs Four Corners Construction in Ashland, Mass.

Tying Safety to Insurance,

ums exceed losses. In its first year, members got back 38% of their total $870,000 premium. And as it grows, the group carries increasing clout with the insurer, says Ladouceur: "We now represent a premium of $1.3 million, so our little woes and whims get a little more attention."

Ladouceur's own firm employs more than 50 roofing and siding workers in the field and owns over $50,000 worth of fall-protection equipment. The big investment in safety equipment and training has paid off handsomely, he says: While many Rhode Island roofers are charged a standard rate of $43 per $100 of payroll for comp insurance, Ladouceur pays $31 per hundred. The $12 savings goes straight to his bottom line.

Going it alone. Although it helps to be big or to belong to a group, even small builders on their own can benefit from flexible rate structures, says New Hampshire insurance agent Paul Sullivan. With standard comp rates for residential carpentry in New Hampshire now over $19 per $100, a builder with five or six employees can easily pay an annual premium of $15,000 or more — enough to get some attention, and also enough to possibly qualify for preferred rates that are closer to $16 per $100.

The key, explains Sullivan, is not to shop around for an inexpensive carrier, but to convince a carrier that you deserve the preferred rate by demonstrating a commitment to safety. If the insurer is willing send a loss control officer to your site, he advises, take the meeting seriously. "Your most productive two hours all year might be the two hours you spend with your insurance rep. This visit can save you hundreds or even thousands of dollars a year." ■

Project Profile

Tightest Little House in Rhode Island

No Housewrap, No Poly — And the Blower Door Blew a Fuse

by Ned Reynolds

Figure 1. The author's project house looks fairly standard, but careful detailing makes it highly energy-efficient.

Figure 2. A load-bearing double band joist allowed the author to eliminate headers and double jacks from his exterior walls. The 1 1/2-inch space between the windows and the framing around them was easily filled with spray cellulose.

Figure 3. The author glued foam insulation to the basement walls, and added an insulated 2x4 wall within that.

As an energy-conscious contractor, I've learned a lot over the years, but I haven't always been able to put it into practice. But when I built my own house a few years ago (Figure 1), I got the chance to do everything the way I wanted to. Since proving the techniques on my own "test building," I've gone on to offer them to customers who want to save energy.

Thermal boundary. I've learned that the biggest air leaks in buildings are usually within the structure — between the second floor and the attic, or between the basement and the first floor. So I decided to put the whole house inside the insulated shell. The foundation walls, exterior walls, and roof are all insulated — you can be warm inside the basement or attic. Waste heat from the furnace stays in the building, and airflow between floors doesn't mean heat loss.

Framing details. To cut down on thermal bridging, I eliminated unnecessary framing. At wall intersections, I used plywood drywall backers, not triple-stud corners. And instead of headers over windows and exterior doors, I carried the load with a doubled-up band joist, which also allowed me to go with single-stud window jacks (Figure 2).

Glued sheathing. To minimize air leakage through the wall assemblies, I ran my wall sheathing vertically and glued it to the studs and plates with subfloor adhesive. That took a little more time, but I made up for it by omitting the usual housewrap (with all the joints glued up tight, the housewrap wasn't needed). The adhesive also adds strength to my walls.

Insulation details. I insulated the basement walls from the inside (Figure 3), by gluing extruded polystyrene to the concrete (if you do this, you have to make sure that the adhesive you use is compatible with the foam). Then I framed up stud walls against the foam and insulated the stud cavities with spray cellulose. I finished the walls with gypsum drywall.

Upstairs, the walls were also sprayed with cellulose. I like cellulose because it's a recycled product, but it's also great insulation — its resistance to air movement is a real asset.

