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# SEP-14 WORK PLAN

## Detroit E. Riverfront Riverwalk Project At Mt. Elliott Park, City of Detroit *Construction Manager / General Contractor (CMGC)*

SUBMITTED TO FHWA: November 21, 2011



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## 1.0 INTRODUCTION

The Michigan Department of Transportation (MDOT), Metro Region submits this work plan for review to and approval by the Federal Highway Administration (FHWA) as a Construction Manager / General Contractor (CMGC) project under the provisions of the Special Experimental Project No. 14 (SEP-14) for the use of innovative contracting practices. MDOT has traditionally used Design-Bid-Build (DBB) method for construction of most projects, regardless of scope. This is the second use of CMGC by MDOT.

The scope of this project is to construct a Riverwalk along the Detroit East Riverfront at Mt. Elliott Park, in the City of Detroit. The Project includes LEED, or Leadership in Energy and Environmental Design, certification, construction of a pavilion, universally accessible water feature/ playscape, tensile structure, and a non-motorized path, to include, lighting, security, site furnishings and seawall cap and platforms. This work plan proposes the Project be designed and constructed using the CMGC project delivery method. The purpose of utilizing this innovative and accelerated delivery method is to design and construct the project as effectively and efficiently as possible given the anticipated specialty construction services for the Project. The CMGC will be responsible for ensuring that both LEED certification, and the desired quality level of work are achieved from the inception to the completion of the Project. The CMGC will also be responsible for ensuring that their key staff meet the required qualifications to perform the anticipated specialty construction services for the Project.

See Figure 1 for Project Location Map of the site within Wayne County.

## 2.0 PURPOSE

The purpose of the CMGC project delivery method is to engage unique and/or specialized construction expertise, including the use of subcontractors, early in the planning and design to minimize changes, enhance constructability, manage risk, and expedite the contracting process by concurrently executing design and construction contracts without requiring the owner to relinquish control over the design details or to be exposed to undue risks.

The CMGC project delivery method is an integrated approach to the design and construction of a project to control the schedule and budget. It also ensures a quality final product for the Owner. CMGC is similar to traditional DBB projects, where the owner hires a Designer (or performs the design in-house) to prepare the plans and specifications and then hires a Contractor to deliver the project, but differs in the sequence of events. In CMGC, the Designer and Contractor are hired (under separate contracts, utilizing qualifications-based selection processes) at the start of the project development. This ensures the Contractor is involved in all stages of planning and design to improve quality and minimize costly changes during construction. During the construction phase, the Contractor acts as the CMGC to keep the project within budget and on schedule by establishing a Guaranteed Maximum Price (GMP) to perform the construction when the design is sufficiently advanced and the Contractor can provide a price with minimal contingency.

Another advantage is that the CMGC can start construction before design is finalized by establishing a GMP for a portion of the project and an estimate for the remaining. The CMGC

would need to perform 35 percent, or more, of the work described in the GMP, and is permitted to seek bids from subcontractors to perform the remaining work identified in the GMP.

If the GMP is not negotiated to the Owner's liking, the project can be delivered using the traditional DBB method, and the project can be opened for bids when the plans and specifications are completed. This provides the Owner an outlet if an agreement cannot be reached with the CMGC on the GMP, by breaking the CMGC contract into three phases: (1) pre-construction services (2) construction services cost proposal and (3) construction services. The CMGC would be allowed to bid on the project if the Owner could not negotiate the GMP with the CMGC.

Since a conditional commitment is made to a Contractor, to complete the construction, early in the process, a premium is placed on the proper selection of the CMGC to provide the best value to the Owner. Selection of CMGC is described in the attached Draft Request for Qualifications (RFQ).

MDOT wishes to use the CMGC project delivery method as a means of exploring alternative and innovating contracting methods. Please know that a SEP-14 work plan for the use of the CMGC project delivery method has been previously granted by the FHWA on the M-222 Slope Stability Project at the Kalamazoo River, in Allegan, Michigan (JN 107575; by J. Forster in March 2011). MDOT seeks to use the CMGC method to gain experience and evaluate its potential for use on this project as well as future projects.

