

Client Centered Architectural Design Process



MOUNTAIN HOUSE ARCHITECT®

Client Centered Architectural Design Process

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Client Centered Architectural Design Process

PREFACE

The phases of work presented herein are often taught at major university architectural colleges, graduate schools, and learned while interning under other experienced Licensed Architects. There is nothing particularly new in these phases; they are the accepted practice for architecture, private and commercial, worldwide. It is not likely that any architectural firm will want to change this process, as it is how the industry does business.

Many clients come to our company: MOUNTAIN HOUSE ARCHITECT[®], wondering what the process is. “What happens next? How do we get from here to obtaining our custom home design, then getting prices from contractors and having our new home built?” Good questions. We are an Architect of custom homes and other buildings, mainly focused on MOUNTAIN HOUSES. We have been doing this for a lifetime. Several decades. Our senior staff Architect has a Bachelor’s & a Master of Arts in Architecture degree and has been a licensed Architect since the later 20th century.

It should be as fun as possible. We prepared this summary, to assist clients & potential clients and others who would appreciate some guidance of this process.

If you would like, at any time, to directly contact us and ask questions, or engage our firm to design your custom home, you are welcome to do so. Please see the copyright page (page 2) for MOUNTAIN HOUSE ARCHITECT[®] contact information. You may contact us[®] 365 / 9AM-9PM EDT(NYC-USA). The firm has a national & global practice.

POSSIBLE PRELIMINARY SERVICES/PHASES

Before the formal main 8 phases of a typical architectural project, there are often preliminary services paid for by a Client, in advance, and provided by the Architect BEFORE the main project agreement is entered into and before the main project services are begun. There can be many different such early pre-project services, there is no set rule. Why this occurs is often to allow the Client to receive some initial information, so they have some idea of what's about to happen in the main project process. None of these preliminary services are free, although they are often described as an "LCC" (Low Cost, no Commitment) service, that allows the Client and Architect to work together on something of interest to the Client, to start to obtain a briefing on the scope of the project and its general possibilities, sometimes before mutually agreeing to the main form of agreement. None of these early preliminary services are intended to take the place of future main project phased work (that you can see in the main project 8 phases in the following pages in these e-book).

SOME EXAMPLE EARLY PRE-PROJECT SERVICE EXAMPLES:

Site Walk

(this can be called Site Exploration, Land Review, Site Analysis/Diagnosis, or other such titles. The fee for this can vary widely, from in the low thousands of dollars locally (within 15 miles of the Architect's main place of business), to more if involving travel to other states on the part of the Architect, which may also involve hotel, air travel, food and rental car expenses. This is still considered a bargain, as such services provide the first clear idea of what the land characteristics are, in terms of topography, main views (good & bad), where the best location(s) might be for the main house, garage, vehicular maneuvering, driveways, rear and front porches, preferred septic and possible well locations (to be confirmed later by local Health Department). There are also multiple digital photos taken by the Architect, documenting some of the featured locations. This author believes that the Site Walk service is an important early service that should be seriously considered by any Client, as it provides the Architect with the all-important site understanding that being there in-person provides.

Needs & Options Review

This service can take various forms, and may be included in the Site Walk, or be an independent service. It is often several hundred dollars, but can be over a thousand, when greater detail is provided. It is sort of like a Cliff's Notes version of the more formal Project Programming (which will happen after the main agreement is signed and work begun in earnest on the project). It may include a variety of items. Some of these may include:

1. Discussion with you about what you want to accomplish.
2. The main spaces & rooms to be included in your house.
3. Anticipated Heated Square Feet in such a house.
4. Desired porches and other outdoor living spaces.
5. Anticipated Square Feet for those spaces.
6. The main orientations desired, to be confirmed at the Site Walk.
7. Desired number of garage bays.
8. Site features desired, to be confirmed with Site Walk.
9. Realistic \$/Heated Square Foot optional ranges to achieve those results.
Note: we do not guarantee construction costs.
10. Material preferences on Exterior. Impact on budget.
11. Material preferences on interior. Impact on budget.

Often, an emailed PDF report is the deliverable. It may be that such a Review is conducted simultaneous with a Site Walk, which can make a great deal of sense, as much good information and analysis can be provided from such early services. It is quite common that such services are paid by the Client to the Architect at least 2 weeks prior to such services being provided. Future Programming work will add additional detail to such a preliminary analysis.

If the Needs & Options Review is conducted separate from a Site Walk, such service could be conducted one of 3 ways:

- A. By phone, B. Using video conference, C. In-person.

Of course, in-person is preferred, but these days, the Client's main location may be hundreds or thousands of miles away from the Architect's place of business and the land on which they intend to build could be far from either location.

Project Consultation

This is mainly a situation in which the Client comes to the Architect, or has a phone consultation or video conference (via Internet), typically for about an hour. Such service is often the least costly service (perhaps in the low hundreds) because it doesn't provide any deliverables. It is a live consultation, with the Client usually informing the Architect about their thoughts for their project and asking some questions, which the Architect endeavors to answer, as best they can, given the preliminary nature of the information coming only from the Client themselves. Such a service is questionable, in terms of time and expenditure, because nothing tangible is provided, unlike the Needs & Options Review and the Site Walk, from which a great deal of valuable information and analysis is obtained. However, for the Client looking to simply ask a few questions from a professional this Project Consultation may be viewed as a first step to the next service.

Remote Site Analysis

If you are in the very earlier stages of investigating the feasibility of your project, and you don't want to pay the Architect to travel to your site (your land or "property"), some Architects may provide another means of preliminary site analysis, using remote viewing software, like Google Earth. This, while not as good as being there in person, can provide a preliminary gathering of data regarding your land and some tentative ideas about where the best location might be for your future home, garage, vehicular maneuvering, views, and other items the Architect includes in his/her remote diagnosis. This will be less costly than the in-person Site Walk, but, one wonders if you might simply want to go ahead with the Site Walk, as it always provides more reliable information than remote viewing.

