



Renovation or New Construction *From Dreams to Planning to Committees*

The Dream: How many of you remember the words, “If you build it they will come?” from the movie “Field of Dreams”? Don’t we wish that this is as true for bringing new people into our churches as it was for bringing back the ghosts of baseball greats to a baseball field built in the middle of an Iowa corn field?

To build or not to build, to move or to stay, to renovate or to leave it as it has always been? These seem to be the questions that many churches are or should be asking. We need to ask the difficult questions: Is this something that we need or is this something that we want? Do we do a major renovation or do we leave things as they are? A church that does not take the time to ask the right questions and then to faithfully process the answers before starting a renovation, expansion or a new church building is on course for disaster and failure. We must first discern the direction in which our church ministries are headed. After all, it wouldn’t make much sense to build a soccer field if our ministry is basketball.

Facilities and Ministries Assessment:

Once you have established direction for your church’s ministries, it is time to assess the existing facilities. Are the current facilities adequate to best serve

the people and chosen ministries? This includes size, location, function and code compliance. Analyze the project based on realistic estimates for growth and needs. This should take into account all of the current functions of the church: administration, education, childcare, fellowship, youth, community space, recreational space, worship space, music and choir spaces as well. Additionally, the project should keep in mind current accessibility issues, ADA compliance, covered drop-offs and parking needs.

Remember to keep asking if your ministries are currently molded to fit the existing facilities or if the facilities can be molded to meet the needs of your planned ministries? Again, we caution that returning to a “If we build it, they will come” mentality is likely a recipe for disaster.

Initial Stage - Master Planning:

Most congregations should have a Master Plan in place. A Master Plan is developed for all church facilities,

including current facilities, what is ultimately needed, their placement on the site and a time frame for the additions or improvements. This is completed after a planning committee has identified the church’s overall needs with future projections. This plan does not need to be a highly complicated or detailed drawing. Rather, it can be a basic outline of site and building development to show the relationship of all buildings, as well as site development.

This Master Plan could be done by a church committee or an architect could be hired to do it for a fee, which, on average, will run around \$5,000. The fee should not be paid as a percentage of the total Master Plan’s building costs, since the plan will probably be modified over the years to allow for changes. Typically, a simple schematic outline of future buildings with minimal detail of future units will be adequate. However, it should allow the committee to see the spatial and aesthetic relationships of the total facility and site use.

Building Committee:

If after extensive research, the church determines it needs to renovate, expand or relocate in order to fulfill its ministry direction, it is time to form a building committee that will be the eyes, ears and voice of the church. The committee will function from this point through the completion of construction and acceptance of the project. This group, consisting of



7-9 individuals depending upon the size and scope of the project, will be charged with interviewing and ultimately employing an architect or design-build firm. (A larger committee will slow down or hamper decision-making.) The committee will be responsible for conveying the needs and dreams of the church to the architect/designer and with working within the church's financial capacities, determined with counsel from a Disciples Church Extension Fund advisor. The committee also will be charged with the selecting a contractor and overseeing the correctness and quality of work done for the church.

The committee chairperson should be someone who is respected for his or her leadership and organizational abilities. The chairperson should be able to keep meetings moving, be knowledgeable about general construction practices, finances and have a good understanding of the church's background. The chairperson must be able to talk with the congregation and the contractor, He or she cannot be passive or indecisive. **The chairperson's job is to lead.** He or she must be able to see the big picture and have a clear understanding of the goal that is to be achieved. The influence of the person in this role will definitely have an impact on the overall process. Choose this person wisely.

The rest of the committee should be made up of a cross section of the congregation, representing their different interests and age groups, and must maintain open-mindedness and good judgment. The committee members must be willing to dedicate themselves from the beginning and throughout the life of the project. It is crucial that a member be able to attend as many meetings as possible so as to be up to date on what decisions have been made

and where the project is currently within the time frame. Minutes of each meeting should be kept, so that a record of all decisions and activities will be available for review. Most importantly, Christ should be at the heart of all meetings and acknowledged that it is through the talents granted by Him to each of us that His work will flow.

The Construction Sub-committee:

Further into the project, but just before dirt is being moved or contractors are on the project site, there comes the need to streamline the committee and decision-making even further. When the bids are received from contractors and found to be within budget limitations, the chairperson of the official board will appoint a construction sub-committee comprised of three individuals: the chairperson of the building committee, building fund treasurer and one additional person. This sub-committee will be the **only** liaison group between the congregation and the construction team, i.e., architect, contractor and subcontractors. Keep in mind the sub-committee does not assume duties of the building committee, which remains in place. **The chairperson of the building committee is also chairperson of the construction sub-committee and is the SOLE AUTHORIZED SPOKESPERSON in dealing with the architect and the contractor during the construction period.** It must be stressed to the architect, contractor and subcontractors that the chairman, and only the chairman, has the authority to make changes or requests on behalf of the church.

