

NEUMANN MONSON ARCHITECTS

# THE COMPLETE GUIDE TO THE ARCHITECTURAL PROCESS







# CONTENTS

---

3	Introduction
4	Step 1: Pre-Design
8	Step 2: Schematic Design
10	Step 3: Design Development
12	Step 4: Contract Documents
14	Step 5: Bidding/Negotiation
16	Step 6: Construction (Contract Administration)
19	Step 7: Occupancy
21	The Architectural Process at Neumann Monson
22	Is Neumann Monson Right for You?



## INTRODUCTION

Working with an architect is a unique experience—one new to most people. **Whether you plan to renovate an existing facility or build a new headquarters, you will likely go through a seven-step process to transform your goals into reality.**

These steps include:

- Pre-Design
- Schematic Design
- Design Development
- Contract Documents
- Bidding/Negotiation
- Construction (Contract Administration)
- Occupancy

The architectural process starts by setting goals and exploring options. As it progresses, the design becomes more detailed and defined. The goal is to vet many options and focus on developing the best possible solution.

With over 45 years of experience, we've helped countless clients bring their visions to life. We know a thorough understanding of each step of the process helps clients prepare, set expectations with their stakeholders, and craft a plan for managing budgets and schedules. Now, we are sharing our insights with you.

**This guide will break down each step of the architectural process and explain the core objectives you can expect from your design team.**





## STEP 1: PRE-DESIGN

---

**Typical Timeline:** 2-8 months, depending on client needs

**Cost:** Typically charged hourly or at a fixed rate outside the scope of basic services



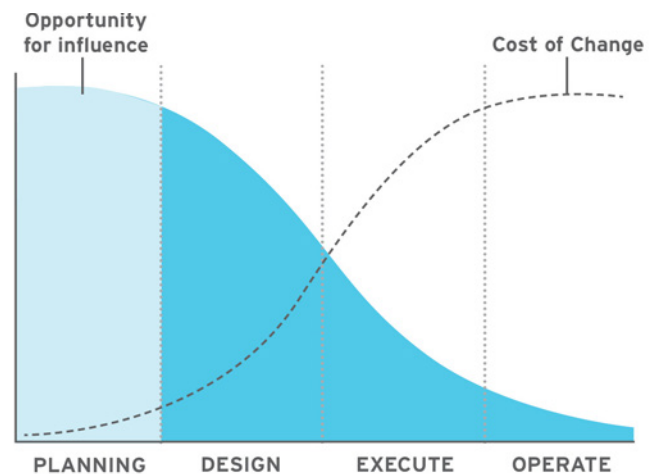
## The architectural process begins with brainstorming and goal setting.

Before architects can put pen to paper, they need to understand your needs, values, and mission. Some organizations may wish to improve their approach to work and increase collaboration. Others may have aspirations related to sustainability and building performance. Regardless, the goals set in Pre-Design serve as touchstones for the remainder of the process.

There are thousands of decisions on a building project, and your goals should influence each. Your architect will also return to the project goals at specific milestones to make sure the project is staying on track.

**To set goals, your architect may coordinate a series of meetings and workshops with large groups of stakeholders.** They may also recommend supplemental services, like programming and feasibility studies, to better understand your needs.

Pre-Design's scope can differ drastically depending on the client and project, but the goal is always the same. This is the time to gather the information that will form the foundation of the work ahead.



*The 80/20 rule illustrates how important the planning phase is to keeping the project on budget. Altering a design becomes more expensive and time-consuming the closer you get to construction.*

## SETTING GOALS THROUGH MEETINGS AND WORKSHOPS

### KICKOFF MEETING

After establishing a rough budget and schedule, the first step of Pre-Design is a kickoff meeting. **In this meeting, you will meet with your design team and establish roles, responsibilities, and expectations for all parties involved.**

If possible, you will also review the site, budget, and program—a document that outlines the necessary spaces and





their sizing requirements.

**The kickoff meeting is when you can expect to meet your Project Manager**—your main point of contact throughout the architectural process. We recommend appointing a point of contact at your end to streamline communication.

#### **VISIONING WORKSHOP**

A visioning workshop is another foundational Pre-Design meeting. **Typically, the workshop involves a large group of stakeholders that represent a cross-section of an organization.**

This group of stakeholders will look different on each project. For example, schools often include teachers, administrators, and facilities staff in these workshops. Commercial clients usually include representatives of various departments or leadership levels. Other organizations may want to include the public.

