VILLAGE OF SUGAR GROVE
BOARD REPORT

TO: VILLAGE PRESIDENT & BOARD OF TRUSTEES

FROM: BRENT EICHELBERGER, VILLAGE ADMINISTRATOR
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SUBJECT: DISCUSSION: VILLAGE HALL CONSTRUCTION APPROACH

AGENDA: SEPTEMBER 6, 2022 REGULAR BOARD MEETING

DATE: AUGUST 19, 2022

ISSUE

Should the Village Board discuss different methods to construct a new Village Hall.

DISCUSSION

For the past year, the Village Board has discussed the need and desire to construct a new Village Hall. While the location for the building has yet to be determined, the Village did receive a space needs analysis that projects a two-story, 10,000 square foot building to house Administration, Finance, Community Development, Economic Development, Board Room and Board office. Regardless of the site chosen, the Board will need to determine the method for constructing the new facility. Traditionally public buildings have been constructed using a Design-Bid-Build approach, however, more recently there has been more use of the Design-Build method.

Traditional Construction

Also commonly referred to as “Design-Bid-Build,” this remains the most traditional process for construction projects in the U.S., where the owner will separately contract with a designer and building contractor. A design firm is hired to deliver ready-to-use design plans, and then the owner will solicit bids from contractors to complete the work. There is no contractual relationship or obligation between the designer and builder, and the landowner bears all responsibility for the completeness of the design documents.

Design-Build

By its definition, “Design-Build” refers to the process in which one entity will bear sole responsibility for both the design and construction of the project. There is just one contract for services and the company that is hired will either perform all of the services in-house or will subcontract out certain specialized services to other companies.

Variations
In addition there are variations of the two basic methods such as Construction Management (CM). In this approach, a construction project manager is hired to act as the owner's representative throughout the entire construction process, offering support that ranges from coordination of the initial bidding process to on-site supervision and construction schedule management; cost control and cash flow projections through to field review and project completion and hand-off. Well known within the construction industry and suitable for all types of building enclosure rehabilitation projects, the construction management approach allows owners to know exactly what they are paying for through separate contracts with the construction manager and the trade contractors with payment based on fixed fees.

Additional information regarding these approaches is attached. Please note that the information has been gathered from sources that may have a bias toward one option. The information is only meant to provide a general overview of the approaches and do not indicate a preferred preference. As the Board moves forward with a new facility, the determination of the construction method will be one of the first steps once the project is underway.

COST

There is no cost to hold the discussion. The cost to construct a new Village Hall is currently budgeted at $6,000,000.

RECOMMENDATION

That the Village Board discuss different methods to construct a new Village Hall.

Traditional/Design-Build/Construction Management

What is a Traditional Contract?
Broadly speaking, the traditional approach has three stages. First, the design stage. At this stage, the project owner works with an architect or designer to come up with a design for the building. Second, the bidding stage. At this stage, several potential contractors will tender bids on the pre-decided design. This means that they will submit their proposals to the project owner, who will then decide which contractor he wants to construct the building. Finally, at the construction stage, the actual construction of the building will take place by the contractor who won the bid, in line with the original design.

What is a Design and Build Contract?
There are two key differences between a traditional contract and a Design and Build contract. The second stage, i.e. the bidding stage in the traditional contract becomes the first stage in the Design and Build contract. The first and third stages in the traditional contract are meshed into one ongoing process in the Design and Build contract. This means that the project owner will first select an entity with design and constructions capabilities to undertake the project. This process of designing and constructing often happens at the same time, and may overlap with each other.

This method has several implications. First, this method of having one entity be both the designer and builder means that there is more potential collaboration and synergy between the designing and building aspects of the project. Having the same entity in charge of both design and building also streamlines the traditional design-bid-build method. Finally, it makes things easier for the project owner because this means that the project owner now has only a single point of contact. The design-builder is now the only person accountable to the project owner for any defects or flaws in the project. This is as compared to the traditional method where there are many parties involved, from designers to contractor to several sub-contractors, and the project owner's claims process is thereby significantly complicated.

What are the elements of a Design and Build Contract?
There are three primary documents that are used in a standard Design and Build contract: employer's requirements, contractor's proposals, and a contract sum analysis.

1. ***Employer's requirements***
   This is created by the project owner and effectively constitutes an outline design. The employer uses this document to set out precisely what he wants. Thus, although the design-builder is in charge of designing the project, the employer is still required to provide a certain amount of design input from the outset.

   This document is created largely for the reference of the design-builder, in order to aid him in coming up a contractor's proposal (see below), and also to facilitate the accurate pricing of the design-builder's works

   Certain information is typically provided in the employer's requirements, although this may vary depending on the size of the project and the complexity of the employer's requirements. This information includes, but not limited to the following:

- An overview of the project
- Pre-acquisition or survey reports
- Due diligence
- Proposed form of building contract
- Contract-specific terms and conditions
- Proposed tender and construction program
- Detailed scope of works
- Health and safety compliance
- Mechanical and electrical installation performance specification
- Concept and detailed design proposals
- Soil investigation reports

2. ***Contractor's proposals***
   This is a document prepared by the design-builder, which responds to the employer's requirements. In this document, the design-builder will set out a more detailed design, based on the employer's requirements, which will require to further developed throughout the course of the project. Essentially, the proposal shows how the design-builder intends to satisfy the employer's requirements.