This sub-committee maintains a cost-control budget showing expenditures-to-date and 30-day projections secured from the contractor by the

architect. It also approves payments during the construction period—to both the contractor and the architect—upon certification by the architect. The building fund treasurer is a member of this committee and must request construction loan advances from the lender.

The construction sub-committee should secure for the church two sets of final plans and specifications, often called "as-built drawings," on which the contractor has recorded all changes that were made during construction and the location of supply and waste lines that are hidden from view. These can prove to be very valuable in future years when maintenance problems arise or when additions to the building are made.

An Architect's Responsibility:

The primary responsibilities of an architect are to work with the church to develop an appropriate and functional design that meets the church's ministry requirements and to make sure that all of the plans and specifications meet all of the public health, safety and welfare regulations required by the state, county and city. These ministry requirements should address whatever existing deficiencies have been identified and identify space requirements sufficient to allow additional growth for another seven to 10 years. In addition to these design services, the architect usually serves as an advisor and representative of the church during construction to ensure that the project contractors do the work in accordance with the adopted designs and specifications.

Finding the Right Architect:

Architects are required by all states to meet education requirements and to have passed extensive examinations in order to be licensed. Just because all



architects must pass the same requirements does not mean they are the same. It is because of their differences that it becomes necessary to interview potential candidates for your project. In addition to his or her artistic skills, each architectural candidate brings a broad knowledge of building materials and construction methods. It is important that the church feels comfortable with their choice of individual/firm. From the very outset, they must be able to communicate freely and to share thoughts and ideas. Because each architect is unique in his or her own way, it will be up to the church's building committee to determine what kind of architect to hire—a "generalist" or a "specialist." The generalist architect is one who designs all types of structures, i.e., office buildings, retail establishments, government facilities, community and fine arts centers, warehouses, etc. It is not uncommon for this type of architect to have a "learning curve" with the various projects they face. This may slow down the design process significantly for a church, since the design of a church facility not only involves basic principles such as aesthetic appearance, functionality, and construct ability, but, in most cases, it also involves the unique liturgical requirements of the church's denomination.

There is another consideration that sets a church client apart from other commercial architectural endeavors. In most commercial projects, the client has had some prior experience in developing a new facility. However, most people who agree to serve on the various committees in their church's building program have never been involved in a church building project before. The church building process can be complex in itself and putting a "generalist" architect with little or

no experience working with diverse church committees in the mix can further complicate things.

On the other hand, a "specialist" architect is one whose expertise is in the design of one specific type of structure, in this case, churches. Although this type of architectural specialist may work on other types of projects, the main focus of effort and interest is with churches. Because of this focus, the specialist usually does not have to contend with a "learning curve", especially if he or she has been in the profession for a number of years.

So where do you find these church architectural "specialists"? Perhaps the best source is right in your own backyard, in the churches within the community that recently built new facilities or made renovations. Many times, you can also find them advertised in church-related magazines, and on the Internet. You may also want to check your local yellow pages directory, or contact your states society of professional architects.

Selection of an Architect:

An architect should be selected carefully, thoughtfully and without haste. The building committee is responsible for representing the congregation faithfully and should undertake a careful plan of selection to see that the architect most fitted for the job is retained. While training and ability are important, do not overlook personality characteristics. The committee will spend a great deal of time with the architect, developing ideas and spending thousands of dollars. What the church receives in the form of planning, good construction, low maintenance costs and aesthetic appeal will largely depend on the judgment, ability, character and sincerity of the architect. It is recommended that three or

four architects be interviewed before a selection is made. A personal interview with prospective architects will be the initial step. The committee will then collect references, visit a project or two, and obtain a record of the candidates' performance with previous clients and also with contractors who have worked with them in the past as well. In the interview, the committee should not expect the architect to provide immediate plans or solutions. Nor should a committee expect free services prior to employment. To assist the committee in its selection, a systematic interview process will be aided by the use of the following questions:

1. What do you see as important issues or considerations in the project? What are the challenges of the project?
2. How will you approach the project?
3. How will you gather information about such things as needs and goals?
4. How will you establish priorities and make decisions?
5. With whom from the architectural firm will the committee be dealing directly?
6. How interested are you in this project?
7. What is your current workload?
8. What sets you apart from other architects in the area?
9. How do you establish fees?
10. What would you project the fees to be for this project?
11. What are the steps of the design process?
12. How do you organize the design and construction process?
13. What do you expect the church to provide?
14. What is your philosophy about church architecture?



15. What is your experience/track record with cost estimates?
16. What will you share with us as the project progresses?
17. If the scope of the project changes later, will there be additional fees?
18. What services do you provide during construction? How often will you be on-site inspecting?
19. What is your experience with projects similar to this?
20. Can you provide us with a list of past clients whom we can contact?

