

STEP 8

GET YOUR HOME BUILT

Congratulations! You have designed all the features of your super-house, and you are ready to get it built. This Step will cover the building process from your perspective as the owner and designer.

This book assumes that you will have your home built by a professional custom homebuilder, so we will start by establishing a good relationship with your builder. You will convey your design to the builder as a set of construction drawings, so we will explain how those drawings are made. And finally, if you desire additional design help, we will suggest how to get it.

If you are building an addition to an existing house or if you are doing a major renovation, much of this Step will apply to your project.

If you are a builder yourself, don't skip this Step. It incorporates the best construction experience of many homes. While most of it will be familiar, you will still glean some valuable ideas.

WORKING WITH YOUR BUILDER

You are the prime designer of your super-house, but we assume that you will hire a good custom home builder for the actual construction. It is the builder who will make your dream a reality, or will botch it. Working with a builder may be a profoundly satisfying experience, or it can be misery.

Your relationship with your builder probably involves more money and has a greater effect on your living conditions than any other relationship except your marriage. As in a marriage, you need to select the right partner and maintain a good relationship for the duration.

Your builder is also called a “contractor.” We will use the two terms interchangeably. Let’s begin by understanding who contractors are, and what they do.

WHAT CONTRACTORS DO

For building an entire house, building a major addition, or doing a major renovation, you will be dealing with a “general contractor.” This is someone who brings together all the specialized skills, or “trades,” of house construction – site preparation, concrete work, framing, roofing, flooring, plumbing, electrical wiring, heating, air conditioning, drywall installation, painting, and other skills. Some of the trades are independent businesses, rather than being employees of the general contractor. The general contractor thus acts as a broker and a project manager, as well as a builder.

For more limited work, such as replacing a heating system, you will deal with a contractor who has all the capabilities needed for the project. Such specialized contractors are indicated by their specialties, as for example, a “heating contractor.”

The name “general contractor” (or sometimes, simply “contractor”) indicates that all the work is done under a contract between the homeowner and the builder. Each of the trade specialists works for the contractor under separate contracts between themselves and the general contractor. For this reason, the specialists are called “subcontractors.” The general contractor is usually where the buck stops if there is a problem with a subcontractor, so the homeowner does not need to become involved.

In most cases, the general contractor himself performs one or more of the trades. For example, the general contractor often does the carpentry work, although he might do the plumbing or electrical

work, or perhaps all three. As a rule, seek a general contractor who does a major part of the work himself. This increases the contractor’s commitment to your job, improves quality control, and minimizes delays in bringing the trades to the job.

One of the main responsibilities of the general contractor is to ensure that all the requirements of the law are fulfilled. In many jurisdictions, construction practices are heavily regulated, and usually for good reason. For example, the contractor needs to make sure that clearances from boundaries are satisfied, that soil conditions are known, that building codes are satisfied, that provisions are made to prevent runoff of mud from the building site, and other responsibilities.

The contractor also gets the permits that are needed to commence construction, and to continue construction after inspections are made at several stages.

■ What Contractors Don’t (or Shouldn’t) Do

The best contractors are excellent organizers, supervisors, and craftsmen. But, they are not designers, engineers, or artists. Use their strengths, and don’t expect them to play roles that are not theirs.

As you design your home, your potential contractor can be a valuable advisor about matters related to conventional construction. But, the design is your responsibility, not your contractor’s. Your super-design will include many features that depart from conventional practice in ways that will be unfamiliar to your contractor.

Unless your contractor has an exceptional sense of style, don’t look to him for guidance in the appearance or architectural aspects of your house. Many contractors – bless them! – are lacking in taste. Some of the most unattractive houses that I have encountered were built by contractors for their own families.

FINDING THE RIGHT BUILDER

An ideal homebuilder can be described by a few characteristics. He has excellent skills, including established relationships with excellent subcontractors. He has built houses that you can examine, and he has references that you can check. He has a clean business record. He is pleasant to work with. He is willing to listen, and willing to give advice. He and his subcontractors have enough available time to complete your house expeditiously.

FIND YOUR BUILDER DURING AN ECONOMIC SLUMP

Don’t expect to find your ideal builder during a construction boom. All builders make hay while the sun shines. They work fast, completing as many jobs as possible using rote methods. They hire temporary workers whose skills are not the best. They won’t take time from the gold rush to learn the new techniques of building a super-house.

