CM@Risk Procurement Guidelines

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Purpose:

These guidelines are intended to provide (1) assistance to those who may be responsible for implementation, processing and/or management of contracts for construction utilizing a Construction Manager at Risk (CM@Risk) project delivery methodology and (2) criteria for evaluating and requesting approval for innovative procurement.

Background:

Project delivery methodologies generally refer to how a project is managed and the contractual relationships established between the owner, architect and contractor. The traditional project delivery mechanism used by public entities has been design-bid-build, probably due to the general perception that competitive bidding will provide the lowest cost and a level playing field for the contracting community. It is also the procurement and project delivery method most familiar to the construction community in Alaska. Under this methodology, the owner contracts with the architect and, after the design is completed, requests bids for construction from general contractors. The process is linear and well understood by all parties. The owner retains substantial control over the design and construction phases and bears most of the risks. Design-build is an alternative delivery method used widely in this state, especially for uncomplicated construction such as military housing, airplane hangars, and office facilities. Under a design-build methodology the owner contracts with one firm to provide both design and construction. With this methodology, the owner generally has minimal control over various aspects of the project and the contractor bears most of the risk. Both design-bid-build and design-build methodologies are specifically provided for in AS 36.30. In the last decade, public entities in Alaska have started utilizing various qualifications-based/best value delivery methods such as CM@Risk. Under CM@Risk the owner engages an architect and a construction manager/ general contractor under separate contracts. The contractor is hired early in the design phase and the owner, architect and contractor work as a team to design and complete the construction together. Under this process, the owner maintains control of the project, but can transfer some of the risk to the contractor and minimize other risks associated with both design and construction.

Each methodology has its advantages and disadvantages as well as characteristics that make it more or less desirable in certain circumstances. Each also has its own requirements for procurement. Design-bid-build generally utilizes a traditional low bid procurement process, design-build a traditional request for proposal (RFP) process, and CM@Risk a modified RFP (qualifications-based/best value) process, which is classified as an innovative procurement. All three are appropriate and acceptable methods of managing a construction project and acquiring construction services under Alaska law.

Under Alaska Statute, AS 36.30.308, use of an innovative procurement process such as CM@Risk requires approval of the chief procurement officer and review and approval by general counsel as to form, presumably because there is minimal guidance in the Procurement

Code regarding (1) when it may be appropriate to abandon the traditional competitive bid methodology in favor of a unique process, (2) how to conduct an innovative procurement, and (3) the determination of best value, which is a subjective process.

The chief procurement officer, respective contracting officer, and others supporting construction activities (especially the project management team) must have a reasonable understanding of the characteristics of the process, the advantages and disadvantages of its use, the services that are generally performed on a CM@Risk project by the contractor, and when its use should be considered. The CM@Risk is generally engaged under a separate contract through a competitive RFP process for pre-construction services and functions somewhat like a consultant during the design phase. The university reserves the right to award a subsequent contract to the CM@Risk to serve as the construction contractor for the construction phase. (Note: the university also retains the right to do a separate solicitation for the construction phase if not satisfied with the contractor's performance or if unable to agree upon a price for the construction.) During the pre-construction period, the CM@Risk may develop independent cost estimates; evaluate the consequences of design and construction decisions; engage in value engineering, sequencing activities, and logistics planning; perform constructability reviews; purchase long lead-time materials and equipment; and conduct construction activities early when advantageous for seasonal or other considerations.

Advantages of the CM@Risk Methodology:

In general the principal benefits of the CM@Risk methodology stem from the team relationships that develop between the principal parties, early engagement and participation of the contractor during the design phase, prequalification of the contractor and the major subs, and early independent and detailed cost estimates. The CM@Risk methodology:

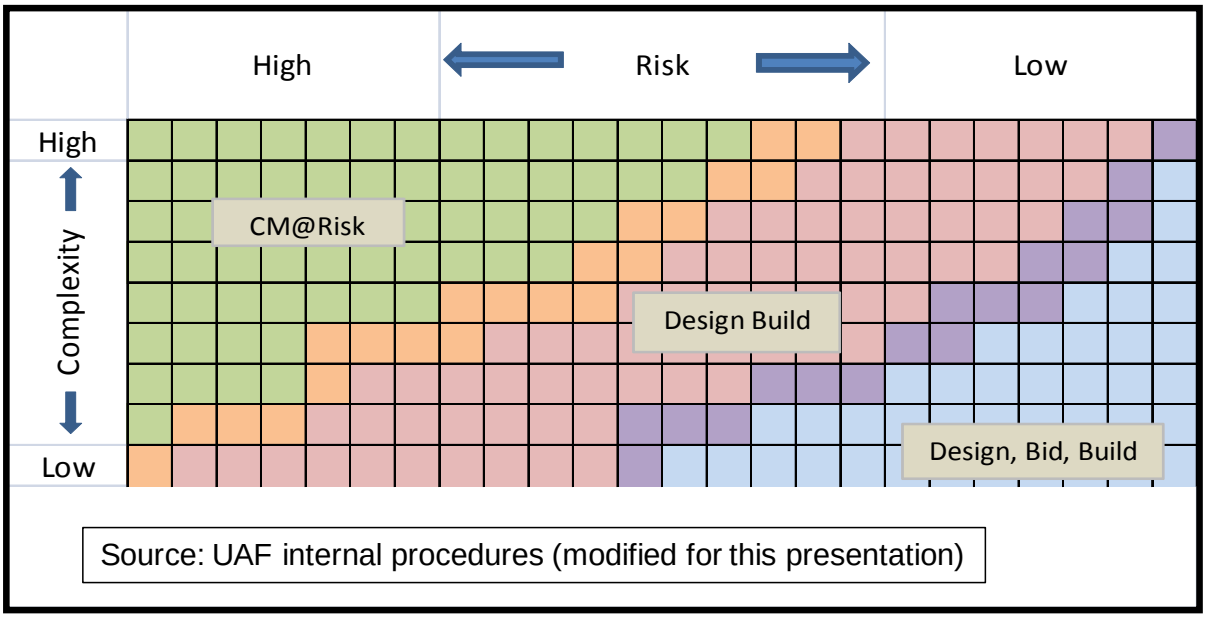
1. Encourages a cooperative environment or relationship between the parties where the owner, architect, contractor and perhaps the principal subcontractors work as a team to design, plan, and resolve issues relevant to the successful completion of a project.
2. Enhances the ability to identify problems and issues during the design phase when problems and issues are easiest to resolve or address. The contractor has a better opportunity to analyze the construction requirements and participate in a problem's resolution under CM@Risk than under the traditional process when the contractor has only a week or two to review the construction documents, create a construction plan, develop cost estimates, submit a bid and then argue over change orders when problems arise.
3. Reduces the potential for change orders, disputes and finger pointing during construction. This results from the ability to share risk more equally among the principal parties, the early involvement of the contractor in the design and planning functions when redesign is less contentious, and the contractor's profit is generally a separate and mostly guaranteed budget item.
4. Allows the owner to participate in prequalification and/or selection of major subcontractors, while in a low-bid process the general contractor independently selects the subs or may simply accept low bids by subcontractors.

