

The Design Process and Factors Affecting Your Project's Cost

The following design items affect your project's cost. HMSA will work with you to make these necessary decisions in a timely manner, which will allow you more control over your costs:

1. Project Program

The program for your house is a laundry list of everything you need and want your house or business to be – physically and conceptually. This is the starting point of your project.

2. Project Budget

The budget is what you are prepared to spend on your project. Project budget = construction cost + professional fees + other costs. Your budget and your program provide the context within which many decisions are made.

3. Existing Site Conditions

Your building site can affect your project costs in a huge number of ways. The strength of the soil or the slope of the land can affect the size and design of your foundation. In remodels and additions, the condition and configuration of the site and existing building can be a major factors for the cost of the new construction.

4. Project Scope

The scope of your project will be determined by balancing all potentials and limitations from your program, budget and site.

5. Exterior Envelope

In addition to your project's scope, its form and configuration also affect its cost – materially, due to the amount of its envelope [exterior walls.] The configuration of the envelope of your house or business, its foundation, walls, windows and roof, comprises a significant part of your project's budget.

6. Finishes and Materials

Another category presenting a great range of cost options is that of finish materials. Countertops, wall treatments, flooring, fixtures and the building's exterior skin are just a few of the elements that can be supplied in a variety of forms and each with its own cost impact.

7. Change Orders

Change orders are those changes, which are made after construction has commenced. This can be the most challenging time in the process to make changes, but at times it's also the most obvious. Change orders can be either deductive [money to you] or additive [money to project] and are an effective way to keep costs within budget. HMSA will work with you and the contractor to anticipate key decisions prior to construction.

Three Typical Methods for Determining Design Fees:

1. Percentage of Construction Cost

The estimated cost of a project has proven to be a consistent indicator of how much effort is required in its design. The project's cost is a more accurate indicator than just its size. A commercial project will have many more elements (ADA, higher quality materials, special bathroom fixtures and finishes, special fire prevention measures) that make it more expensive than a residential project that may cover a larger area.

2. Fixed Fee

A fixed fee may be established between HMSA and you, and could be determined in a number of ways. HMSA gets paid the agreed-to amount over the course of the project.

3. Hourly with a Maximum Limit

In this option, the estimated construction cost is used as an indicator, as outlined in method 1. This cost is then used as a maximum limit to the fee, and HMSA is paid hourly, not to exceed this maximum limit. This option establishes an upper limit of what you will pay, and provides potential savings to you should the process go more efficiently than anticipated.

Planning for the Total Project Cost:

The following costs should be planned for in a typical residential project:

Construction Cost – The cost of building your project. Will include all labor, materials, equipment and contractor overhead & profit.

Tax on Construction Cost – All construction costs are subject to Washington State sales tax.

Contingency Costs – Unforeseen expenses that may occur during the course of a project. Usually 5-10% of construction is set aside as contingency.

Permit Fees – Agency fees for on-site general construction, plumbing, and electrical work; off-site public utility hookup, access drive, .

Professional Fees – Fees for architectural services, structural engineering, geotechnical, site survey, and other specialty consultants.

Typical Design Process:

If our initial consultation leads us both towards mutual expectations, and upon signing an agreement contract, HMSA will start working with you on the creative process of design. There are variations for each specific project, but the general outline is as follows:

Phase 1 – Programming: Deciding What You Require

The programming meeting is where you discuss with us the requirements of your project. It is also a time for us to check the fit between what you want, what you need, and your budget.

Likely, you will have a sense of what you want from the project, as well as an open mind to new ideas or solutions that we develop. Since pictures can provide a lot of compact information, many of our clients create a scrapbook of pictures of things – homes, details, elements or concepts - that they like, to help us get a sense of what they have in mind.

