

Architectural Design Process Custom Residential

A. Schematic Design Phase

- **Pre-Design Meeting – Site Analysis**
 - *Site Survey*
- ***Conceptual Design & Project Scope***
- ***Design Program Guideline***
- ***Project Team Formation***
- ***Schematic Design Documents***
- ***Preliminary Cost/ Budget Analysis***

B. Design Development Phase

- **Design Development**
- **Consultant Consultation(s)**
 - *Interior Designer*
 - *Landscape Architect*
 - *Structural/ Mechanical Engineer*
 - *Soils Test*
- ***Design Development Documents***

C. Construction Document Phase

- **Construction Documents**
- ***Specifications***
- ***Building Permit***

D. Bidding Phase

- **Bid Process**
- **Bid Review Analysis**
- ***Contract Negotiation***

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- **Owner(s) Representation**
- **Site Visitation/ Inspections**
- ***Draw Request Review – Construction Costs***
- ***Review Change Orders***

Owners' Responsibilities

- **Design Program Questionnaire**
- **Owners' Consultant(s)**
 - *Surveyor*
 - *Soils Engineer*
 - *Structural/ Mechanical Engineer*
 - *Interior Designer/ Landscape Architect*

A. Schematic Design Phase

1. Architect will meet with the Owner(s) to discuss architectural intentions and general design goals. A visit to the site, together with a tour of comparable projects and a review of the Architect's design program questionnaire will familiarize the Architect with the Owners' goals: design specifics, parameters, goals, and project budget.
2. Assist Owner(s) in obtaining additional project data as necessary:
 - a. Site Topography Survey at 1"=20'-0" (existing site topography as required by the Architect). - See Site Survey Requirements

Pre-Design Meeting – Site Analysis

3. Visit building site – Project Design Team: Architect, Interior Designer, Landscape Architect, Owner(s), and General Contractor - *if selected*.
 - a. Document site relationship to surrounding area with regard to design program, zoning regulations, existing structures or landscape features (if any), view corridors, and drives access.
 - b. Outline and note site characteristics:
 - Site drainage.
 - Sun and wind conditions.
 - Soils condition.
 - View corridors (city lights, mountains, etc.) and conflicts with adjacent existing structures and/or future neighbors.
 - Mature trees, natural vegetation and topography along with streetscape and site landscaping.
 - Vehicular and pedestrian circulation.
 - c. Take digital photographs – documenting site characteristics.
 - d. Review completed Architectural Program Design Guidelines with the Owner(s) as needed.
4. Determine agencies having jurisdiction over the project:
 - **Define planning/building restrictions:** Architectural Review Committee's (ARC) Design Guidelines vs. IRC (*International Residential Codes*), County Building and Zoning Codes.

Conceptual Design & Project Scope

5. Conceptual Design – site analysis:
 - a. Explore and evaluate design, budget and cost efficiency options for the site.
 - b. Define space requirements for the various components of the project based on the design questionnaire, the site data, and dialogue with the Owner(s).
 - c. Develop a conceptual program plan – bubble diagram for organizing the desired adjacency of spaces combined with the site analysis and desired view corridors.

Schematic Design Documents

6. Prepare Schematic Design Sketch Drawings, which will expand on the Conceptual Design (Bubble Diagram). Drawings (sketches) will include (11" x 17" packet):
 - Site Analysis Diagram and Site Plan at 1"=20' scale.
 - Architectural Site Plan with First Floor Plan at 1/8"=1'-0" scale.
 - Schematic floor plans at 1/8"=1'-0" scale.
 - 3D Model Massing Studies.
 - Schematic exterior elevations at 1/8"=1'-0" scale.

Preliminary Cost/ Budget Analysis

7. The Architect will prepare a preliminary square footage cost estimate/ "guestimate" based on the schematic design drawings and comparable past projects. The Architect, Interior Designer, and Contractor will review the preliminary budget, contingencies, allowances, finish level expectations, and project scope with the Owner(s).
8. Present, review, and obtain Owners' and Architectural Review Committee's signatures and approval to proceed with the Design Development Phase.

