

The Project Process



Industrial



Commercial



Governmental



Institutional



Residential

Managing Expectations

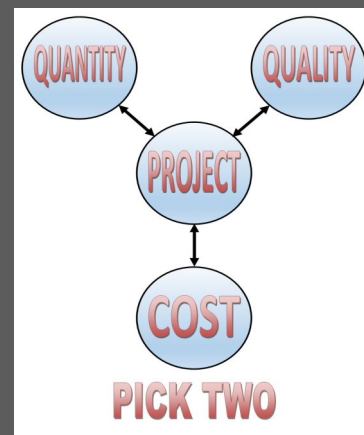
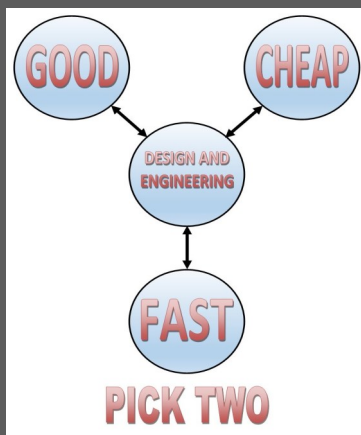
One of the most challenging tasks for an Architecture Firm is managing expectations, for both the design and engineering process and the final constructed project. As with most things in life, the first step is for us to listen. We listen to you express your wants, needs, and expectations for the project; weigh the wants and needs against the expectations; and then communicate to you our thoughts on how they match up. Perhaps you want a project completed in 6 months when we know that it will actually take closer to 18 months, or maybe you want a 50,000 sq.ft. light industrial building on a budget of \$2,000,000, but we know a building such as this will be closer to \$5,500,000. It is absolutely crucial for us to understand and communicate openly up front in order to set the expectations properly. Only in this way, can we achieve a mutually successful project.

Design and Engineering Process

- When it comes to the design, engineering, and construction document process, there can be a large amount of mis-understanding and mis-guided expectations. We express this with “Good, Cheap, Fast; pick two” illustration.
- If you want it good and cheap, then it will not be done quickly. We will work on it as we are able.
- If you want it good and fast, then the fees will be higher.
- If you want it cheap and fast, then quality will suffer, leading to issues down the road.
- If you come across a firm that promises all three of these things, we suggest that you talk to another Firm before making a decision. Go in to your project knowing that the process must be given an appropriate amount of time for the services and quality level required.

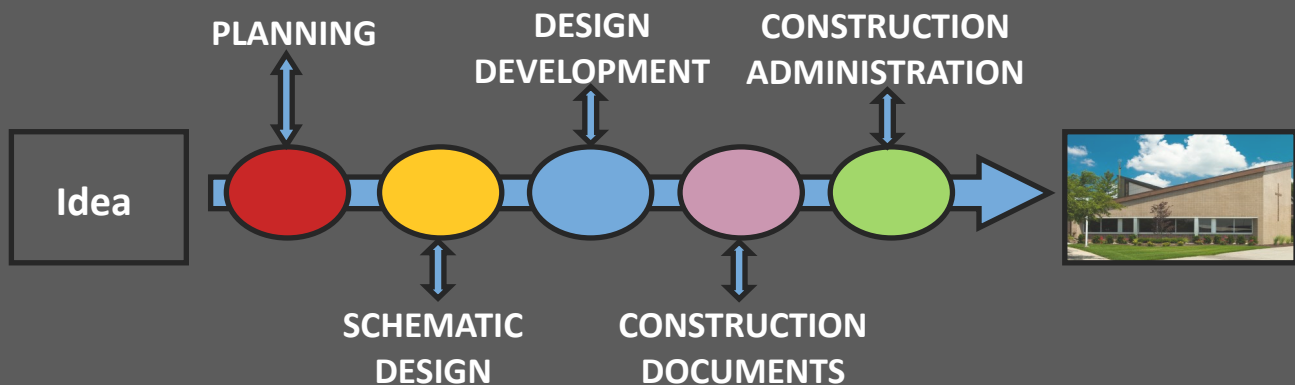
Final Constructed Project

- As with the design an engineering process, there can be a great deal of mis-understanding about the final product. Generally, you will come to us with a general idea of what you want or need, and you will have a budget. It is up to us to analyze this information and give you honest feedback as to whether or not your expectations can be achieved.
- If you want a certain square footage at a certain quality level then the project cost will be whatever it needs to be.
- If you want a certain square footage at a certain cost, then the quality level must be adjusted as necessary.
- If you want a certain level of quality at a certain cost, then the amount of square footage must be adjusted.
- Clear, open, and honest communication are needed here in order to properly set expectations. Otherwise, the project will be doomed to failure.



