

# Professional Assistance & Methods of Construction

## *Consultants*

Identifying the best long-term construction project course to recommend demands a great deal of time. Employing a private consultant can be a valuable investment. There are a number of professionals available.

When considering a consultant, look for a person or firm with strong experience with the issues you may be studying and first-rate communication skills. You will want someone who is practical and comfortable to work with and familiar with Vermont's various permitting requirements. Finding a suitable consultant can entail a process similar to hiring an architect.

Employment of any consultant should be based on a contract that spells out what services the consultant is to provide and when. It should specify how much these services will cost and the manner in which you will pay for them. It should also specify how any extra services you might want the consultant to give you beyond those described are to be billed. Again, the board attorney should review any contract.

## *Selection of an Architect*

Vermont State Board of Education Manual of Rules and Practices (Rule) requires that the plans and specifications for school construction aid projects involving alterations of existing spaces and construction of new instructional space be prepared by an architect licensed to practice in Vermont. For other types of construction, unless the Commissioner of Education permits otherwise, plans and specifications must be prepared by a registered architect or a registered professional engineer. The architect is responsible for designing the project to meet the approved educational specifications and all pertinent state codes and requirements.

Recruiting an architect may begin with letting the design community know that you have a project in mind. A small newspaper advertisement is likely to draw a number of responses from interested firms. The school board is likely to want to interview a smaller number of firms. Choosing which firms to interview takes a bit of work. Start by looking at the information each firm sends you, this will usually include descriptions of recent commissions. Talk to the owners of those projects, and the general contractors. If possible, go visit some of

the buildings. If the project is renovation or an addition to a historic school, look for inclusion of a historic preservation professional on the architectural team. Look for a history of good communication, imaginative design, good choices of materials in the design, and good cost estimating. Do not be deterred by lack of school experience. Be concerned more about the scale of previous projects the firm has handled compared to your own.

The school board will also be looking to the architect to provide the district with a design that can be expected to be economical throughout the useful life of the project. Is the firm being considered capable of developing data on life cycle costs for the choices of mechanical and structural systems and the materials with which the project will be built? Upfront costs must be balanced against the long term costs of upkeep in any construction project. The architect should have a good record of providing prior clients with reliable long-term information.

Look for experience with projects where public bidding was required. Look at the bid histories. Did the projects attract a good number of qualified bidders? Were the bids received relatively close from lowest to highest?

If a firm has previously done school work, the Department of Education and school officials in other districts may be able to share some history with you.

If all of the inquiries lead to positive answers, you have a good prospect to interview.

The interview itself is an opportunity for the board to try to assess what kind of chemistry will exist between you and the architectural firm. Discuss with each interviewee your time frame for the completion of your project to see whether it actually fits the anticipated workload of the firm. You should also ask about the engineering services the firm uses. Does the firm work with the same engineering consultants from one project to another? If not, why?

What about fees? Fees vary between architectural firms and should be discussed/negotiated prior to contracting for services.

Prior to a successful bond vote, what financial arrangement is the firm willing to make to do the necessary preliminary work to get you to the bond vote? There are no standards on this, but a common approach is for a firm to agree to do preliminary design work and cost estimating for you on an hourly rate, up to a maximum figure, to prepare the project for presentation to the voters. The firm should be clear as to exactly what fees and expenses it will bill to the board. The firm you select will be committing real time and professional effort to your project prior to the bond vote. The board should be prepared to pay the reasonable cost of such services. In any event, cost is only one of the factors to be considered in selection of the architect.

After the voters have approved a proposed project, the school board should negotiate a contract with the architect for the final design work and project supervision. The contract should specify precisely what services the firm will furnish to the board and the manner of board payments to the firm. The board should have an attorney review any proposed contracts with the architect before signing. Do not complete such a contract prior to voter approval.

## ***Clerk-of-the-Works***

16 V.S.A. § 3448(a)(5)(B)(iii) requires that the local board hire someone competent in the building trades to supervise the construction project. The clerk-of-the-works is the person responsible for overseeing the completion of the project in accordance with the approved plans and specifications and to notify the relevant state agencies of any changes during the construction project. This is an important position. This person is the board's representative on the project. He or she must be knowledgeable in construction methods and materials and have very good communication skills.