Selecting an architect on the basis of fee alone is dangerous. An unusually low fee should raise questions, although the fee percentage is usually lower with a larger project. Fees for remodeling work are usually higher than those for new construction, since there are so many unknown factors in remodeling older buildings. The fee is based on a percentage of the project construction cost and usually ranges from 5% to 14%, depending on the size and type of project as well as in what part of the country the church is located. In some instances, a flat fee may be negotiated for a specific task. Fees are generally invoiced on a monthly basis as the planning progresses. On projects of limited size, the fee might be based on an hourly charge rather than a fixed percentage. A clear understanding of fees should be spelled out in a written contract.

Many building committees are unpleasantly surprised when construction bids are opened to reveal a significant difference between costs provided by the architect and the bid. The following paragraph should be included in the contract with the architect (in addition to the language in the standardized American Institute of Architects contracts many architects use) to

protect the congregation from paying additional design fees to redesign a project:

The architect agrees to work within the budget specified by the church. If actual bids for construction of the building exceed this budget by 10% or more, the architect will make revisions in or re-draw the plans to meet the budget without additional cost to the church. The maximum budget is \$_____, which shall cover all costs including, but not limited to, the following: building (including mechanical trades), furnishings and equipment, site improvement, utilities and permits, construction loan interest and architect's fees.

Usually after a committee has agreed on a specific architect, it will make the recommendation to the church board to employ the person as its resident architect.

Choosing a Delivery System:

There is another major decision that the church must make before it hires an architect, and that is to determine the building delivery system the church wants to use throughout its entire building project. Loosely defined, a building delivery system is the method and process by which the “dream” of a new facility becomes a “reality.” It entails identifying the major tasks and events of the building process, the specific sequence in which these tasks will be performed and the contractual relationships required between all the parties involved in the process.

The problem with hiring an architect or firm prematurely is that the church generally allows the professional they’ve hired to choose the building delivery system they will be obligated to follow. While this works in some cases, it is often detrimental to the success of the church’s building project, as evidenced by the fact that

only 40 out of 100 churches in a building program actually proceed with building their project. There are many reasons for this 60% failure rate, but one of the most common is choosing the wrong building delivery system for the church’s particular situation.

There are three major types of building delivery systems. Each system has several major team members involved, and as one of these major players, the architect has a somewhat different role and contractual relationship with the church in each.

Design-Bid-Build Delivery System:

This system is the one most commonly utilized by architectural firms. Architects prefer this method as it gives them the most control, mainly because they are the only other team member, aside from the church itself, on the team early in the building program process. Usually hired during or near the end of the initial planning stage, the architect’s role in this system is more of a counselor, designer, coordinator and business administrator for the church. In this particular building delivery system, the architect plays a vital role, which makes the selection process that much more important for the church.

Under the typical Design-Bid-Build System, the major events in the building program process occur in the following sequence:

1. The church hires an architect.
2. The architect prepares design drawings that illustrate the size and scope of the project.
3. The architect then proceeds with the preparation of the working drawings and building specifications. Usually, the architect utilizes several consultants and specialists in



this process, such as site engineers, structural engineers, electrical engineers and mechanical engineers. **NOTE:** During the preparation of construction documents and throughout the bidding process, it is not uncommon for the church to simultaneously conduct its funding program with the congregation. The proceeds of this fundraising effort are used to support the monthly mortgage payments required on any new debt incurred in financing the project.

4. The construction documents are usually given to three or more general contractors for submission of bids to the church. In this process, each general contractor bidding on the project will gather quotes and estimates from the subcontractors and suppliers with whom they choose to do business.
5. Once the bidding has been completed, the church must arrange for the construction and permanent financing for the project.
6. The church enters into a contractual relationship with a general contractor, typically the one with the lowest and best bid. In turn, the general contractor enters into a contractual relationship with each of the subcontractors who had provided quotes and estimates, and hires them to build the project. Keep in mind that the lowest bid may not necessarily be the best bid for the church.

Advantages

1. The architect, directly selected and directly employed by the church, is responsible for the design of the facility and the administration of the construction contract. Contract administration is a complex matter,

and the architect's handling of this burden is generally a great relief to the church.

2. This is the oldest building delivery system in use. Though the trend in recent years is toward the use of a more "team-oriented" approach, this system has been used for decades. If "traditionalism" is a basis for making decisions, then this could be considered a major advantage over the more recent systems. Even though the trend continues to favor other systems, many architects are more familiar with this system and are reluctant to work under the terms and conditions of systems with which they are unfamiliar.

