



Traditional House with a Different Slant

The challenge of a severely sloping site becomes the driving force behind this house that brings a modern twist to traditional New England lines

BY FRANK W. RIEPE



Some people think that an architect can't look at a house or piece of land without imagining how to leave a mark on it. I prefer to think of this phenomenon as a purely creative force that is an essential part of our humanity.

After marrying, my wife and I decided to build a new house for ourselves. We wanted a house that reflected our lives and the times we lived in. We looked at many houses we could have renovated, but the desire to build a new house won out when we found an interesting and challenging piece of wooded land in Sudbury, Massachusetts.

The site was interesting because it was on an old quiet road near a river and a wildlife refuge with a large expanse of woodlands bordering the rear of the lot. The site was challenging because within a fairly compact 40,000-sq. ft. lot, it rose more than 30 ft. in elevation. The good news was that the site was pure sand and gravel, so general excavation and the construction of a septic system would be a breeze.

A house designed for the site

After gulping hard and signing on the dotted line, I began the design work on the house. I wanted to position the house as high on the site as possible so that it seemed to be up in the trees (photo facing page). But when approaching the house, I did not want to climb an excessive amount of steps. With a bit of creative planning, I was able to carve out a 36-ft. by 50-ft. courtyard that would serve as both the foot and motor entrance to the house (floor plans, p. 81).

The future garage and studio/office will sit on one side of the courtyard while the house wraps the two adjacent sides. The house's entry hall is only three steps above the courtyard.

The T-shaped house is then both carved into the hill and perched along its edge.

The wings of the T-shape are just 18 ft. deep. No matter where you are inside the house, you are always close to an outside wall, to natural light and to the outdoors. Perching the main axis of the house on the edge of the hill gave the end elevations an especially vertical quality, a pleasing characteristic I've seen on many of the earliest houses in town. So many of the newer houses in the area are dense, thick and bloated. I wanted this house to have an airy transparency.

The courtyard lends the feel of a European villa with brick paving that extends to the base of the house walls. A 2-ft. high masonry site wall closes the fourth side of the courtyard.

Solving a snow dilemma

The enclosed courtyard promised to create a snow-removal problem during our sometimes harsh New England winters (photo top left, p. 78). Under no circumstances was I going to let a ¾-ton pickup truck with a plow into my elegant brick courtyard. It would be destroyed after the first snowfall. A snow blower wouldn't be able to throw snow far enough to get it out of the courtyard. The only way out was to design in a snow-melting system.

We began with a bed of compacted stone dust and then laid 3000 ft. of ½-in. Onix tubing by WattsRadiant (800-276-2419; www.wattsradiant.com) in ten loops under the brick pavers. We dedicated half of the 500,000-Btu copper boiler to the demands of snow melting.

Having gone through a couple of winters in the house, I can report that although the system uses a lot of energy, it effectively keeps snow and ice off the courtyard, allowing a



Conquering the slope.

Viewed from below, this tall, narrow house seems to grow out of the trees (photo facing page, taken at A on floor plan). From the uphill side, the house and courtyard nestle nicely into the carved-out slope (photo left, taken at B on floor plan).



Hints of open spaces inside. An ample window beside the front door offers views of the stairway and the two-story spaces inside. To maintain privacy, the kitchen window to the left is the only other full-size courtyard window. Photo taken at C on floor plan.



Compact but comfy kitchen. Rift-sawn cherry cabinets extend all the way to the ceiling to maximize storage in the kitchen. A peninsula of granite and cherry continues into the dining area to form a sideboard. Photo taken at D on floor plan.

Zen den. Cabinets with a distinctively Asian feel conceal the home-entertainment components in the den. Photo taken at E on floor plan.



A BALUSTRADE THAT STANDS ALONE

The staircase winds from the finished basement to the second floor and is visible before the house is entered. The detailing had to be innovative, fresh and graceful.

The oak treads and risers have a built-up nose with no scotia. Instead of a mitered skirtboard, I designed oak stair brackets with an elegant curve echoed in the end of the wall separating the upper-stair landing from the living room (also visible in the photo on p. 80).