### 3.0 PROJECT SCOPE

The CMGC is being selected early in the project to join the Project Team. The CMGC will be expected to provide the Project Team with construction expertise and experience to assist in project decision-making, provide quality assurances, and ensure the project remains on schedule and within budget. The project goals are as follows:

- Successfully complete the design and construction of the proposed pavilion, universally accessible water feature/ playscape, tensile structure, and non-motorized path
- Achieve LEED, or Leadership in Energy and Environmental Design, certification
- Ensure highest quality workmanship from the inception to the completion of the Project
- Obtain all proper permits to construct the project
- Protect the Detroit River
- Eliminate / minimize environmental impacts, while addressing soil erosion and sedimentation control, and similar impacts
- Handle, treat, and dispose of contaminated soils properly
- Substantially complete the construction no later than October 15, 2012

### 3.1 PHASE 1 - PRE-CONSTRUCTION SERVICES

The CMGC shall consult with the Project Team during the design phase in order to develop, implement, and maintain a spirit of cooperation and open communication among the parties so that the goals and objectives of each are clearly understood, potential problems are resolved promptly, and upon completion, the Project is deemed a success by all. The Pre-Construction Services Fee is described in Section 4.0. The CMGC shall deliver pre-construction services by performing the following:

- Analyze and evaluate the constructability of the preliminary design.
- Provide information, cost estimates, and alternative options to help facilitate decisions regarding existing conditions, construction impacts, and staging.
- Provide input to the Project Team regarding current construction industry practices, labor market, and material availability.
- May use subcontractors to supplement pre-construction services to provide the necessary expertise.
- Review in-progress design plans and provide input and offer suggestions with respect to the methods, materials, and construction sequencing.
- Review design documents in-progress and offer suggestions to improve completeness or clarity.
- Notify the Consultant and MDOT Project Manager, in writing, of all problems, conflicts, and/or deficiencies identified during the review and evaluation of design drawings.
- Assist the Consultant and MDOT Project Manager in resolving problems, conflicts, and/or deficiencies identified during the review and evaluation of design drawings.
- Provide a preliminary construction estimate upon completion of the preliminary plans.
- Provide recommendations to the plans or construction documents to ensure completion of the Project in the most expeditious and efficient manner possible.
- Provide a final review and evaluation of the final plans and construction documents.

### 3.2 PHASE 2 - CONSTRUCTION SERVICES COST PROPOSAL

The CMGC shall submit a Construction Services Cost Proposal when the plans and construction documents are approximately an average of 50% to 100% complete. The Construction Services Cost Proposal shall include a Guaranteed Maximum Price (GMP) which will include all necessary materials, equipment, and staff to complete the construction of the Project. The GMP will not be exceeded without written approval from the MDOT Project Manager, and only by a written work order. When the GMP is negotiated, contingency items may be identified that will be paid for

outside of the GMP. If the MDOT Project Manager and the CMGC cannot agree on a GMP and/or contingency items, MDOT reserves the right to terminate the CMGC services without penalty or payment, except payment for Pre-Construction Services, and proceed as necessary. If a GMP cannot be agreed upon, MDOT reserves the right to let the Project using traditional Design-Bid-Build or other non-traditional methods. Any information provided by the CMGC during the Pre-Construction phase will be used to develop the plans and specifications for the letting. The Construction Service Cost Proposal shall include:

- Guaranteed Maximum Price (GMP) proposal, including all overhead and profit considered within specified pay items; as well as any and all subcontracted work.
- Construction schedule showing the proposed start and finished dates and any significant milestones.
- Quality Assurance / Quality Control Plan.
- Clarification of understanding of the EPA / MDNRE / USACOE requirements including adherence to the soil erosion and sedimentation control plan requirements.
- Disadvantaged Business Enterprise (DBE) participation description and Staffing Plan during construction.
- Description of all other inclusions to, or exclusions from, the GMP, including all assumptions and clarifications.
- Written guarantee from the CMGC that the total construction cost shall not exceed the GMP. All costs or expenses in excess of the GMP shall be borne by the CMGC, unless adjusted by a previously approved written work order.