The time to meet your ideal builder is when business is slow. Then, a good builder can indulge in the satisfaction of learning new techniques. Their best subcontractors are available. Materials and labor costs are at their lowest.

Build a Good Relationship

When you find a builder you like, don’t expect that he will be enthusiastic about your super-design. It will take a period of courtship for the builder to become comfortable with your innovations. By the same token, this courtship period will give you an opportunity to become certain that the builder is right for your project.

When a contractor sees something that is out of the ordinary, he views it as a potential source of trouble. If he thinks that the design is impractical or incomplete, he will fear changes, delays, and disputes. If he takes the job, he will increase his price to cover the uncertainties.

On the other hand, if the builder believes that the project will be interesting, free of trouble, and valuable to his reputation, he will lower his bid. So, make your builder love you!

If you have learned the material in this book, you know more about energy efficiency and many other important aspects of house construction than most builders. At the same time, you still know less about conventional construction. That is an unusual situation. You don’t want a potential builder to see it as trouble.

First of all, don’t expect any builder to believe right away that you know more than he does about any aspect of construction. Good builders take pride in their mastery of construction skills, and they may not be pleased to hear that some of their methods can be improved.

Ideally, you can eliminate this concern by presenting a fully completed set of drawings and specifications from which the builder can estimate the project cost. However, this involves a chicken-and-egg problem, because you should involve the builder in your design before the drawings are made final.

The tactful way to handle this is to clearly explain the unusual features of your house, such as the design of the walls and roof to accommodate super-insulation. If your contractor is not familiar with this book, introduce him to it.

How can you find such a builder? First of all, limit your search to builders of custom homes, not to builders of tract houses. Tract houses are mass production items, no matter how fancy they are. Don’t try to make a silk purse out of a sow’s ear. Getting a tract builder to modify a standard design is about like asking General Motors to build a custom car for you. It’s not their kind of business.

Recommendations from previous customers are the starting point for finding your builder. To make recommendations credible, you should be able to examine the finished homes. Even better, you should be able to observe the builder at work. Fortunately, there are now a variety of Web sites and publications that provide consumer ratings of various service providers, including home builders. Check the ones that serve your geographical area.

There is one more characteristic that is essential for the builder of your super-house. The builder should not be afraid of your project because of its unusual features. He should welcome the opportunity to enhance his own reputation by advancing the state of the art.

Unless you are very lucky, you will have to interview several builders before you find the right one. Most builders are reluctant to deviate from their well practiced procedures. Don’t be offended if a contractor fails to show much interest in your project. He may be a great conventional builder, but he may be uncomfortable with all the details of your super-house design. He does you a favor by opting out. Or, the timing may not be right (see the sidebar).

There may be a quicker way to find your ideal builder. As this book goes to press, we are also launching a new certification program for contractors, who will be listed in a free directory. See *Super House Certification for Designers and Contractors*, below.

When you are interviewing builders, learn about their subcontractors. You are actually selecting a team of specialists in different fields. You want a team that has a history of working together smoothly. And, you want specialists to have the necessary skills for your house. For example, if your home will have a hydronic heating system, does the builder have an HVAC subcontractor with the special skills needed to install this type of system?

Also, know the availability of the subcontractors. Does your general contractor have first claim on their services, or will he have to wait for them to become free from other jobs?

On balance, it’s a good idea to find your builder as early as possible. As you communicate during the design period, the builder will see that your expectations make sense and that you won’t be making unreasonable demands. By the time your design is complete, your builder will be comfortable that he can build it.