Disadvantages

1. Preliminary cost estimates lack precision. Architects are design professionals, but they are not the experts in construction costs. It takes a vast amount of time, experience and expertise to prepare accurate and detailed cost estimates for any building project. Most architects are not trained in this critical field of specialization and depend mostly on their own experience and track record.
2. Design revisions can be more expensive. If bids are received that are higher than what you can afford, it may be necessary to redesign the project. This procedure is difficult and time consuming for the architect, and very costly for the owner. It's at this point that many church building projects fail.
3. Major risk of losing "up front" cash. Typically, the architectural firm will charge the owner about 80% of their fee for the completion of the working drawings and specifications, both of which are

needed in order to put the project out for bid. If the architect's fee is \$40,000 on a \$500,000 project, these amounts to \$32,000 that would need to be paid prior to finding out what the project will cost to build. If the bids received are so high that you cannot build the project, you will have lost \$32,000. Also if you cannot arrange sufficient financing for the project, even if the bids are good, you will still have already paid \$32,000 for a project you may not be able to complete.

4. The possibility of over-designing the project is uncontrolled. The nature of this system often allows the architect and the church to disregard the safe fiscal disciplines that would keep the project within the financial capability of the congregation. Consequently, both the desire of the architect to please the church and the enthusiasm of the church may contribute to the development of a design that is well beyond what the people of the church can afford or are willing to pay for.
5. The risk of liens being placed against the church is high. During construction, the church makes payment directly to the general contractor, who is then responsible for paying his employees, the subcontractors and suppliers. If these people are not paid, they have the right to place a mechanic's lien against your property, even though you have already made your payment to the general contractor. In this event, you would either have to pay twice for the same work, or dispute the lien through the legal process. Either way, it is costly for the church!
6. Final costs may be as much as



7% higher than bids received. Many church committee members assume that the prices received during the bidding process is the actual cost of construction. This is not always the case. Statistics indicate that, on average, the cost of construction will increase by 7% due to architectural change orders. This type of change order differs from an owner's change order. If, during construction, you decide to move a wall or add a doorway, you have created an "owner's change order." However, an architectural change order is caused by working drawings and building specifications that are either unclear or lack the detail required for the construction of certain parts of the facility.

Design – Build Delivery System:

In the "Design-Build" system, the architect is an employee of the Design-Build firm and not of the church. Because of this, the architect's role is significantly different than when he or she is under contract with the church. The architect still provides design services for the project, but works in support of the Design-Build firm and less directly with the church. When hiring a Design-Build firm, you are in essence hiring two major team members at one time, since most of these firms are building contractors who hire architects to provide design services. A word of caution is due. The Design-Build firm may or may not use the same architect all the time. Therefore, it is very important for the church to research the qualifications and experience of the particular architect the Design-Build firm plans to use on the church's project.

Under the typical Design-Build System, the major events in the build-

ing program process occur in the following sequence:

1. The church hires a Design-Build firm to combine the disciplines of design and construction in one entity.
2. The architect of the Design-Build firm prepares design drawings that illustrate the size and scope of the project.
3. Depending upon the particular sequence being used by the Design-Build firm, one of two events occur at this point. In most cases, the Design-Builder will recommend that the architect prepare the working drawings before a firm price is given to the church. This is similar to the Design-Bid-Build System and shifts the financial risk away from the professional and more toward the church. Occasionally, the firm will give the church a Design-Build price at the end of the design phase. This is more favorable for the church, since the more expensive portion of the architectural fee (preparing the final design drawings) has not yet been incurred, thus reducing the amount of "up front" cash the church needs to invest in the project.
4. Once the working drawings have been completed, the Design-Builder puts the plans out for bid to subcontractors and suppliers. A Design-Build price is then given to the church. Upon acceptance of this price, the church may arrange for construction and permanent financing, and the Design-Build firm can construct the new facility. The Design-Builder uses the design drawings to solicit bids from subcontractors and suppliers. After the church accepts the Design-Build price given to them

by the firm and arranges construction and permanent financing, the final design drawings are prepared, and the Design-Builder builds the project.

Advantages

1. There is a single source in the design and construction of the project. The purpose of this building delivery system is to bring together an architect and a contractor who will work together as a team to provide full services for design and construction. The church has only one source or entity to work with in the delivery of the project, instead of two or more firms.
2. There is a greater amount of construction knowledge available during the design stage. While the architect of the Design-Build firm is developing the design solutions for your project, construction personnel are able to provide you with important information that could impact the overall cost of the project.
3. Cost containment is better than the "traditional" approach. The church's objective in a building program is to get their new facility built for what they can afford to pay. In this system, depending on the particular sequence followed, the principals work together to achieve a balance between design, construction costs, and your financial ability to pay. A Design-Builder is much more likely to achieve this balance, since a firm price is given early in the process.
4. There is more flexibility for the design to equal available funds. The church is given a firm Design-Build price at the end of the preliminary design stage, prior to the completion of the final



drawings and other construction documents. With this firm price in hand, the church arranges for construction and permanent financing. In the event the church cannot secure the amount of money they need to build the current design, it is relatively easy and less costly to change the design drawings to reflect what the church can finance.