Preliminary services summary

There are other early pre-project services that many be offered by certain Architects. These sorts of preliminary services, especially the Needs & Options Review and the Site Walk can provide valuable insight up-front, that can guide the remainder of the main project, and so they actually become the foundation for the rest of the job. Highly recommended and a good value.

Client Centered Architectural Design Process

A: SUMMARY OF PROJECT PHASES

There are 8 main project phases to most design & construction projects.

There are 8 main steps, or PHASES, as is the term in the architectural world, regardless of whether the Architect is engaged to perform in all of them:

1. PROGRAMMING
2. SCHEMATIC DESIGN
3. DESIGN DEVELOPMENT
4. CONSTRUCTION DOCUMENTS
5. BIDDING/ PRICING/ VALUE-ENGINEERING
6. CONSTRUCTION ADMINISTRATION
7. WARRANTY PERIOD
8. POST-WARRANTY

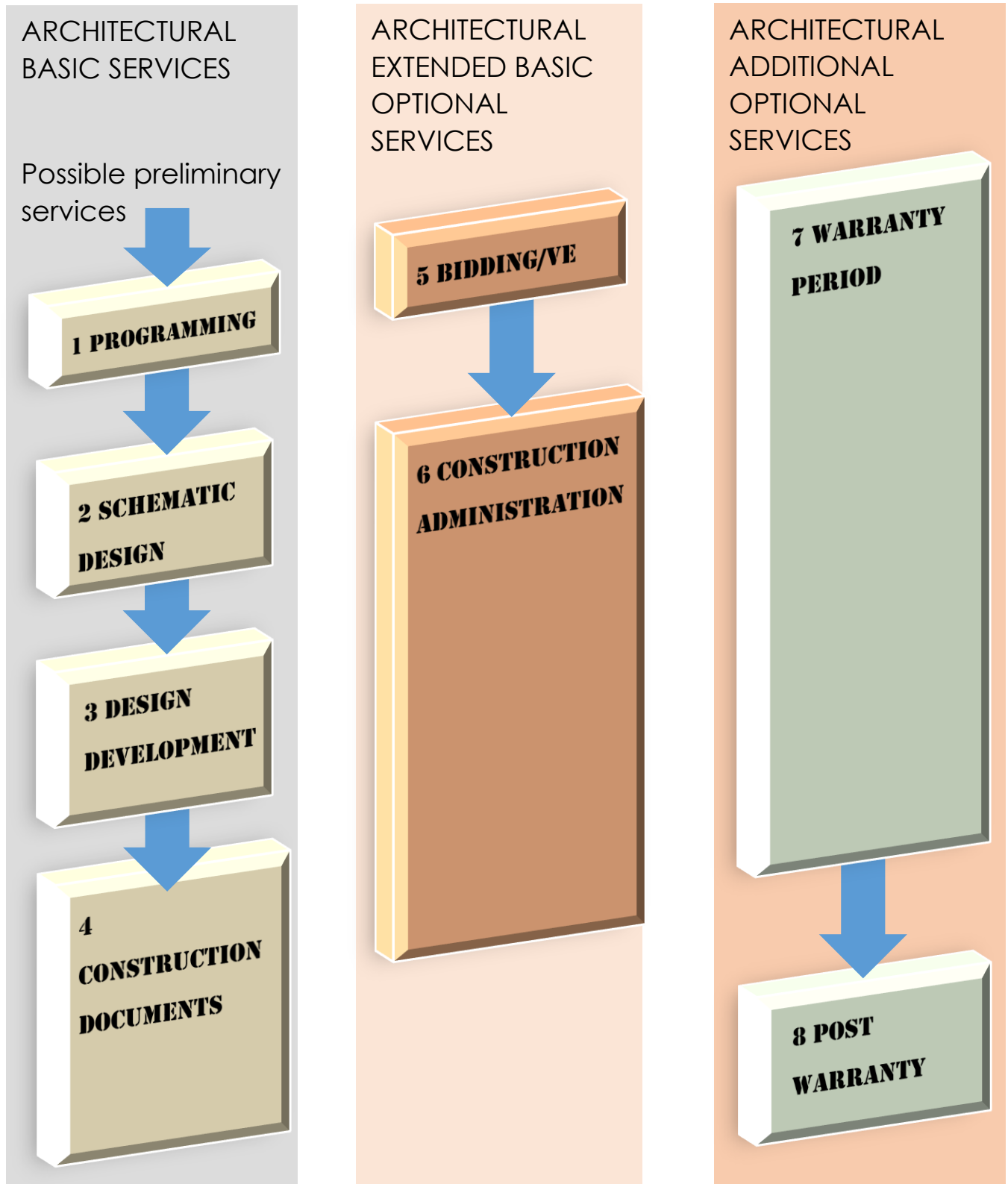
That's it. That is the Architectural Design & Project Construction Process in a nutshell. Now, you are probably asking yourself: "Okay, so what do those terms mean? And how is it Client- Centered?" And why would you want an Architect designing your new home project with a Client-Centered approach as opposed to how someone else might do that and how would that impact the quality, personality and enjoyment of the design that you obtain? These questions will be answered by explaining how each of the 8 steps work.

Wherever our process is involved in an especially Client Centered Activity, we will post a "CCA" by it. While there are similarities to this process from others, each company has their own particular forte.

Ours is: Client-Centered.

Our projects Start with You and stay focused on You.

Diagram of the 8 Architectural Project Phases



The height of each phase “box” gives proportional size relative to the others, with respect for the amount of time involved, except for Post Warranty, which can go on for decades. Also, the Warranty Period can actually last for 5 years or more after the completion of Construction, depending on the systems involved.

Please go to the next page for:

B: ONE PAGE SUMMARY OF PROJECT PHASES

ONE PAGE SUMMARY OF ARCHITECTURAL PROJECT PHASES



PROGRAMMING (P)

This is the BEGINNING. You talk about what you want; we listen. We ask questions & make comments. We document the discussion & receive your approval before moving forward. This is the “bible” for the project.