The Project Process

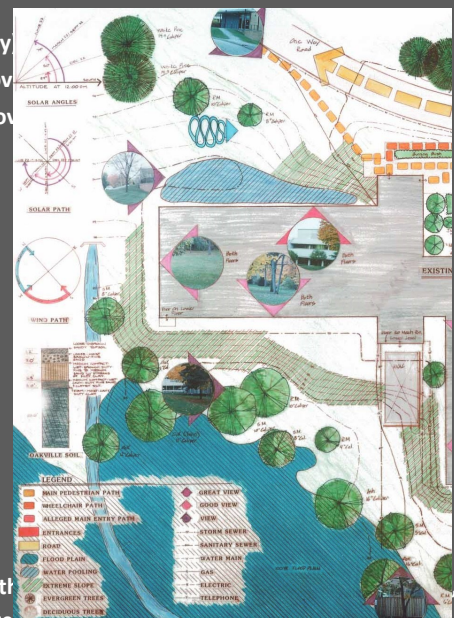
In general, there are 5 phases to the design, engineering, and construction of a project. There are many variations of the process, and some phases are not always required. There are numerous sources of information on this topic, but Serenity Architecture Co. typically follows the following process:



Planning or "Pre-Design"

The Planning, or Pre-Design, Phase is not typically employed by Clients who already know what site they are building on, what size building they want, what spaces they want, and the like. However, if you do not typically deal with building projects, or are at the very early project planning stage, this phase is invaluable in setting your project plan. This phase is the information gathering and preparation phase and can include the following tasks:

- Conduct the Number of Meetings Contractually Agreed Upon (Varies Widely)
- Field Verification and As-Built Documentation (Existing Buildings: Renovate)
- Architectural and Engineering Systems Assessments (Existing Buildings: Renovate)
- Site Selection and Site Feasibility Study
- Site Zoning Study
- User Group and Stakeholder Interviews
- Space Programming
- Space Adjacency Study
- Site Survey (Topographic and Boundary)
- Geo-Technical Investigation
- Aesthetic Design Research
- Project Budgeting



For this phase, the typical deliverable is a report, or reports, detailing the findings of the investigation, but will not necessarily, contain rough sketches or diagrams illustrating some of the report items.

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Schematic or "Conceptual" Design

This phase is where we take all of the information gathered in the planning stage and to turn it into a project design. Typically there will be a number of design meetings and presentations, and we will prepare a number of concepts for your review. We will typically complete the following tasks in this phase:

- Conduct the Number of Meetings Contractually Agreed Upon (Varies Widely)
- Prepare the Number of Concepts Contractually Agreed Upon (Generally 2-3)
- Create Conceptual Floor Plans
- Create Conceptual Exteriors
- Architectural Systems Preliminary Selection
- Engineering Systems Preliminary Selection
- Prepare Conceptual Budget Opinions
- Prepare Sketch Renderings (If Required)
- Site Plan Approval Process
- Perform Initial Code review

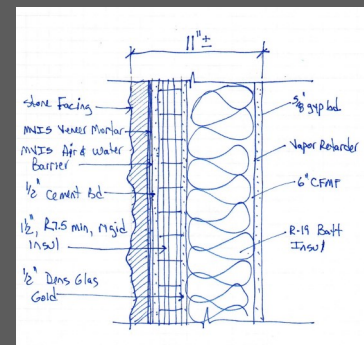


For this phase, the typical deliverable will be conceptual plans, elevations, and renderings. These drawings may be either hand drawn or computer drawn, or a combination of both. Generally we will make a number of presentations to you and at the end of this phase, the design will be generally set and approved by you. You should note that, typically, the schematic design approval is considered to "set" the project, meaning that at this point, the Architect can proceed with detailing and construction documents with the assurance that changes will not be made by the Client. Should significant changes to the character of the project be made after this point, the Architect will generally be entitled to additional fees.