**The goal is to get input from everyday building occupants and set overarching project goals.** In our experience, a visioning workshop helps establish group consensus. We find that getting people on board early in the design process builds trust and helps everyone feel “bought into” design decisions.

#### **PRECEDENT RESEARCH AND BENCHMARKING TOURS**

Other group activities can accompany a visioning workshop.

**For example, your architect may use precedents**—analogous projects that inspire to steer design decisions—to get a better understanding of your likes and dislikes. Your architect may show images of these projects and ask for your opinions.

To get a deeper understanding of your needs and tastes, your architect may lead visits to facilities like the one you plan to build. These visits are known as benchmarking tours.

**On a benchmarking tour, your architect will encourage you to express your opinions and talk with the facility’s occupants.** This is a chance to learn from their experience and see how design decisions have impacted their daily operations. Talking with occupants provides a fresh perspective and can open your eyes to different ways of approaching your project.

The goal of these tours is to move beyond imagery and help you understand the full experience of inhabiting a space.

#### **PERFORMING ADDITIONAL RESEARCH**

Many projects require additional research and preparation before design work can begin. **While some clients have a building site and program before hiring an architect, others may need help determining their needs.** Thankfully, architects offer a range of services that provide direction.

#### **FEASIBILITY STUDIES**

A feasibility study can help you understand the challenges



*The red dot/green dot exercise helps your architect understand your tastes. An open discussion follows participants identifying images they like and dislike.*

and opportunities your project presents. **If you are planning a renovation or expansion, your architect can assess your current space and determine the amount of work and the estimated costs involved.**

They can also analyze the possibility of building a new facility and the potential cost. Investing in this service can help you weigh the pros and cons of every available option, so you and your team can determine the best course of action.

### **SITE SELECTION**

Whether you have a site in mind or don't know where to begin, an architect can help you find the ideal location. The [site selection process](#) begins by determining priorities, such as:

- Do you want to be in a high-traffic area?
- Do you need access to public transportation?
- Do you need room to grow your operations?

Your architect can you define criteria and analyze your options. This analysis can include sustainability metrics, zoning and easements, and potential funding options for different locations. They can also perform test fits to determine if the site provides adequate space for your needs.

### **PROGRAMMING STUDIES**

As mentioned, a program is an architectural document that outlines your spatial needs. A program for a school may describe the number of classrooms and their sizes, while a program for an office may describe the number of workstations.

**A [programming study](#) can help identify these spatial needs.** Your architect will begin by engaging



stakeholders through surveys and workshops—leading to a list of project goals.

They will then help you translate those goals into quantifiable spaces. Using historic data from other buildings, they will size spaces and provide a rough cost-per-square-foot estimate.

**This the first "reality check" of aligning the budget with the cost-per-square foot of the identified program.** Such checks should be performed before any design work to mitigate cost overruns further down the road.

### **MANAGING CHANGE**

In addition to setting goals, your architect can help guide your team through the process of transitioning to a new environment. Successful building projects rely on strategic communication, and your architect can help set expectations, answer questions, and coach leadership.

Often, new environments change the way we work. Creating a change management strategy can help your team adapt to new practices and mitigate operational disruptions.

### **STARTING DESIGN WORK**

Pre-design is a time to engage stakeholders and better understand your needs, goals, and values. Through workshops and supplemental services, your architect will gather the information that will form the foundation of the work ahead. Now, it is time to start designing.





## STEP 2: SCHEMATIC DESIGN

**Typical Timeline:** 6-10 weeks

**Percentage of an Architect's Basic Services Fee:** Approximately 20%



## Schematic Design - also known as Concept Development - is when designing truly begins.

**Your architect will take the information gathered in Pre-Design and start forming a conceptual representation of a building or space.**

At this stage, the design is malleable, and you can test ideas and explore options. Toward the end of the phase, you will select a concept to continue developing throughout the process.

### DEVELOPING CONCEPTS

The goal of Schematic Design is to develop a high-level concept that forms the foundation of the project. With a solid understanding of your needs and goals, your architect will develop rough sketches, preliminary site plans, floor plans, and 3-D models.

You will meet with your design team frequently to discuss progress and provide feedback. **At this stage, feedback is crucial.** Your architect needs to know your thoughts, so they can develop the project in the right direction.

Changing a design is easiest at this stage. **Schematic Design is the time to test ideas before setting anything in stone.** As you continue the process, the design becomes increasingly detailed and interconnected.

