You've visited model homes and looked through magazines, and now you're ready to start building your new home. This publication describes the professionals you'll work with when you build or remodel, and it explains the basic business dealings you'll have with them.

**HOW TO BEGIN**

Although each building project has its own unique set of requirements, all building projects follow the same sequence: design, preparation of contract documents, and construction.

**Design**

Design is deciding what to build. Picturing the final appearance of the building and understanding how it will function are the goals of the design phase. If the project is small (such as redecorating an existing room) and time is short, you can do the design yourself with the help of books or magazines. However, if the project is extensive (such as a major addition or new home), most homeowners will need the help of one or more building professionals to complete the design.

**Contract Documents**

When the design is finished, the designer will need to assemble written and visual descriptions of the project, and written legal agreements between the owners and the professionals hired to build the project. These contract documents include plans, specifications, legal contracts for construction, and building permits.

*Plans* are drawings that describe how the project will be built and how it will look. *Specifications* are a written description of the methods and materials the builder will use. *Contracts* are the written legal agreements between the owners and the building professionals they hire. *Permits* are documents issued by the local governing body, such as a city or county building department. The local officials review the plans and specifications to make sure they meet local building codes and regulations. Then they issue a permit allowing the project to get underway.

**Construction**

In this phase of a building project, the owner purchases labor (such as the services of a contractor) and materials to complete the project. The contractor begins construction after obtaining a building permit. When the building is complete, the code official gives final approval.

**CHOOSING THE RIGHT PROFESSIONAL**

Each building professional has a particular area of expertise and training. Selecting the right individual(s) is one of the most important decisions homeowners make. You should base your decision on the size and complexity of the project, the budget, and the schedule.

**General Contractor**

General contractors assume responsibility for building the project. They are in charge of all building operations, and they tell subcontractors, such as plumbers and electricians, what to do. They may or may not draw plans, and most do not have formal training in architecture or engineering.

Consider using a general contractor under these circumstances:
- When you already have a set of plans and specifications;
- When using stock plans from a home-design book or building a typical floor plan and style;
- When on a tight schedule;
- When only minor alterations to a stock plan are needed.

**Remodeling Contractor**

Remodeling contractors specialize in work on existing buildings, and their crews are used to working around homeowners. They may be less likely to disrupt family life during construction than contractors who specialize in new construction. Like general contractors, they frequently hire subcontractors for electrical, plumbing, and heating work.

Consider using a remodeling contractor when converting an existing space or building a simple room addition, especially if you know what you want.

**Subcontractor**

Subcontractors are specialists in one building trade: plumbing, electrical, carpentry, or heating. Subcontractors, or "subs," are usually hired by the general contractor. Many general contractors use the same subs on all projects. The general contractor coordinates the schedules of the subcontractors and gets them to the job on the day they're needed.
You could consider hiring subcontractors directly in the following cases:

- When the project is limited in scope and requires the assistance of only one or two trades;
- When you have experience or training in building;
- When you have the time, patience, and knowledge to supervise subcontractors.

Architect

Architects are professionals who have earned a degree in architecture and passed a licensing exam to practice architecture. They have the technical training required to design structurally sound buildings, and they know how to organize spaces (rooms, decks, yards, etc.). Architects can help you visualize how the building will look when it's done, and they can be helpful when good design and livability are top priorities.

Consider using an architect when design has a high priority:

- When the architect has experience specifically in residential design;
- When the house is to be a custom project that suits the family's lifestyle;
- When an architect can save you money that might be wasted through poor planning and design.

If you are planning to build a large home or do an extensive remodel, an architect can also act as the owners' agent to see that the project is constructed as planned and that quality remains high.

Designer/Builder

These are specialists in the design and construction of houses. Sometimes, design/build firms are a joint venture between an architect and a builder; in other firms, no architect is involved. In either case, the firm does the design work and supervises construction, eliminating the communication problems that occur in many construction projects.

Owners who are not sure what they want, but want to get started right away, could consider working with a design/build firm. If you decide to make minor changes after construction starts, you may find that designer/builders can be more flexible than general contractors. Because such firms handle both design and construction, they can draft the design changes and turn them over to the construction side of their business with less likelihood of miscommunication.

Designer

Designers are specialists in designing houses. They may have had some design training, or even a degree in architecture, but no architecture license. The quality of their work may vary from that of a good architect to that of a good builder. They may know more about house construction than some architects and more about house design than most builders.

Plan Service

Owners can purchase complete plans, called “stock” house plans, from magazines or lumber dealers. The companies that market these stock plans often employ architects to develop plans and specifications. Stock plans vary in quality. (For example, specifications may be incomplete, or the room arrangements may not make the most efficient use of space.) This forces the owner to judge whether the plan is well designed and suitable for the site, and the contractor to make up for inadequate plans and specifications.