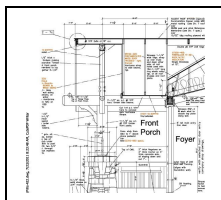
SCHEMATIC DESIGN (SD)

We create a preliminary design, typically Site Planning & Floor Plans at this stage, based on the Programming, so that you get what you asked for. We request your approval before advancing.



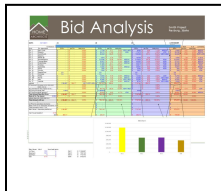
DESIGN DEVELOPMENT (DD)

We create the main exterior elevation, request that you review & approve, then proceed with the other exterior elevations, & add detail to the plans & develop building system ideas. You approve before moving forward.



CONSTRUCTION DOCUMENTS (CDs)

We create detailed CDs (Construction Documents), which typically include noted & dimensioned plans, exterior elevations, building sections, wall sections, finish & door schedules, details & specifications. There may be other documents (your choice for optional services).



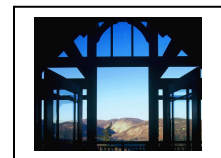
BIDDING/PRICING / VALUE ENGINEERING (B /VE)

We can manage the Bidding/Pricing/Value Engineering process for you, if you wish. We solicit licensed General Contractors to bid your project, answer questions, issue addenda, receive bids, analyze results with you. VE allows us to negotiate with the Builder(s) to make cost-saving revisions.



CONSTRUCTION ADMINISTRATION (CA)

Construction. We can provide a variety of CA services including project visits & reports, to help you & the Contractor build the project in conformance with our documents. This may include substitution analysis, crisis solution, shop drawing review, GC pay request review, punchlists & more.



WARRANTY PERIOD (W)

After construction completion. Usually at least 1 year, but can be 5 years or longer. Your Architect can help you obtain free or prorated service &/or replacement of various items of your home & project.



POST WARRANTY PERIOD (PW)

Warranties have expired, but your home/project still requires maintenance. Your Architect can help you understand what to do.



1. Programming

Programming is what happens first.

CCA: We, as your Architect, listen to you tell us what you want.

We take notes and ask occasional questions. We verify certain things that our experience tells us you might wish to consider, as people often have preconceptions that impact their cost, without them understanding that. We point out these items, so that you can determine how important various aspects of your project will be to you in terms of budget and functionality. For a house, we typically walk you through all of the spaces in the house, one by one, in our minds together, imagining what features are in each room & space. This becomes the main “bible” by which we design.

CCA: We document these descriptions of what you want, with our input.

We then usually e-mail the Program Document to you, for your review, consideration, possible modification and eventual approval.

CCA: You approve the program.



2. Schematic Design

After we obtain your approval (above for the Program), we can proceed to Schematically Design your project.

CCA: Typically, we will coordinate with your surveyor, helping you obtain a survey that has what is required to allow us to properly do our job.

You don't have to worry about this; we will handle it for you, after we obtain your surveyor's contact information from you. You still pay your Surveyor directly.

The survey is the legal canvas on which we paint. It tells us the size and dimensions of your land, records any legal easements, building setbacks, utility locations and other important information that affects the placement and design of your new home. We are amazed that some firms still do this by hand or with sketches. The width of a pencil line on a survey can be 5' or more, depending on the scale. That could result in serious errors and we don't tempt fate in that manner. We draw everything on computer, from the beginning, so everything we create for you is precise. We know if your home works, right from the beginning.

Next, we will create the first iteration of your Floor Plans & Site Plan. Then we stop. Why? Because you need to see what is happening right now!

CCA: We provide you with the initial Schematic Design.

We either meet with you in person or electronically email PDFs to you, for your review, consideration, possible modification and eventual approval. You are welcome to have your local print shop download and plot the drawings on large sheets if you wish.

You may ask: well, wait, why don't you create the whole design before showing us anything?

The answer is: We consider such a procedure to be downright arrogant. How dare your Architect go so far down the road with his design before obtaining your input and reaction to what he or she has done thus far? It is your house; your land; your money. You deserve to be an integral part of its creation. You are a design team member, in our process.

CCA: At least, that's how our Client-Centered Architectural Design Process works: we obtain your input and approval all along the way.

So, you review the SD (Schematic Design) and we talk about your feelings and perceptions. Do Not be shy. As we've said above: this is your money, your land, your house and your future lifestyle. We want you to be happy in this new home.

CCA: We make your requested changes to the plans and then proceed to the next stage in the process.

CCA: We request your approval, allowing us to proceed to the next phase of our work.



3. Design Development

CCA: After we obtain your approval for the Schematic Design, this is where we develop the previous plans and add more detail and also create the exterior building elevations.

Elevations are what your home looks like from the outside as you stand and face your home, looking at the various sides, straight-on. First, we only create the Front Elevation and stop. Why? Because before we are so presumptuous as to create all of the elevations, we should at first obtain your review and approval of the direction in which we are going aesthetically. Once again, how dare any Architect proceed to do a ton of work (for which you are paying) before receiving your approval for the artistic design direction? After all, this home will be a reflection of your taste, your style and will become your “face to the World,” when people come to visit you there.

CCA: We provide you with the Front Elevation.

We either meet with you in person or email you PDFs depicting the evolving plans and the Front Elevation. You are welcome to have your local print shop download and plot these out on large sheets if you wish.

We ask for your consideration, review, possible changes and eventual approval.

CCA: We make your requested changes to the Front Elevation.

CCA: We then request your approval of the Front Elevation and status of the project to date.

After you provide your approval, we then proceed to create the remaining Exterior Building Elevations of your proposed home.

Can you guess what happens next in our HOME ARCHITECTS[®] Client-Centered Architectural Design Process? Yes. We want your input and your approval before proceeding. You are in integral part of our team. We are Your team, working with you to obtain the design that you want.