Design Development

This phase is where we take the approved schematic design, and begin to turn it into an actual buildable project, finalizing detailing, material and systems selections, and preparing for the construction document phase. For simple, short duration, and/or fast-tracked projects, this phase is often rolled into the construction phase. Typical tasks are:

- Conduct Final Building Code Review
- Coordinate Architectural and Engineering Systems
- Make Final Selection of Architectural Material and Finishes
- Make Final Selection of Engineering Systems
- Develop Building System Detail
- Prepare DD Level Budget Cost Opinion
- Prepare Interior Finish Board
- Produce Computer Generated Set of Drawings



For this phase, the typical deliverable will be a computer generated set of plans and details, along with an initial project manual (specification), if included in the scope of services. We would also produce a DD level budget cost opinion, and interior finish board for approval, if included in the scope of services.

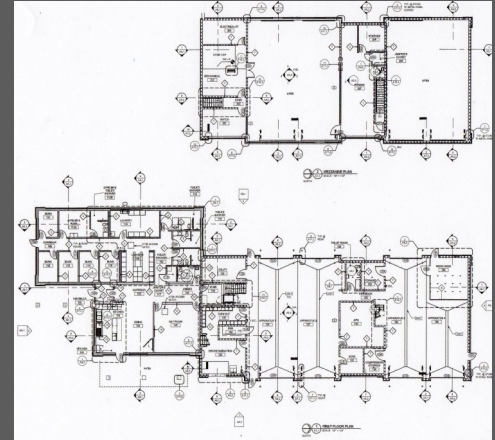
The Project Process

Construction Documents

This is the final phase for the design and engineering portion of the project. Here we finalize all drawings and specifications

- Coordinate Architectural and Engineering Systems
- Finalize Construction Drawings
- Perform Final Quality Control and Coordination Review
- Prepare CD Level Budget Cost Opinion
- Produce Computer Generated Set of Drawings

For this phase, the typical deliverable will be a computer generated set of plans and project manual suitable for permitting, bidding, and construction.



Construction Administration

This phase is the actual construction phase. Here, we perform all duties contractually agreed upon, as your agent, and these may include the following:

- Assist with Bidding and Award to a Contractor
 - Prepare Bid Packages and Needed Addenda
 - Answer Requests For Information (RFIs)
 - Prepare a Bid Analysis and Recommendation For Award
- Answer Requests For Information (RFIs)
- Review Proposed Alternates (If Allowed)
- Review Submittals and Shop Drawings
- Attend Site Meetings
- Prepare Meeting Minutes
- Conduct Site Visits/Observations
- Prepare Progress Reports
- Prepare and Issue Change Orders (Cos) and Construction Change Directives (CCDs)
- Review and Process Contractor Pay Applications
- Prepare Punch Lists
- Assist With Closeout



It is important to understand that in this phase we act as your agent, and in your best interest, but we do not have contractual authority over the Contractor, their performance, or their means and methods for performing the work. Our role is to observe and report to you our observations. At all times, it is the sole responsibility of the Contractor to perform the work as contractually obligated with you, and the Architect/Engineer bears no responsibility for the Contractor's failure to perform.

Project Delivery Methods

There are numerous project delivery methods that can be used to complete your project. By “delivery method”, we mean the way in which your project gets designed, bid, and actually constructed. These methods include the “traditional” design-bid-build, design-build, many types of construction management (CM) arrangements, integrated project delivery (IPD), and engineer/procure/construct (EPC), to name some.

If you are considering us for your project, the two delivery methods that will likely be most applicable to your project will be design-bid-build and design-build. Each has its pros and cons.

Design-Bid-Build

This method is the “traditional” method, and is exactly as it sounds, being a linear process: you hire an Architect; the Architect works with you to design and engineer the project to your wants needs, and budget; the Architect produces construction documents; The Architect assists you with bidding the project to General Contractors; The Architect assists you with selecting the General Contractor, and then the Architect assists you with observing the construction by the General Contractor.