B. Design Development Phase

Design Development Documents

1. Prepare Design Development CAD Drawings sufficient to describe the size and the character of the Project as to Architectural and general Structural and Mechanical systems, Building Materials, etc. Drawings will include:
 - Architectural Site Plan with Roof plan (driveway, terraces/ walks, architectural features, finish contours, fencing) - 1"=20'-0" scale.
 - Floor Plans - 1/4"=1'-0" scale.
 - Roof Plan - 1/4"=1'-0" scale.
 - Exterior Elevations - 1/4"=1'-0" scale.
 - Building Sections - 3/8"=1'-0" scale.
 - Preliminary Structural Layout Plan - 1/4"=1'-0" scale.
 - Schematic Perspective Renderings and/or Computer VR (*Virtual Reality Tour*) Model showing building/site relationship as required by Architectural Review Committee (ARC).
 - Exterior materials sample board as required.
 - **The Architect will prepare documents** required for the Architectural Review Committee's - Preliminary Design Review, if necessary. (*For example: Denver's Country Club Design Review Committee*).

Consultant Consultation(s)

2. Introduce and recommend to Owners' contributing outside consultant(s) necessary to the project. Owner(s) to interview, select and enter into contract(s) directly with the selected consultant(s). (Ekman Design Studio's Interior Architecture Services are available as an additionally billed service.) - See Interior Fixed Finishes Responsibility document.
 - Work with consultant(s) - *Interior Designer, Kitchen/ Bath Cabinet Designer, etc.* on refining interior requirements – e.g. *trim work, built-ins/ cabinets, media areas, sound equipment, etc.* - See *Interior Fixed Finishes Responsibility document*.
 - Work with consultant(s) - *Landscape Architect* on refining exterior requirements for site details – e.g. *driveway, pool/ tennis court, terraces, landscaping, drainage, etc.*
 - Work with and select necessary consultant(s) – *Structural and Mechanical Engineer(s)* on identifying preliminary structural and mechanical engineering systems, costs and sizes.
 - Soils test and Geotechnical Analysis - *number of borings as required by the Soils Engineer @ Desired Building Footprint Location.*
3. Present, review, and obtain Owners' and Architectural Review Committee's signatures and approval to proceed with Construction Document Phase.

C. Construction Document Phase

Construction Documents

1. Prepare Construction Drawings sufficient to accurately bid and construct the Project - *to the size and character of the architectural and structural systems, building materials, etc.*
 - *Site Plan - 1"=20'-0"* (include site details/ structures and grading/ topography plan).
 - *Foundation/ Basement Plan - 1/4"=1'-0"* scale.
 - *Floor Plans - (First and Second) - 1/4"=1'-0"* scale.
 - *Roof Plan - 1/4"=1'-0"* scale.
 - *Exterior Elevations - 1/4"=1'-0"* scale.
 - *Building Sections - 1/4"=1'-0"* scale (include building details, wall, and stair sections).
 - *Interior Elevations - 3/8"=1'-0"* scale (all major rooms).
 - *Interior & Exterior Details - of windows, doors, stair/railings, interior trim, fireplace, flashing, masonry, and specialties, etc. (scale as req'd).*
 - *Electrical Plans – Details and Fixture Legend (all floors).*
 - *Reflected Ceiling plans - Details and Trim Legend (all floors).*
 - *Finish Floor Plans – Materials, Direction, and Legend (all floors).*
 - *Structural Plans and Details. (Structural Engineer).*
 - *Mechanical Layout Drawings. (Mechanical Engineer, if required.)*

Specifications

2. Specifications:
 - Bidding information and forms.
 - Conditions of the contract.
 - Owner/Contractor Agreement if required by Owner(s).
 - Material(s) and Finishes Specifications.
 - Allowance and Alternative options sheet.

