

Affordable Lessons

by Jane Griswold

An “affordable” house is compact and simple to build. Wouldn’t it be nice if it were also attractive, easy to live in, and even spacious in a place or two?

The Greater Lawrence, Mass., Habitat for Humanity board asked me to design duplexes that would be all of those things. They needed an easily built (by volunteer labor), inexpensive, 24x40 two-story box containing two three-bedroom units. Since I had designed modular housing and variations for standard subdivisions, this

seemed a straightforward job.

My first design wasn’t bad (see Figure 1). It met the criteria and fit the site, and we figured the layout would allow a family to use the living room separately, as an in-law suite, for example.

Reality Check

After our new owners moved in, I went to visit. The living rooms were almost untouched, furnished with spotless parlor sets. The kitchen/dining rooms were crowded with tables for eight, hutches, storage cabinets, TVs, and desks. Our assumptions

about the floor plan had been wrong. Clearly the next Habitat duplex would require a new design.

Since then I have drawn eight house plans for Habitat and we have built 15 duplexes. I adapt the plans to fit each new site. But most of the changes have simply reflected the way the families live, offering lessons that transfer well to any small, affordable design.

Refinements

What changed? The kitchen/dining room grew. It now occupies the back half of each unit. The door between that room and the living room also expanded, becoming a 6-foot cascd opening. This allows the entire first floor to function as a great room while still leaving space at one end of the living room for the parlor set. A two-foot section of the living room/kitchen area wall provides room for bookcases, stereo, or (the more common use) a TV and VCR that can be easily seen from either the dining room or the living room (Figure 2, page 18).

We moved the stair against the party wall between the units, which helped shift the most-used areas in the units to opposite ends of the building. I tried turning the stair, but this taxed the skills of volunteer carpenters and shrank the bedrooms — a problem, since many of the families use double beds in every bedroom.

A crucial move was expanding the building’s footprint to 26x44, giving us 2 more feet in both width and length for each unit. The width gave us room for a straight stair and a front entry area as well as more generous bedrooms upstairs.

I worked to minimize space used only for circulation. Upstairs, the angled walls made the hall smaller and

The First Try

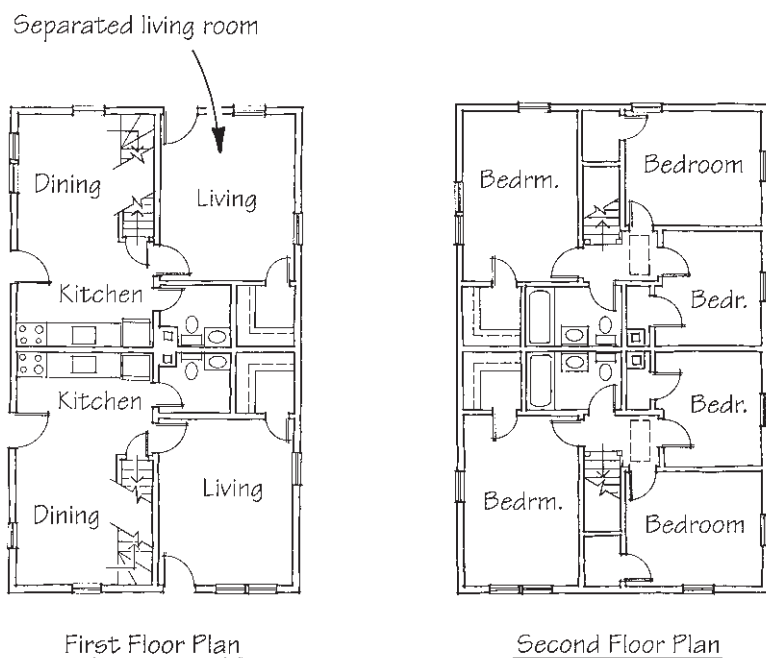


Figure 1. Asked to design an affordable duplex for a long, narrow site with streets (and entrances) at both ends, the author created a plan she thought would be flexible, adaptable, and efficient. Unfortunately, the separate living room went unused, and the traffic patterns were problematic.

Getting It Right

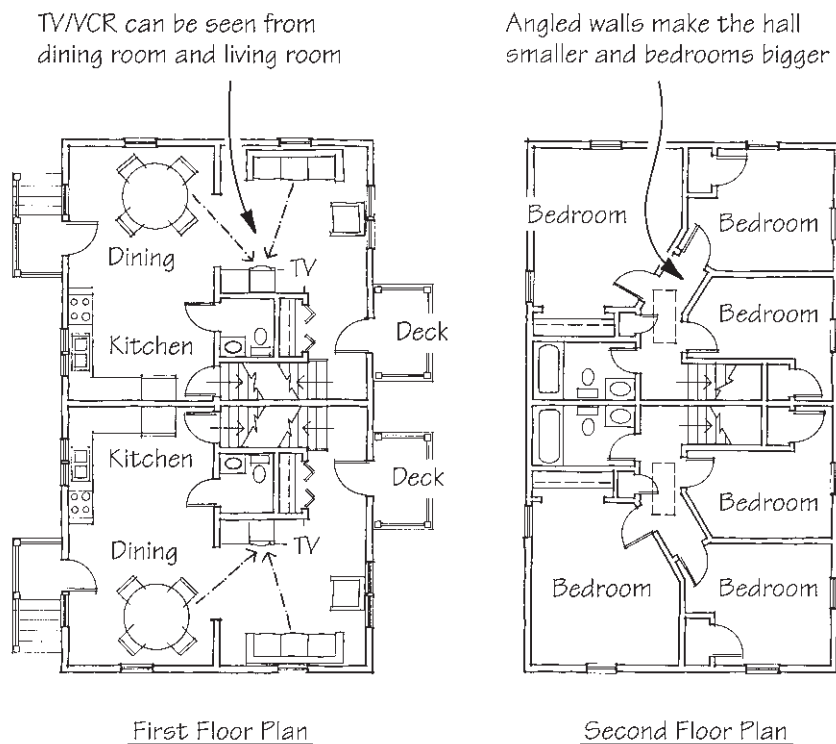


Figure 2. After studying the way the families used her first attempt, the author shuffled things around to create a design that is basically one big room downstairs and three private spaces upstairs — a plan that occupants find more useful and comfortable.

the bedrooms bigger. Downstairs, the path from the entry to the kitchen doubles as part of the living room.

The revised plans yielded some unexpected advantages. The half-bath's relocation to the kitchen, where it is near the basement stairs, increased the basement's potential as expansion space. And the wider kitchen made secondhand cabinets easier to adapt (Habitat often accepts quality used cabinets from owners who are remodeling).

Lessons Learned

The redesign of these homes confirms several valuable lessons about small-house design:

1. Keep the design simple. Design rooms to serve their main purposes well, and try to balance the floor plan so all areas get used.

2. Keep construction simple. Even skilled crews will build more economically if stairs, cabinet installations, and other features are designed to be easily built.

3. Check your ideas against reality. How do people really live in what you built? Clearly, every foot in a small house must be usable. A good design will use all the rooms without overburdening any one of them.

4. When you really need it, consider adding space. While adding a couple of feet creates some costs, it can reduce others (such as when it allowed us to straighten the stair and simplify the kitchen) while producing a much better plan. ■

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