The clerk-of-the-works is the liaison with the contractor and all subcontractors through the contractor's superintendent. He or she needs to attend and report to the board on all conferences held at the project site. A good clerk will maintain orderly files at the site for correspondence, shop drawings and reproductions of all original contract documents. The duties also include keeping a daily log book recording the hours on site, weather conditions, lists of visiting officials and jurisdiction, daily activities, decisions, general observations and specific observations in the case of observing test procedures. The board should take the time to interview a number of applicants and seek the advice of the architect who may have had a previous working relationship with the applicant. Most important, the clerk should have a good record of providing prior clients with reliable service.

The usual duties, responsibilities and expectations for a clerk-of-the-works are included in Appendix H.

## ***Methods of Construction***

There are two basic contracting methods utilized in the school construction industry: the general contractor or traditional approach, and the construction management approach. Utilizing a single bid general contractor to handle the construction and deal with all subcontractors has the advantage of simplicity for the school board. The board and its attorney only have one construction contract to negotiate and sign, and the school board does not need to manage subcontracts.

This section of the guide includes some general definitions of the construction management (CM) approach for construction and explains the bidding requirements, including the pre-qualification process for both the traditional approach and CM methods.

## ***Public Bidding Requirements***

When any school building improvement of any sort costs between \$15,000 and \$500,000, the Public Bids statute (16 V.S.A. § 559) requires that a school board publicly advertises for or invites three or more bids from persons deemed capable of providing the items or services to be purchased. The department advises boards to both advertise for and invite bidders to assure maximum response.

On construction contracts with a value of \$500,000.00 or more, school boards are required by statute to publicly advertise at least 60 days prior to the opening of bids for contractors interested in bidding. Furthermore, school boards must pre-qualify bidders on construction contracts by establishing eligibility criteria for bidders. The school board must notify all applicants of their eligibility to bid on the contract at least 30 days prior to the bid opening. The notice to those qualified to bid must contain information on the availability of the plans and specifications and how bids are to be submitted. See Rule 6300.

### ***Rules for Pre-qualification of Bidders on Contracts Over \$500,000***

Rule 6450 requires a school board, when soliciting bids on a construction project, to publicly advertise that it is seeking interested bidders to apply for pre-qualification. The advertisement must include a description of the project, the anticipated bid opening, where and when pre-qualification statements are to be received, and that the pre-qualification statements are to be received on AIA-A305 forms as amended from time to time.

The board should work with its architect to create these criteria, but at a minimum the criteria needs to include the interested bidder to provide evidence of the following:

- a clear and stable organizational structure;
- resumés of key personnel;
- hold licenses or registrations appropriate to the work to be performed;
- experience or expertise with related projects;
- a current construction load that would not interfere with the company's ability to perform the work;
  
- positive references from credible and knowledgeable sources; and
- any other lawful criteria established by the school board specific to the qualifications of the contractor to perform the work required in a timely manner.

**Once a list of pre-qualified bidders is established, school boards must consider all bids submitted by eligible bidders meeting the deadline and, for projects over \$500,000, must award the contract to the lowest responsible bidder.** If the two lowest bids are within 1% of each other, the board may choose either bid {16 V.S.A. § 559(c)(2)}. The department has interpreted this provision as follows: if the difference between the two lowest bids is less than one percent of the lowest bid, either can be awarded the contract.

## ***Construction Management***

If a school board chooses to use the Construction Management process for a construction project, the bid process is slightly different.

Construction Management is a service provided by a professional construction manager. The construction manager need not be, and in some cases is not, a general contractor. The construction manager may work solely as a professional advisor to the school district in much the same way as the architect. In this case, the construction manager would not perform any construction activities. Crafting a clear contract is crucial.

The construction manager typically handles project scheduling, cost estimating, construction process consulting, project management and other pre-bid tasks necessary to fully develop the design to the point where it is ready for bidding.

### ***Selection of a Construction Manager as the Constructor***

More typically the construction manager has the capacity to serve as the general contractor. In this form of contract, prior to the start of construction, the construction manager works as advisor to the school district handling project management and other pre-bid tasks necessary to fully develop the design to the point where it is ready for bidding. During the construction period, the construction manager acts as the constructor, supplying the materials, labor and supervision necessary to complete the project.