Consider using stock plans:

- When the site is easy to build on and you find a design you like;
- When you work with a reputable contractor capable of making minor alterations to a plan.

Interior Designer

Interior designers help when the project involves extensive interior remodeling, interior layouts, colors, and finishes. Some have a design degree or a professional license, and they may belong to the “ASID” (American Society of Interior Design.) Interior designers can help you select new color schemes or new ways to light your rooms. And they can assist in arranging furniture. Some interior designers draw up contracts.

Kitchen and Bath Designer

Kitchen and bath designers often work for cabinet companies and lumberyards, and may provide free design advice. Certified Kitchen Designers, who have passed a technical exam, use the initials “CKD” after their name. These specialists prove valuable for kitchen and bath remodeling projects.
OTHERS INVOLVED IN BUILDING

Attorneys frequently become involved if there are problems with a job. Instead of waiting until problems arise, contact an attorney before you sign the contract.

Lending agents, such as officers from savings and loan institutions or banks, prepare and grant loans for home construction and remodeling. They will help by establishing escrow accounts and procedures for making timely payments to contractors.

Code officials are city employees that issue building permits and inspect construction projects to be sure they comply with rules to protect the health, safety, and welfare of the community.

Material suppliers—lumberyards, plumbing suppliers, and hardware stores—provide building materials for house construction. Contractors and architects will frequently ask homeowners to visit suppliers' stores to pick out fixtures and finishes (such as tile or lighting.)

FINDING THE RIGHT PERSON

Once you have decided which professionals to use, you will have to find the right individual for the job. The first step is to compile a master list. The telephone directory is a good place to start. Owners can also ask suppliers about builders, builders about suppliers, architects about builders, builders about architects, and your banker about any of the above.

Friends who have recently completed a building project are also a good resource. Once you have developed a list, you will have to make a final selection. Hire a professional who is not only qualified, but who has successfully completed projects that are similar in type and scale to the one you are planning. Ask to see pictures of their work. Craftsmanship, style, quality, and taste vary. Make sure the match between the professional's abilities and your expectations is a good one.

Also, ask for references, and make sure you check them out. Before signing a contract with a contractor or subcontractor, call their bank and verify the financial stability of the company. They may also call your bank or other references to verify your financial stability.

DOING THE WORK YOURSELF

Some owners consider planning and building a project themselves. If the project is a simple interior remodel or a small addition, and you have the time and experience, you will only have to deal with a banker, the material suppliers, and code officials.

You may also be interested in planning and building an extensive addition or an entirely new house by hiring subcontractors to do some or all of the work. Building your own house can be a fun, life-enriching experience, or it can be immensely frustrating. Few families remain untouched by the experience. Books, seminars, and intensive building courses provide most of the information required. However, keep in mind that this type of undertaking requires an enormous amount of preparation, study, time, and most of all, patience. Most people find building a new home less stressful if they work with architects and general contractors.

HOW AN ARCHITECT CAN HELP

The title "architect" is a legal one. It indicates that a person has passed a state-wide examination and is registered, or licensed, by the state to practice architecture. Drawings necessary to construct a building can also be prepared by designers and those who do drafting. However, these individuals are not licensed to practice architecture. In most states, you do not have to hire an architect to build a one- or two-family dwelling, but a few states, counties, or cities require an architect's seal on drawings.

Design Services

Architects can provide a great deal of assistance in helping you plan and visualize your building project.

The usual duties of an architect are these:

- Visit the site to determine the best place to put the building; [The architect may even advise the owner in choosing a site.]
- Analyze the family's living needs and match these to the building budget;
- Draw preliminary sketches (general plan and appearance of the project);
- Prepare preliminary estimates of costs;
• Prepare working drawings and details (exact dimension drawings showing floor plans, exteriors, structural details, mechanical installations);
• Prepare specifications;
• Advise on the selection of contractors. In competitive bidding, the architect analyzes the bids for the owner.

Construction Supervision

If the owners feel confident that their contractor will carry out the architect's plans faithfully, they can pay the architect for the design and turn the job over to the contractor. However, architects don't usually conclude their services when they finish the design. They usually continue to supervise construction until the building is finished.

If architects supervise construction, their duties also include the following:
• Observing construction to determine in general that the work is carried out according to the plans and specifications;
• Examining requests from the contractor for changes or substitutions of materials;
• Issuing written change orders for approved changes;
• Checking requests from the contractor for payments, and issuing certificates for progress payments;
• Making a final inspection;
• Preparing a certificate for final payment when the project is complete.

Fees and Payments

Many people hesitate to ask architects about their services because they fear their inquiry will place them under obligation; however, you are not under any obligation until you sign a contract with the architect.

The fee for an architect who performs the duties mentioned above varies from 6 to 15% of the total cost, depending on the size and complexity of the project. When the architect performs only partial services, the fee is smaller. You can also pay an architect by the hour or negotiate a mutually satisfactory payment.