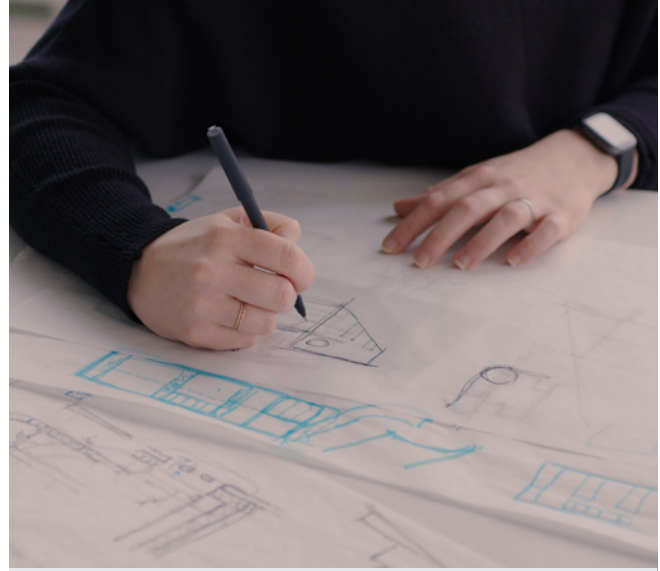
When decisions are reconsidered, the design team will need to walk back and rebuild the network of interconnected decisions. A seemingly minor change in later design phases can have a ripple effects to other aspects of the design.

As such, changes become increasingly time-consuming and expensive the closer you get to construction. Carefully thinking through options in Schematic Design can set you up for success in later phases.

### WORKING WITH CONSULTANTS

Schematic Design is also the stage where consultants join the project team. Civil engineers will perform survey work that will inform the massing and layout of the building, and structural engineers will collaborate with the design team to create basic structural drawings. Mechanical engineers will also join the process to start planning the building's systems.

Depending on your project delivery method, your architect may also collaborate with your contractor to discuss potential material choices, product availability, lead times, and prices.