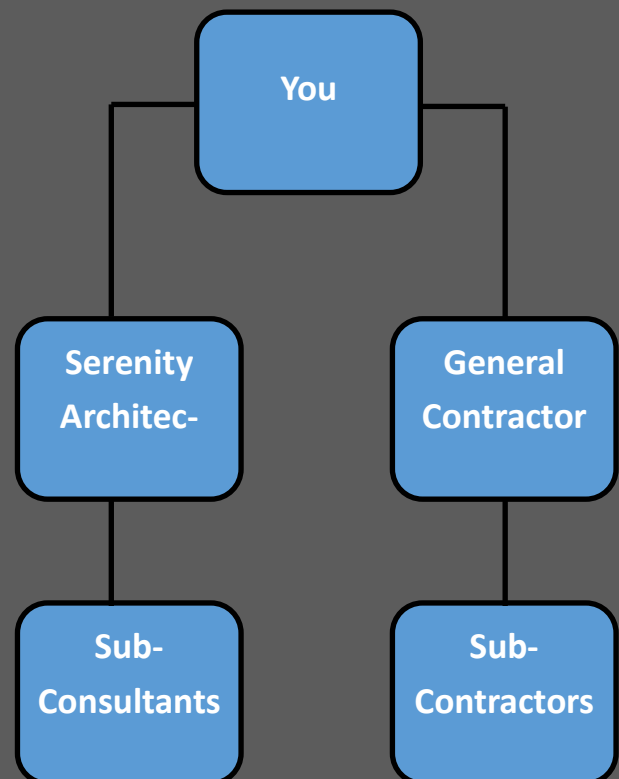
At all times during this process, the Architect works directly for you and is your agent, working on your behalf, and you hold two separate contracts with the Architect and General Contractor.

Pros

- Straight-forward linear process
- You control the design process
- The Architect is always your representative
- Works for any project type

Cons

- Longest project delivery time
- Change orders are probable



Project Delivery Methods

Design-Build

This method is an “alternative” method that has become more and more popular. In this process, you hire a General Contractor to give you a building at an agreed upon price. The General Contractor then is the one that hires the Architect for the design and construction documents.

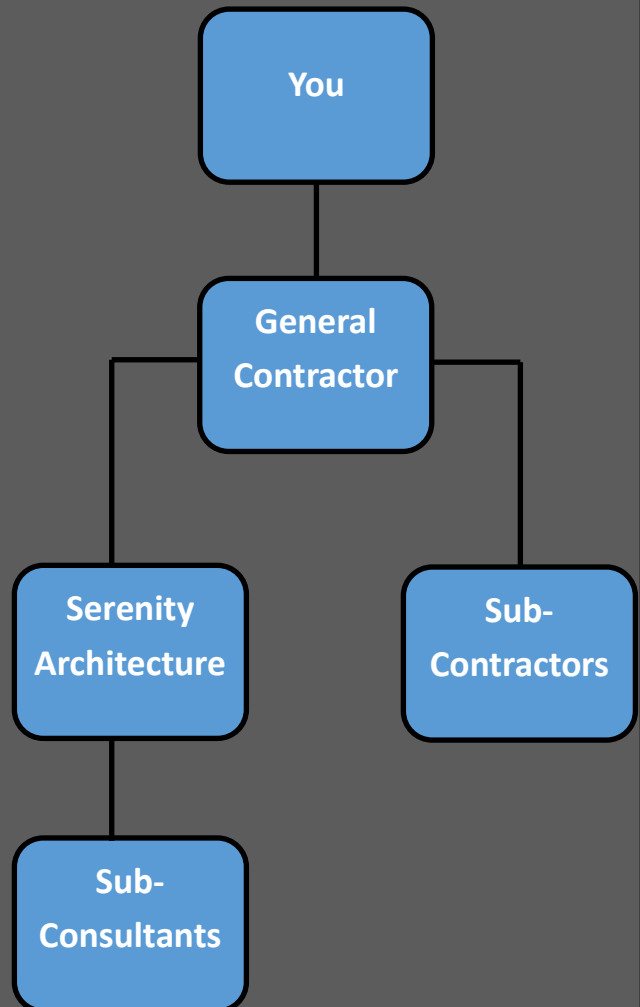
At all times during this process, the Architect works directly for, and answers to, the General Contractor.