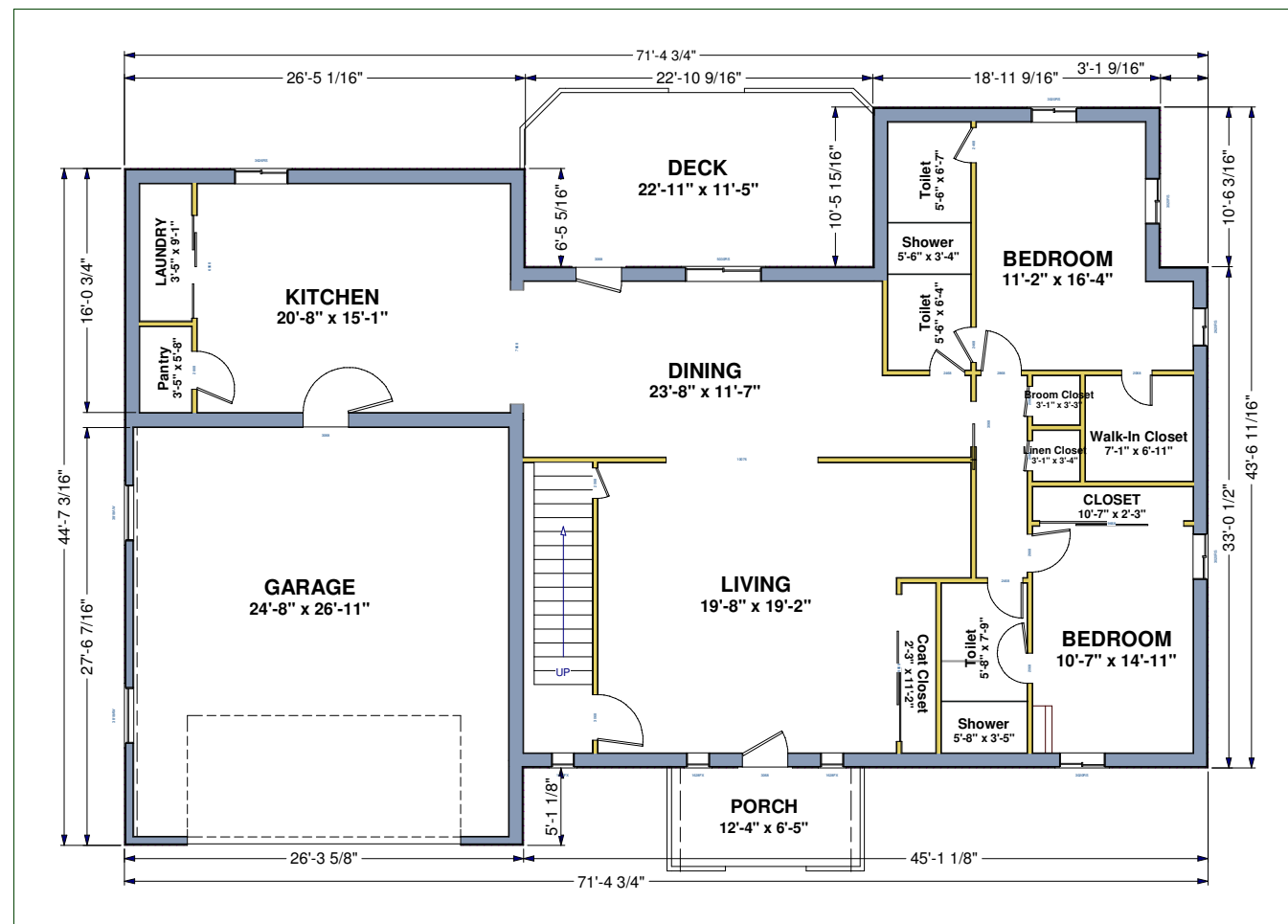


Figure 8-1. Typical “architectural floor plan.” The drawing guides the building of the walls, doors, windows, and stairs. It also serves as a template for additional plans that show the plumbing, electrical, and HVAC equipment. Compare this to the much earlier drawing in Figure 1-86, which began the layout of the house.



Figure 8-2. Typical “exterior elevation.”



Figure 8-3. “Interior elevation” of a kitchen. It shows the locations of cabinets and appliances, and wall colors. The vee symbols on the cabinet doors are a standard method of indicating the sides where the hinges are installed.



Figure 8-4. A “section” drawing that shows how furnishings and vehicles fit into the house.

Your drawings may also include a few “three-dimensional” views for orientation and to provide a more realistic sense of the actual appearance of the house. If you have been using a home design computer program, you have already created many such previews of your home.

Detail drawings are smaller drawings that supplement the main drawings at a magnified scale. They clarify... well, details. For example, many of the drawings in Step 3 are detail drawings. As we have stressed throughout your design, details make the difference between an ordinary house and a super-house, so make sure that your drawings show the details clearly.

A detail drawing may be placed on the same sheet as a primary drawing. For example, a detail drawing on the floor framing plan will show the carpenters how to reinforce the ends of the I-joists. If several detail drawings are needed for the same topic, they may be collected on a separate sheet. For example, a sheet of exterior trim details may be devoted to decorative brickwork and gingerbread carpentry.

A **schedule** is not a drawing, and it doesn't have anything to do with time, despite the name. It is a shopping list for the builder, presented in the form of a table. It is included with the drawings. Schedules cover items that need to be identified by special characteristics, such as size, color, model number, R-value, etc.