*Preliminary sketches give way to more detailed floor plans and renderings.*

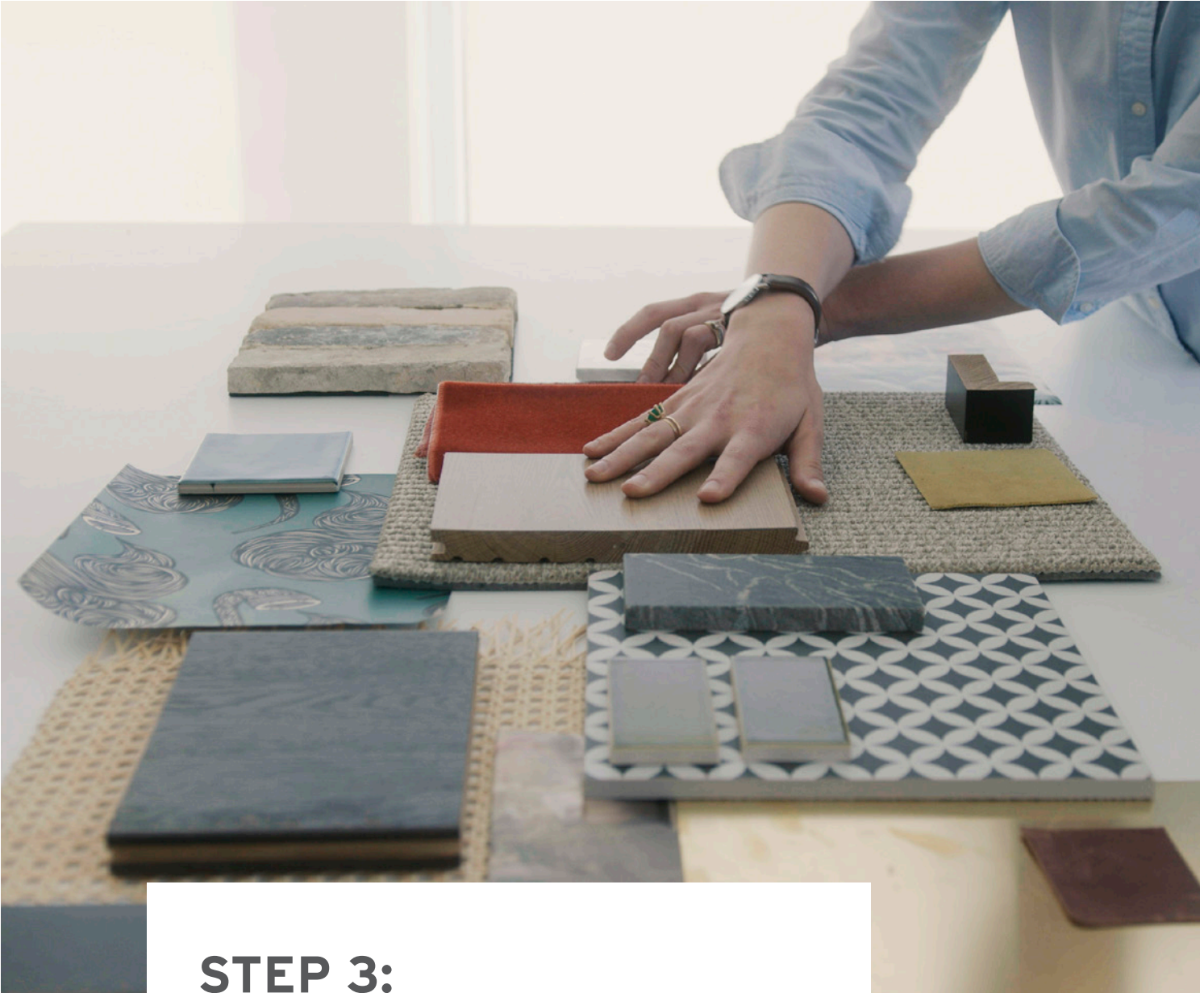


**At this stage, discussions about systems and materials remain at a high level.** You may assess mechanical or electrical systems for energy efficiency and set goals for materials, including the desired look, feel, and durability. Later, these discussions will get more specific, and cost estimates will get more accurate.

### MOVING FORWARD WITH A CONCEPT

Although you will test many concepts in Schematic Design, you will eventually choose one to continue developing. **After you've chosen a concept, your architect will provide a probable opinion of cost and a rough timeline of the remaining design and construction process.**

If the opinion of cost is too high, your architect can work to reduce costs by adjusting the scope and complexity of the project. The goal is to find alignment between your budget and goals.



## STEP 3: DESIGN DEVELOPMENT

---

**Typical Timeline:** 6-10 weeks

**Percentage of an Architect's Basic Services Fee:** Approximately 20%





## Design Development is the interim period between Schematic Design and Contract Documents.

**In this phase, the design concept becomes more detailed and refined.**

At a high level, Design Development involves the greatest number of decisions. Working with your design team, you will make choices regarding items like:

- Heating and cooling systems
- Elevators
- Plumbing fixtures
- Other interior finishes

**This phase also requires the greatest client time commitment.** You should expect to meet with your design team weekly or biweekly to discuss progress. Your architect may also request meetings with specific user groups—like your IT department or facilities staff—to get their input on systems and equipment.

### SELECTING BUILDING SYSTEMS AND MATERIALS

Although third-party consultants join the project team during Schematic Design, their involvement picks up during Design Development. Your architect will work with Mechanical, Electrical, and Plumbing (MEP) engineers to analyze the initial and long-term costs of different systems and equipment.

Structural engineers' involvement will become more integrated into the process as they analyze structural systems and assess bay spacing and column supports. Civil engineers will continue to contribute through site planning.

**Along with engineers, you will work with interior designers to select materials and finishes.** Your design



*Renderings occur throughout the design process. In Design Development, renderings get more detailed and realistic.*

team will analyze pricing, performance data, sourcing, and product ingredients to help you assess your options. They can also perform a life cycle cost analysis to help you understand maintenance and replacement costs.

Beyond systems and materials, you will also make selections for:

- Lighting
- Technology
- Signage
- Furniture, Fixtures, and Equipment (FF&E)

Although there are many decisions to make at this stage, your design team will provide the information you need to feel confident in your choices.

