Building Smaller, for Now

Two strategies that allow clients to live on their property before they can afford their dream house

BY ROBERT KNIGHT

Most of my clients have the same problem: There just isn't enough money to build the house that they want, when they want. To build that dream house, they have to buy the property first, and it usually costs more than they've planned. There's no shame in paying for a great site; if you don't start with a great site, it's harder to end up with a house that you really love. Besides, great sites are a better long-term investment. But it's a real shame if this wonderful site can't be enjoyed because there isn't enough money left over to build the house that you want in the near term. So why not build in phases, something that you can live in now and then use in some manner later on?

The Xanadu principle

Essentially, you want a condensed design that gives you a starting point for your life on this new bit of land. In some cases, my firm tries to build less than the final project at first to make it work financially. Of course, there are tricks to building in this fashion. The project must be seen as a phased process of what will be built now and what will be built later. When doing phased work, you must carefully consider what I call the transaction cost. In dollar terms, it's simply the difference between the combined costs of phase 1 and phase 2 separately vs. the cost of doing the project all at once. A big factor in this difference is the duration of phase 1. If phase 1 lasts a short time, these costs tend to loom large. If you can live in phase 1 for some years, the inefficiency of phasing, as expressed by the added cost, becomes less important.

The biggest problem we've found with phased jobs is that there is a tendency for our clients to invest all their hopes and dreams in phase 1; we refer to this problem as the *Xanadu principle*. If they start by building a guest house that could grace Xanadu, it may be hard to realize that someday it will need to sit in the shadow of a more modest, if larger, house.

A couple of summers ago, my firm built two interesting houses; each tackled the problem of establishing a residence in the short run that doesn't compromise the final house. These two houses represent different strategies because they were solving two different problems: Do we really want to live here in Maine? And can we afford to live here now?



Strategy 1 — Living in the guest house

The Chapmans weren't really sure how much time they would ultimately spend on their waterfront lot in Maine. One possibility was that they would try summers and, after retirement, live there most of the year. However, they wanted to sample coastal life without committing the money for a year-round three-bedroom house. They had always loved a boathouse down the cove, and we set out to make a smaller version of it that, for now, would work as a small home (photo above).

The result of our design collaboration was a house, unfinished on the inside, that might function in four possible scenarios:

- They could leave it as is and use it infrequently, knowing they had invested the minimum that would allow them to use the land. After some years, they could sell it, not having invested a fortune in the house.