A mahogany handrail was the starting point for the design. I didn't want newel posts. Instead, the rail is anchored at turns with 1-in. steel tubes that have $\frac{3}{4}$ -in. round bar welded inside. We bored oversize holes into the tread and set the tubes in epoxy. They are as stiff as any big box newel. Then I ended each run with a simple easement at the tube (inset photo left).

Each $\frac{3}{4}$ -in. sq. maple baluster sits in a boot of 1-in. square steel tube painted with enamel (inset photo right). To cope the balusters to the round handrail, we set up a jig with a 2 $\frac{1}{2}$ -in. sanding drum to match the size of the handrail. We worked the tip of each baluster against the drum to produce a perfectly matching cope. The mahogany bridge pieces between the balusters add a final design element to the railing. The stairway took a lot of patient craftsmanship preceded by much planning, but it is a finely crafted focal point for the house's interior. —F. W. R.



Uncomplicated elegance. Simple round handrails intersect with square steel tubing to form the newels, while steel-tube boots hold thin maple balusters connected with the mahogany bridges. Photo taken at F on floor plan.

safe entrance to the house. The key is to turn on the system at least six hours before the snow starts falling to warm the brick to a temperature above freezing.

A private entry for cars and people

Because you can motor literally up to the front door, I wanted to ensure privacy for the first floor, so few windows open to the courtyard. Only the south-facing kitchen window has a real view of the courtyard. When you're in the kitchen, you always know who is coming.

At the front door, a large expanse of glass allows visitors to see the finely crafted stairway (sidebar above) inside as well as light pouring down from the skylights (photo above). As you enter the house, the space opens up dramatically. The floor of the entry hall is rustic Indian slate, which provides counterpoint to the crisp geometry of the plaster walls and ceilings. Off the entry hall is a den with a distinctively Asian feel (photo right, facing page).

To the right and up one step from the entry hall is the guest-bedroom suite with a private

bath. Guests can enjoy privacy by simply drawing shut a pocket door.

Rumford fireplace anchors the living spaces

A large free-standing brick Rumford fireplace stands between the dining room and the living room. I love a good fireplace. To me, there just isn't home without a hearth.

This portion of the house has a sweeping expanse of glass, seemingly in all directions. Four corner windows and French casements in an almost continuous ribbon up to the 8-ft. ceil-



Light rhythms. Natural light pours in through a bank of carefully spaced skylights in the open two-story space, while indirect lighting in ceiling coffers illuminates the rest of the living room. Photo taken at G on floor plan.

ings serve as the unifying element and create an airy, outdoor orientation for these spaces.

Ceiling framing in the living room allowed us to build coffers of graduated lengths with light covers along a central spine (photo facing page). The coffered ceiling transitions to a two-story space with a bank of skylights that unify the first and second floors. Spacing the skylights precisely was a real trick, especially where we had to integrate a large structural rafter to pick up the load of the intersecting roof. Plaster carried right to the glass makes the skylights become almost invisible.

Off the living room, French doors lead to a deck with a long arc for one side (photo p. 76). Vertical-grain redwood serves nicely for the arced rails and beam, and 3/8-in. dia. brass rod substitutes for the more common wood pickets. Brass rod won't rot and weathers quickly to a pleasing patina that harmonizes with the redwood handrail and the decking surface of selangan batu.

The kitchen has rift-sawn cherry cabinets by Imperia (508-894-3000) that go all the way to the ceiling, maximizing storage (photo bottom left, p. 78). Abundant natural light from three directions adds a pleasant feeling to this efficient workspace. The kitchen porch features 11-in. dia. columns hand-hewn from red-oak trees taken from the site, a feature both rustic and modern that complements the cedar shingles and stucco exterior finish (photo p. 77).

Three bedrooms with a view

Each of the three bedrooms on the second floor features a half-round window 12 ft. wide and 6 ft. high. These large expanses of glass are a combination of two 48-in. sq. awning units flanked by four custom arch units.