The CMGC will be required to make available all cost and budget estimates, including supporting materials and records, to MDOT.

### 3.3 PHASE 3 - CONSTRUCTION SERVICES

The CMGC shall, once the Construction Service Cost Proposal is approved:

- Construct, bid subcontractor work, and manage all construction related contracts while meeting the DBE and other requirements.
- Execute a Quality Assurance / Quality Control Plan.
- Address and adhere to all federal, state, and local permitting and environmental requirements.
- Maintain a safe work site.
- Perform at least 35% of all construction work, excluding any identified specialty items.

- Substantially complete the construction no later than October 15, 2012.
- In the event that the contract is terminated after the award of the construction phase to the CMGC, the termination procedures in the MDOT 2012 Standard Specifications for Construction shall be followed.

## 4.0 PRE-CONSTRUCTION SERVICES FEE

In accordance to 23 CFR Section 172 and 49 CFR Part 18, compensation for the pre-construction work shall be on a **lump sum** basis, paid at the end of the pre-construction services.

The MDOT Project Manager may authorize incremental payments if the design phase is delayed due to circumstances beyond the CMGC's control.

All billings for services must be directed to the Department and follow the current guidelines. The latest copy of the "Professional Engineering Service Reimbursement Guidelines for Bureau of Highways" is available on MDOT's website. This document contains instructions and forms that must be followed and used for billing. Payment may be delayed or decreased if the instructions are not followed.

Payment to the CMGC for services rendered shall not exceed the maximum lump sum amount unless an increase is approved in accordance with the contract with the CMGC. Typically, billings must be submitted within 60 days after the completion of services. The final billing must be received within 60 days of the completion of services.

Submitter's are required to submit a Pre-Construction Services Fee. This lump sum price should include all direct costs, overhead, and profit required to complete the scope of work outline in Section 3.1. The Submitter should include a description of their intended level of effort and equivalent cost per hour for the development of plans and specifications period between February 27, 2012 and May 14, 2012. MDOT will require verification and certification of the costs from the selected Submitter prior to executing a contract.

Provide a table showing labor rates and estimated hours for all personnel providing Pre-Construction Services, overhead rate, subconsultant or subcontractor costs (if any), direct expenses, fixed fee, and total costs (see MDOT form 5101A, 5101B, and 5101C for example). The Pre-Construction Services Fee should be submitted according to instructions in the Draft RFQ.

The sealed Pre-Construction Services Fee will not be opened or considered during the evaluation process. After scoring is completed, only the highest scoring Submitter's Pre-Construction Services Fee will be opened. The others will remain sealed. After the contract is awarded, the unopened bids will be returned to the Submitters.

MDOT reserves the right to negotiate the cost of the Pre-Construction Services Fee. If MDOT and the selected CMGC cannot agree on a price, hours of effort, or number of employees providing these pre-construction services, MDOT will begin negotiations with the next highest ranking Submitter from the SOQ scoring process.

MDOT may terminate the contract with the CMGC if pre-construction services and coordination are not provided as negotiated and/or expected, or for convenience. If the contract is terminated for any reason during the pre-construction phase, MDOT will determine if partial compensation for services rendered shall be paid to the CMGC.

## 5.0 EVALUATION PROCESS

MDOT has selected a designer through the Department's established consultant selection process which utilizes a Quality Based Selection in accordance with the Brooks Act.

MDOT will advertise a RFQ to select the CMGC. MDOT will evaluate the Statement of Qualifications (SOQs) received from Contractors. The SOQ's will initially be evaluated to determine if the Submitter has met the minimum requirements ("Pass") on all Pass / Fail evaluation factors. Pass / Fail evaluation factors are outlined in Section 5.1. SOQ's will then be scored using the evaluation criteria. If a Submitter receives a "Fail" on any single Pass / Fail requirement, the SOQ will be rated as unacceptable and will not be scored on the evaluation criteria.