Disadvantages

1. The architect is employed by the Design-Build firm. The architect's loyalty and sense of responsibility is apt to stay with the source of his paycheck, which in this case is the Design-Builder. This means that he may not represent the interests of the church as effectively when employed directly by the church.
2. Architectural drawings are usually less detailed. Since the architect is an employee of the Design-Build firm, he is very familiar with the needs and requirements of the firm's construction department. This can mean that the architectural drawings may be completed with minimum detail, just enough to get the appropriate permits so the project can be built. While you may think this could create some savings on architectural fees, that may or may not happen. What it does is give the Design-Builder greater latitude in the construction of the facility. When there is less detail on the construction documents, there is greater potential for the materials and systems used in building the project to be of a lesser quality than expected by the church.
3. There is a tendency with this system to be attracted to its lower initial building costs that the owner may think will justify using

materials with a shorter lifespan and lower quality. Too often, churches are eager to jump at a low square-footage price, not realizing that long-term maintenance and operational costs will easily consume these temporary initial savings. Another problem with focusing on lower initial building costs is the potential for excessive and expensive change orders during the actual construction of the project. If the lower initial costs are generated from plans without sufficient detail, the risk of costly change orders increases dramatically.

4. The risk of liens being placed against the church is high. During construction, the church makes payment directly to the Design-Build firm. In turn, the firm pays its employees, the subcontractors and suppliers. If these people are not paid, they have the right to place a mechanic's lien against your property, even though you have already made your payment to the Design-Builder. In most states, there is a good chance that you would either have to pay twice for the same work, or dispute the lien through the legal process. As in the Design-Bid-Build System, this can be very costly for the church, both financially and in terms of reputation.

The Design-Build system has grown in popularity over the past 20 years. This "turn-key" approach initially sounds like a great idea to church building committees. However, in many cases, this decision turns to regret during the actual construction of the project. It is at this point that the familiarity between the architect and the contractor becomes more detrimental than beneficial. Lack of details in the construction drawings can lead to

shortcuts and costly assumptions made during construction, both of which result in a lower quality building. It is highly recommended that the owner hire an "as needed" construction inspector to oversee critical points of construction as their site representative. This representative could be a construction management firm, a civil engineer or possibly an architect, but definitely someone who has extensive experience in the construction field.

Design-Construction Management Delivery System:

In the "Design-Construction Management" system, the church usually hires the architect and the construction manager at the same time, or one shortly after the other. Both of these major team members are hired directly by the church, whether they are employed by the same firm or not. If they are employed by the same firm, each is still obligated to provide their individual professional services to the church separately from one another. When dealing with two separate firms, it is extremely important for the church to select an architect who is willing to work within the sequence of events established under this building delivery system. The Design-Construction Management system provides the church with more control over the major players involved than the other two systems previously mentioned. The architect's role in this system becomes more collaborative and "team-oriented." The architect provides his design expertise to the church, while the construction manager brings his cost-estimating expertise and construction experience to the project.

Under the typical Design-Construction Management system, major events in the building program process occur in the following sequence:

1. The church hires the architect and



construction manager at the same time. The architect is hired for his design expertise and the construction manager is hired for his expertise in construction methods, materials, systems (such as electrical and mechanical systems), feasibility of construction, and most importantly, his cost estimating abilities.

2. The architect designs the facility, as the construction manager gives input to both the architect and the church.
3. The architect completes the final drawings, detailed specifications and construction documents. The construction manager reviews these for constructability and the impact on the church's budget. At this point in time, the church is usually engaged in raising money to build the project.
4. The architect and construction manager put the project out for bids for interested general contractors. The general contractors invited to bid on the project request bids from subcontractors in order to arrive at the final bid price. The church, architect and construction manager review the bids submitted by each general contractor, and usually select the lowest bid. **Remember, the lowest bid may not necessarily be the best bid for the church.**
5. The church makes arrangements for acquiring construction and permanent financing for the project.
6. The general contractor selected for the project then begins construction on the project. The construction manager may or may not act as the church's authorized representative during the construction of the project, depending upon

the scope of the work defined in the church's agreement with the construction manager.