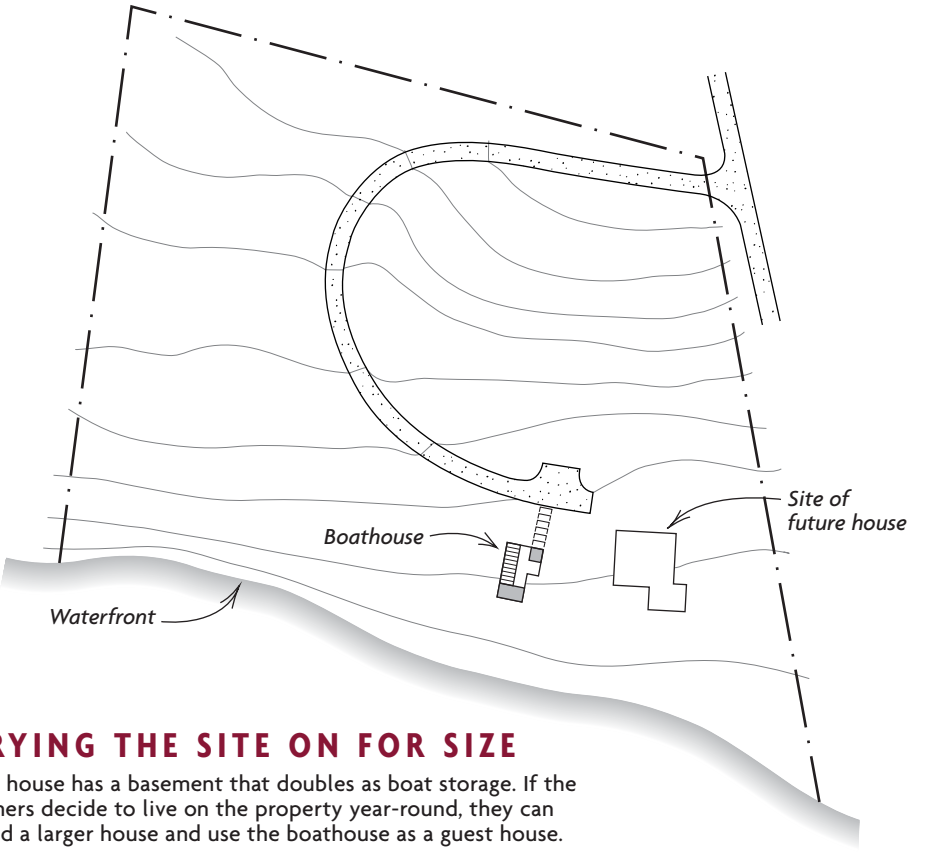


A small house gets you on the land quickly. Patterned after a nearby boathouse, this house allows the owners to experience their property without building an expensive larger house. Photo taken at A on floor plan.

• They could use the land, but only in the summer. If they decided to retire here and build a bigger house on the property (drawing right), the boathouse would become a summer guest house. We wouldn't need to insulate or to drywall the interior or to add a heating system.
• They could use the land both summer and winter. They could plan to retire here and to build a bigger house, fully winterizing the boathouse to function as a guest house or an office, or both.
• They could use the land throughout the year, but they could retire somewhere else and decide that the boathouse was really enough house to have on the Maine coast. The owners might winterize it, adding more usable space in the basement, but not build another house.

Treat the framing like finish work

To maximize these options, we chose a middle course to finish the boathouse. It seemed likely that the house would never be finished beyond this state (for instance, it would never be fully insulated), so we made its unfin-



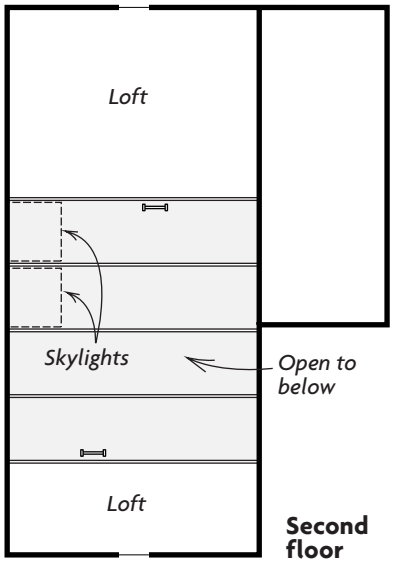
TRYING THE SITE ON FOR SIZE

The house has a basement that doubles as boat storage. If the owners decide to live on the property year-round, they can build a larger house and use the boathouse as a guest house.

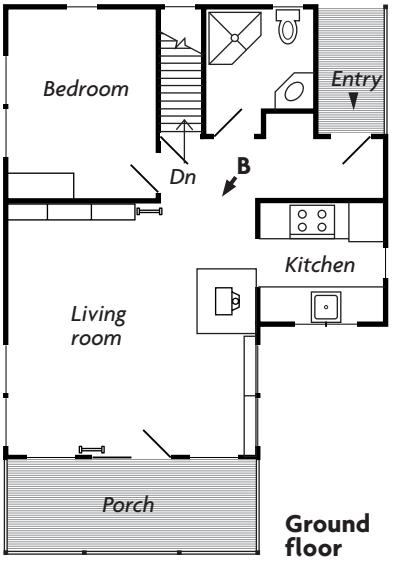
Photo this page: Robert Perron. Drawings: Ron Carbone.



Bare-bones design doesn't have to be Spartan. Despite an unfinished interior, careful work, open bookcases and mini-spotlights all contribute to the casual warmth of the living room. Photo taken at B on floor plan.



Second floor



Ground floor

LOFTS ADD SPACE TO A ONE-STORY PLAN

Loft spaces at each end of this compact house plan gave the owners a potential extra bedroom and storage for nonessential items.