Once a SOQ has been determined to meet the minimum Pass / Fail criteria, the Selection Committee will review the SOQ and provide a score for each of the qualitative evaluation criteria using the score sheet included in the Draft RFQ.

MDOT reserves the right to conduct an independent investigation of any information, including prior experience, identified in the SOQ by contacting project references, assessing public information, contacting independent parties or other means. MDOT further reserves the right to request additional information from a Submitter during the evaluation of the SOQ's.

The Submitter selected to be the CMGC will be the firm whose verified experience and qualifications, as presented in response to the RFQ and reference checks, in the opinion of MDOT, as offering the most experience, expertise, and value to MDOT and the Project. The Selection Committee will review and evaluate the SOQ's throughout the selection process on the following general criteria. It should be noted that this is not a complete list, and should not be considered a "checklist", but rather a reference.

### 5.1 PASS / FAIL EVALUATION CRITERIA

- CMGC-001 Submitter Information
- CMGC-002 Statement of Qualifications Checklist
- CMGC-003 Addenda Acknowledgment
- Attendance at Pre-Submittal Meeting
- Bonding Company Letter
- Conflict of Interest Form (MDOT form 5100I)



## 5.2 QUALITATIVE EVALUATION CRITERIA

### 5.2.1 UNDERSTANDING OF SERVICE (100 POINTS)

- Understanding of CMGC project delivery
- Understanding of project scope
- Approach to managing and coordinating all project elements
- Potential innovative efficiencies in construction and their potential for cost savings and time reduction

### 5.2.2 EXPERIENCE / PAST PERFORMANCE (200 POINTS)

- Experience on projects of similar scope, complexity, and construction type
- Experience on other CMGC projects
- Experience with analyzing and evaluating the constructability of proposed design
- Experience with proposed subcontractors
- Safety record

### 5.2.3 PRE-CONSTRUCTION SERVICES (150 POINTS)

- Approach to providing construction input during design
- Track records for producing estimates
- Approach to driving cost efficiency
- Approach to developing a timely and accurate GMP

### 5.2.4 CONSTRUCTION SERVICES (150 POINTS)

- Ability to select qualified labor and secure the appropriate material necessary to complete the project
- Ability to competitively and properly bid subcontractor work
- Quality Assurance / Quality Control Plan

### 5.2.5 STAFFING (400 POINTS)

- Submitter's appropriate staff qualifications during the Pre-Construction and Construction phases under the CMGC construction deliver processes.

- Submitter's capability and ability to successfully interact with the Owner, Consultant, and Subcontractors.
- Project Manager's qualifications
- Team qualifications (including any subcontractors)
- Local Workforce Development and Participation Plan

### 5.3 FINAL SCORE & SELECTION

Selection will be based on the Submitter with the highest total combined score (1000 possible points).

## 6.0 SCHEDULE

Post RFQ	December 1
Mandatory RFQ / SOQ Pre-Submittal Meeting	December 15
SOQ and Pre-Construction Services Price Proposal Due	January 6 at 4:00 PM EST
Selection of CMGC	January 6 – January 17
Pre-Construction Services Fee Negotiation	January 17 – 24
Notice to Proceed	February 17
Development of Plans and Specifications	February 27 – May 14
Guaranteed Maximum Price (GMP) Negotiation	May 2012
Construction Letting (if no GMP agreement)	May 2012
Construction	June (early) – October 15

## 7.0 MEASURES

The CMGC project delivery method will be evaluated and measured on the overall product quality, timely completion, and budget management. It is anticipated that the project will result in a better product and reduced design changes during construction because of the CMGC's input during design, thereby reducing the overall construction price.

## 8.0 REPORTING

MDOT will prepare an interim project report at the start of construction detailing industry reaction and the pros and cons of using CMGC through design.

MDOT will prepare and submit a final report to FHWA on this project within 6 months of completion of the construction contract and final MDOT acceptance. The final report will contain an overall evaluation of the project, stating the positives and negative outcomes, the industry reaction to the CMGC project delivery method, and suggestions and/or recommendations for improving the process on future projects.

Figure 1 – PROJECT MAP

