Red House

In Wyoming, an updated version of an old farmhouse adds up to an affordable home for a young family

BY PAUL DUNCKER

If you want to work in Jackson Hole, Wyoming, you might end up living in Idaho. That's because houses are a lot more affordable just over the pass in Victor, 24 miles away. But that can be a harrowing 24 miles, especially on a winter night. My wife, Peggy, and I made the drive one day to go house-hunting, and on the way back to our rental house in Jackson, she said she'd rather move back to New York City than make that drive every day.

So we concentrated on finding the nearly impossible: an affordable building site in Wilson, a little town a few miles west of Jackson Hole. Wilson is a quirky mix of old-time ranchers, former hippies turned businesspeople and every variety of mountain junkies from well-heeled trust-funders to dishwashers with three jobs and six roommates. It's the kind of place I've always wanted to call home.

Our dream of a sloping site on a wooded hill with streams and wildflowers turned out to be just that: a dream. After a quick reality check, we set our sights on the valley floor, where a new subdivision was being carved out of an old hayfield. There were lots more buyers than lots, so we put our name in the lottery hat and were lucky enough to draw a good number. To be honest, we would have been happy with any patch of dirt that the bank would underwrite, but we ended up with a great corner lot that others had passed over because it was on a corner. Some saw it as a drawback because of the extra exposure to the street. We saw it as an asset that would let us put the house up front and set the garage to the side (photo below).

A new angle on an old house

We started with a tight budget and a rough image: a simple farmhouse like the ones that used to be common in this valley. We wanted the house to have a metal roof, a deep porch to escape the summer sun and a crack-

The corner-lot advantage. *Both house and garage are close to the street, which is a real advantage in a snowy climate. Photo left taken at A on floor plan. Sheds, gables, an angled chimney and a compound slope on the porch roof energize the western elevation. Photo right taken at B on floor plan.*

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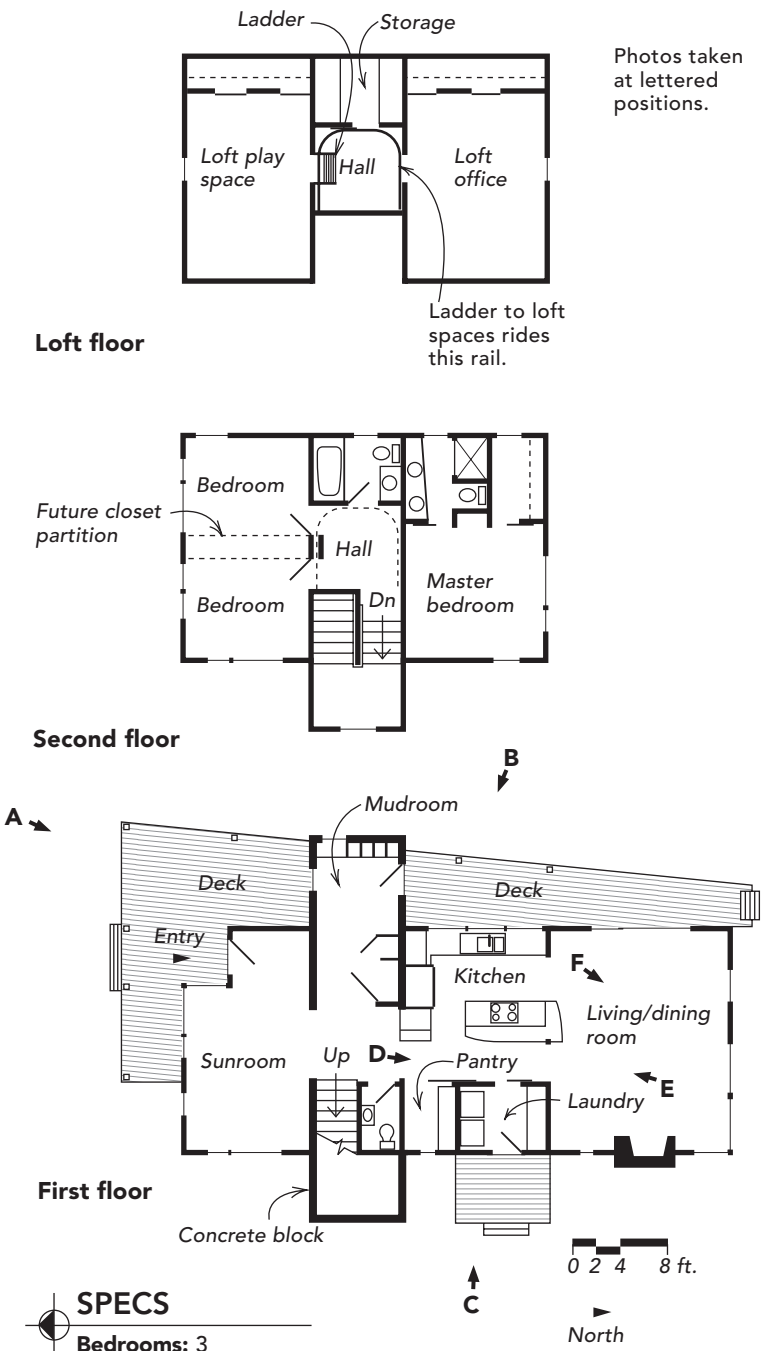
Tapered deck and concrete at the core

