

## **DESIGN PROCESS**

### **A GUIDE TO WORKING WITH JOSH PAYNE ARCHITECT, PLLC**

Below is an outline of the steps we will be taking together as we design your home. This process is meant to be fun, engaging, and democratic. It will involve sketches, drawings, computer models and lots of ideas (both good and bad). The best outcomes are the result of following each of the steps below to completion.

Good design is the synthesis of many ideas into a thoughtful whole, and while the steps listed below represent a linear path, the way we arrive at the final design isn't always linear. It's an iterative process, which leads to a product; it's not a known product from the beginning. The product is the result of following the design process to its logical endpoint. This, I believe, is what makes custom design so exciting and memorable – we create it together based on your specific situation and needs. At the end of the process, you'll have a thoughtfully designed home and the shared experience of designing it.

Architects, for the most part, all use a similar series of steps to arrive at a finished home. There are five general phases:

- Phase 1    Predesign** – site analysis, programming, existing conditions, budgeting, code review.
- Phase 2    Schematic Design** – basic design concept generation
- Phase 3    Design Development** – refinement of the selected design concept from phase 2
- Phase 4    Construction Documents** - detailed drawings, schedules and specs
- Phase 5    Construction Administration** – support, site meetings and collaboration with builder

The phases are sequential, and they build on the work completed and agreed to in each preceding phase. We start with the general and refine the design to the very specific. There's a lot of decisions along the way and this gradation organizes those decisions into manageable portions.

Here's what to expect with each phase:

## **PHASE 1: PREDESIGN**

This is essentially an information gathering and processing phase – what we do before we start design. We collect all of the information about the project to use in schematic design. This includes information about the site, any existing structure(s), codes, deed restrictions, septic information, site utilities, access, budget, and schedule.

### **SITE**

The property, or site, is a strong generator of ideas and building forms, so we begin all new projects with an analysis of your site. We look at the local conditions - climate, wind patterns, solar angles, topography, and other significant features - particular to your property. We overlay any local zoning restrictions (setbacks, etc.) on this plan and create a site diagram. This diagram usually begins to suggest candidate building sites and opportunities, which together, we'll begin exploring in the next step.

### **PROGRAMMING AND BUDGET ANALYSIS**

The program is an architect's way of saying, "list of rooms and uses". What will we be *programming* into your home? Chances are this has been percolating in your head for some time but we need to get it on paper and make it real.

We'll ask you to make an exhaustive list of the spaces you'd like in your home to include. Treat it as a wish list of sorts (for now). For the major spaces, it's also useful to describe the character of those spaces (wood ceilings, cozy, formal, low light, etc.) If you have particular needs regarding sizes or adjacencies of spaces, it would be great to know that up front. Otherwise, we'll develop and assign appropriately scaled spaces to your list of rooms as a starting point.

We'll apply square footage estimates to this list of spaces and assign estimated dollar values to the total project square footage. Together we'll compare the estimated cost of the home with your budget. If the two don't align we'll revisit the size and number of spaces for as long as it takes to reconcile the two. It's much easier to align your budget with the size of the home before beginning the design process. The schematic design will follow, fixing ideas and expectations into an image of a home. Once this happens it's much more difficult to give things up.

### **CLIENT QUESTIONNAIRE**

I'll send you a detailed list of questions to help us find out more about you, your needs for the project, and as part of the search for an architectural idea to build the project on. This will get us all thinking about the specifics of design from the outset.

### **EXISTING CONDITIONS SURVEY (As Necessary)**

These drawings are required for all renovation/addition projects and vary with the size and complexity of the existing building.

### **CODE ANALYSIS**

It's critical to understand the restrictions governing the subject property or structure before beginning schematic design. This review will tell us what's possible and what isn't. We'll review the zoning, by-laws, and covenants which impact the property, review environmental issues, flood zones, and assess the overall permitting process. We will seek preliminary

Planning Board, Building Department and engineering review as required.