### GETTING COST ESTIMATES

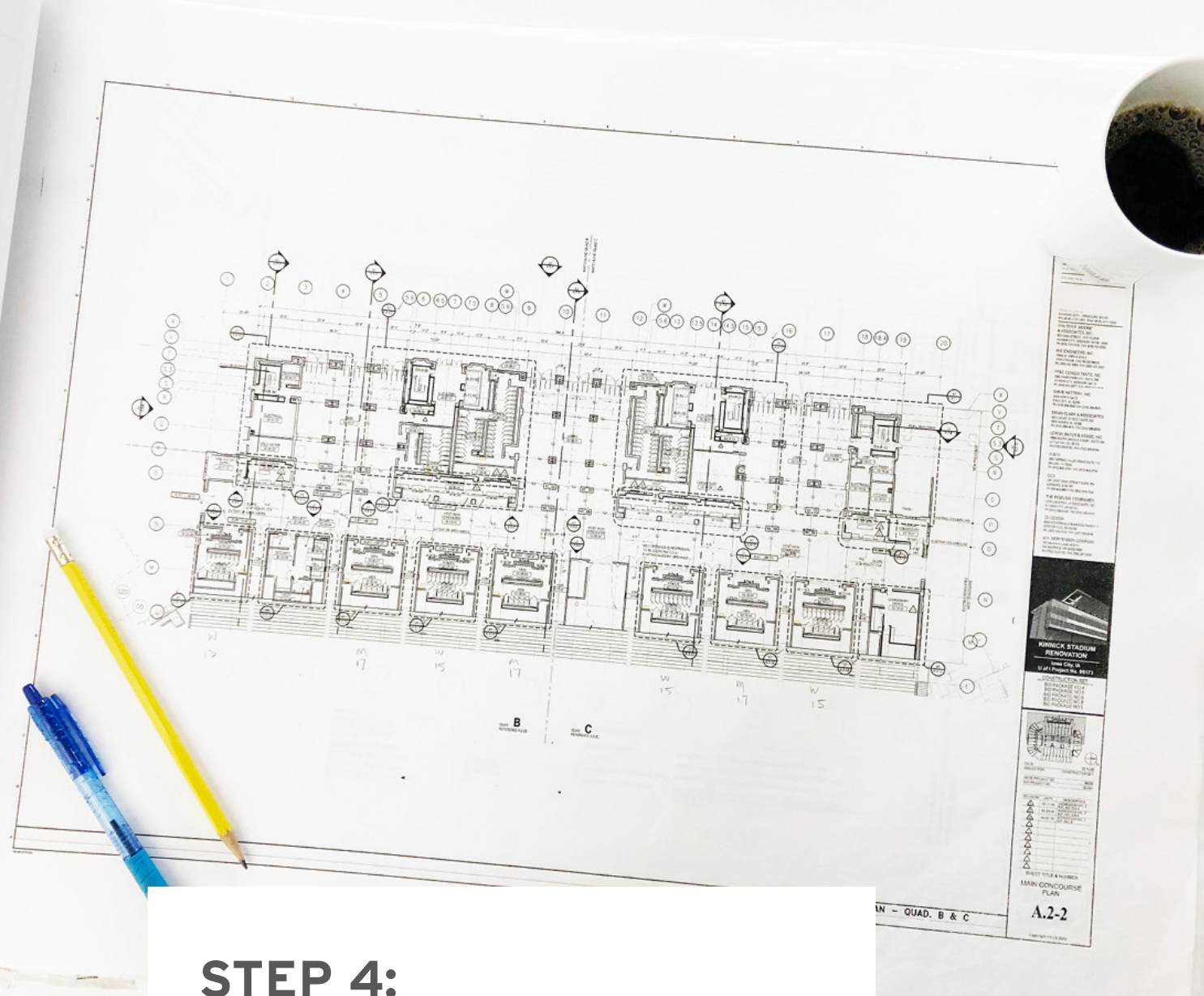
As the design becomes more detailed, cost estimates get more accurate. **Knowing the price of individual materials and systems will help your design team better predict the overall construction cost.**

Depending on your project delivery method, your architect may collaborate with your contractor to get cost estimates. Other delivery methods—like Design-Bid-Build projects—may require the help of a third-party cost estimator.

In either case, you should have a fairly accurate understanding of the project's cost by the end of this phase.

### LOCKING IN DESIGN DECISIONS

After Design Development, your architect will finalize the design into a set of contract documents. **Making changes after Design Development becomes more difficult and time-consuming.** As such, it is important to take your time, assess your options, and lock in decisions before continuing with the process.



## STEP 4: CONTRACT DOCUMENTS

**Typical Timeline:** 8-10 weeks

**Percentage of an Architect's Basic Services Fee:** Approximately 30-35%





The Contract Documents phase of the architectural process—also known as Construction Documents—is when the design develops into a tangible set of drawings and specifications.

