

## Architectural Design Process Historic Preservation

### **A. Schematic Design Phase**

- **Pre-Design Meeting – Site/ Structure Analysis**
  - *Site Survey*
  - *Existing Conditions Survey*
  - *As-Built Document(s)*
- ***Building History & Existing Conditions Documentation***
- ***Conceptual Design & Project Scope***
- ***Schematic Design Documents***
- ***Preliminary Cost/ Budget Analysis***

### **B. Design Development Phase**

- **Design Development Documents**
- **Consultant Consultation(s)**
  - *Structural/ Mechanical Engineer*
  - *Soils Engineers*
  - *Materials Testing*
  - *Landscape Architect*

### **C. Construction Document Phase**

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

### **D. Bidding Phase**

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

### **E. Construction Administration Phase**

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

### **Owners' Responsibilities**

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

## 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 existing residence and a review of the Architect's design program questionnaire will familiarize the Architect with the Owners' goals: design specifics, parameters, and project budget. Determine the scope of and the approach to the project – *restoration, rehabilitation and/ or reconstruction.*
2. Assist Owner(s) in obtaining additional project data as necessary:
  - a. Site Improvement/ Pin Survey at 1"=20'-0" (if any additions or site work is to be included in scope of work, then a Site Topography Survey is needed. - See Site Survey Requirements).
  - b. Determine if drawings/ plans or documents exist describing the existing residence.

## **Pre-Design Meeting – Site Analysis**

3. Visit building site – Project Design Team: Owner(s), Architect, Landscape Architect, 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, and existing site constraints.
  - b. Outline and note site characteristics:
    - Site drainage.
    - Sun and wind conditions.
    - Soils condition.
    - Existing structure – *identify architectural style(s) and details.*
    - Existing structure – *evaluate construction condition and characteristics.*
    - Existing residence and relationship to current zoning parameters.
    - View corridors (*city lights, mountains, etc.*) and conflicts with adjacent existing structures and/or future neighbors.
    - Mature trees and topography along with streetscape and site landscaping.
    - Vehicular and pedestrian circulation.
  - c. **Existing Conditions Survey** - Sketch, photograph, and field measure existing structure's plans, elevations, materials, construction assemblies, conditions and site characteristics. Both non-invasive and invasive investigational procedures may be required.
  - d. **Develop As-Built drawings/ documents and 3-D computer model.** Drawings will include:
    - Site Plan at 1"=20' scale.
    - Existing Floor Plan(s) at 1/8"=1'-0" scale.
    - 3D "As Built" Computer Rendering(s) – *significant streetscape views for landmarks.*
  - e. Take digital photographs – documenting site and existing structure characteristics ("*before*" photos).
  - f. Review Architectural Design Program with the Owner(s), as needed.

4. Determine agencies having jurisdiction over the project and review with Owner(s):
  - **Define planning/building restrictions:** Historic/ Landmark Preservation Commission (LPC) Guidelines vs Architectural Review Committee's (ARC) Design Guidelines vs. International Residential Codes (IRC), County Building and Zoning Codes.

## Building History & Existing Conditions Documentation

5. **Research Building History:** (*historic events, personage and age*) and architectural contribution (*distinguished architectural style, recognized Architect or Builder*) to it's surrounding historic neighborhood/ district.
6. **Existing Conditions Documentation:** (*Reports prepared for structures of high historical significance or technical merit*).
  - Historic Structure Report (HSA) – a comprehensive format typically used for Colorado State Historic Fund (SHF) Projects or other highly significant Landmark projects.
  - Existing Building Analysis (EBA) - a more condensed format that focuses on restoration, repair and/or replacement of specific building elements.

## Conceptual Design & Project Scope

7. Conceptual Design - site analysis:
  - Review As-Built drawings - explore and evaluate design, budget and cost efficiency options for the project.
  - Define space requirements for the various components of the project based on the design program questionnaire, the site data, and dialogue with the Owner(s).
  - Develop a conceptual plan - *bubble diagram* for organizing the desired adjacency of spaces combined with the site and existing structure analysis.

## Schematic Design Documents

8. Prepare Schematic Design Drawings, which will expand on the Conceptual Design (Bubble Diagram). Drawings (sketches) will include (11" x 17" packet):
  - Site Plan at 1"=20' scale.
  - Schematic Floor Plans with site characteristics at 1/8"=1'-0" scale.
  - 3D Model Massing Studies s necessary.
  - Schematic Exterior Elevations at 1/8"=1'-0" scale as necessary.
9. Present, review, and obtain Owners', Architectural Review Committee's and Landmark Commission's signatures and preliminary approval as required to proceed with the Design Development Phase.

## Preliminary Cost/ Budget Analysis

10. 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).

## B. Design Development Phase

### Design Development Documents

- I. 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 Rendering(s) and/or Computer VR (*Virtual Reality Tour*) Model showing building/site relationship and comparisons to “before” renderings – *significant streetscape landmark views*.
  - Exterior materials sample board as required.
  - **The Architect will prepare documents** required for the Architectural Review Committee’s Design Development Review, if necessary. (*For example Denver’s Country Club Design Review Committee*).
  - **The Architect will prepare documents** required for the Landmark Review Committee’s - Design Review, if necessary.
  - Present, review, and obtain Owners’ and Historic/ Landmark Preservation Commission (LPC) or Architectural Review Committee’s signatures and approval to proceed with Construction Document Phase, as required.

### Consultant Consultation(s)

2. Introduce and recommend to Owner(s) 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.)
  - Work with and select necessary consultant(s) – *Structural and Mechanical Engineer(s)* on identifying preliminary structural and mechanical engineering systems, costs and sizes.
  - Work with and select necessary consultant(s) – *Materials Testing Engineer(s)* on identification & condition assessment of historic materials and assemblies.
  - Review with Owner(s) preliminary structural and mechanical engineering to identify systems and sizes.
  - Soils test and Geotechnical Analysis (*access permitting - otherwise an open hole inspection at time of construction as required by the Soils Engineer*) as necessary.
  - Work with consultant(s) - *Landscape Architect* on refining exterior requirements for site details as necessary – e.g. *driveway, terraces, landscaping, drainage, etc.*
  - 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.*

## **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.* (See EDS Drawing Standards).
  - *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).
  - *Details - of windows, doors, stair/railings, interior trim, fireplace, flashing, masonry, and specialties, etc. (scale as req'd.).*
  - *Demolition Plans - Details and Instructions (all floors).*
  - *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).*
  - *Interior finish specifications (per Interior Finish Scope document).*

### **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. Prepare Preliminary Tax Credit Application for projects in Colorado.
4. Prepare Final Tax Credit Application within 60 days of project completion for projects in Colorado.

### **Building Permit**

5. 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(s) 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 – *if required by Owner(s)*.
5. Interpret the requirements and intent of the contract documents for the Contractor, Sub-contractors, and Vendors.
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 per estimated scope of work, which shall set forth the Owners' design objectives, constraints, criteria and project scope and budget.

### Owners' Consultant(s)

2. The Owner(s) shall provide a legal description and a certified land survey of the building site at a scale of 1"=20'-0" to include 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 Owners' expense and the Architect shall be allowed to rely upon their accuracy and completeness.
3. The Owner(s) shall 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 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.
5. The Owner(s) shall obtain the services of a Materials Lab to determine composition and condition of the materials in question. These services shall be at the Owners' expense and the Architect shall be allowed to rely upon their accuracy and completeness.
6. 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.
7. 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 scope of 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.