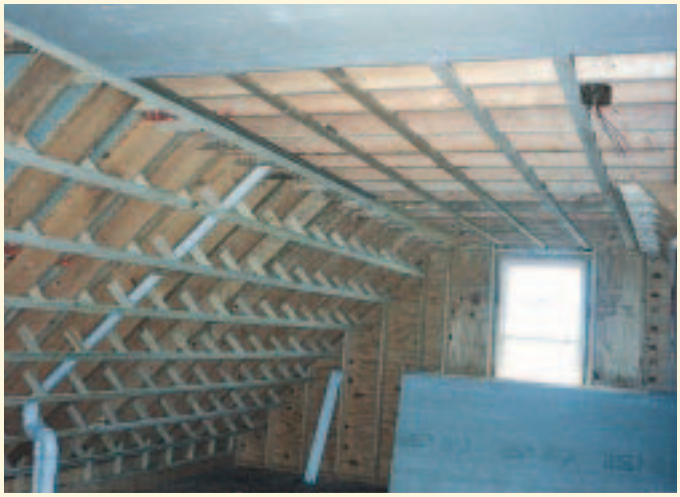

Figure 4. Building down the attic ceiling with strapping made plenty of room for blown insulation, without the expense of oversized rafters.

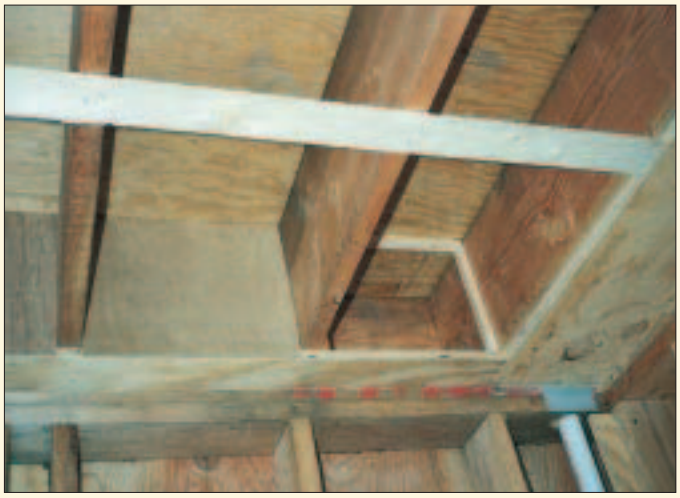

Figure 5. The author paid special attention to band joist areas, boxing out each cavity with plywood and filling it with blown cellulose.

Figure 6. A dedicated PVC duct in the basement brings combustion air directly to the boiler.

I roughed out the window openings with a 1½-inch space between the framing and the windows so that the cellulose could also penetrate those spaces, sealing what is usually a troublesome joint. This worked out fine for nailing on trim.

In the attic, I built down the ceiling with strapping to minimize thermal bridging and create a big cavity for blown cellulose (Figure 4).

Band joist spaces call for special treatment. I boxed each cavity out with plywood and blew cellulose into the spaces — a time-consuming detail, but worth the effort (Figure 5).

Caulked drywall. The cellulose wall insulation keeps indoor air from carrying moisture into wall cavities, but for added protection, I caulked the joints where my drywall meets the floor, and also caulked around my electrical outlets. With air-transported moisture well-controlled, I protected against vapor diffusion by using a wall paint with perm rating of less than one (that's all the "vapor barrier" you really need).

Sealed combustion. In a house this tight, the last thing you want is polluted air. There are no accidental cracks to bring combustion air to my furnace, so I provided a dedicated air inlet ducted right to the appliance (Figure 6). When the furnace runs, a fan draws in air from outside. Upstairs, an air-to-air heat exchanger keeps our breathing air fresh.

Results. I set out to build a house that would look like an attractive New England home, using readily available materials and techniques that any builder in the area could employ. The result was a comfortable 2,400-sq.-ft. house.

You see a lot of unsupported energy claims for houses. Because I built this house with Rhode Island's Energy Crafted Home Program, my building's energy performance is fully documented. The blower door tests showed an equivalent leakage area of .025 sq. in./100 sq. ft., for an estimated natural air change of less than 0.05/hr. Including both heat and hot water, the house uses about 460 gallons of oil a year.

I'm confident that I can offer my energy-conscious customers that same kind of performance. As I say to them, the houses we build today could be here for 200 years or more. There's no reason they shouldn't be saving energy the whole time. ■

Builder Ned Reynolds lives in Jamestown, R.I.