3. Final submittal and review to obtain Owners' and Architectural Review Committee's signatures and approval to proceed with Construction Phase.

Building Permit

4. Assist Owner(s) and General Contractor to file required documents for the approval of appropriate governmental authorities - *Building Permit*.

D. Bidding Phase

Bid Process

1. Assist Owner(s) and Contractor in obtaining bids or negotiated proposals.
2. Consult with Contractors and/or Sub-contractors and Vendors, clarifying any questions that arise during the bid process.

Bid Review/ Analysis: Contract Negotiation

3. Review with Owner(s) construction costs, bids, and alternatives options selection. Negotiate contract with General Contractor on Owners' behalf - *if required by Owner(s)*.

E. Contract Administration Phase

Owner Representation

1. Act as Owners' Representative during construction.

Site Visitation/ Inspection(s)

2. Visit the construction site to become generally familiar with the progress and the quality of work and to keep the Owner(s) informed accordingly. The Architect shall not be responsible for construction means, methods, techniques, sequences, for procedures, or for the safety precautions and programs in connection with the work, for the acts or omissions of the Contractor, Sub-Contractors, or any other persons performing any of the work or for the failure of any of them to carry out the work in accordance with the contract documents.
3. Conduct site inspections to determine dates of substantial completion and final completion – *only if required by Owner(s)*.

Draw Request Review – Construction Costs

4. Review the amounts owed or draw requests to the Contractor and issue certificates for payments – *only if required by Owner(s)*.
5. Interpret the requirements and intent of the contract documents for the Contractor and Sub-contractors.

6. Review and approve Contractor's submittals:
 - Product Data.
 - Shop Drawings.
 - Material and Color samples.

Change Order Review

7. Review Change Orders - *if required by Owner(s)*.

Owners' Responsibilities

Architectural Design Program

1. The Owner(s) shall provide full information, including a completed design program questionnaire, examples of visual ideas, which shall set forth the Owners' design objectives, constraints, criteria and project scope and budget.

Owners' Consultant(s)

1. The Owner(s) shall provide a certified land survey of the building site at a scale of 1"=20'-0" to include legal description, all services, existing trees, notable land features, and topographic contours at 1'-2' intervals (as determined by the Architect). The Owner shall be responsible for expenses pertaining to preliminary staking of the project for Architectural Review Committee review and approval - confirming that the site plan is correct prior to construction documents phase and final design review. These services shall be at the Owner's expense and the Architect shall be allowed to rely upon their accuracy and completeness.
2. The Owner(s) shall directly obtain the services of a Soils Engineer to determine nature and structural capacity of the soil. These services shall be at the Owners' expense and the Architect shall be allowed to rely upon their accuracy and completeness.
3. The Owner(s) shall directly obtain the services of a Structural Engineer and Mechanical Engineer - as required to determine the structural and mechanical engineering systems and sizes. These services shall be at the Owners' expense and the Architect shall be allowed to rely upon their accuracy and completeness.
4. The Owner(s) shall obtain the services of a Interior Designer - *if required*, to determine the interior fixture selections and finishes – e.g. *floor and wall finishes, cabinet(s), plumbing fixtures, door and bath hardware, etc.* Ekman Design Studio has Interior Architecture Services available to the client as an additional service. These services shall be at the Owners' expense. If an outside consultant is selected, the Architect shall be allowed to rely upon their accuracy and completeness. If the Architect will need to assist the Interior Designer with drafting needs – the Owner(s) will be billed an hourly drafting fee as an additional scope of service. - See Interior Fixed Finishes document.
5. The Owner(s) shall obtain the services of a Landscape Architect - *if required*, to determine the exterior landscape features – *landscape materials, lighting, irrigation, etc.* These services shall be at the Owners' expense and the Architect shall be allowed to rely upon their accuracy and completeness.