Along the west side of the house, a tapering deck leads to the mudroom, which occupies the western half of a concrete-block corridor that slices through the house. Upstairs, the central hall leads to the bedrooms. Note how two doors lead to one room for the kids. One day, it will become two, separated by a closet wall. In the hall, a rail-mounted ladder provides access to loft spaces over the bedrooms.



SPECS

Bedrooms: 3
Bathrooms: 2½
Size: 1900 sq. ft., including lofts
Cost: $95 per sq. ft.
Completed: 1999
Location: Wilson, Wyoming
Architects: Paul and Peggy Duncker
Builders: Paul and Peggy Duncker

Plans available
See pp. 132, 133 for details

Cohesive color and texture. *On the east side, the landing to the second floor sits atop a split-faced concrete-block cube. The gray board-and-batten siding above the blocks and the steely corrugated roofing (sources p. 111) create a subtle palette of related colors and textures. Photo taken at C on floor plan.*

ling fireplace to combat the winter chill. This image led us to a two-story gabled structure with bedrooms and bathrooms upstairs; and the kitchen, sunroom, laundry and pantry below (floor plans left). A shed-roofed living/dining room abuts the rear of the house.

Our public living/dining room is wide open to the outdoors and to the neighborhood. We can drink in the last rays of the setting sun through the large west-facing windows, and our friends can wave to us while we sit at the table as they cross-country ski along the adjacent bike path.

A generous porch wraps around the two most public faces of the house. The porch tapers along the west side of the house, result-

Drawings: Mark Hannon

"Cedar clapboards (barn red, of course) give the newfangled walls an old-fashioned look."

ing in a distinctively angled roofline (photo p. 107). Midway, the porch roof covers a bump-out that penetrates the house's wall near the kitchen. Made of insulated concrete block, this bump-out contains the mudroom and is part of a long, narrow concrete-block enclosure that emerges on both sides of the building (photo above). Using the exposed concrete blocks, which support the stair landing on the east side of the house, helps to tie the house to the tradition of local agricultural buildings.

A house built like a beer cooler

The roof and walls of our house are made of structural insulated panels (SIPs), which are close cousins to the stuff that keeps drinks cold in a picnic cooler and warm in a foam coffee cup. The panels (sources p. 111) that we used are 10½ in. thick on the roof, for an R-40 rating, and the walls are 6½ in. thick (R-26). Each panel is made up of an expanded-polystyrene core sandwiched between layers of ½-in. thick structural skins of oriented strand board (photo right).

In addition to the high insulating value of SIPs, the fact that every exterior wall has structural sheathing on both sides is in our favor. Heavy snow loads and an active earthquake zone have combined to make for some tough code requirements around here. The SIPs easily meet or exceed them. Further-

SIPs made of OSB go up ASAP. *Structural insulated panels (expanded-polystyrene foam insulation sandwiched between two layers of oriented strand board) make for a tight, highly insulated house shell. As they are assembled, the panels are glued together into a single unit.*

Photo bottom right this page: Paul Duncker

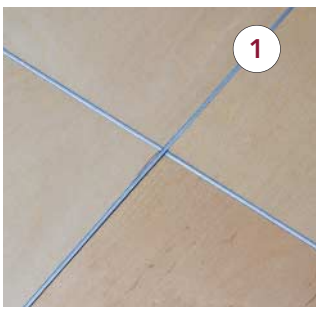
"I saw our house as a way to work a variety of materials into the mix."