   Details that should be included in the contractor's proposal are:
   - Specific details about the project: the parties' names, addresses, telephone numbers, the contract date and the job number
   - Scope of the design-builder's proposals
   - Materials to be used
   - Method of construction
   - Site layout for temporary office and carnage
   - Services to be provided
   - Items to be provided by the employer
   - Disclaimers

3. ***Contract sum analysis***
   Finally, most Design and Build contracts include a contract sum analysis. This is essentially a breakdown of the contract sum, and is compiled by the design-builder. This document is intended to show the prices for each element of the works. This serves several purposes:
   - Enable the project-owner to value changes or variations in the employer's requirements
   - Indicate the sum the design-builder needs to carry out the necessary work
   - Assist with interim payments to the design-builder, and the calculations of interim certificates and payments

What are the benefits of a Design and Build Contract?

There is significant debate about the benefits and drawbacks of a Design and Build Contract. On one hand, the Design and Build method brings significant benefits to the project owner:

- Minimizes risk and improves clarity: this method helps to minimize risks for the project owner because it reduces the number of points of contact. Now that there is only one point of contact – the design-builder – there is also only one point of responsibility. The project owner does not take the risk that there are multiple parties he will need to sue, or that he will not be able to tell which party is at fault for a particular defect or flaw. As such, it also clarifies the remedies available to the project-owner, because there is only one party who could be liable.
- Saves time: this method reduces the delivery schedule by overlapping the design and construction phases of a project. Thus, the building can be designed in phases, such as the design evolves as the construction ensues. This is particularly appropriate when the project owner is faced with a tight schedule.
- Saves money: this method also saves money for the project owner. With only one entity to hire, there are fewer overhead costs to bear, simpler and fewer legal and managerial responsibilities, and a decreased possibility of litigation and with fewer parties.
- Encourage innovation and a more holistic approach to construction: this method also encourages the design-builder to take more innovative and best-value approaches to designing and constructing the building. This is only possible because all the members of the project team – the designer, the contractor – come together early on in the process to address potential issues that may arise in the future. This also reduces the risk of design errors, which take more time and money to rectify later on. Moreover, since the contractor is also the designer, the design can be easily customized to suit the actual site conditions.

What are the limitations of a Design and Build Contract?

While the Design and Build method has significant benefits, it also has its limitations:

- May not produce expected result: because the design and construction phase occur simultaneously, there is no fixed design to refer to at the start of the project. Thus, the ultimate outcome may differ from what the project owner has in mind, especially if the employer's requirements and contractor's proposal are not sufficiently precise to make sure that both project owner and design-builder were on the same page. However, this can be dealt with by slightly modifying the Design and Build method – the project-owner can develop a more detailed preliminary project design beforehand, so that the contractor has a clearer idea of what the project-owner wants.
- Lack of expertise: there is also the possibility that because the entity no longer specializes in either designing or construction, but has to be proficient at both, this may compromise the level of expertise of the design-builder. For example, this is especially concerning if the project requires particularly complex designs. If the design-builder is primarily a contractor rather than a designer, he may not be able to achieve more complex designs or push himself to the limit of the project's design potential. That being said, the design-builder does sometimes sub-contract out certain tasks. For example, if the design-builder is primarily a contractor, he may sub-contract or hire a designer to assist him in the work.
- Project-owner may lose out: another potential drawback of the Design and Build approach is that the project-owner may lose out, in terms of quality with ultimate outcome. Typically, the designer and contractor represent different perspectives in the construction process, where the designer usually interprets the project owner's vision

through the design. Where the designer and contractor become the same person, they no longer operate as counterweights to each other, and the architect's vision could appear to favor the contractor. However, this could be managed by the project-owner hiring an agent or consultant to assist him in overseeing the project, if the project-owner lacks the technical expertise to supervise.

Source: https://learn.asialawnetwork.com/2018/07/10/traditional-vs-design-and-build-contracts-whats-the-difference/

Construction Management

In the construction management approach, owners work directly with the construction manager who acts on the best interests of the owners throughout the entire project. The construction manager works on your behalf to competitively bid the components of the job, making recommendations on trade contractors to ensure the project team includes only the highest quality tradespeople while also seeking out competitive pricing. By hiring trade contractors through separate contracts rather than a packaged deal under a general contractor, the construction manager has direct access to and power over all aspects of the project. This means, if things aren't moving according to schedule or work isn't being done at the level of quality it should be, your construction manager can step in and get things back on track. In addition to support from your construction manager, a superintendent is on site at all times during the construction phase to coordinate and supervise the work of trade contractors on the behalf of the owner, providing an elevated level of oversight to ensure the work is done properly and on schedule.

While there's no right or wrong way to approach a project, it's important to understand the different approaches available. Ultimately, it is up to the owners to decide which approach best suits their project needs and choose a team they trust to get the work done right.

Source: https://www.rdh.com/blog/how-to-determine-if-the-construction-management-approach-is-right-for-you/