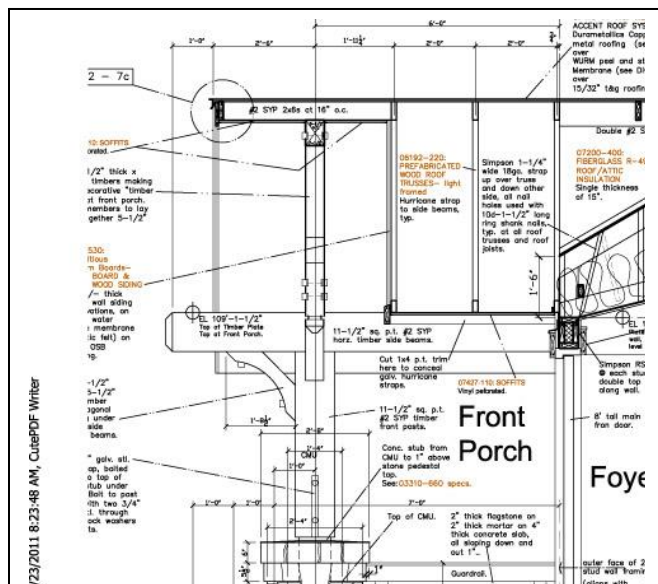
CCA: We provide you with all of the Exterior Building Elevations and developing plans.

You will begin to notice that dimension lines are appearing all over the project documents and our unique Numbered Drawing Note system is identifying various things on the drawings, keyed to a list of note descriptions, that results in precise and neat project drawings, linked back to the specifications (in a future phase of the work). We have our own ISO 9000 process for our computerized drawings, with dozens of checklist items so that your documents are well-coordinated and professionally accomplished.

We request that you review the Design Development (DD) documents, make requests for modification, if any, and approve them.

CCA: We make your requested modifications, based on the scope of work and our agreement with you.

CCA: We ask for your approval of what we have created for you thus far.



4. Construction Documents

CCA: After we obtain your approval of the Design Development and your permission for us to proceed, we then create the CDs (Construction Documents).

This is where the rubber meets the road. What we mean by that is: these will be the documents that are intended to be used by your contractor to build your home. This is where the remaining detail is added that will provide the information to answer most of the questions posed by your builder. At the HOME ARCHITECTS®, we believe in creating a very detailed set of documents with lots of dimensions & notes, specifications, and other information to properly explain the design intent to result in a good project.

Although not necessarily all-inclusive (and some are optional), CDs often include:

Title Sheet

General Information & Drawing Index

Floor Plans

Site Plan

Exterior Elevations

Roof Plan
Building Sections
Wall Sections
Details
Finish Schedule
Door Schedule
Specifications
Electrical Schematic Plans
Cabinetry Elevations
Possible 3D Imagery
Structural Engineering Documents

There are also other services that may result in the creation of additional documents.

CCA: Our extra effort to create this detail is part of what we do on your behalf. It gives you an excellent set of documents.

Good documents will hopefully give you a better job from your selected builder, assuming that he or she does their part to build according to the approved documents.

CCA: During the creation of the CDs, most clients are not very interested in the day-to-day document creation. However, we do request a few important reviews with you to insure that you approve what is in the CDs.

For instance, we offer to review the Finish Schedule in detail with you. We also offer to read through the highlights of the specifications (which is a long session). We have heard that not many other Architects and certainly not so-called “residential designers” have anywhere near the level of detail we provide in our documents. Many do not even provide specifications.

And what are specs? They are the detailed text descriptions of WHAT is being used in your project. Specs determine the Quality of the components of your project. Without them, you are relying on what few notes the person creating your documents has managed to squeeze onto the drawing sheets, and that will

not be much. Our specifications typically consume about 4+/- full size 24" x 36" drawing sheets.

And just why do we put our specs on drawing sheets, rather than in a separate book (like on commercial projects)? Because on residential projects, our experience has taught us: "Out of Sight; out of Mind." In other words, it is too easy for someone to say: "Oh... there are specs? I didn't get a copy of those, so I just provided what I always do." So we don't allow that to happen. We make the specs a part of the drawing set. With the specifications providing the "What," our graphic drawings indicate "Where" and "How Much," and locate the elements of your new home in 3 Dimensional space: How Wide, How Deep, How High.

We also provide a substantial amount of detail on our typical projects, in the form of Building Sections & Wall Sections and details. We like to use very large scales on our plots so that builders can easily understand how things go together. Why this is important: So your home doesn't leak or fall apart or rot. A highly experienced Architect, skilled in creating quality home designs over several decades knows how to put together a project so that it will last. Having that skill in the form of details on the drawings helps convey that knowledge to your builder, so that he will have the information to do things properly. This will require the cooperation of your builder.

To illustrate the benefits of well-detailed documents, let's consider just one thing, in-depth: doors & windows: we could examine many more items, but we want this guide to be of a reasonably digestible length). For instance, we recently conducted a Forensic Architectural Study of a person's house. We did Not design that home. Nearly all of their windows were leaking and had rotted out the portions of walls beneath them. The home was only 8 years old. The homeowner is going to pay about \$90,000 to have his windows replaced, including material and labor. What had happened is what happens all over the USA & World: when the windows START to leak (not IF), any unprotected materials under them will receive water, which will grow mold and decay the wood and other materials under them, resulting in a structurally unsafe and environmentally unhealthy home.

Most windows do eventually fail. Most people don't notice, because they cannot see into their walls and do not check the surface with a Moisture Meter like we do. We do not know ANY other Architects or builders or building departments that detail window & door openings in the safe manner in which the HOME ARCHITECTS® do. We use a double-coating, double-flashing method to protect the wood of the rough opening BEFORE the windows & doors are installed, including using proper flashings and long-term sealants and quality flashing tapes to provide paths of travel for the water coming from leaking windows & doors to get to the exterior of the home, Not into structural spaces. Would this protect you from a possible future \$90,000 unplanned future expenditure? Yes.