Advantages

1. The architect and construction manager are hired simultaneously. By employing a construction specialist and design specialist at the same time, the church has the necessary team members on board to increase the potential for a successful project. How successful the project will be depends greatly upon how well these two individuals work together.
2. The church has better control over the building budget. It is easy for a project to grow to such an extent that it exceeds the financial capabilities of the congregation. One of the most important tasks of the construction manager is to provide the church and architect with accurate cost input during the design process and preparation of the working drawings. This enables the architect and church to make any necessary revisions in the design and construction documents to keep the project within the financial constraints of the congregation.
3. The selection of the general contractor is improved. With his expertise in construction, a construction manager can help the church select the best general contractor for their project. Due to budgetary limitations and/or the desire to be good stewards of the Lord's money, most church committees select a general contractor solely on the basis of the lowest bid. While this is an important part of the equation, there are many other factors that need to be taken into consideration. A qualified and reputable construc-

tion manager can help the church understand the cost impact of these factors as they relate to the projected final construction costs.

4. Design estimates should more accurately reflect bid prices. During the design process and the preparation of the construction documents, the construction manager will be providing detailed estimates of materials, systems and labor. With his knowledge of what things cost now and what they should cost when the project is put out to bid, the construction manager should be fairly accurate in estimating what the project should cost the church before the bids are received. The architect and the church must be able to depend on the construction manager's ability to accurately estimate costs in order to make budgetary decisions regarding the intended scope of the work. If the bids received from all of the general contractors are unrealistic and in excess of the construction manager's cost estimates, the church can then decline the bids and continue the bidding process until a more realistic bid is received.
5. There is less chance for litigation. With a construction manager's knowledge and expertise used during the construction process, he can act as a mediator in most disputes arising from the construction process, whether they are between the architect and general contractor, the church and the general contractor, and even the general contractor and his subcontractors and suppliers.
6. Change orders are generally less costly to the church. With the construction manager's estimating ability, the general contractor is less



able to “load up” on change orders and charge the church excessively. The construction manager should be able to control this common practice and deter a lot of change orders that the church may not have anticipated.

Disadvantages

1. The architect and construction manager may affect one another adversely. Architects have historically been put in the position of control over the owner’s project. When a church looks to hire a construction manager, the architect realizes that he or she will have less control, and many architectural firms do not like to be limited or hindered in this respect. Therefore, the relationship between the architect and construction manager may be more adversarial and less harmonious than the church envisioned. Under this building delivery system, many architectural firms feel that they have to work harder. The reason they feel this way is that the construction manager is continually estimating costs while the architect performs his work, resulting in many more revisions to the work the architect has done. Since he rarely gets extra pay for this work, the architect may not be happy over what he perceives as extra work. Obviously, a team that has discord and adversity within it is less likely to be as successful as the team that works in harmony and understanding.
2. There is no accountability for cost-estimating accuracy. Most construction management agreements contain a disclaimer similar to the one used by architectural firms in regard to the accuracy of cost estimates. If the church hires

a construction manager with a tendency for producing inaccurate cost estimates, the church is taking the same financial risks as those inherent in the Design-Bid-Build system. If the project is abandoned, the church could lose all of its up-front fees paid for architectural and construction management services or face expensive revisions to the construction documents to get the project back into budget.

3. The project is susceptible to lien risks. Since the church pays the general contractor directly, they must depend on the general contractor to make payments to his subcontractors and suppliers. If, for any reason, he doesn’t make these payments, the church may end up with liens placed against their property, which could have an adverse effect on the financing arranged through the church’s lender.

What to Expect from your Architect:

It is important to know what services an architect will provide to the church. Some architects provide more services than others, but the basic scope of the work is usually the same. These are the basic services as they relate to the typical sequence of events that most architects follow:

- **Planning**
- **Preliminary Design**
- **Design Development**
- **Construction Drawings and Specifications**
- **Bid Stage**
- **Construction**

Planning Phase:

Although some church architects have the knowledge and experience necessary to help a church with its

planning, most generalist architects do not involve themselves at this point. The church is left to itself to determine critical information and clearly define the needs and requirements of the project, i.e., the type and size of program space needed; the estimated project budget and financial capabilities of the church; the level of quality in finishes, amenities and architectural detail; special requirements for music equipment, sound and projection systems, kitchens, etc.; and the tentative schedule for project completion.

Preliminary Design Phase:

Most architects begin their work at this stage in the process. It is here that the architect reviews the program that the church developed in its initial planning. The scope of the project is analyzed in relationship to the church’s estimated budget and current market building costs. If the project can be designed within these parameters, the architect will prepare drawings and other supporting documents that will illustrate the preliminary design. These preliminary drawings usually show interior floor plans and exterior elevations of the proposed project. Architects experienced with churches will usually prepare two or three different sets of preliminary drawings that meet the church’s requirements. The architect will also include cost estimates for each design concept prepared for the church’s review. This gives the church building committee an opportunity to decide the best design approach for their programming needs and arrive at consensus more quickly.