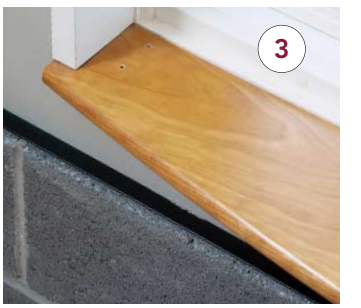
STEEL TRIM, ALUMINUM GROUT

I've been a cabinetmaker longer than I've been an architect, so I appreciate the way things are assembled. I saw our house as a way to work a variety of materials into the mix. In our kitchen, for example, the curved countertop is clear-coated plate steel (photos above, right, taken at D and E on floor plan). The kitchen cabinets and the interior doors are made of red birch with wired glass.

Upstairs, I slipped some aluminum into the floor. There, we used ¾-in. birch plywood cut into big tiles as the finished flooring (photo 1). The seams between the tiles are filled with thin bar stock. In the tiny half-bath under the stairs, wired-glass risers act as a segmented skylight to illuminate the room (photo 2). In other places, steel angle stock turns into a trim element that separates concrete block from drywall (photo 3).

—*P. D.*





ONLINE CONNECTION

Tour this house on our Web site at www.finehomebuilding.com.

FEEDBACK

Living with a heat pump

The one drawback we've found to our ground-source geothermal heat-pump system is the noise. Our heat pump is below the stairwell in the center of our house and stands directly on the subfloor. When the unit kicks on, the sounds and vibrations of the compressor (in the noise range of a large commercial restaurant freezer) are transmitted throughout the whole house via the subfloor.

You can avoid this problem by installing a heat pump on a separate slab in the crawlspace or in an attached garage. The plumbing system also should be vibration-isolated by using short sections of flexible hose at the unit connections. You'll sleep better, all night.
—P. D.

Concrete block and a crackling fire. *Although it is wrapped in rural imagery on the outside, the interior of the house is definitely modern. Crisp white walls played against split-faced concrete block surround the fireplace. Big windows with transoms overlook the Grand Tetons to the north. Photo taken at F on floor plan.*

more, once the panels come off the truck, they can be assembled in a fraction of the time required to stick-frame a comparable building. Our house went from subfloor to completed roof in nine days with a crew of four. Cedar clapboards (barn red, of course) give the newfangled walls an old-fashioned look.

Concrete floors warmed by the earth

Inside the house, rural imagery gives way to contemporary detailing (photos facing page, above). We wanted honest materials, exposed hardware and connections, and durable finishes—important when half of the occupants of the house are 8-year-old Alexandra and 11-year-old Christopher. Soccer balls, skateboards, books, Legos and cat toys seem to make up roughly half of the mass of our house. With this in mind, we chose an indestructible concrete-slab floor for the downstairs. It is finished with two coats of boiled linseed oil and is heated by way of hot water running through polyethylene tubing S embedded in the slab.

To heat the water, we chose a ground-source geothermal heat pump. This technology allows us to extract heat from the ground using only the amount of electricity needed by the pumps and compressor (for more on geothermal heat pumps, see *FHB* #133, p. 104). Warm floors are a wonderful way to heat a house, and we would choose this solution again in a heartbeat. We would, however, make an important change in the location of the geothermal heat pump ("Feedback," above).

Some bedrooms are still evolving

The upstairs bedrooms are small but comfortable, with a master suite on the north side and one large room for the kids on the south. The kids' room currently has two doors into it, and the room has no closet. The plan is to build a long wall of cabinetry to divide the room into two and to incorporate built-in closets and desks.

Until the day that the Britney Spears half of the room has to be acoustically separated from the Jimi Hendrix half, the kids like each other's company.

And just in case you're wondering: Yes, the house is named after our favorite Jimi Hendrix song. □

Paul and Peggy Duncker are architects in Jackson Hole, WY. Rather than work together, they've decided to stay married. Paul has a design/build firm called HandsOn; Peggy is a partner in Tobler Duncker Architects. Photos by Charles Miller, except where noted.

Sources

- Una-Clad (www.unaclad.com; 800-426-7737) corrugated-steel roofing
- Insulspan (www.insulspan.com; 800-726-3510) structural insulated panels
- Wirsbo (www.wirsbo.com; 800-321-4739) polyethylene Pex tubing