### ***Bidding Requirements for Construction Manager/Constructor***

When selecting the construction management approach for school construction, school districts must still use the process outlined in 16 V.S.A. § 559 and Rules 6440 – 6490. The construction manager/constructor cannot be engaged without competitively bidding against other qualified construction managers/constructors.

In addition to the requirements detailed above, upon completion of the pre-qualification process, the school board must request at a minimum the following information from those construction management firms eligible to bid:

- a list and description of services to be provided;
- a fixed fee for construction management services with a list and detailed breakdown of each item;
- a fixed fee for construction services to cover overhead and profit; and,
- a fixed fee for general conditions provided with a list and detailed description of each item.

**The school district's bid specifications should clearly identify and list the criteria which will be used to determine which bid is lowest.** Otherwise, a dispute could arise, delaying the construction project. Once bidders are pre-qualified, the district is obligated to consider them equally, solely on the basis of costs as reflected in the bids as received. Because the law requires the contract to be awarded to the lowest pre-qualified bidder (with the 1% exception noted), any qualitative considerations are only appropriate in the pre-qualification process.

16 V.S.A. § 559 (c)(2) provides that if the two lowest responsible bids are within one percent of each other, the board may award the contract to either bidder as previously described in the Public Bidding Requirements section.

If a school district has contracted with a general contractor, the GC's subcontracts are not the legal concern or obligation of the school district. However, the relationship is distinctly different when the school district uses construction management.

Where a school board has contracted with a construction manager, the board remains responsible for public bidding pursuant to 16 V.S.A. § 559 for all purchases or contracts exceeding \$15,000 for school building construction, improvements, materials, supplies, and equipment. All bids must be opened and reviewed at a warned school board meeting. The use of artificially small bid packages (less than \$15,000) to avoid the need to competitively bid components of the work is not allowable.

Because public school districts are subject to their own set of bid laws and requirements (16 V.S.A. § 559 and Vermont State Board of Education Manual of Rules and Practices), architects and construction managers may not be familiar with them. Common practices in the private sector may not be allowable for public school construction, and vice versa. **The school board is responsible for adhering to the public bid requirements. However, the department will determine compliance relative to state aid eligibility.** Bidding for a general contractor is a more straightforward process than bidding for construction management, and school boards may wish to consult an attorney when bidding and contracting for CM services.

## *Guaranteed Maximum Price*

With the construction management method of contracting, it is not unusual for the construction manager/constructor to establish a "guaranteed maximum price" (GMP) during the early stages of the project. This is often an attractive component of this method because it allows the school district to have a higher degree of confidence in the project cost earlier in

the process. This "guaranteed maximum price" is typically not based on final construction documents but rather on whatever plans and specifications are available at the moment that the "guarantee" is made and may contain some type of contingency amount to cover costs for work not yet shown in the documents. **When a school board is considering the construction manager/constructor with the guaranteed maximum price approach, it is still necessary to comply with the Public Bid statute 16 V.S.A., § 559.**

Furthermore, Rule 6490.1 requires that whenever the cumulative result of the bidding process for the total scope of the project plus general conditions and fixed fees is less than guaranteed maximum price, 100% of the savings will be returned to the school district.

When bids are received and the project costs exceeds the GMP, the school board may reject any and all bids and solicit new bids for any portion of the work to be done, renegotiate the GMP, or require performance as per the GMP agreement.

## *Performance Bonds*

Regardless of which form of construction contracting the school board chooses to use for the project, Rule 6127 requires that contractors chosen for a construction aid project be covered by a performance bond or irrevocable letter of credit in an amount equal to the awarded contract. This is to ensure completion of the work should the contractor be unable to meet the terms of the contract.

If the school board is using a construction management approach to construction, it should know if the construction manager/constructor will carry the performance bond for all the sub-contractors or if the construction manager is expecting all bidders awarded contracts to carry a performance bond or letter of credit. Regardless of the method, it is important to remember that the requirement for having a performance bond on the project still applies.

## *Communications*

It is necessary to maintain communication throughout the project among the board, clerk-of-the-works, architect, contractor and superintendent. To ensure the best possible communication among all parties concerned, the board must designate one person, generally the school superintendent, to speak for the board throughout the project to a building committee, the project architect, engineer, state agencies and the general contractor. Failure of a school board to designate such a spokesperson will lead to contradictory signals among the parties, lost time and energy, as well as added costs.

