

## **Construction Manager at Risk (CMAR) Delivery Method**

### **Background**

The Construction Manager at Risk (CMAR) is a delivery method which entails a commitment by the Construction Manager (CM) to deliver the project within a Guaranteed Maximum Price (GMP) which is based on the construction documents and specifications at the time of the GMP plus any reasonably inferred items or tasks. The CMAR provides professional services and acts as a consultant to the owner in the design development and construction phases. Often times, the CMAR also provides some of the actual construction of the project depending on the availability of bidders and the expertise the company has. In addition to acting in the owner's interest, the CMAR must manage and control construction costs to not exceed the GMP because contractually any costs exceeding the GMP that are not change orders are the financial liability of the CMAR.

Generally, the CMAR will give the Owner a GMP prior to bidding the project. Included in this GMP is a contingency line item to take care of bid overages, reasonably inferred items and other project related items that may arise during construction. By giving the Owner the GMP prior to bids, the CMAR assumes the risk of bids coming in higher as he is contractually bound to deliver the project per the plans and specifications and any additional allowances as defined in his GMP.

### **Owner Benefits**

This delivery method has several unique benefits to the Owner, including:

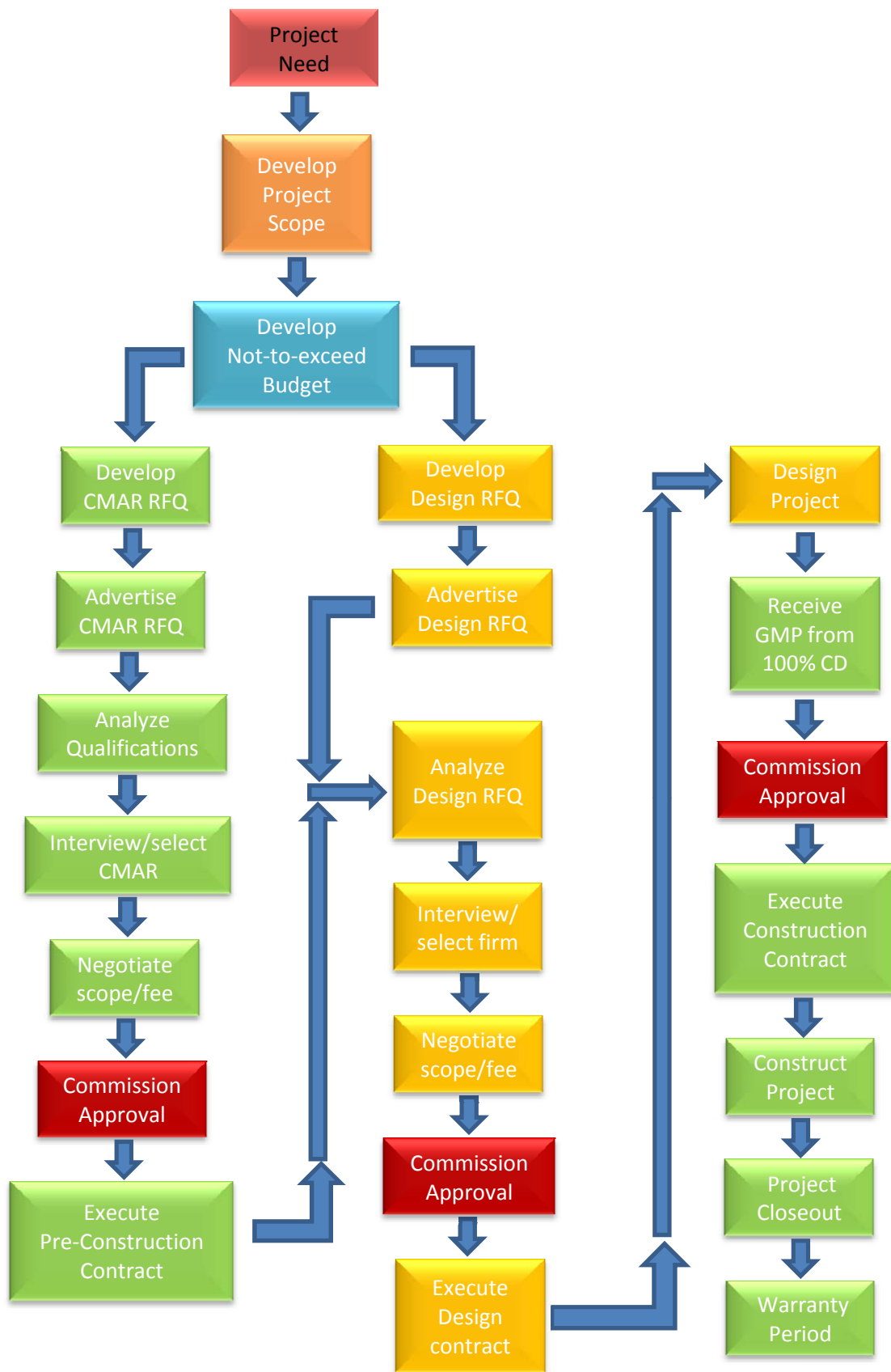
- A higher level of cost control from the start. A successful CMAR project would involve hiring the CMAR prior to the architect and having the CMAR help select the architect. During the design process, the CMAR provides cost estimates at contractually established points. If these cost estimates are in line with the established budget, the architect then moves on to the next phase of design. If not, the CMAR, Owner and Architect assess the cost estimate and make design changes to bring the design back into budget alignment. This process ensures budget success.
- The CMAR is an Owner advocate and manages the project with the Owner's best interest in mind at all times.
- The CMAR takes burden off of the Owner in managing and coordinating the project.
- The Owner's risk is limited by the CMAR process providing the construction documents are complete and proper allowances and contingencies are built into the GMP.
- Constructability and value to the Owner are afforded by the Value Engineering expertise brought to the process by the CMAR.
- Since the CMAR is at risk and gives the GMP prior to bid, he does not have to select the low bid. Generally the thorough prequalification process minimizes the number of low

bidders that get disqualified and generally leads to lower long term costs, higher quality, and fewer claims because only pre-qualified contractors are performing work.

- CMAR services are professional services like architectural, engineering, surveying, etc. The CMAR's main purpose is not to construct the project, but to manage the construction of the project. This management focus adds much value to the project.

It is important to keep in mind that an adverse CMAR-Architect relationship can lead to some of the same issues that arise in a design-bid-build delivery method. By having the CMAR help select the Architect, the risk of an adverse relationship is minimized.

As with any delivery method, incomplete and/or inaccurate construction drawings will result in change orders. The misunderstanding associated with the GMP is that this maximum price will not be exceeded in any case. It is important to understand that the GMP is based on the plans and specifications at the time of the GMP with some reasonable assumptions made and a reasonable contingency included. Major changes in scope will result in a change order, which increases the GMP contract. In addition, any Owner changes to the project and scope require a change order. By requiring the documents by 100% complete prior to receiving the GMP, the risk of unanticipated change orders are minimized.



**Construction Manager at Risk (CMAR) Process**

Figure 1