Would that be worth hiring a highly qualified Architect to design your home? Only you can decide. The IRC (International Residential Code) at the time of this writing has only one sentence concerning the installation of windows. It refers to an ASTM standard, that unfortunately allows windows to be installed in the manner in which most builders do it today. Unfortunately, this allowed method relies on the watertight integrity of your window to last forever. Would you think that your windows would perform well in a submarine? Of course not. So expecting this same level of water resistance in your walls is equally improbable.

This level of water-tightness in windows simply does not exist and certainly will not for decades, or over 100 years, the likely length of time your home may stand. Not in expensive windows, and certainly not in the everyday type of windows that probably have been or will be installed in your home. Your only protection is to have the windows installed ASSUMING that they will fail and have your Architect detail those openings accordingly. Such is our practice. Once again, we know of NO ONE anywhere else that goes to this trouble. We believe it is irresponsible to do otherwise. We have been criticized for going to the trouble we do with our details; typically by residential contractors. Why would you suppose that is?

Because they have their methods of expediting their work and don't like having to alter that flow. Also, their comprehensive warrantee to you, as a homeowner, is typically only 1 year. After that, you have to typically contact the providers of the various materials and appliances and doors & windows, not your builder, who is off the hook after that single, solitary year. Did you know that?

The way things should be: the builder & and Architect should be both devoted to the best interests of the homeowner. We have enjoyed this relationship with a number of contractors & homeowners and this is our desired project method. Unfortunately, when the homeowner exerts pressure on the builder to reduce costs, often quality is also reduced and the builder can legitimately point at the owner as the source of the quality cutting. Having your Architect involved can help you temper this process to prioritize things to insure that you hopefully will not have nasty \$50,000 surprises 8 years from when you move into your dream home.

CCA: Proper design of window and door installation, (and many, many other conditions) detailed on the Architect's drawings.

CCA: Quality Control checking (see below):

HOME ARCHITECTS[®] also conducts a QC/QA (Quality Control/Quality Assurance) checking after they send you their CDs (Construction Documents), but before the Structural Engineer sends you his/her final engineering documents.

Why: because Engineers, particularly Structural, often misunderstand the design and often make mistakes, including graphic issues. The Architect is well-advised to check the Engineering documents to check to see if structural spacings of supporting members are properly placed and coordinate well with the Architectural documents. If the Architect does not conduct this checking, conflicts will typically occur, some of which could cause change orders and more money being spent by the Owner during construction. The Architect is providing some of the best services of the contract by performing this coordination and the Clients pay the Architect for this coordination service, as part of the typical agreement for services. This is normal. After this QC/QA, the Architect then signs & seals the CDs (Construction Documents), which allows it to be used for permitting, pricing and construction.

This is one of the most important reasons for the next item.

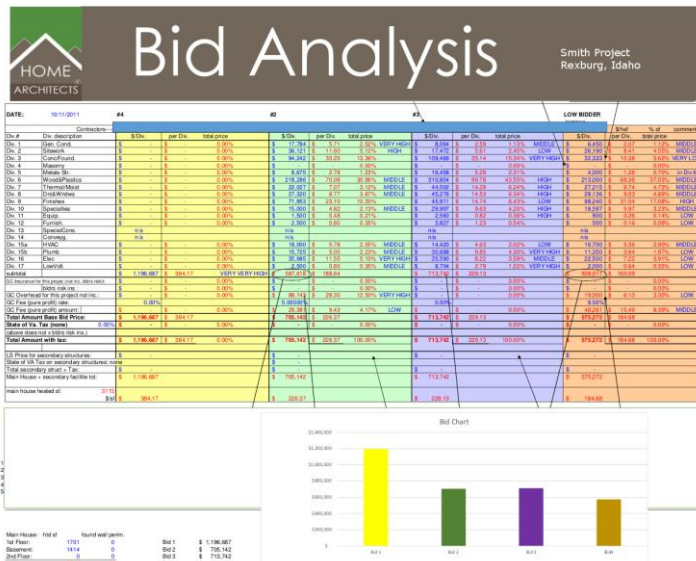
State Boards of Architecture require that Architects post a "Not For Construction" notice on their drawing/specification sheets until the Architect feels comfortable that the set has been well coordinated (and also that the Architect has been paid).

When that has finally been accomplished, the Architect removes the “Not” notice and applies a “For Construction” notice, indicating that the set is ready for Bidding and Construction.

CCA: When we have created the final CD set, we then provide you with a set, as a PDF, which we email to you as links to the files. You are welcome to have your local print shop download & print hardcopy for you.

We request that you review these (often with our guidance), for your information, possible minor modification and approval.

CCA: When you have approved the CDs, we then proceed to conduct the following service, if you have engaged us to provide this option: Bidding.



5. Bidding / Pricing / Value Engineering

CCA: After receiving your CD approval, if you have engaged us to provide this optional service, we help you solicit licensed General Contractors to Bid your project.

This is a very detailed process, and we often coordinate with the NAHB (National Association of Home Builders) and local HBA offices across America, to find qualified possible builders for your project. We review their licenses with the State of the project and see what complaints, if any, they have received, if that State includes such information. Why would this possibly be of interest to you as a homeowner? Well, we had one client that favored a particular builder and he was going to engage him to build his house, but in the end, the client thought he ought to have his Architect (the HOME ARCHITECTS®) manage the bidding process for him. Good choice. Right off the bat, we discovered that the client's favorite builder had 3 registered complaints with the State Board of Contractors. One was for building a house without obtaining a permit. Another was for not properly stabilizing the soil near a house and the foundations began to crack, sink

and fail. Good grief! Not the sort of builder any of us would want! The homeowner would have simply proceeded on his own and who knows what would have happened on his job?