**INFORMATION REQUIRED:**

- Site Survey (digital) - showing property boundaries, roads, test pit sites, utilities, topography, known significant site features, and any existing structures.
- Existing Structure Floor plans (digital) as applicable. If you don't have these, we will conduct an existing conditions survey for you, if required.
- Soils test/septic design (assuming no public sewer access). We can suggest local designers that will work with us to find a suitable site (for both the building and the septic).
- List of any known restrictions (wetlands, permitting constraints, easements, etc.)
- Client Questionnaire – this is a document we'll provide for you to fill out. It's a detailed list of questions designed to tell me more about you, your project and to define the project goals in a very granular way.

This phase is complete when you've agreed to the program and budget we've developed together. Then we can proceed to the next phase.

## PHASE 2: SCHEMATIC DESIGN

This is where the rough shape of the building and the ideas are formed. We'll generate multiple design options for you to consider - two at a minimum (sometimes more) - using all of the information gathered in the previous step.

We generally present the initial schematic ideas in loose sketch form along with site plan diagrams and digital models. These are not final ideas or fixed plans; they're meant to be conceptual and to incite new ideas and feedback from you.

We'll meet and discuss the designs with the goal of narrowing the field to one preferred design concept; something we can move forward with. Often this design will borrow features from other schemes and become a hybridized solution. The phase concludes with your selection of a scheme to further develop.

At the end of this phase we'll usually have the following:

- Schematic Site Plan
- Schematic Floor Plans
- Sketch Elevations / 3D Model
- Preliminary Cost Estimate

## PHASE 3: DESIGN DEVELOPMENT

Taking the schematic plan developed in the previous phase, we begin to create the drawings digitally. We locate it precisely on your site and think about how it will relate to the existing contour and consider how that will shape the building. We make the building real by drawing the floor plan - the walls, windows, doors, and stairs. We define the exact sizes and relationships of the rooms, the overall volume of the building and generate the initial set of exterior elevations. We also begin thinking about materials, inside and out. Eventually we'll know what every finish in every room is, but here we'll conceptualize the framework for the material palette. The buildings systems will start being developed in this phase as well - structural, mechanical, heating, lighting, and specialty controls.

We'll usually meet to discuss the evolution of the design several times, each time refining the level of detail and decision.

### CONSULTANTS

This phase initiates our coordination with the various consultants that will bring their expertise to bear on the project. Because the work we do is very specific and it demands the highest quality we almost always use structural engineers. They ensure that our homes perform to our joint high level of expectation.

Other consultants such as landscape, lighting or mechanical professionals can be brought in as necessary at this time. Our design work extends to all parts of the interior from material selection, fixture selection, hardware, to all of the finishes and appliances. We find this produces the most cohesive design overall. Our design work does not, however, include interior decoration services (such as the selection of furnishings).

At phase completion you'll have a set of drawings for what looks like a house, but not quite enough to build from:

- Site / Grading Plan
- Floor Plans 1/4"
- Exterior Elevations 1/4"
- Sections
- Interior Elevations
- Outline Specification
- Structural Concept
- Lighting Concept
- Mechanical Systems Concept

## PHASE 4: CONSTRUCTION DOCUMENTS

This phase fixes all of the information about the house into a detailed set of drawings and specifications that will be used by the Contractor for pricing and construction. Think of it as an instruction manual. For a typical project, we generate the following drawings:

- Site Plan
- 3-D Renderings
- Floor Plan(s)
- Finish Plans
- Reflected Ceiling Plans
- Exterior Elevations
- Building Sections/Wall Sections
- Door and Window Details
- Interior Elevations
- Building Envelope Construction Details (interior/exterior)
- Electrical / Lighting plans
- Schedules (Door/Window/Hardware/Plumbing/Lighting/Finish/Appliance, etc.)
- Res-Check (energy code compliance)

We'll provide the construction documents to your General Contractor to submit for permitting with your local code enforcement officer. The local permitting process in the Hudson Valley is usually straightforward and simple. Complex sites and sites within historic or scenic overlay districts may require an earlier start on the permitting process; however, this will be determined in the Predesign phase.

The construction documents phase will require less input from you as most of the decisions will have already been made. If there are outstanding finish selections or cabinetry design decisions, we'll meet to confirm those.

