

**INNOVATIVE CONTRACTING PRACTICES
SPECIAL EXPERIMENTAL PROJECT NO. 14**

BEST VALUE – PERFORMANCE BASED CONTRACTING

**M-39 (Southfield Freeway)
Michigan Department of Transportation
Metro Region**

**Interim Report
April 27, 2011**

Introduction

Per the project Special Experimental Project NO. 14 (SEP-14) document dated June 2010; this document serves as the Interim Report addressing the M-39 Best Value Contracting selection process and results. Please refer to the project SEP-14 document, and the special provisions for “Bidding Instructions for Best Value Selection” and “Contractor Performance” for supplemental information included the appendix of this report.

Background

In November 2011, The Michigan Department of Transportation (MDOT) let a major construction project on M-39 (Southfield Freeway) in Southfield, Detroit, Dearborn, Dearborn Heights, and Allen Park Michigan. The project includes reconstruction of the roadway from McNichols to M-10, roadway rehabilitation within the rest of the project corridor, rehabilitation of 28 bridges, freeway lighting, freeway signing, ITS infrastructure, sanitary sewer replacement, and screen wall replacement. The engineer’s estimate at the time of project advertisement was \$77.3 million.

The majority of the significant project work impacts what is primarily a residential area of northwest Detroit. In recognition of the importance of the roadway to the adjacent community and other stakeholders, and the impact the freeway, and its rehabilitation has on the neighborhoods it traverses, MDOT engaged them in a context sensitive solutions process. This was to understand and address the community’s needs, concerns, and ideas for the project – both the physical infrastructure that will result from the project, as well as how the project is executed.

MDOT held a very thorough public involvement process during the design phase of the project, and three public meetings were held to provide information relative to the project, and solicit ideas and feedback from the community. Outreach with the community, and other stakeholders revealed that several “Quality of Life” concerns are consistently raised by members throughout the community. Most notably among these are:

1. **General Construction Concerns**
 - a. Air quality
 - b. Noise
 - c. Restricting construction truck traffic on neighborhood streets
 - d. Maintaining utilities to homes during construction
 - e. Avoiding damage to adjacent property from vibration.

2. **Local Contractor and Workforce Participation Concerns**

3. **Safety & Mobility Concerns**

4. **Schedule Concerns**

MDOT also proposed various maintenance of traffic strategies (full closure and detour vs. maintain one lane in each direction), their impacts to the public, and the associated construction durations with the intent that the community should decide which strategy should be chosen taking into account all of the information. Ultimately, the community chose the full closure option, with the reason most cited being the shorter construction duration.

As a result of the issues raised at the meetings, MDOT moved forward with the Best Value Contracting concept as a means to establish acceptable criteria for the quality of life issues, and the means to enforce them. We determined what we believe to be reasonable solutions then specified the desired outcomes or parameters that the Contractor must follow.

MDOT achieved this with two project specific Best Value special provisions. The first special provision entitled “Bidding Instructions for Best Value Selection” provided the technical requirements of the proposal that was to accompany the Contractor’s bid. Bid opening information, bid evaluation process information, and the score sheet MDOT devised for scoring of the proposals were also included in the specification. The second special provision entitled “Contractor Performance” contained all the evaluation criteria for the general construction concerns, workforce participation, safety and mobility, and schedule that the Contractor was to adhere to. This specification also outlined the field testing parameters, documentation process, and incentive/disincentive amounts.

As an example, for the air quality and noise concerns, MDOT worked with the Michigan Department of Environmental Quality (MDEQ), and other experts to establish baseline measurements for particulate matter in the air, and ambient decibel levels. We then researched the allowable threshold levels during construction, and developed an incentive/disincentive strategy to ensure the thresholds were maintained.

During the development of the Best Value special provisions, MDOT met with FHWA, and members of the construction industry to solicit feedback on the language, and logistics of what MDOT was asking of the industry. MDOT met with the Michigan Infrastructure and Transportation Association (MITA), and received feedback for inclusion into the specifications. MDOT also commissioned an independent third party review of the specifications, and project plans to ensure bidability and constructability. When the specifications were ready for approval, MDOT also engaged the Michigan Attorney General’s office for their feedback on the risk, and legality of the specifications, and was given the green light to advertise the project.

The contract award was based on a composite score derived from the Contractor's bid price divided by the technical proposal score. The contractor with the lowest composite score was awarded the bid.

Bid Process

To best control this process, MDOT scheduled a special letting consisting of only this project, and a five week advertisement period was used to allow more time for the industry to digest the plans and specifications, and submit inquiries. As a result of the thorough nature of which MDOT engaged the contractor industry during the development of the Best Value selection specifications, no addenda were issued as a result of contractor inquiries about the Best Value specifications. Several other addenda were issued regarding pay items and quantities, which is normal for a project this size.

During the advertisement period, MDOT held a mandatory Pre-bid Meeting/DBE Reverse Trade Fair to expose the local workforce and potential DBE contractors to the potential prime contractors. MDOT staff provided an overview of the project, and answered contractor questions regarding the nature of the work, and the logistics of the Best Value Selection.