In addition, we review the sort of work accomplished by the various builders (we reviewed over 70 possible builders for one project during the last several decades). We look for compatible examples of the type of homes they have built, as compared with what has been designed, by reviewing contractor's websites and images of homes they e-mail to us, and sometimes through discussions with other Architects on those projects. We are members of a national Architectural professional organization and we have about many brother & sister Architects all across the USA. We narrow the field of possible builders from a "LongList" (sometimes 10+ builders) to a MediumList (perhaps 6+) to a ShortList (5 or so), which eventually results in the final 3 to 4 be asked to bid.

CCA: Decisions are made with your input.

Conversations are had with the ShortList contenders. References are requested allowing you to go to several example homes built by the final contending contractors and talk to their clients and to personally allow you to see the quality of the construction of the contractors. You decide what builders you feel provide the best product. If any of these builders has ever worked with an Architect before, we phone them and ask about their experiences.

Ultimately, we create a large spreadsheet, with questions on it that the final contractors answer and we rank the builders based on their answers. We review with them our website imagery and point out examples of homes that we have designed that are similar to the one being created for you. We ask the builders how comfortable they are with the construction techniques involved and note their responses.

CCA: All of this information about the background of the builders is shared with you.

Then, you make the decision, along with our input, as to the final 3-4 who will be allowed to bid your project.

We manage the bidding process, notifying those lucky builders who get to price the job. We provide them with the approved project CDs. We answer their questions. We provide them with the rules of the bid, establishing the bid date and time, when the bids are due and in what format, so that we can compare apples to apples, assisting you in that comparison process. We create and publish addenda and drawing clarifications that we feel are necessary. We obtain insurance forms from the contractors, so that we know they are properly insured for Worker's Compensation and General Liability. We counsel you on obtaining your own Home Construction Builder's Risk Insurance.

Why, you may ask? Doesn't the Contractor provide that? Well, let's think about that. Why would you want something that you own being insured by the guy that is building it? Did you know that if you own the land, any improvements made upon that land are now typically owed by you, subject to any liens that may be filed? (always seek legal advice from your attorney). So, if you own the home as it is being built, shouldn't YOU be the one who gets paid by the insurance company if something bad happens during construction? Like fire, theft, vandalism, lightning and other destructive forces? Why would you want your builder to receive those funds? You've already paid him. This is just one of the experienced pieces of advice that you receive from doing business with an experienced home Architectural company, and when you allow your Architect to continue into the construction portion of your project.

CCA: Wise counsel regarding your insurance coverage for your under-construction home.

Then, knowing the bidders, having given them the information they need, the Architect manages the receipt of the bids for your home. We list the bidders on a spreadsheet form that we created for this purpose, comparing the various bid breakdowns against each other, seeing who is low, who is high and in what categories of the work. We also compare the bids to historical data from other projects of ours, over the years.

CCA: The Architect shares the bids and bidder's ranking with you.

CCA: The Architect discusses with you, his background knowledge of what is likely going on with the various bids and who appears to represent the best value to the homeowner.

CCA: You have just obtained your most reasonable bid, based on a professionally managed bidding process.

Value-Engineering (VE):

This could almost have its own chapter. However, we ultimately felt it belonged as an appendix to the Bidding Phase. Value-Engineering is not included with the services of Bidding that your Architect provides. Because: there is a slim chance that you possibly may not need it. So, VE is offered as an optional additional service.

However, you should know that Everyone (including you and us) believes that their project will be built for lower than they thought it would be and that you will obtain the deal of a lifetime because of who you are or your personality or your insistence that the Builder construct your home for the price you want to pay or less (especially if you speak loudly or appear agitated).

Reality check: that doesn't happen very often. And being nice helps you get more of what you want than if you are nasty. Typically what happens is a little financial crisis, in which the homeowner will likely be shocked by the prices from the bidding General Contractors. *This is normal.* It happens to us; it will happen to you. It happens to billionaires, millionaires, retired school teachers and everyone in between. It's what happens more often than not. So: **expect it**, if you are the soon-to-be homeowner. Save yourself a lot of hand-wringing and plan on this happening. It is par for the course. In case we're not being clear, here's what "it" refers to: **it is very likely that the price(s) that the bidding Contractors provide to construct your home project will be much higher than you planned on or imagined.** Some clients become angry at us for sharing this very realistic viewpoint. Sorry. We are here to tell you the truth.

So: what do you do? Throw up your hands and decide that you will build nothing and sell your land and stay where you are? That doesn't sound like much fun. But what can you do? The Architect designed what you want and the Builder just said it's going to cost you more than you want to pay to build it. It's over, isn't it? The dream is dead, right?

No. It is Not.

How can this be? There is a major disconnect between the house you want and the price required to build it. What can be done now?

Ta-da! Engage your Architect to now provide you with the miracle of Value-Engineering. Even though your Architect had worked long and hard to try to prevent this calamity from happening, by means of assigning various owner optional upgrades and trying to keep certain things simple, the unthought-of has happened: your project is over-budget bid! Horrors! Now what? Stare at yourself in the mirror and blame yourself for wanting the size of home with the features you demanded? And on the land that you bought, no matter what the costs are to develop it? Yes; do that. You are the responsible party. After all, it's your house and your land. When you are done with that, move on to the next step:

Well, guess what? This is nothing new to any Architect that has been practicing longer than a couple of years. To those (such as MOUNTAIN HOUSE ARCHITECT[®]) with over 5 decades of experience (40+ as a licensed architect), this is seen all the time. The key to preventing further discontent is to now compensate your Architect to provide Value Engineering. Don't be penny-wise and pound-foolish. Don't trash your entire project to avoid paying your Architect a paltry amount to pull the phoenix from the ashes. No, your Architect won't do this for free and no, they are in no way obliged to do this just because your project came in over budget, or if you act ornery. You need to pay them to make this happen. Before you object, read on, it is a miracle:

Just when you thought all was lost, you can have your champion: your Architect, re-enter the picture to help you save the day and your project. Here's how:

Your Architect can contact the low bidder or the two lowest bidders or any combination of bidders (this is another reason you should have paid your Architect manage your Bidding process). Your Architect can engage the Contractors (not all, but perhaps one or two) in conversations to see what they and he/she can think of to remove or postpone or eliminate or otherwise revise or transpose the design/project requirements to decrease the cost of construction.