SPECS

Bedrooms: 1
Bathrooms: 1
Size: 648 sq. ft.
Cost: $96 per sq. ft., excluding site costs
Completed: 1998
Location: Blue Hill, Maine
Architect: Knight Associates, Architects
Builder: Larry Packwood Builders

Photos taken at lettered positions.





ished interior details look more intentional (photo left).

Builder Larry Packwood and his crew treated the structural lumber more like trim than framing, sanding off grade stamps and generally paying attention to cosmetic details. These guys do crisp framing anyhow, so we didn't have to emphasize that aspect.

To keep the interior lines clean and open, we framed the roof with pairs of 2x6 rafters on 2-ft. centers. A single rafter tie sandwiched between every other set added some meat to the structure. Normally, we would be concerned about the lack of insulation space that a 6-in. rafter would give us, but if we had to insulate later, we could spend a few extra dollars and spray polyurethane foam for an acceptable R-value.

We sheathed the building in #4 tongue-and-groove pine. The knotty pine looks better from the inside, smells like a summer house and doesn't let the shingle nails show through. I have always liked pine sheathing because the wall breathes better than plywood, but in this case, it was an aesthetic decision. The extra labor paid to nail it up was worthwhile. We used insulated-glass windows so that we could upgrade the house to year-round living status without replacing the windows, too. Although we didn't trim out the windows, we did attach sills so that the windows would look somewhat finished.

The foundation's exterior was fully insulated with 2 in. of rigid foam; we've found that insulation keeps foundations drier in the summer by minimizing the amount of condensation. It adds an extra $500 or so to the overall cost, but it's an improvement that is tough to add later.

Of course, we had to do all the site work: build the road, bring in the power, dig the septic and drill the well. These expenses can turn a small house into a pretty pricey affair, even if it is tiny. But that's the price you pay for getting on the land if you have a wild, beautiful place like the Chapmans'.

After adding in the site costs, we arrived at a pretty hefty number. So we decided that to make sense of this level of expenditure, the house should be big enough to include a small bedroom on the main level (the original plan featured sleeping lofts). This strategy would also protect the resale value by giving it much broader market appeal. If you include site-development costs, this house was brutally expensive per square foot to build. But because the house is relatively small, the overall cost is still a great deal less than if the Chapmans had built a "real" house, and they are now reaping the benefits of the cash outlay they made for the land.

Photo this page: Robert Perron

Strategy 2 The living room serves as the house

The Nobles were committed to living part of the year in Maine in the near future. Exactly when in the future and how much of the year would work itself out, but the Nobles didn't need the multiple options of the Chapmans. They could not spend the cash or add the debt now for the house that they wanted.

Initially, we had designed a Greek-revival farmhouse that resolved into something that pleased all of us (drawing p. 93). By our calculations, however, it was going to cost around $350,000. Although that figure was affordable at some point, it wasn't in the cards in the foreseeable future, so why not build just the guest house first?

Although a guest house was part of the final plan, the Nobles wanted to live on the primary site rather than in a corner where a guest house might ordinarily sit. There was really only one great place to build on the site.

We first looked at building a core of the house: kitchen, bathroom, a place to sleep. In practical terms, though, that meant building everything but the living room, and building the most expensive rooms to boot. Another strategy that left spaces unfinished to save money was acceptable to them but was still too expensive. We needed to cut costs at least by half. Simply deleting some interior work could save 10% to 15%, but it wouldn't yield big-enough savings.

With a flash of the brilliance that justifies my big-bucks fees, I thought, "Instead of



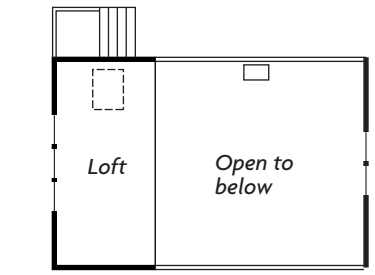


A tiny house is the germ of a larger house. This two-room house provides enough space for the owners until they can add more rooms. When the house is enlarged, the two rooms will become the living room and porch. Photo taken at C on floor plan.