Pros

- Single contract for you
- Can be significantly faster delivery method
- Can be the most cost effective

Cons

- You do not necessarily control the design process
- You will be pushed for timely up front decisions
- Scope must be very well defined at start
- Generally best for simple projects (in our experience)
- Subject to General Contractor’s oversight
- Expectations and results can be disparate, depending on how the General Contractor is procured
- Construction may be underway before decisions are made, thus limiting options



Fees

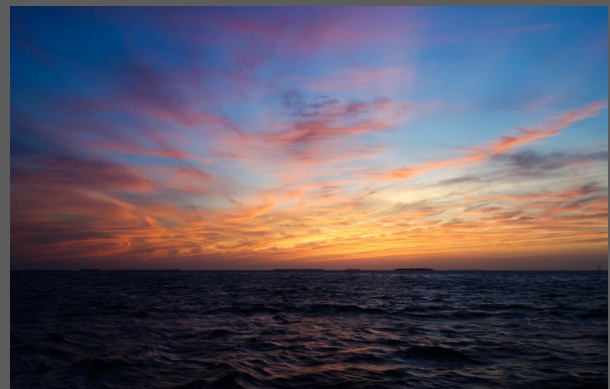
Lump Sum/Fixed Fee

Lump sum is by far the most prevalent fee structure for private sector projects. The Client provides information to the Architect regarding what they want and need, their site, the services that they want, and any other relevant information; the Architect analyzes the information, asks questions, and then estimates the fee required to complete the required work; and then the Architect presents detailed proposal to the Client. This proposal will contain a description of the project, detailed scope of services, clarifications and exclusions, proposed design and engineering schedule, and the proposed fee. Some negotiations and revisions may follow, and then a contract is signed and work begins. At this point both parties are “locked in” with regards to scope and fee.

For a lump sum fee, it is imperative to have a clear mutual understanding as to the project and services, as well as the schedule. Otherwise, it may not be possible for the Architect to properly estimate the fee and the Client may expect to get something that is not included.

With this type of arrangement, the Architect must provide the agreed upon services for the agreed upon fee, and the Client must provide additional compensation if there are significant change to the project scope, additional services are provided, or there is a significant extension in the project schedule that are not of the Architect's doing. It is important for the Architect to clearly communicate with the Client, in a timely manner, any item which may exceed the scope of the contract. The additional compensation can be provided on either an hourly rate basis, per rates that have already been agreed upon in the contract, or they can be provided on a lump sum basis, per a separate proposal provided by the Architect and mutually agreed upon.

This type of fee is simple and straightforward, but it can have drawbacks, especially if any part of the project is unclear, and if there is not good communication between the parties. We will discuss this more in the Hourly Rate section.



Percentage Of Construction Cost

This method of compensation for architectural and engineering services has a long history. In simple terms, the fee is expressed as a certain percentage of a mutually agreed upon, estimated total construction cost. In other words, we agree that the total construction cost, which is generally arrived at using benchmark projects and/or similar completed project square foot construction costs, will be \$5,000,000 and that our fee will be 5% of that cost. So, our fee will be \$250,000.

It seems very straightforward, but there are a number of flaws with this type of fee arrangement, not the least of which that the Architect is penalized for working in your best interest to reduce project cost, or if a very competitive construction market leads to “artificially” low bids. Similarly, the Client is penalized for a “hot” construction market leading to unusually high bids.

Simply put, if we estimate, and agree, that a 10,000 fire station is going to cost \$4,000,000 and our fee will be 6%, and then the cost comes in at either \$3,000,000 or \$5,000,000, the amount of work that we did is still the same, so why should the fee change? We typically try to avoid this type of fee arrangement.

That is not to say that we do not still use this as a benchmark in fee calculation. At present, percentages range from 5-9% for new projects and 8-12% for complex renovations, though they can be much lower. We will discuss this a bit more, later.

Fees

Hourly rate

This arrangement is exactly what it appears to be: we will perform agreed upon services for you on an hourly rate basis and you will compensate us for each hour spent working on your project, as documented with monthly reports and timesheets. Many Clients shy away from this type of arrangement as they view it as a “blank check” for the Architect, ripe for abuse. As with any arrangement, there must be trust, honesty, and cooperation between the parties. Architect’s like this type of arrangement because it allows us to be covered for any unknowns, and it allows us to provide a high level of service to you without the constant analysis as to whether or not something was included in the lump sum cost, or not. Unfortunately, with today’s constant downward pressure on fees, and razor thin margins, this is an analysis of which we must be very cognizant at all times.