5. Allows the decision makers of the owner to obtain more accurate estimates of the potential cost much earlier in the process, which can facilitate securing funding and approvals needed and provide the cost control necessary for success. The design team and the contractor independently develop cost estimates and budgets regularly and the owner can participate in the reconciliation process. Under the traditional process the owner has to wait for bid opening to know what the project is going to cost.
6. Allows the owner an opportunity to negotiate a Guaranteed Maximum Price (GMP) for the construction component based on more transparent cost data and a better ability to adjust the cost through value engineering and other methods. Although the CM@Risk process may yield what appears to be a higher initial construction cost, it may also substantially reduce the risk of major issues, such as cost overruns and completion risks, and provide a far better value than otherwise available.
7. Can facilitate fast-tracking of projects better than the design-bid-build process because the construction contractor is under contract sooner and early materials acquisition and construction activities during the pre-construction period are readily accommodated.

Analysis and Criteria for use of CM@Risk

The respective contracting officer and project management team should document the probable benefits from use of an alternate delivery method for projects with high potential for their use. For CM@Risk, the primary factors to consider are: the project size, complexity, schedule, and the risks associated with them. The analysis and evaluation can be visualized in a matrix similar to the following:

Construction Project Delivery/Procurement Matrix



In general, eligible projects would be relatively large in order to provide significant savings or benefits that might offset the perceived additional cost. Complexity may be found in any area, including design, materials, sequencing, equipment installation, specialty construction, multi-trades, staging, project budgeting, constructing in occupied facilities, multiple contractors working on the same site, potential for encountering unknown conditions, etc. Schedule might be project fast-tracking, seasonal construction activities, long lead-time equipment and materials purchases, or other conditions. It is also essential that CM@Risk projects have experienced project management that possesses a strong technical understanding of both the design and constructability issues associated with the project and of structured techniques to manage the project's cost, schedule and quality.

Circumstances when CM@Risk may be appropriate:

- Large or complex projects:
  - New Construction exceeding $20 M
  - Complex revitalization/renovation exceeding $10 M
  - Smaller projects with multiple significant complexities
  - Project cash flow exceeding $2.0 M per month and multiple schedule complexities
- Projects with fast-track schedules:
  - Overlapping design and construction activities
  - Constrained seasonal construction activities
  - Projects with partial funding but a directive to begin construction due to programmatic or administrative needs.
  - Ordering long-lead equipment during the design phase will reduce overall project completion durations significantly
- Specialty and complex facility construction or systems:
  - e.g.: Fire station, library, power plant, laboratories, sports arenas
  - e.g.: Complex plumbing, humidification and ventilation system
- Complex logistics and scheduling requirements:
  - Work in and around occupied spaces requiring dynamic temporary pedestrian and life safety construction
  - Work in and around occupied spaces requiring precise scheduling unique to the university setting (e.g. between semesters)
  - Sites with limited access such as remote campuses and just-in-time delivery sites (e.g. no staging area available)
  - Installation of complex owner-furnished equipment such as large boilers, steam chillers, etc.

Selection of a CM@Risk procurement and project management methodology is generally not based one or two factors or circumstances, but on an assessment of an overall combination of the significant risks and circumstances associated with the project that make use of this method compelling.

Additional Considerations for Procurement Approval:

In accordance with BOR Policy P05.06.575, the Chief Procurement Officer must review and approve (and the General Counsel's Office must review and approve as to form) any request for use of an innovative procurement including CM@Risk. The request for procurement authorization must identify how CM@Risk will achieve best value for the university, identify the potential risks transferred or mitigated by using CM@Risk, and the benefits that become compelling arguments for utilizing the CM@Risk methodology for the specific project. The request should also address how the innovative procurement: will achieve reasonable competition and preserve a competitive environment for future procurements; and address public perception regarding whether it represents a fair, equitable and transparent procurement process for solicitation and selection of the contractor.

The Chief Procurement Officer and the General Counsel's Office approvals represent authorizations to utilize the CM@Risk procurement methodology, not a directive to use the methodology. Once authorized the final decision to utilize CM@Risk delivery and procurement process shall be made by the responsible project manager in conjunction with his or her contracting officer.