Payments to the architect are made at regular intervals. The schedule of payments to the architect as recommended by the American Institute of Architects (AIA) is as follows: 1) a retainer, paid at the time the contract is signed; 2) at completion of the design phase; 3) at completion of construction documents; 4) at completion of bidding or negotiation; 5) monthly during the construction phase. This schedule is sometimes modified, depending on the size and complexity of the project.

If the owners decide not to build at any point during their dealings with the architect, they must pay for work done to that point.

The Owner-Architect Agreement

An owner-architect agreement will clear up misunderstandings such as those relating to the architect's function and the limits of architectural responsibilities and services.

The agreement, or contract, does the following:
• Describes the services of the architect;
• States the amount, the time, and the method of paying the architect's fees;
• Sets forth the owner's responsibilities.

You as owner also have some obligations to the architect, and these are explained in the contract.

The owners must complete these tasks:
• Provide the architect with information regarding restrictions, easements, boundaries of the site, sewerage, and utilities;
• Have a survey made of the site showing contours, grades, adjoining properties, and streets;
• Give prompt, careful consideration to all papers submitted by the architect.

The architect's function is not to "draw blueprints," but to perform a service for the owner. All contract documents (drawings, blueprints, and specifications) remain the architect's property. You cannot use them for any other project.

The architect is also the sole judge in case of disagreements between the owners and the contractor. If the owner and the contractor disagree, the architect (if hired to administer the construction contract) will be the impartial interpreter of the requirements of the contract documents. The owner and the contractor report their dissatisfaction to the architect. However, owners should not think that all decisions will be in their favor because they pay the architect.

The architect does not provide constant on-site supervision of the project. Architects typically make periodic site visits to see if work conforms to the contract documents. On larger and more complicated projects, owners may want
an architect at the site every day. This additional service costs more.

**Comprehensive Services**

Some architects offer comprehensive services. This means the architect takes on the contractor’s duties, superintending and coordinating the work of the separate trades. The architect should have previous experience building homes and will expect to be paid more.

The architect who offers this service has the contract documents for the individual trades written so that each trade becomes a contractor. Each provides its own permits, pays any sales tax, carries necessary insurance and workers’ compensation, and complies with all laws, ordinances, and codes.

The architect requests bids from several contractors for each trade. The architect assembles the bids and then, with the owner, selects the contractors. The lowest bidders are usually selected unless time or quality of workmanship become a factor. The owner signs the contracts with the separate contractors—each of whom represents a different trade. The architect takes out the general building permit for the owner, and the owner pays for it. The architect tells the trades when to begin work. The architect is responsible for coordinating the trades and making sure the contract documents are being followed.

As the owner’s representative, the architect prepares certificates that allow the lender or owner to pay the contractor. The architect may distribute the checks and collect waivers of lien. However, when there is a construction loan, the loan agency usually distributes the checks and collects the waivers.

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**WORKING WITH CONTRACTORS**

When contractors assume responsibility for building the project, they furnish all the materials and perform all the work for the project as shown on the drawings and specifications.

- **Carrying out the provisions of the contract documents**;
- **Ordering and paying for the materials**;
- **Getting materials to the site**;
- **Awarding subcontracts to the various trades and scheduling the work of each**;
- **Directing construction**.

**Insurance Coverage & Warranties**

One of the contractor’s most important duties is to purchase insurance. The contractor’s insurance package should include workers’ compensation coverage. In addition, contractors should provide general liability coverage. Liability insurance covers injury or damage by the contractor or anyone employed directly or indirectly by the contractor.

In addition, either the homeowner or contractor should be covered by a “builder’s risk” policy. The policy can be written in either the homeowners’ or contractor’s name, and it will protect the property for the amount of money already advanced to the builder. If the policy is issued to the contractor, the homeowner should be named as co-insured. If a wind storm blows the house down halfway through construction, the builder’s risk policy gives you enough money to rebuild the house to the point at which the loss occurred.

Contractors generally provide a 1-year warranty against defects in workmanship. Manufacturers may also provide guarantees for parts of the house, such as shingles, windows, and siding. Home appliances carry their own warranties. Make sure all product and appliance warranties have been registered with the manufacturers.

**Fees and Payments**

Contracts establish what kind of fee the owners pay and when payments are due.

- **Lump sum**
- **Cost-plus**
- **Maximum total**
In a lump sum contract, the contractor agrees to build the project for a fixed sum, which includes all costs and the contractor's profit. The owner pays this sum, plus any "extras" due to changes or omissions. This arrangement provides the homeowner with the most protection from cost overruns.

In cost-plus contracts, the contractor is paid the actual cost of materials and labor plus a fixed fee (or fixed percentage of costs—usually 10% to 15%—for overhead and profit). This method does not place an upper limit on the cost of the project. Therefore, there is less incentive for the contractor to keep material and labor costs down.