For instance: instead of the GC (General Contractor) building the project in 12 months, your Architect may suggest they build it in 8 months (or whatever makes sense for your project). This saves 4 months of project administration and many other carrying costs, likely saving tens of thousands of dollars, without even touching the design.

Also, your Builder might suggest changing some structural items. For instance, HOME ARCHITECTS® recently saved about \$60,000 on a project by coordinating a change from one type of foundation wall to another, with the Structural Engineer being compensated by the Owner to re-engineer it. Cost of re-engineering: \$1,000. Saved Construction Cost: \$60,000. Savings to Owner: \$59,000. See what we mean about being penny-wise and pound-foolish? Pay the pros to handle these things. This is an “invisible” change to the design, resulting in significant saved dollars. Now then, if you are a homeowner, you might ask: “Hey: why didn’t you make all these changes before?” Well, because your Engineer and Architect created a design that they felt was prudent and represented good design practice, including a bit of over-design to insure the longevity of your project. These VE efforts are not going to improve the durability of your project. In all likelihood, they will cheapen it. However, the modifications suggested will still probably be within “accepted” practices, while not necessarily at the upper end of desired quality. After all: the entire VE effort is to reduce your cost. And that doesn’t happen without, as they say: “breaking some eggs.” So, if you, as the homeowner, can tolerate some reduction in quality level, you can enjoy some reduced cost. It is an exercise in compromise.

How about if your Architect suggests that you consider your project to be a Phase 1, Phase 2, Phase 3 sort of effort, with the current project effort being considered Phase 1? HOME ARCHITECTS® did exactly that on a recent project, during Value

Engineering. As soon as the Owner wrapped his head around that phasing concept, it became very easy to understand how the cabinetry in a Pantry and a Laundry could be eliminated in Phase 1, saving that cost for a future effort. At least the cabinets were already designed and this could be added in the future whenever the Owner wished to pay for that. The result: tens of thousands of dollars of savings for the Phase 1 construction. At least the space will exist. It will be a simple matter for the Owner to add the cabinetry when that becomes more affordable to them. And the Owner removes that cabinetry from a 30 year mortgage.

And there may be other features that could be redesigned from the more durable, higher-end quality materials and methods to a lesser level to save on the time and materials and efforts required and hence Cost, thereby resulting in savings. Case in point: one MOUNTAIN HOUSE ARCHITECT® project bid at \$848,000. Through Value Engineering, the cost was reduced to around \$575,000 in a matter of a few days, through conversations and emails initiated by the Architect and conducted between the Architect and two of the lower-bidding Contractors, with the Architect reviewing such suggested changes with the Owner and Structural Engineer, along with reporting the expected decreased cost, per the Contractor's estimates. Several of the techniques described above were employed successfully by the Architect & Engineer on behalf of the Owner. Unbelievably, no square footage was lost and 95% of the exterior appearance remained virtually unchanged from the original design.

Hopefully you are beginning to understand just how valuable the Architect's services can be during Value-Engineering. Most Owners are not equipped to make the sort of suggestions or to negotiate with Contractors like the Architect is. For instance, MOUNTAIN HOUSE ARCHITECT®, during a recent VE effort, noticed that the Contractors in the Bidding and VE effort had higher than normal General Conditions in their Division 1 Section of work and higher than normal profit margins and higher than normal OverHead. The Architect calmly suggested to them they lower these. They did. We can't imagine any Owner catching this. This is the sort of thing that pays the Owner back for compensating the Architect to provide VE services. Not to mention: resurrecting your project from the dead zone.

CCA: Once the Architect has negotiated with the Contractors about what adjustments can be made, the Contractors will create an estimated price based on the assumptions included in such verbal or text changes. This is your opportunity to approve or reject such proposals. Be advised: if you reject, you may very well be permanently killing your project. If you still don't like the price, you may also suggest cutting certain features if you don't wish to pay for them in "Phase 1." Realize that you may never decide to pay for the Phase 2 or Phase 3. That will be your choice.

If you Have decided to proceed, you now will need to pay your Architect & Engineer (if you haven't already paid them by advance payment method based on your agreement with them) to revise their documents to make the changes, so that you will have documents reflecting the Value Engineering. You do NOT want to proceed with only memos documenting such changes. Pay your Architect & Engineer to make these revisions so that is what is in the final approved documents. Your agreement with the Contractor will be based on the final documents, so it is in your best interests to pay your Architect & Engineer to make these revisions.

CCA: Now, it is up to you to make your choice as to which contractor will get your business. When you decide, then comes the next phase in this process.



6. Construction Administration

CCA: If you wish, we can provide Construction Administration for your project.

This is the phase in the project where you sign a contract with your builder to construct the project for you. This usually takes a few weeks to mobilize. This typically can be anywhere from 2 weeks to 2 months, or more, depending on your contractor's circumstances, your financing and your desired start date. No one appears on your site the next day, ready to dig dirt. It takes some planning on the part of the builder and scheduling of personnel and subcontractors. Also, there are administrative tools that we request on your behalf that your builder must prepare, like a Schedule of Values, that lets you know, in general, what is going to be done and when, and the monthly charges you can expect associated with that work. Our presence on your project helps you to obtain professional tools like this, otherwise some builders might not provide such items.

Our fiduciary relationship is with you, the Homeowner. We look out for your best interests. Building a project costing several hundreds of thousands of dollars (or more) could benefit greatly from having the Architect watching out for your best interests. Otherwise unfortunate things can happen.