## **PHASE 5: CONSTRUCTION ADMINISTRATION**

After the contract is awarded to a General Contractor and construction begins, we act as your agent on-site, monitor progress, review applications for payment, and ensure conformance with the contract documents. We don't tell the contractor how to do their work; we just make sure he's doing the things he's contractually promised to do. This is a crucial part of the process. Not only does it ensure that all of the hard work we put in designing your vision is executed properly and according to the drawings we crafted, but I also find that it holds the Contractor to a higher standard of quality.

Invariably, there are going to be some things that we're just not able to draw or anticipate during the Construction Documents phase. Involving us in the Construction Observation phase allows the project design vision to be integrated into the details of the home seamlessly. Architects and Contractors think very differently – which is good – but not every Contractor's decision balances function and aesthetics.

### **WEEKLY MEETINGS**

We visit the site weekly to meet with the Contractor and Subcontractors to answer any questions and review progress and conformance with the Contract Documents.

### **PAYMENT APPLICATIONS, CHANGE ORDERS, SUPPLEMENTAL INFORMATION**

We review and make recommendations regarding the Contractor's payment requisitions and review any change order requests. For work that requires clarification or alteration, we'll issue 'sketches' to facilitate the Contractor's work.

This phase ends with the completed project, ready to move in!

## FEES

I typically structure our fees as a fixed fee based on a percentage of *estimated* building costs. Estimated building costs include the home costs (from foundation to roof) and any hardscaping design that requires our involvement. It does not include costs for things like property acquisition, site preparation, septic, well, final grading, landscaping etc...

While there are several ways to structure Architectural design fees, I have found this method to be most effective for my practice. With this method, our fee does not fluctuate with actual building costs, nor is it directly tied to costs of specific products or fixtures. This method establishes a high level of trust between the Client and Architect as there is no incentive to drive up construction costs.

I'll work with you early on to fine tune the list of desired spaces and their sizes and develop an initial *estimated* building cost. This will focus your decision making process and help to align the budget with the size of the building. By going through this process, I will be able to establish an overall fee for the project, which is typically 12% of the *estimated* building cost. I do not warranty, guarantee or certify the construction cost for the project or any part of the project. I do, however, collaborate with Contractors who have an intimate knowledge of the (ever-changing) actual cost of construction.

It's extremely important that your budget for your home aligns with both the square footage desired and the estimated cost per square foot to build. For mid-high end custom residential construction in the Hudson Valley, we are currently seeing a range of anywhere from \$450-\$1,000+/sf. This is a big range, some of which is dependent on the builder, some on project complexity and some on the level of finish required.

## CONSULTANTS

Our fees include the architectural services outlined in this document. They do not, however, include other outside consultant fees or other soft costs. Depending on the specific requirements of a project we may request to involve an outside consultant on a case-by-case basis.

Some examples of consultants we may involve on your project:

- Structural Engineer
- Civil engineer
- Soil scientist
- Surveyor
- Landscape architect
- Mechanical Engineer (Not typically required for single family residential projects. We'll review your specific needs to determine if mechanical engineering is beneficial to the overall project.)
- Lighting consultant

As the need for these specialized consultants arise, we'll work together to select the right person for the job and define the added costs up front.

## FEE BY DESIGN PHASE

The phases of architectural services are listed below. Each category notes an approximate percentage of time that we typically spend in that phase.

Phase 1:	Predesign	5%
Phase 2:	Schematic Design	20%
Phase 3:	Design Development	20%
Phase 4:	Construction Documents	35%
Phase 5:	Construction Observation	20%

## HOW LONG WILL IT TAKE?

### DESIGN

The time it takes to complete the design portion of the work can vary from as little as a few months to up to a year (or more). It depends on the complexity of the scope of work, how quick you are to make decisions, how quickly we can come to a design solution that meets your needs and any special permitting or regulatory hurdles we face.

### CONSTRUCTION

Again, this depends on project size and complexity as well as the Contractor's schedule and workload. You can expect it to take between 10 and 18 months for the average custom built home from start to finish.