AIA-MBA Joint Committee
Pre-Con versus Free-Con: Expectations for Preconstruction Services in a GMP Project

Part One: Introduction

A Guaranteed Maximum Price (GMP) is a construction delivery method involving a fixed cost of construction plus a fee. The GMP is gaining prevalence in the construction industry, because it gives an owner more control and confidence in the financial viability of a project at a much earlier stage. This is possible, because it offers a look at a maximum cost of construction during the preconstruction / design phase, before the process gets too far down the road. The GMP is often finalized BEFORE the 100% Construction Documents (CD) are published; typically, being provided at 75% - 80% CD completion.

Preconstruction services is the term used to describe the planning efforts that can be employed by a Project Team during the design phase to allow for detailed preparation for a construction project. Preconstruction services grew out of construction cost estimating to encompass the other activities typically involved with planning a project, such as scheduling, phasing and logistics, constructability reviews, materials and systems analysis for design decisions, value engineering, life cycle cost analysis, etc.

A Project Team assembled to conduct preconstruction services typically consists of an Owner (or an entity representing an Owner), a Design Team, and a Contractor. The following outlines the typical roles of each team member:

Owner's Responsibility:

- Create a Request For Proposal (RFP) that is not over burdening to the Contractor (or Design Team, when applicable).
    - Request only applicable and pertinent information in a clear format.
    - Clearly define the requirements in order to promote accurate pricing of the proposal by the Contractor.
    - Make certain that the Design Team is present during pre-bid meetings, site visits, and final proposal interviews to address and resolve all design questions.
    - Maintain a detailed log to track questions and the issuance of addenda.
    - Create a level playing field for the submitting Contractors.
        - Value Engineering ideas, confidential information, and specific trade secrets are to be kept personal between the Owner and the submitting Contractor.
- Present the intended budget, program, and any special requirements to the Design Team and the Contractor to allow for the creation of accurate documents and cost estimates.
- Act as the liaison between the Design Team and the Contractor to ensure that the requirements are being met.
- Review the information that is submitted by the Design Team and Contractor to ensure that it meets the required standards.
    - Provide responses in a timely manner so as to not cause unnecessary delay for either party.
- Be responsive and responsible for their decisions on the project.

- Provide the Design Team and the Contractor with recommendations on preferred (not mandatory) subcontractors with whom they have had good experiences in the past.

Design Team's Responsibility:

- Prepare project documents that are comprehendible and to a sufficient level of development to allow the Contractor to price the project appropriately for each stage of the design process.
    - Assure that each discipline is reviewed and coordinated with each other, allowing for continuity within the documents and associated language.
- Host meetings that include representation by the Owner, so that the Owner is involved in early design stage decisions that will have major impacts on the outcome on the project.
    - Present options for the Owner to decide upon and the Contractor to price.
- Attend preconstruction meetings with the Contractor and primary subcontractors, as necessary, in order to aid in the development of the design strategy.
- Review estimates internally to vet whether or not the project is tracking properly.
    - Estimate reviews should be held with the Contractor in order to create a checks and balance system that both team members can agree upon.

Contractor's Responsibility:

- Submit a clear proposal that meets the requirements of the RFP with little or no deviation from the requested information.
    - Indicate what is being proposed and what expenses those efforts will take.
    - Clearly state fees and provide cost break outs when requested.
    - Publish rates.
    - Identify any exceptions or scope exclusions.
- Be responsive to any issued updates and addenda.
    - Verify receipt and understanding of the issued information.
- Once selected, become an active member of the Project Team.
    - Actively participate in preconstruction meetings, estimate updates, and planning efforts.
    - Follow the agreed upon design schedule (as issued in the RFP) to maintain dates identified for estimate submissions and other milestone items that will affect completion.
- Work with the Design Team to provide cost control and budget resolution.
    - Explore and vet Value Engineering options, as required by the RFP or as needed to overcome budget constraints.
- Work openly with the Owner during the buyout and procurement process.
    - Promptly notify the Owner if any budgetary issues should arise.
    - Keep the Owner aware of any identified constraints that could affect the cost and / or schedule of the project.
- Work with the Design Team and Owner to successfully construct the project for the agreed upon GMP budget, as developed during preconstruction.