For instance, you could direct your builder, in your agreement with him, to run his Pay Requests through the Architect. This means that your Architect reviews what your builder is charging you for and your Architect reviews what he has accomplished on your site, before approving the pay request. This can even be done remotely, using digital photography from you, the builder, or others, sent to the Architect, or the Architect can make in-person occasional site visits. The Architect compares what he sees as being installed on-site with what the Contractor's Pay Request indicates. Unless you happen to be a skilled construction person, you may not understand what you are being billed for monthly. An experienced Architect will swiftly know if the charges in the GC's (General Contractor's) Pay Request match the anticipated Schedule of Values and what is seen on-site.

CCA: This can protect you from over-paying for construction invoices.

Your Architect also checks what is in place in the project and compares it with the approved CDs (Construction Documents) to insure that, in general, the work of the GC is in accordance with the design intent, and in compliance with what you thought you were receiving. This can be an ulcerating experience if you go this alone.

CCA: Having the design professional that created your Construction Documents with you during this sometimes bumpy ride can help smooth your path of travel.

When a builder knows that an Architect is involved, he has a higher level of quality to which he knows he must adhere. Many contractors work very hard for a living and deserve every penny they are paid. Occasionally, there is a rascal that gives the others a bad name. That's one of the things that your Architect can help you monitor. And even the "good guys" sometimes need guidance in how to handle situations and having your Architect and your GC on the same page helps you to obtain a better project.

CCA: There are thousands of decisions required during the construction of a home.

Having your Architect along with you during this effort can help you make sound choices that improve your project.

CCA: Once in a while, a homeowner may want to replace their contractor. As unpleasant as this sounds, this does happen occasionally, and having your Architect helping you make the transition can help things proceed in a more businesslike manner.

CCA: Often a GC or his subcontractors are not familiar with a higher quality of material or detail and can miss things, resulting in an unintentional degradation of quality in your built home and a reduced quality in your lifestyle later, due to such missed items.

For instance, we here at the MOUNTAIN HOUSE ARCHITECT[®] specify 100% epoxy grout and tile setting bed, resulting in a situation where you should never have to work hard to clean your tile joints in your shower, because there are no pores in the grout to harbor mold spores, because no water is used in the mix, like is typically done with Portland Cement (which most tile-setters use). So, having your Architect along during construction presents a valuable quality-control situation, in which your Architect can alert your GC to this situation and ask them to coordinate with their subcontractors to use what was specified, to avoid any problems and that the Architect will be looking for this in the next few upcoming weeks and during the Pay Request review. This sort of coordination puts the GC on notice that he must communicate with his subcontractors to use the quality materials specified to result in the quality project for which you are paying. This then provides you with a lower-maintenance home and more leisure time to enjoy, just one of the benefits of having your Architect provide Construction Administration (CA) services.

There are other benefits but we wish to move this description along. Once Construction of your home is done, there are typically 1 or 2 “Punchlists” that the Architect administers, to request that your builder correct certain things that do not appear right. This helps you obtain that “squeaky clean” high-quality finished home that you want and deserve.



7. Warranty Period

You think that you are done completely when the construction is done and you have moved in. Well, what if something happens during the Warranty Period?

Like a leak? A malfunctioning appliance (if the GC provided those), a window pane cracks, a door's hardware doesn't seat properly, some material rots, the air-conditioning goes on the blink, your fireplace damper doesn't draw the smoke adequately, your garage door doesn't hit the concrete squarely, or any number of unfortunate things.

CCA: Having your Architect provide you with occasional hourly Warranty Period services can help you obtain the attention you deserve to have your GC fix these situations under his comprehensive (and typically 1-year) bumper-to-bumper warranty.

Not having your Architect involved can sometimes be less effective. Your Architect knows where to go with State Boards to file complaints, if necessary and the mere implication of such an action often results in swift attention to correct

latent defects in the materials and workmanship of your home. Often such discussions are not even necessary, as contractors often view Architects as the source of future projects, whereas your home may be the only thing that builder will ever do for you. GCs often prefer to cooperate with Architects to keep things positive and to prove that they are a quality builder who takes care of their clients after the sale.

CCA: At about the 10 month point after your home's Substantial Completion (a technical term that your Architect usually defines for his projects), he will want to schedule a Warranty Walk-Through of your home, if you have engaged him to provide this service. Your Architect schedules this at the 10-month point, to give your builder time to make the corrections noted Before the 12 month warranty expires.

So, having your Architect coordinate and manage this event can result in you obtaining hundreds or thousands of dollars of potential corrective procedures and materials if anything is noticed that needs attention. Not many homeowners are aware of this or take advantage of it. Having your Architect coordinate it gives it the professionalism it deserves. Contractors take this very seriously. Whatever you pay your Architect to conduct this review is typically paid back many times over in corrective actions on the part of your builder.

CCA: If you have had unfortunate relations with your builder since you moved into your home, having the Architect conduct this warranty review as an impartial 3rd party usually has more effectiveness than trying to do it yourself.

Your builder may interpret such unilateral actions on your part as simply one more attempt by you to gouge him for things he deems unreasonable. The Architect can help things remain on an even keel and typically builders are anxious to accomplish such final lists and be done.



8. Post Warranty

CCA: Well, you thought you were done again, but with a house, there is always something that you might be considering doing, or something may have happened. And in this, your Architect can save you thousands of dollars.

For instance, you may have been in your home for 4-1/2 years and suddenly your air-conditioning goes out on you. You may discover that your heat pump failed. Some people may just pay to have such expensive things replaced.

If you had consulted your Architect, and paid a simple and economical hourly rate, you may have discovered that some items like this may have 5 years or more coverage from the manufacturer. Having your Architect look into this for you could save you thousands of dollars.

CCA: Also, you may want to consider having your Architect conduct a yearly or every 2 or 3 year walk-through observation/field visit.

He may see things that might require some minor maintenance now, but left unattended, could have resulted in much more expensive repairs later. This is

called Preventative Maintenance, which is typically a much less costly and considerably more comfortable method of home maintenance.