**These documents, known as a Plan Set, explain the design intent to the contractor and their subcontractors.**

From a client's perspective, the Contract Documents phase involves the least amount of interaction with your architect. At this time, the design team will detail connections between different systems selected in previous phases and coordinate these plans to ensure you get the desired outcome.

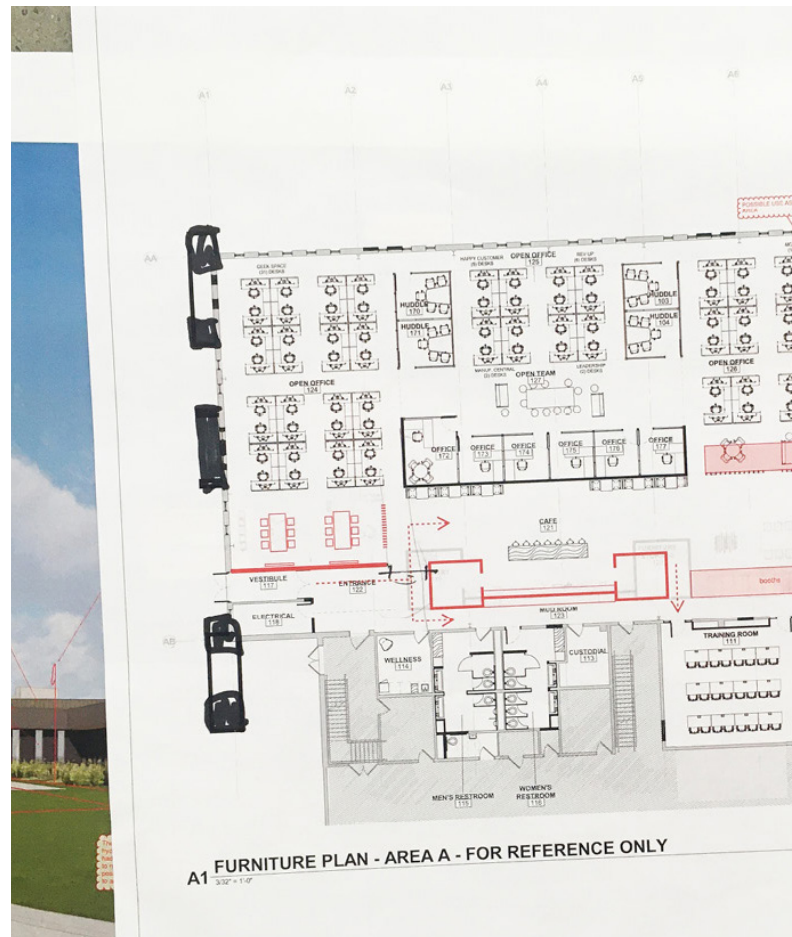
**While the design team details these connections in the contract documents, communication is less frequent.** However, you should expect your architect to contact you regularly with progress updates.

## PRODUCING DRAWINGS AND SPECIFICATIONS

The primary goal of the Contract Documents phase is to produce drawings and specifications.

**Drawings outline the design intent, helping the contractor understand how the building should come together. Specifications outline materials, products, and systems.**

Although you should have an accurate understanding of cost by the end of Design Development, your architect will continue to produce cost estimates during the Contract



*Internal quality assurance reviews minimize the risk of errors and omissions during construction.*

Documents phase. As they outline specific products, the estimate will become even more accurate.

By the end of the phase, your architect can walk you through a final “page turn” where they will explain the finalized documents.

## PREPARING FOR CONSTRUCTION

A client's time commitment is minimal during the Contract Documents phase, making it the ideal time to prepare for construction.

**Now is the time to map out the logistics of the work ahead.** If you are planning a renovation or expansion of your current facility, create a plan for continued operations and set expectations with your team. You may also want to plan a “staging area” for construction activities.

No matter your situation, your architect can help. Discuss your worries and concerns, and your architect can help establish a plan for the months ahead.



## STEP 5: BIDDING/NEGOTIATION

**Typical Timeline:** 4-6 weeks

**Percentage of an Architect's Basic Services Fee:** Approximately 5%





Some form of bidding/negotiation occurs on every project.

**While some clients hire a contractor directly, others use a Design-Bid-Build project delivery method and secure a contractor through competitive bidding.** Other delivery methods will go through a bidding phase to hire subcontractors.