The third fee arrangement is not very common in residential construction, but you might find some contractors willing to give it a try. It's called the maximum total contract. The owners and contractor have to agree upon the maximum cost of the project. This includes the contractor's fees. Any savings in the total cost are divided between the owner and the contractor. This contract form requires very careful accounting.

No matter what kind of contract you and the contractor choose, you'll typically make payments while the house is under construction. Partial payment plans are the most commonly used method of reimbursing a contractor for work. Payments are made monthly, based on the amount of work completed and materials delivered to the site.

A contract that pays on completion is another option. The contractor receives the entire amount upon completion of the project. Few contractors will accept this method if the project lasts longer than a week or two.

With any payment method, owners are entitled to hold back payment on a percentage (usually 10%) of the value of the work until they agree the project has been successfully completed.

CONTRACT DOCUMENTS
All business arrangements relating to the actual construction are between the owner and the contractor, whether or not an architect is engaged to design the project and to follow it through to completion. Many contractors use a standard contract form. Before signing, homeowners should have the contract reviewed by their lawyer.

The contract between the owner and the contractor consists of the contract documents, which usually contain the following items:

- Agreement
- General conditions
- Plans and specifications
- Changes or modifications

An agreement is the first part of a written contract, and outlines the main points of the relationship, such as the cost of the job and payment schedule. The agreement should state all points agreed upon by the owner and the contractor, such as the scope of work; the time of completion; and the amount, method, and time of payment. Because it prevents misunderstandings, an agreement forms the basis for a good working relationship with the contractor.

The general conditions section of the contract follows the "agreement" and lists 1) the responsibilities and obligations of the contractor and the owner to each other; and 2) the duties of the architect to the contractor. The general conditions' section usually includes information about insurance coverage. Read the insurance provisions carefully to be sure the contractor provides workers' compensation, and review your own insurance coverage before signing.

Plans and specifications should accompany every construction contract. The plans consist of all drawings in connection with the work. The specifications are a written list of what is shown on the plans, but they contain important information about the quality of the materials the contractor plans to use.

All changes, modifications, and interpretations to the contract should be made in writing. Called "change orders," these become a legally binding part of the original contract. Until the customer submits a written change order, the contractor is only responsible for building according to the specifications and drawings.

Specifications
The specifications should include a description of all materials, including
brand names, quality markings, and model numbers. Check carefully. Items omitted become “extras”—you pay for them over and above the contract. The specifications also describe the work to be done by listing the work in each major construction category, such as site work, concrete, masonry, metals, carpentry, finishes, furnishings, mechanical, and electrical.

Common practices in certain trades can cause misunderstandings when the owner is not familiar with usual construction practices. For example, the electrical work usually includes the wiring, switches, outlets, and kitchen and bathroom fans, if specified. Owners may end up paying for lighting fixtures separately. Sometimes, contractors will give you a “cash allowance.” If you want fixtures that cost more than the allowance, you pay for the overrun.

Also, hardware specifications may include only rough hardware, such as garage and sliding door hardware, and all nails, bolts, and screws. Finish hardware can be specified or covered by a cash allowance as described above.

Changes and Change Orders

Probably more misunderstandings are caused by changing the original plans and specifications than by any other act. If you or the contractor make changes during construction, or if you add extras, put the instructions in writing before making the change. Have the contractor give you a written agreement on the cost of the change, and whether it adds or subtracts from the original price. You need to make sure you can pay for changes in cash or can include them in the loan. Even changes that seem small can add up. If an architect is involved in the project, the instructions and authorization for the change are issued by the architect in a written “Change Order.”

Liens and Waivers of Lien

A lien gives the contractor, workers, material dealers, and, in some states, architects, the right to file a claim against the owner or the owner’s property for the materials and labor supplied for the project. Lien laws protect subcontractors from contractors or owners who go bankrupt. However, because material suppliers and subcontractors may try to collect money that is due them from you, you should make sure they have received payment from the contractor.

You can make sure the contractor has paid the appropriate bills by obtaining a “waiver of lien” (an affidavit waiving the right of lien). The lien waiver certifies that all bills for labor and material have been paid. Insist that the contractor present evidence that subcontractors and material dealers have been paid each time the contractor asks for payment. To protect yourself against possible liens, obtain a waiver of lien from each subcontractor and supplier, as well from the contractor.

Terminating the Contract

Either the owner or the contractor can halt the project before it is completed. The owner can terminate a contract if the contractor neglects to do the work properly or fails to perform any provision of the contract. The owner must, however, pay the contractor for work done, less damages. Contractors may end a contract if the owners fail to pay them within a certain time after a payment is due or if work is stopped for any length of time by any public authority or by the owner. A clearly written contract protects both parties and spells out the grounds for halting construction.