From your information, we will develop a written record of the project goals and limitations, – the program for your project. During this phase, we will help to gather the following information on the existing site conditions and jurisdictional regulations:

- photographic & dimensional records of the site and existing home if applicable
- zoning and other land use restrictions of the project site
- a search of public records of the parcel, as required for the project
- a site survey (prepared by a licensed surveyor), if necessary
- geotechnical report on underlying soil conditions, bearing capacities, and geo-hazards if necessary

Phase 2 – Schematic Design: Diagrams and Rough Sketches

Using the information gathered in the first phase we will develop 2-3 possible plan solutions for your project. These are intended to show a general layout of spaces and/or the site elements.

After your review of the initial plan options and selection of preferred elements, we will develop a single preferred option of the entire project. Upon approval of the preferred option, we begin our 3-dimensional study - looking at a simple computer and/or physical models of your project and at various perspective points. These models very useful to better understand various issues of design - the building placement on the site, massing of volumes, functional spatial relationships, and others. They are also extremely helpful in conveying the general nature of the building to you.

After working with you to decide on a preferred scheme, we develop a cost estimate for the construction costs. During this phase we continue research building and zoning codes for your site to verify the project's compliance with local regulations. We also

begin early discussions with authorities having jurisdiction to avoid unnecessary backtracking.

Phase 3 – Design Development: Refining the Schematic Design

Once we have established a schematic layout and appearance for your project, it is time to develop its various elements in greater detail. The following is typical for project development during this phase:

- Site plan - with civil and landscape design starting
- Floor plans, including electrical / lighting plans
- Exterior and interior elevations of particular rooms or cabinetry
- Selection of colors and material finishes
- Cross-sectional views
- Structural design starting
- Initial selection of colors, finishes and fixtures – interior and exterior

Once our information is prepared, we will meet with you for review of the design. We will continue our discussion of design, functional and technical elements, and have expanded the detail of our refined cost estimate.

A goal of this phase is to verify you remain comfortable with the refined design by presenting a clear description through text and images of all the choices you have made. Upon your approval of final design development, HMSA will proceed to the development construction documents – ‘blueprints’ and technical specifications.

Phase 4 – Construction Documents

After you have reviewed and approved Design Development drawings, we will prepare construction documents to be approved by the building department and for use by the contractor. These drawings and specifications will become part of the construction contract.

As part of this process, we will coordinate our drawings with all other consultants - surveyor, structural, civil, mechanical, electrical engineer, and/or landscape architect.

During this CD phase, we will also develop technical specifications, which are a written description of the quality of construction materials, a listing of equipment, and a general description of special requirements the contractor must conduct for the work. For example, the builder might be required to stockpile topsoil for future use in the landscaping.

Phase 5 – Bidding and Negotiation: Hiring your Builder

Your builder is another key team member to the success of your project. You may think to have a number of general contractors bid on your job to give you one extra level of

confidence that you are being quoted a fair price. There are a variety of ways to choose one and HMSA can assist you in your search. We will discuss with you what type of contractor would be most appropriate for your specific project.

You may already have someone you want to work with and might choose to negotiate directly with one general contractor from the start - having him or her on board early on in the design process, almost as an extra consultant to verify costing assumptions. This gives the contractor more time to become familiar with the specifics of your project before any construction has begun. We generally prefer to work with such a pre-qualified builder to eliminate low-bidders and maintain a high level of quality. HMSA can provide you with a list of quality builders and help to interview them for pre-qualification.

Phase 6 – Construction Phase and Project Close-out

During the project's construction, HMSA principals are available to provide construction administration services. These typically include the following:

- Regular construction site meetings
- Review of monthly requests for payment from contractor
- Review and document construction progress
- Interpretation of construction documents
- Review of change orders
- Compile all required product information, equipment manuals and project close-out documents

At the close of construction, we will assist in a final walk through of the project to confirm that all the work is completed in accordance with the documents and to your satisfaction.

Phase 7 – Post-occupancy and Warranty Review

After the project's construction, usually prior to a standard one-year post-construction period, HMSA principals are available to provide warranty-review services. These typically include:

- Review of construction documents to create an outline of warranty requirements
- Send the builder notification of warranty requirements
- Arrange and schedule warranty walk-through with owner and builder
- Develop documentation of required warranty deficiencies and schedule repairs
- Review and document warranty work progress
- Compile all required warranty close-out documents