In the event the estimated cost of the church’s desired project is beyond the church’s budget estimates, the architect will suggest other approaches to the design and construction of the project. When this happens, it is



important for the church to review any design changes proposed by the architect and determine if the amount of space they can afford in each design concept is sufficient to meet their program requirements in all areas.

Design Development Phase:

After the church's building committee reaches consensus on the best design approach for their situation, the architect will begin to prepare more detailed design development drawings and supporting documents, including preliminary design specifications, which more clearly define the size and character of the project. These drawings are prepared in a "final design" form that should make the presentation of the design solution much easier for the congregation to visualize and understand. Also included with these final design development drawings is the descriptive information relative to structural, electrical and mechanical systems, the types of materials to be incorporated into the facility, and other elements that affect the design and construction of the project. The architect will also provide an updated cost estimate that should take into consideration any inflationary costs based on the projected construction schedule.

Artistic renderings and models used in this phase, if requested by the church, most often cost extra, but it has been found that sometimes seeing these renderings is what makes the project more real for the congregation. Artistic renderings on average will run \$1,000 - \$1,700 per view.

At the conclusion of this stage, the design solution and projected construction costs are usually presented to the congregation for their approval and eventual financial support. Most of the time, this is accomplished by holding a special congregational meeting,

Therefore, in the selection and hiring of their architect, the church should take into consideration the architect's ability and experience in communicating design solutions directly and effectively to a large group of people. It's one thing to interact with a handful of church committee members. It takes a different skill to effectively present and communicate the scope of the church's project to the entire congregation, and how that project will impact the vision and mission of the church.

It is important that there be general agreement by the congregation at this point before proceeding. A clear estimate of costs (including fees and furnishings) will be included with this presentation. Consultation with Disciples Church Extension Fund may be advantageous at this time to review the congregation's financial capacity. In most instances, the congregation can raise building funds at this stage, even though the plan is not yet final. This phase provides an idea of what can be accomplished, and large sums of money will not have been expended before it is known what the congregation can afford.

The success or failure of a church building program is many times determined at this point. If there are those in the congregation who oppose the project, they will generally do so here, sometimes very dramatically and vocally. An architect who has little or no experience in dealing with vocal opposition or dissension in the church may actually contribute to the failure of the entire building program.

Construction Drawings and Specifications Phase:

The next portion of the architect's work for the church consists of preparing detailed construction drawings and specifications, which communicate in great detail the requirements for the construction of the new facility. These

detailed drawings illustrate how the building is to be built, clearly identifying the various materials, components and systems required for the project. They show the location and quantity of these items, and provide guidelines and instructions to the tradesmen for putting everything together for a successfully completed facility.

The building specifications identify the conditions for bidding and building the project, and become a part of any contract(s) signed by the contractor(s) and the church. Also in this phase, the architect should assist the church in their responsibility to file all required documents for permits and/or the approval of any governmental authorities having jurisdiction over the project.

By far, this phase represents the largest portion of the architect's basic services to the church, and the architect is paid a good portion of his or her fees for preparing the construction documents referenced above. During the interview and selection process, the church should carefully consider the quality and thoroughness of the construction documents prepared by the architect they hire. A poorly prepared set of construction documents can cost the church thousands of dollars in change orders during the actual construction process. On the other hand, when the construction documents are prepared with quality and accuracy, the church can save thousands of dollars when the bids are received. The more accurate and detailed the construction documents are the more precise and targeted the bids will be. The more a contractor has to guess, the higher and more padded his bid will be.

Authorization to complete construction documents should never be given until the congregation has completed a capital fund campaign



and is assured it can finance the program.

Bidding Phase:

During this phase, the architect assists the church in obtaining bids and/or negotiating proposals from contractors. The architect will also assist in awarding bids to the successful contractor(s) and preparing the necessary contracts. It is here that the church finds out just how accurate their architect's or construction manager's estimating abilities really are. If the bids the church receive exceed the design budget and financial capabilities of the congregation, the church faces a major problem. To avoid this problem, the architect and church can develop several "alternates" for the bidding process. An "alternate" consists of changes in the entire scope of the project, aesthetics, quality, or other items that will control the final cost of the project, such as adding or removing an item. The church must be careful in dealing with alternates since any one of them may affect the overall integrity of the project.

Construction Administration Phase:

The architect acts as the church's representative and agent with the contractor(s) on the project during the construction phase. He will make visits to the site at appropriate intervals to review and evaluate the progress and quality of workmanship. It is the architect's responsibility to guard the church against defects and deficiencies in construction. Work performed by the contractor(s) may be rejected if the work does not conform to the construction documents. In addition, the architect will authorize payments to the contractor(s) based upon the percentage of work completed to date for each draw requested.

