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“So You Want to Build a Fire or EMS Station?”
Part Three: The Architect’s Services and Responsibilities

Written by: Kenneth C. Newell, AIA NCARB

It has been said that an Architect doesn’t know a lot about anything but knows a little about everything. To a degree that is a correct statement in that for your Architect to do the best job they must be knowledgeable about thousands of issues. When you stop and think about the hundreds of workers and millions of pieces of materials that it takes to construct a building it’s a miracle that anything ever gets built! The Architect is the one most responsible for the overall coordination of the project. That’s a heavy load on the Architect. But he is a professional. Don’t try this at home!

The services and responsibilities of your Architect are too numerous and legal to go into minute detail in one article. However we will attempt to provide an outline discussion of each phase of service that will give a comprehensive overview of what you should expect from your Architect once they are selected.

The Architect’s services and responsibilities are typically divided into five phases: *Schematic Design(SD)*, *Design Development(DD)*, *Construction Documents(CD)*, *Bid/Negotiation(BN)*, and *Construction Administration(CA)*.

Schematic Design (SD)

During SD the Architect will solicit information from you during a *data gathering* period. Most of this information will be the items identified in our *Part One* article, *Getting Started* and includes items like surveys, environmental/geotechnical reports, needs lists, etc. The Architect should be able to define these items and help to coordinate their retrieval.

One of the first meetings in SD will be to *program* your facility. Using your list of needs and the Architect’s experience in station design, you will work as a team to develop a comprehensive list of every space needed inside and outside of your facility to satisfy your requirements. The Architect should be able to determine the required space size for each of these needs. Based on previously discussed construction types, the Architect should also be able to provide an accurate *cost of construction* from this information. This early meeting should result in the most important factors of your project: spaces,

sizes and costs. With this valuable information you are able to make adjustments to your scope and/or budget before the first line is drawn by the Architect.

After you are satisfied with the program, the Architect can use it and all the other data that you have provided to develop schematic site plans, floor plans and exterior views or elevations of the proposed facility. Each of these steps normally take a couple of attempts to get the design that is completely acceptable to you.

Design Development (DD)

With your approval, the Architect will develop the SD into a more comprehensive design by incorporating things like civil, structural, mechanical and electrical systems in the mix. This will not result in actual drawings for these disciplines at this time but will massage the design into a facility that has accommodated each of these systems.

DD often results in rendered drawings that present the appearance of the proposed facility so that all interested parties can visually comprehend what the project will look like once constructed. These renderings can be presented to the board, council or public for support and approval to proceed. The estimated cost of construction should also be updated at this point.

Construction Documents (CD)

Many old-timers know construction documents as *blueprints*. Well, blueprints rarely exist anymore and CDs include drawings and written specifications. These are the documents necessary for permitting, bidding and building. This is the most complicated part of the Architect's services. Remember those millions of parts I talked about a minute ago? Well, this is where they have to be identified.

CDs will address every division of construction including; civil, landscaping, structural, architectural, plumbing, mechanical, electrical, and possibly, furnishings. Most of the drawings included in the CDs are not understood by the average layman. That is why the Architect should do his best to make sure that you are aware of every product specified for the project. The projected cost of construction should be updated at the end of CDs. You should not allow the project to proceed into the next phase until you are confident that you understand the facility defined in the CDs.

Many Architects can design an attractive facility, but fewer are capable of producing quality CDs. A good Architect should have a well-defined *quality assurance* program in place for reviewing CDs prior to releasing them. You should inquire as to what that program is. A good, tight set of CDs is what will provide the best prices on bid day and the least questions/problems during Construction Administration.

Bid/Negotiation (BN)

During this phase the Architect will assist you in soliciting bids for the designed project. Most Fire or EMS stations are municipally owned and usually require public bidding. The Architect will help advertise for bid, distribute CDs and answer contractor questions during the bidding schedule. If significant contractor questions arise during the bidding schedule, the Architect will issue addenda to answer those questions for the benefit of all bidding contractors. At the appointed time the Architect will receive the bids for the construction and tabulate them for you so that you can make an informed decision to award the contract.

Depending on your state and local laws, you may be able to negotiate a price with a single contractor without public bidding. If this is the case the Architect can work with the contractor even before the BN phase to decrease the time needed for BN. Aside from *Design/Build*, it is very unusual for a public safety project to not be publicly bid.

Construction Administration (CA)

Now that you have a bid that falls within your budget the messy part begins. If you don't deal well with mud, dust and an array of equipment and workers, now would be a good time for a 6 to 12 month vacation!

The Architect can prepare the *Owner/Contractor* contracts and make sure that all the necessary paperwork is in place. After issuing a *Notice to Proceed* and before the contractor actually mobilizes, the Architect will begin reviewing the contractor's proposed schedules and shop drawings. Once construction begins, the Architect will regularly visit the site to observe the construction. If the Architect observes any construction conflicting with the CDs he will require that the contractor correct the issue. The Architect typically sets regular meeting times that require the presence of the Owner and Contractor to discuss progress and outstanding issues.

Each month the contractor wants to get paid. *Imagine that!* The contractor will prepare a pay application and send it to the Architect. The Architect will review the application to identify possible inconsistencies with what construction has actually been completed. After the Architect is satisfied with the application he will forward it to you with a recommendation to pay and/or withhold monies.

Near the end of construction, the Architect will prepare a *punch list* of items to be completed by the contractor prior to final payment. The Architect will verify that the *punch list* is completed prior to issuing a letter to you recommending acceptance. The Architect should coordinate the collection of all *operation manuals* and *as-built drawings* for you.

Most projects require a one-year warranty period against defects in materials and workmanship by the contractor. The Architect will return to prepare another punch list to be completed by the contractor 11 to 12 months after you occupy the facility.

Almost all litigation surrounding the construction industry occurs during CA. It is therefore critically important that the Architect be extremely qualified and attentive to his responsibilities during the entire project, particularly during CA. I mentioned before that many Architects can design an attractive facility and fewer are capable of producing quality CDs. But during my career I have observed that even fewer are able to provide CA services that will do the most to result in happy Owners, Contractors and Architects. This design phase is definitely one that should not be taken lightly.

Bottom Line

In every design phase the Architect works for the Owner. His responsibility is to the Owner first and all others second. A good Architect will provide support for you long before you hire him and long after the construction is complete. He should listen to you and not be wrapped up in his own goals. No one, including Architects, is perfect. But you should be able to expect the best possible effort from your design professional. Next issue we will have a candid conversation about construction types, materials and building recommendations.