Understanding the expected responsibilities, an Owner will select the Design Team in a typical manner, but will select the Contractor earlier than would be done for a traditional project, based upon the expected value to be provided by the Contractor. The criteria for selection of the

Contractor will commonly include the experience of the firm, the experience of the proposed staff, the cost to perform preconstruction services, the expected cost for staff and General Conditions, and "chemistry" with the proposed staff.

The Contractor runs the risk of being too expensive and losing the project if they allocate too much to the budget for preconstruction services. As such, to gain an advantage over the competition, it is not unheard of for a Contractor to offer preconstruction services at a discounted cost… or even for no cost. Chances are, if the Contractor is awarded the contract to perform the preconstruction services, they will more than likely perform the actual construction also. Regardless, even when a reasonable budget is provided, the fee charged for preconstruction services rarely matches up to the effort put forth. Contractors are expected to provide an estimate for each design phase, but end up providing multiple estimates per design phase.

In the end, the question is whether or not "Freecon" is the best decision for the project? After all, the reliability of the GMP is dependent upon the quality of the efforts during the preconstruction / design phase. If a Contractor is not being paid to provide the service, can you really expect them to put forth their best effort?

Part Two: Advantages

Ideally, preconstruction services will allow the Owner, Design Team, and Contractor to undertake a truly collaborative approach to the design process, which will allow for:

- Better working relationships between the Project Team members, established earlier.
- Accurate determination of the financial viability of a project at an early stage.
- Real-time evaluation of design options, allowing for more informed decisions earlier.
- Reduction in the potential for designing and documenting something that does not have a chance of being realized due to budget constraints.
- Potential for higher quality design solutions, due to the collaborative effort offering new ideas that otherwise may not have been considered by the Design Team.
- Accurate cost estimating at realistic milestones.
- Advice on constructability/ feasibility of the project, from the contractor's experience.
- Improved clarity of documentation, in which the Design Team can incorporate what is truly needed for the project.
- Better opportunity to implement Design-Assist, Prefabrication, and Virtual Design & Construction.
- Construction Documents that are better coordinated.
- Greater cost certainty leading into construction.
- Increased retention of institutional knowledge of the project's history, details, scope, etc.

Part Three: Disadvantages

The reality of preconstruction services in a GMP project may leave much to be desired, if the expectations are not clearly defined up front. Too often, the scope of the services required is unclear. Preconstruction services are different on every project, varying in depth, scope, and quality required. The members of the Project Team typically have no knowledge of what the other members have been asked to do during preconstruction, what services they are

contractually required to provide, or if the other Project Team members are even being paid to provide their services.

If the inclusion of the Project Team members is not enacted at the appropriate time during preconstruction, the results may be less favorable than expected. Quite often, the Design Team and Contractor are contracted at different points in time. If the Design Team is brought in too late, it may leave little opportunity for them to truly influence the design. If the Contractor is brought in too early, there may be limited design to discuss. If the Contractor is brought in too late, the design may be too far developed for the process to be truly effective, potentially requiring the Design Team to redesign a portion of their already completed work.

The potential also exists for true collaboration to not be achieved by the Project Team during preconstruction. If the Design Team and the Contractor are not invited to the same meetings, they may be forced into silos. If the frequency of estimates is not timed appropriately, they may lack the intended effectiveness. Requesting the Contractor to provide estimating services too often can burn out the estimating team. Requesting the Contractor to provide estimating services infrequently can reduce the ability of the Project Team to react appropriately to the development of the design.

Part Four: Observations and Considerations:

Observations:

- Reputation and past experience play a lot in the decisions by Owners to select Preconstruction partners.

- Owners are perplexed when preconstruction services are offered at low or no cost. Most Owners with experience in the GMP delivery method have a good understanding of what a proper effort should cost. Some Owners may perceive a low preconstruction services fee as the Contractor really wanting to receive the project. However, other Owners are of the impression that they will "get what they pay for".

- The Contractor needs to consider and respect all of the project goals, including design quality. The Design Team needs to embrace the expertise of the Contractor in the design process.