In selecting an architect, the church should carefully judge how the architect will maintain the quality that the church expects for its project. The completion of the final product is usually the culmination of years of work and planning on the part of the church. You have the right to expect workmanship at a level of quality suitable for God's House.

The church should also be concerned with the level of fairness demonstrated by the architect they select. The architect is, after all, the agent and representative of the church. As such, any unfair dealings between the architect and the contractor(s) are a direct reflection on the church's reputation and integrity. It is important to protect these vital attributes of ministry in your community to the highest degree possible.

One of the most important tasks during this phase of the architect's supervision is the checking of shop drawings that are furnished by fabricators and suppliers of equipment or materials. These include laminated beams or arches, structural steel, window sashes and other factory-prepared materials such as hardware, lighting and plumbing fixtures. The architect checks these drawings for accuracy against working drawings and specifications, calls for corrections and approves final shop drawings for the contractor. This oversight does not relieve the contractor of responsibility for doing his or her own checking of job conditions and job measurements.

Final Inspection:

The architect will make a pre-final inspection of the building when the contractor states the building is finished. Buildings are checked for completeness, and a "punch list" of items to be finished is developed.

After the contractor has completed these items, the architect will ask the sub-committee chairperson to review the building and provide a list of items that are of concern to the committee. This list may contain items that are not a part of the contract, so the architect must prepare the final "punch list" and deliver it to the contractor with a copy to the church. Upon completion of items on the "punch list," the contractor will notify the architect who will make a final inspection according to plans and specifications. When the building is completed to the architect's satisfaction, a "final certificate" will be prepared. Steps are taken to protect the interest of the church by ensuring that the contractor's bills for labor and material have been paid completely.

Other Things to Think About... Furnishings and Equipment:

The selection and design of all other church equipment and furnishings (drapes, carpets, furniture, etc.) should be cleared with the architect and the interior decorator or church committee formed to do this, to be certain they are compatible. Seating and chancel furnishings can be provided in one of two methods. The architect will design them and recommend a reputable cabinet maker to submit prices and show work samples. Or, the architect will request capable church furniture manufacturers to submit bids and samples for both pews and chancel equipment. In either case, the architect should direct the process, inform the subcommittee of progress and submit both design and bids to them for approval. Furnishings and other special installations such as art or stained glass may be in the construction contract or furnished by the church. In either case the architect must be compensated for his/her contribution to the items.



Volunteer Labor:

While the use of volunteer labor has been important to the erection of some church buildings, in a majority of cases it has not been very successful. Original enthusiasm soon dissipates and a few loyal members carry the burden of completion. All decisions for the use of volunteer labor should be made prior to signing contracts. If volunteer labor is to be considered, a survey should be made of available skills. The architect normally will help in planning a program that will use these skills to their best advantage. The call for bids will exclude that work which is to be done with volunteer labor. The architect's fees will need to be calculated on the market value of the work done by volunteer labor.

Mechanical Systems:

Detailed plans of the heating, plumbing and electrical work are very carefully worked out by those skilled in these special fields. During construction and at the completion of construction, the same persons will check the building under the architect's direction. The contractor is required to include as part of the contract an allowance for the cost of "balancing" the mechanical system. Because duct and piping noise are very objectionable, proper balancing for the distribution of heat and elimination of undue noise is

important. When projects are finished during the off-season, it is necessary to wait until the start of the next season before final balancing can be accomplished.

Arbitration:

If disputes arise between the church and the contractor, the architect will attempt to settle them fairly and justly. The committee should remember that an architect has a professional responsibility to be fair to both parties, even though the church is paying the architect. Courts of law have long respected this position. When situations arise that cannot be settled agreeably between the contractor and the church, either party has the right to request arbitration proceedings. These are arranged under procedures contained in the owner-contractor agreement. However, both should remember that arbitration proceedings are expensive. Carrying a dispute to arbitration does not guarantee that the decision will go "your way." Ninety-nine percent of disputes that arise on a job can be settled justly by an experienced architect.

Guarantees:

Specifications will require the contractor to provide a guarantee, protecting the church from faulty workmanship on materials for two years. The warranty period usually begins at the date

of the certificate of substantial completion. If completion is prevented by non-delivery of certain items or the adjustment of control apparatus that does not prevent the use of the building, the architect may certify to the church that the building is in a state of "substantial completion." In this case, the holdback of funds due the contractor is reduced by a reasonable amount to cover only the work yet to be done. During the 12-month period after accepting the building, the architect is usually available to review any problems that arise and to instruct the contractor if there are deficiencies. Problems should be reported promptly to the architect. If it is necessary for the church to contact the contractor or sub-contractor because of an emergency (such as leaking water pipe), the architect also needs to be advised of the problem.

For more information about renovation or new construction, please contact Disciples Church Extension Fund at 800-274-1883, info@disciplescef.org, www.disciplescef.org