Phases of design service

- Schematic Design
- Design Development
- Construction Documents
- Bidding and/or Negotiation
- Construction Observation

Schematic Design

Schematic design (SD) phase is when an architect consults with the owner to determine project goals and requirements. Often, this determines the program for the project.

The program is the term used to define the required functions of the project. It should include estimated square footage of each usage type and any other elements that achieve the project goals. In our opinion, this is perhaps the most important part of the schematic design phase. Thoughtful, critical consideration of each of the rooms' requirements and adjacencies will yield a more successful project. Sometimes programming is part of a predesign phase at the very beginning of the project.

During schematic design, an architect commonly develops study drawings, documents, or other media that illustrate the concepts of the design and include spatial relationships, scale, and form for the owner to review. Schematic design also is the research phase of the project, when zoning requirements or jurisdictional restrictions are discovered and addressed.

This phase produces a final schematic design, to which the owner agrees after consultation and discussions with the architect. Costs are estimated based on overall project volume. The design then moves forward to the design development phase.

Deliverables: Schematic design often produces a site plan, floor plan(s), sections, an elevation, and other illustrative materials; computer images, renderings, or models as deemed necessary by the architect to convey design intention. Typically, the

drawings include overall dimensions, and an order of magnitude construction cost is estimated.

Design Development

Design development (DD) services use the initial design documents from the schematic phase and take them one step further. This phase lays out mechanical, electrical, plumbing, structural, and architectural details. So such consultants as required are engaged at this time.

Typically referred to as DD, this phase results in drawings that often specify design elements such as finish material, fixture types, and location of windows and doors. Deliverables: Design development often produces floor plans, sections, and elevations with full dimensions. These drawings typically include door and window details and outline material specifications.

Construction Documents

The next phase is construction documents (CDs). Once the owner and architect are satisfied with the documents produced during DD, the architect moves forward and produces drawings with greater detail. These drawings typically include specifications for construction details and materials.

Once CDs are satisfactorily produced, the architect sends them to contractors for pricing or bidding, if part of the contract. The level of detail in CDs may vary depending on the complexity of the project or the owner's preference.

Deliverables: The construction document phase produces a set of drawings that include all pertinent information required for the contractor to price and build the project.

Bidding or Negotiation

The first step of this phase is preparation of the bid documents to go out to potential contractors for pricing. If you decide to have the job bid, you want to make

sure that bidding contractors submit the bids in the same format so that you can actually compare them apples to apples.

After bid sets are distributed, both the owner and architect wait for bids to come in. The owner, with the help of the architect, evaluates the bids and selects a winning bid. Any negotiation with the bidder for price or project scope, if necessary, should be done before the contract for construction is signed.

The final step is to award the contract to the selected bidder with a formal letter of intent to allow construction to begin.

Deliverables: The final deliverable is a construction contract. Once this document is signed, project construction can begin.

Two common building contracts are **fixed price or lump sum** and **cost plus**.

A **fixed price or lump sum** is where the contractor delivers a single number for which he is expected to deliver the job. Given the unusual circumstances, some general contractors may have an inflation clause in their proposal which protects them from a rise in material costs or labor. Any scope of work changes will result in a "change order" which will affect the lump sum.

In a **cost plus** model, the owner and builder agree on a fee for the contractor (which is often a percentage of a mutually agreed budget—this will not change even if the cost of the job increases without a change in scope of work). The contractor then builds with an open book of costs, bidding subcontractors, and engaging the owner in cost/value decisions.

Contract Administration(CA) or Construction Observation (CO)

The architect's core responsibility during this phase is to help the contractor to build the project as specified in the CDs as approved by the owner. Questions may arise on site that require the architect to develop architectural sketches: drawings issued after construction documents have been released that offer additional clarification to

finish the project properly. Different situations may require the architect to issue a Change in Services to complete the project.

SOFT COSTS

Apart from hard costs, there are soft costs that should be factored into the budget. Below is a list of the usually required and some optional.

Required:

- Architect: (10%-20% of cost of construction)
- Structural Engineer: $5,000-$20,000 depending on complexity of project
- Civil Engineer: some may not need. This will also depends what the city does about their Low-impact development (L.I.D.) requirements for reconstruction.
- Survey: $3,000-$16,000 Depending on size and complexity of site
- Geotechnical (Soils report): $5,000-$10,000
- Title 24 energy compliance consultant: $2,500-$3,500
- Plan check and permit fees. (This process may be radically altered to address volume of permits coming into LADBS)
  - There is a fee calculator on LADBS website: https://dbs.lacity.gov/services/plan-review-permitting.
  - I ran 1,000,000 building valuation and plan check was ±$6,000
  - I ran 1,000,000 building valuation for permit and it was ±$5,500
- There is a landscape requirement called Water Use Classification of Landscape Species (WUCOLS). I'm not sure how LADBS will handle that for these rebuilds. They may now also be even more prescriptive about allowable plants in high severity fire zones. If it is required, your architect may be able to handle it, or you can hire a landscape architect.

Optional:

- Permit expediter (highly recommended—LADBS can be a very difficult bureaucracy the navigate even in the best of times)
- Landscape Designer
- A/V consultant (many of these consultants can also manage security)
- Lighting designer
- Interior designer

Apart from the traditional owner, architect, and builder model, there are also Design Build companies that are usually general contractors who offer design services. Design Build firms have different fee structures. Sometimes design fees and soft costs are folded into the entire bid.

There are also development companies that deliver recycled designs but allow owner to participate in choosing some fixtures and finishes (e.g. Structure Homes and Thomas James (which is owned by private equity company Oaktree Capital) etc.

If your house was not that old and you would like to rebuild it just as it was, there may be the possibility that you could rebuild with the plans that we last filed and approved by the building department with only minor modifications to comply with certain changes in the building and energy code. Steven Somers may be able to speak to the likelihood of this option.