This fee structure is best when the project parameters, or needed services, are not clearly known or defined. In this scenario, we still provide a proposal for services, based on our general understanding, but it may not have the clarifications and exclusions as the lump sum proposal does. We will provide whatever services are deemed to be necessary, and agreed upon, as we proceed. As with the lump sum proposal, we will provide our standard hourly rate sheet though, in this case, it will apply to the entire scope, not just extra services.

At present, a typical hourly rate range might be \$100—\$250 / hour.



“Hybrid”

The “hybrid” fee arrangement, as we call it, is a very attractive structure as it covers the Architect for the portions of the project that are largely out of the Architect’s control, but it locks in for the Client the portions of the project that are easily definable. In this structure, the design development and construction document phases are completed on a lump sum basis, while the planning, design, and construction administration phases are completed on an hourly basis.

Why? It is very easy for the Architect to put costs to the DD and CD phases, as these phases are almost entirely within the Architect’s control. We have done this before. We know how many drawings, and how many hours per drawings are needed for, say, a 50,000 sq.ft. light industrial building, or a 10,000 sq.ft. fire station. There are few variables and unknowns.

Conversely, the design and construction administration phases are largely outside of our control, and highly variable. You might not have a clear vision as to what you want or need, leading to “excessive” design time that we could not have anticipated. One Contractor may look at a set of drawings and build the building quite successfully. Another might look at the same set and submit 40 requests for information, or alternate systems and materials, to us. The construction duration may drag on for months longer than anticipated, leading to additional time and cost for us. All of these things are outside of our control. We could still complete these phases on a lump sum basis, and then submit requests for additional fees for what we view as additional service, however, our decades of experience tell us that this usually ends up in many contentious “discussions”, which can severely damage our relationship with you and adversely affect an otherwise smooth and successful project.

We firmly believe that this type of fee arrangement is the most fair and equitable for both parties and is the structure that gives us the best chance for living up to our name and maintaining SERENITY for all during project process.

Fees

Fee Calculation

How do we calculate our fee? We typically use three different methods: hour calculation, sheet calculation, and percentage of construction cost.

For the hour calculation method, we simply make a list of all anticipated tasks and estimate the number of hours that will be spent by each team member classification/billable rate. For instance, for the design development task of developing wall details, we might have 20 hours of Project Architect time, and 40 hours of project designer/drawing time. We then add up all of the categories, apply our hourly rate, and then we have our fee.

For the sheet calculation method, we develop a sheet index, or list of anticipated drawings, and apply a dollar amount per sheet. For instance, our past project experience might tell us that for a small design-build light industrial building we generally spend \$2,500 per sheet and for a large design-bid-build fire station, we generally spend \$5,000 per sheet. We apply the per sheet cost to the total number of sheets, and we have our fee.

For the percentage of construction cost, we estimate the total construction cost of the project, based on our past project experience, current per square foot costs, and, often, based on input from General Contractors with which we frequently partner. We then apply a percentage to that number to come up with our fee. How do we come up with percentage? Well, there are no set standards today. That ended in the 80s when it was deemed that Architects could not work with each other in setting standard fee tables. Before that time, there were tables that would say that a hospital project of 100,000 sq.ft. will have a fee of X%, for instance. That is not to say that there are not guidelines. We still classify projects in a number of complexity categories and by cost range, and know the percentage range for those. It is just wide open now for any firm to continue to push the percentage ranges down.

In reality, we generally use all three methods, as comparatives, in calculating our fee, and then still make adjustments after that. For instance if our hourly or sheet calculations end up being 8% of anticipated construction cost, but we know the range for the project will likely be 5-6%, we may adjust. Further, if we know there is strong competition, we may adjust down further. Or, we may decide not to pursue if we feel that we will have to sacrifice the level of service to meet the tight margin.

Conclusion

We hope that this gives you a good picture as to how our architectural fees are calculated here at Serenity Architecture Co. As with everything, we understand that budget rules most projects. However, we strongly urge you to not just look at a low fee in making your decision to select an A/E partner. There are many factors to be considered, and fee is but one. Qualifications, experience, and personal chemistry are all factors that should come into play as well.



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