Per the instructions in the "Bidding Instructions for Best Value Selection" special provision, the bids were submitted electronically in Bid Express, and the technical proposals were submitted to the Contract Services Division on November 10, 2011. The technical proposals were consensus scored by a team consisting of:

Detroit TSC Manager
Detroit TSC Development Engineer
Detroit TSC Delivery Engineer
Metro Region Engineer
Metro Region Planning Specialist
Director of MDOT Office of Small Business Development
Contract Services Division Administrator

The consensus scoring process was structured to be as objective as possible. A diverse cross section of MDOT staff comprised the scoring team, and for each of the technical proposal factors scored, the team started with a baseline score, and added points for good ideas and innovative thinking. The score sheet included in the special provision for "Bidding Instructions for Best Value Selection" outlined the range of scores depending on the adequacy of the proposed mitigation measures, or innovations included in the Contractor's technical proposal. Emphasis was placed on developing a consensus score for each factor, taking into account input from the entire team. Consensus scores and comments were recorded, and each team member signed the score sheets, which are included in the appendix.

To maintain security and confidentiality of the bids, and ensure the bids would not be made public until after the technical proposals were scored, the bids were electronically locked in the Bid Express program until November 17, 2011 at 2:01 pm, the date and time of the public opening. At that time, a representative from Lansing Finance, who attended the bid opening, downloaded the bids from Bid Express. The technical proposals scores, and bid results were then publicly announced at the MDOT C&T facility. Members of each contracting team were in attendance. The results are summarized below:

Contractor	Technical Proposal Score	Bid	Composite Score
Toebe/lafrate/Sanches	264	\$79,323,801.75	300469
Dan's/C.A. Hull/Ajax	341	\$71,334,854.93	209193

The Dan's Excavating team was awarded the contract.

Observations

The technical proposal scoring team was very impressed with the creativity and ingenuity of both Contractor teams in not only meeting the requirements of the Best Value specifications, but in understanding the community concerns and proposal additional measures to make the project a success.

For example, for the general construction concerns of noise, both Contractor teams identified construction activities that have the highest potential for creating noise levels that may exceed the thresholds dictated in the specifications. Both teams then identified means of independent monitoring and tracking noise data, and mitigation measures to be taken should measurements exceed the thresholds. The proposed mitigation measures, and responses to measurements exceeding thresholds were developed by the Contractor teams, and in some cases, the mitigation measures exceed MDOT's expectations.

MDOT was also impressed with both Contractor teams proposed emphasis on providing public information throughout the project, and assigning staff to facilitate ongoing communication between the Contractor, and the community.

Ultimately, the Dan's Excavating team proposal was scored higher than the Toebe team. Dan's proposal was very thorough, and in some areas, went above and beyond the original intent of some of the measurables.

They proposed the use of a Community Liaison Manager to coordinate with the public, and offer training, and employment opportunities to the local workforce.

They proposed modifications of the staging plans to shorten the duration of the M-39 full closure, and shorten pedestrian detours at the bridge approaches. They analyzed the bridge construction matrix provided by MDOT, and developed more expedited ways to stage and construct the bridge rehabilitations. They also proposed the use of a Mitigation Compliance Technician to assist in the monitoring, and maintain compliance with the various environmental mitigation efforts stemming from the community's general construction concerns.

Measures

Per the project SEP-14 document, several measures of effectiveness of the evaluation measures were outlined to be evaluated. This will ultimately determine the effectiveness Best Value Selection process. The first measure is the quality of the technical proposals based on the direction given in the "Bidding Instructions for Best Value Selection" special provision. The second measure will be the effectiveness of the performance based contracting process based on the measurables in the "Contractor Performance" specification. That analysis will be conveyed as part of the final report.

MDOT feels the technical proposals were of high quality, and showed a range of innovative ideas to meet or exceed the evaluation measures as part of the Best Value Selection. There were no logistical, or procedural issues in executing the selection process other than ensuring the bids remained sealed in Bid Express until after the technical proposal scores were announced. MDOT did schedule a special letting for this project.

In comparing the technical proposals, bids, and composite scores, Dan's was the clear winner. They had the highest technical proposal score, and the lowest bid amount. The spread between the bids was a bit surprising, and MDOT is monitoring the costs closely, as their bid was \$6 million less than the engineer's estimate. MDOT performed an unbalanced bid analysis after the letting, and determined that there were no major improprieties with Dan's bid.

The effectiveness of the performance based contracting is still being measured and assessed, along with feedback from the communities impacted by the project. Ultimately, perceptions of the execution of the project from MDOT, the Contractor, and the community will define the success of the project.

At the time this report was written, several air quality and noise random measurements had been taken throughout the project, yielding no measurements exceeding the thresholds dictated in the special provision. This is encouraging, and proves the Contractor is making a concerted effort to abide by the project provisions, and is vested in the success of the project.

Final Report

Per the project SEP-14 document, a final report addressing the entire project and the effectiveness of the compliance, and/or mitigation of all the evaluation measures will be issued within six months of project completion. The majority of the work is scheduled to be complete by November 2011, with minor work and restoration continuing into the spring of 2012.

APPENDIX

- a. **M-39 project INNOVATIVE CONTRACTING PRACTICES SPECIAL EXPERIMENTAL PROJECT NO. 14 (June 8, 2010)**
- b. **Approved special provision for “Bidding Instructions for Best Value Selection” (October 12, 2010)**
- c. **Approved special provision for “Contractor Performance” (October 13, 2010)**
- d. **Best Value Selection consensus score sheets (October 12, 2010)**