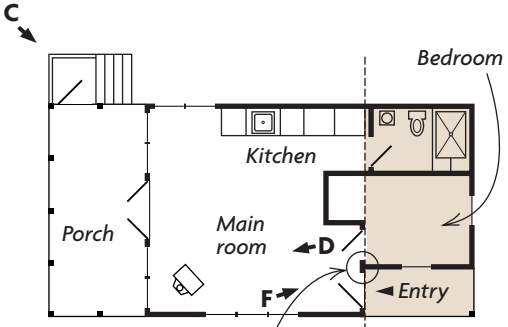
Living room benefits from big windows and a screened porch. An inexpensive, stripped-down interior shouldn't preclude a good view and plenty of ventilation. Once the essentials are built, the details can be added later. Photo taken at D on floor plan.



Half-room at the back is easily removed. The author designed a small addition for the bedroom and bath. When the house is enlarged, the addition can be removed, doubled and used as a guest house. Photo taken at E on floor plan.



Second floor



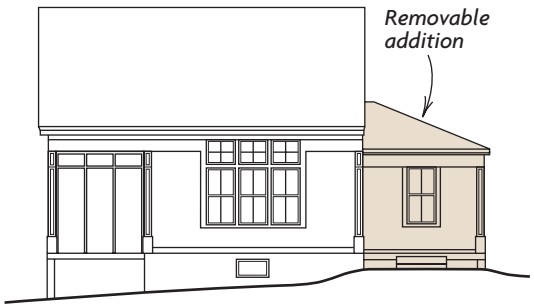
Ground floor

CREATING THE BASIC INGREDIENTS OF A HOUSE

During the first phase of building on a relatively expensive lot, the author started with an essential, inexpensive house: a living room with kitchen facilities, a bedroom and a bath. A loft and screened porch add space and utility. If and when the second phase takes place, the back section is unbolted and the house enlarged to include a separate kitchen/dining area and a larger bedroom/bath combination.

SPECS

Bedrooms: 2, including a loft
Bathrooms: 1
Size: 700 sq. ft.
Cost: $114 per sq. ft., excluding site costs
Completed: 1998
Location: Brooklin, Maine
Architect: Knight Associates, Architects
Builder: Larry Packwood Builders



Phase 1: The basic house

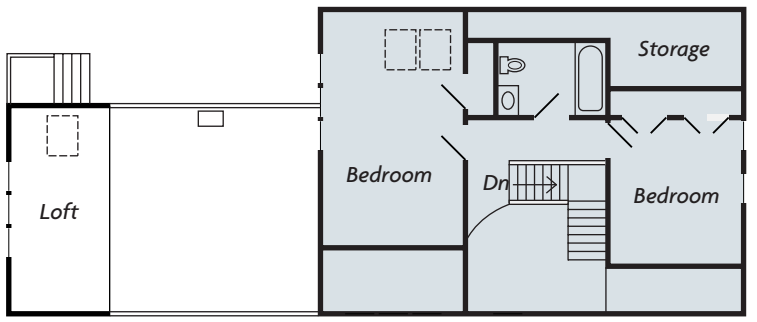
building everything except for the living room, why not build just the living room?" Actually, the living room included an attached screened porch. We would modify the screened-porch roof so that the living-room space extended over it to form a loft. Extending the roof over the loft would improve the house's roofline. The loft could also be used as an office or as overflow sleeping space, making the living room more flexible in what is still a pretty modest house.