On the exterior, these window units are recessed into 12-in. deep eyebrows on each shingled gable. The three matching gables are the signature design piece of the house. The 16-in. thick wall sections were assembled flat on the deck with windows test-fitted and then raised into place.

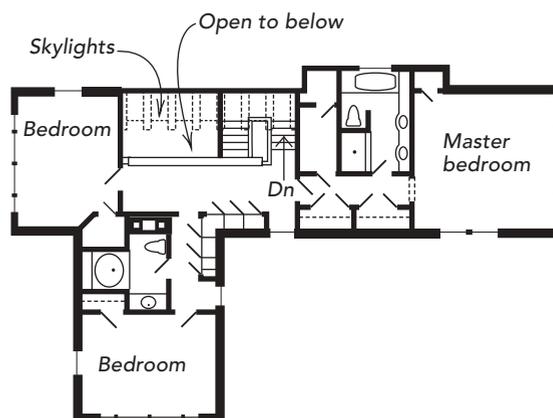
To maintain a modest exterior scale to the house, I made the second floor a half-story with 4-ft. high pony walls. Combined with a 12-in-12 pitch roof, I was able to create the sloping ceilings that my wife and I wanted in the bedrooms. □

Frank W. Riepe is an architect in Sudbury, Massachusetts. Photos by Joel Howe, except where noted.

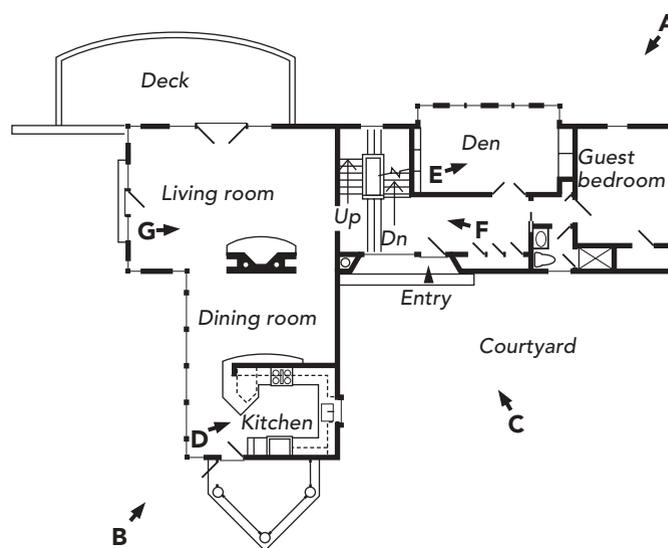
A HOUSE THAT HOLDS ON TO THE HILL

Set into the top of a steep lot, the short part of this L-shaped house is carved into the hill while the main axis of the house runs perpendicular to the direction of the slope. The L-shape (along with a future garage) creates an entry courtyard for both cars and people.

Second floor

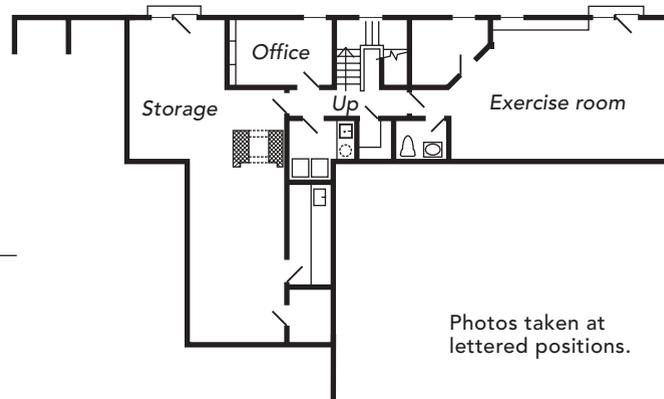


First floor



Lot slopes down from the long axis of the house.

Ground floor



SPECS

- Bedrooms:** 4
- Bathrooms:** 3½
- Size:** 3000 sq. ft.
- Cost:** N/A
- Completed:** 1999
- Location:** Sudbury, Massachusetts
- Architect:** Frank W. Riepe
- Builder:** Maple Builders

Photos taken at lettered positions.

0 4 8 16 ft.

North