- The Contractor realizes that performance of preconstruction services is a great "foot in the door" to be awarded the contract to perform construction for the project. The Contractor is also aware that their involvement in performing the preconstruction services may also lose the job for the Contractor, as they will know the true ins and outs of the project and price it accurately.

- The efforts put forth by the Contractor are often dependent upon the other projects currently being pursued. If a contractor is pursuing a $25M project and a $5M project, the larger value project will likely receive more attention.

- The Contractors are never compensated hour-for-hour for preconstruction services. Would it make sense to provide an estimate of preconstruction services based upon anticipated hours?

- The Contractor needs to provide knowledge of current market conditions.

- M/E/P Coordinators are often involved during preconstruction services. Some Contractors include this service with in-house man power, adding to the costs incurred for the preconstruction services. Other Contractors rely upon Subcontractors to provide the service without fee. However, the quality provided with each option may differ both in consistency and quality.

- On Renovation / Addition projects, the expectations need to clearly define who owns the mapping of the existing M/E/P systems.

Considerations:

- Utilize a predefined contract document, such as the AIA-131, to define the expectations for preconstruction services. (The entity utilizing such a document should still review the language for appropriateness.)

- One-time Owners may want to consider obtaining help from an Owner's Representative and/or Developer to participate in development of the RFP.

- Repeat Owners / Developers may want to consider having the Design Team participate in development of the RFP.

- The following are some considerations when determining when to involve the Contractor for preconstruction services:

    - Fees depend upon when the Contractor begins involvement in Preconstruction phases. If the Contractor is brought in late, added fees may be required by the Design Team to incorporate changes suggested by the Contractor.
    - It might make sense to involve 3rd-party estimators during the early budgeting efforts, then involve the Contractor when bid numbers are necessary.
    - If the Contractor is engaged early for preconstruction services, then the ability to meet the agreed upon budget will be looked upon as an obligation to the team.

- Consider including the Design RFP as an attachment to the Contractor RFP, to provide an understanding of what the Design Team has been asked to provide.

- Consider providing a copy of the Contractor RFP to the Design Team, in order to clarify expectations and promote stronger collaboration. This should be strongly considered when the Design Team is signing off on the Contractor's Applications for Payment.

- Consider implementation of Target Value Design (TVD)… a process that turns the paradigm around and requires the Design Team to design to meet the budget.

    - NOTE: TVD works best with use of Building Information Modeling (BIM), where models may be integrated with unit costs, allowing designers to receive real-time cost feedback.

Part Five: Moving Forward – Best Practices

The AIA-MBA Joint Committee strongly recommends the implementation of preconstruction services in a GMP Project as a delivery method for projects in the region. When done properly, the benefits vastly outweigh any potential negatives. To increase the likelihood of a successful implementation of preconstruction services in a GMP Project, we recommend the following:

- Identify Clear Expectations Up Front
    - Develop an RFP for preconstruction services
    - Define the roles of each of the key members on the Project Team for preconstruction
    - Identify what is expected for successful preconstruction services:
        - Development of the necessary schedules
            - Schedule for design deliverables
            - Schedule for construction activities
        - Number of meetings
        - Number of estimates (including the expected level of detail)
- Set the Stage for Proper Collaboration
    - Involve the Project Team members at the proper time for preconstruction services
    - Include Subcontractors in the Project Team for preconstruction services
        - i.e. M/E/P often accounts for 40% to 50% of overall cost --- involve early
    - Include input from the intended End Users
    - Allow the Project Team members to work together
    - Work together to determine when the GMP should be set for the project
    - Develop a narrative to accompany the Contract Documents
        - Minimize / Eliminate the need for an exclusion list
    - Provide constructability reviews for highly consequential items
- Implement Target Value Design
    - Ensure that the entire Project Team is on the same page
    - Provide continual cost input to ensure the design remains on track
    - Maintain a proper contingency to offset risk during construction

Links and References:

- Target-Value Design: Nine Foundational Practices for Delivering Surprising Client Value by Hal Macomber and John Barberio
  Lean Project Consulting
  http://www.leanconstruction.org/media/docs/3-Target-Value-Design-LPC.pdf