Bolt-on module increases space

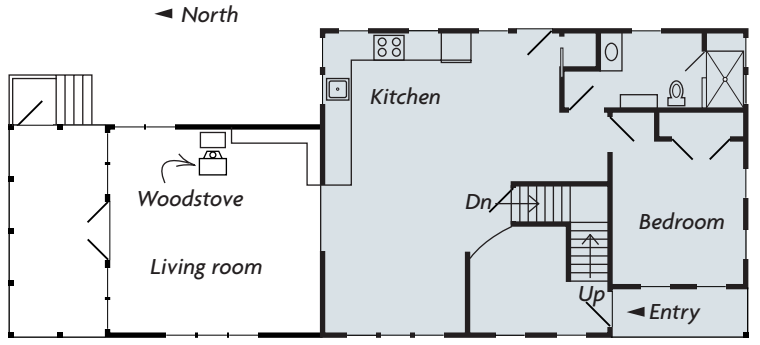
Unfortunately, my living-room plan didn't create enough room to make a self-contained living unit. We needed a kitchen, a bathroom and a bedroom (the Nobles didn't want to climb a ship's ladder to go to bed). Because the living room functions as the kitchen, dining room, entry and living room during the first phase, we deleted the fireplace and put in a temporary kitchen where the future fireplace chimney would be. For heat, we bought a gas-fired parlor stove.

To create a bathroom and bedroom, we attached a small room to the back of the house (photo above). In a future phase, this room will be moved, probably doubled in size and become a guest house. This added section is bolted to the living room and sits on posts anchored to 12-in. dia. Sonotubes (photo facing page). During phase 2, we will remove the Sonotubes and extend the foundation.

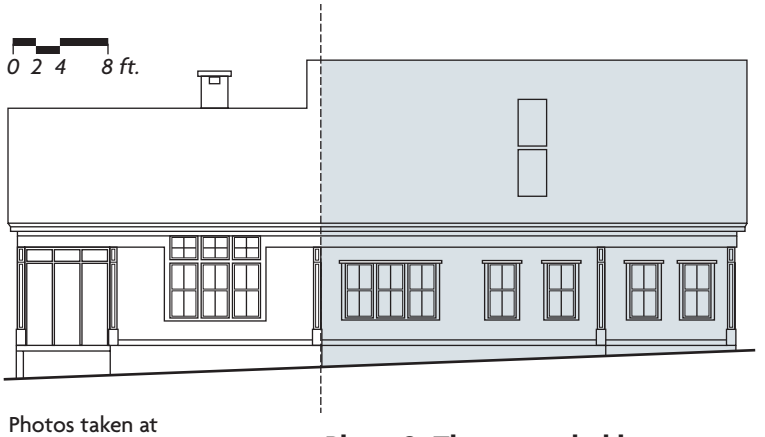
For this project, the transaction costs were low. Minimizing these costs figured prominently in our decision to put a hip roof on the back section. It would have been simpler to extend the living-room gable roof over the back section, but it would have been more difficult to remove the addition in phase 2. We also didn't want a high gable roof on the final guest house. Instead, we chose a lower-profile hip roof, whose definition emphasizes the overscale nature of the permanent part and gives it a bit of charm.



Second floor



Ground floor



Photos taken at lettered positions.

Phase 2: The expanded house

Inside (bottom photo, p. 91), we didn't spend money on special framing because we knew that it would be covered with drywall and trim. We did spring for #4 pine tongue-and-groove sheathing boards for the same reasons as in the Chapmans' project.

When unfinished is enough

Both clients were disciplined. In the Chapmans' case, we added finishing touches because their boathouse is most likely a permanent situation rather than an incomplete house. In both cases, the exterior was finished to the utmost without compromises, so no upgrading would be necessary later.

Although I see both of these buildings as works in progress, I think they still must have interest as finished objects in the present so that the owners can feel good about the outlays made to get on the land.

In both cases, we spent less than 50% of the cost of building the final house, and now my clients get to enjoy their land and not be broke. My hope is that after they have lived on the land in these casual wooden cabins, they will be in a better position to make decisions about designing their "real" houses. □

Robert Knight is an architect in Blue Hill, ME. Photos by Tom O'Brien, except where noted.

BEDROOM AND BATHROOM ADDITION UNBOLTS FOR EASY TRANSFORMATION

Built to augment the central living area, the small addition was bolted on to the main structure to make the house's expansion easier. Still intact, the addition could be doubled in size and become the basis for a new guest cottage. The hex nuts were left exposed on the bedroom wall (photo below) for easy access.



Exposed bolts make disassembly a snap. The hex nuts to the right of the bedroom door betray the location of the bolts that connect the addition to the main house. Photo taken at F on floor plan.