On a traditional Design-Bid-Build project, contractors will receive the Plan Set from your architect and determine bid amounts by consulting subcontractors. Often, publicly funded projects must make Plan Sets publicly available, allowing anyone to bid on the project. Private projects, on the other hand, can select a group of contractors to bid.

### HOSTING A PRE-BID CONFERENCE

The first step of the bidding process is a Pre-Bid Conference. **Although not required, hosting one gets contractors on the same page, leading to a smoother process.**

During the conference, your architect will review the project's requirements—especially those related to funding, sustainability, and commissioning. These requirements can impact the bid amounts, so it helps to set expectations.

Along with the project requirements, your architect will review instructions for submitting bids to ensure a fair and competitive process. Pre-bid conferences can also involve tours of the building site or existing facility.

### ISSUING ADDENDA

After the Pre-Bid Conference, contractors will have a set amount of time—usually four to six weeks—to review the contract documents and submit bids.

**During this time, your architect may issue addenda—formal corrections to the contract documents.** Many situations can lead to addenda. For example, if the contractor needs clarification, your architect will issue an addendum. Similarly, client-requested material changes can result in addenda.

These formal corrections keep all bidders in the loop, ensuring a fair process.

### ACCEPTING BIDS

The Bidding/Negotiation process ends on Bid Day. Contractors will submit their bids along with a Bid Bond—a legal document signed by a third-party surety company that ensures compensation if the bidder fails to begin the project.

**In a public bidding environment, projects are awarded to the “lowest responsible bidder,” the contractor whose proposal responds to the bid specifications with no irregularities and offers the lowest cost.**

Cost estimates throughout the design process should give you an accurate understanding of potential bid amounts. However, if cost uncertainty is a concern, your architect may suggest a bid contingency or bid alternates. These measures help keep the project within budget even in a risky bidding environment.



## STEP 6: CONSTRUCTION (CONTRACT ADMINISTRATION)

---

**Typical Timeline:** Varies depending on project size and complexity

**Percentage of an Architect's Basic Services Fee:** Approximately 25-30%





## Construction can be both exciting and stressful.

Although it's rewarding to see your vision come to life, it's easy to feel overwhelmed by payments, schedules, and unexpected situations.

Luckily, your architect will remain by your side throughout the construction process to coordinate communication and perform quality control.

**During construction, an architect performs the role of Contract Administrator** by observing the progress and checking that the work matches the design intent outlined in the contract documents.

### VISITING THE CONSTRUCTION SITE

An architect's primary responsibility during construction is to visit the site and check that the contractor is meeting the design intent.

**Visits to the construction site, known as "site walks" or "site observations," can occur weekly, biweekly, or monthly depending on the location, complexity of the**

**project, and stage of construction.** The more complex the project, the more an architect should visit the site.

Observations can include the building owner, as well as consultants like Structural and MEP engineers.

Site observations are not official "inspections." **Instead, your architect should check the progress and gauge whether the contractor is delivering the project to its specifications.** If the architect notices any non-conforming work, they will highlight it in an Observation Report and request that the contractor addresses it.

### REVIEWING PAYMENTS

Architects are also responsible for reviewing payments during construction. Typically, you will make monthly payments to the contractor for completed construction work.

**During site observations, your architect will check that the completed work aligns with the requested payment.** This extra set of eyes ensures you are charged accurately throughout the construction process.

### FACILITATING COMMUNICATION

Perhaps most importantly, an architect's job during construction is to facilitate communication between all





parties. **Depending on the project delivery method, the architect remains the building owner's primary point of contact during this time.**

Should any problems arise, your architect acts as your advocate. They mitigate disputes and work to make sure the final project reaches your expectations and goals. Your architect understands the reasoning behind each design decision, so if changes are necessary, they can help resolve the issue in a way that aligns with the design intent.

**Your architect can also help you manage change by facilitating communication between building occupants.** Construction tours with end users can help everyone get a feel for the space, understand specific areas of interest, and imagine themselves in the environment.

## PREPARING FOR OCCUPANCY

As construction concludes, your architect will visit the site and create a "punch list" of items the contractor needs to address before Final Completion. They will also review warranties and user manuals to ensure your team has everything they need to operate the facility.

**At Substantial Completion, you can begin moving into and occupying the new space.** However, the contractor will



remain on-site to complete the punch list. Typically, it takes 30-60 days to get through the punch list.

You will hold a 5% retainage during this time that you will pay once the punch list is complete. **Once the contractor finishes the work, your architect will do a final walkthrough and issue a Certificate of Final Completion.**

It is now time to settle into your new building.





## STEP 7: OCCUPANCY

---





Contrary to popular belief, the architectural process does not end after construction.

As you settle into your new space, your architect is available to answer questions—especially those related to maintenance and operations.

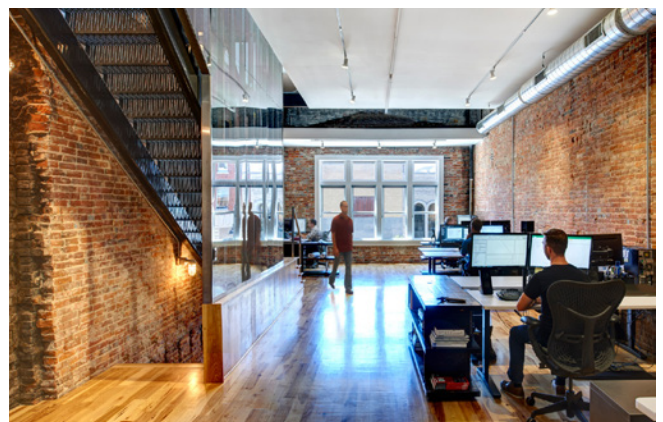
**They should also check in around the 11-month mark with a post-occupancy evaluation.** This survey is an opportunity to get feedback from everyday building occupants and determine whether the building meets your goals.

### PERFORMING A POST OCCUPANCY EVALUATION

**Post-occupancy evaluations survey those who work in and maintain the newly completed building.** Most questions evaluate metrics like:

- Thermal comfort
- Light levels
- Workspace comfort/ergonomics
- Acoustics
- Energy performance
- HVAC performance

These evaluations can also include questions related



to your specific project goals. For example, if you hoped to increase interaction in your office, the evaluation may assess how often team members use collaboration spaces.

### ADDRESSING FEEDBACK

After the post-occupancy evaluation, your architect may identify opportunities for improvement. For example, if occupants experience thermal comfort problems, your architect may identify potential operational changes.

Performing post-occupancy evaluations helps architects improve their approach and identify blind spots, so you get the most out of your new building.





## THE ARCHITECTURAL PROCESS AT NEUMANN MONSON

The architectural process can be long and complex but understanding its seven steps makes it more manageable. **If you plan to work with an architect, carefully evaluate your options.**

While most projects go through the similar process, every firm has a slightly different approach. Understanding the differences between firms will help you find someone who aligns with your values and goals.

### OUR APPROACH

At Neumann Monson, we value a collaborative architect-client relationship. **We take the time to engage everyday building occupants and emphasize the importance of Pre-Design activities like visioning workshops, programming exercises, and benchmarking tours.** In our experience, the most successful projects involve input from a diverse group of stakeholders.

### BUILDING TRUST

Client Experience is the foundation of our approach. **Throughout the process, we send feedback requests to**

**track stakeholder expectations.** Feedback gathered at the end of a project does little to change outcomes. By asking for feedback at specific project intervals, we can adjust our course and realign expectations.

### REDEFINING EXPECTATIONS

Our commitment to Client Experience is balanced by a rigorous internal process. **On every project, four self-managed teams contribute their passion and expertise.**

While our Client Experience team manages your feedback, our Design Quality team facilitates brainstorming sessions and project critiques—leading to innovative solutions. Our Sustainability team finds ways to integrate the latest green building design strategies, and our Quality Assurance team reviews all contract documents to minimize the risk of errors and omissions.

We believe a team-oriented approach leads to the best results, and every project receives our entire team's collective knowledge.



## IS NEUMANN MONSON RIGHT FOR YOU?

In our experience, the best client partnerships start by establishing alignment. We know we may not fit everyone's needs, so we set expectations with potential clients and transparently discuss our approach to determine if we are the right fit. From design through construction, a building project can last years, so it's important to find a partner who aligns with your goals.

**We work best with clients who are unsure of their needs and are looking for guidance and analysis before beginning design work.** At the same time, we align well with clients who value a collaborative and inclusive process and want to make a positive impact through sustainable design.

**Every project is an opportunity to improve the lives of individuals, strengthen communities, and create a more sustainable future—and we work best with those who share this vision.**

Learn more by [viewing our work](#) and reading about the [types of projects we undertake](#).

If you think we may be the right fit for you, [meet with one of our architects](#) to discuss your project and goals.

