

April 19, 2010

Mr. Charles W. Bolinger
Division Administrator
Federal Highway Administration
5304 Flanders Drive, Suite A
Baton Rouge, LA 70808

Attention: Scott Nelson

Reference:
Evaluation of LA DOTD ATC Process
State Project Number: 450-10-0159
Federal Aid Project Number: ARR-1709(503)
I-10 Widening
Seigen Lane Interchange to Highland Road Interchange
East Baton Rouge Parish

Dear Mr. Bolinger:

By letter dated October 28, 2009, FHWA approved the Louisiana Department of Transportation and Development's (LA DOTD) request for a waiver of 23 CFR 636.209(b). Specifically, the LA DOTD requested a waiver from the requirement that states, "alternative technical concept proposals may supplement, but not substitute for base proposals that respond to RFP requirements." The LA DOTD's method of evaluating alternative technical concepts during the proposal review process was deemed satisfactory under FHWA's Special Experimental Program 14 (SEP-14), innovative contracting experimenting program.

As required by that approval, the attached document provides FHWA with a brief evaluation of the LA DOTD's experience using Alternative Technical Concepts (ATCs) in the procurement for the I-10 Widening Design-Build Project. Please note the same ATC process was used in connection with the US 90 project; however, since no ATCs were submitted in connection with that project, the attached evaluation only discusses the I-10 Widening Design-build Project.

If you or your staff have any questions or would like to discuss the results of the I-10 Widening Design-Build project's ATC process, please feel free to contact me at 225-379-1356.

Sincerely,

Louisiana Department of Transportation and Development

Jeff Burst, P.E.

I-10 WIDENING DESIGN BUILD PROJECT

Evaluation of ATC Process

Background

The Louisiana Department of Transportation and Development's (LA DOTD's) procurement process for the widening of Interstate-10 between the Seigen Lane interchange and the Highland Road interchange (I-10 Widening Design-Build Project) was based on the use of the competitive sealed proposal process.¹ As part of that process, the LA DOTD used alternative technical concepts (ATCs) to allow innovation and flexibility to be incorporated into the proposals. The LA DOTD's ATC process, which involves the pre-approval of deviations from technical requirements, was carefully crafted to avoid any potential unfairness. The waiver of FHWA's requirement to furnish a base proposal provided each proposer the opportunity to submit ATCs for review and approval (or disapproval) by the LA DOTD during the pre-proposal period. Proposers were also given the discretion to choose which (if any) of their "pre-approved" ATCs to incorporate into their final proposal.

General Benefits of ATCs

- As part of the ATC submittal and review process, proposers were required to provide details concerning how the ATC would impact vehicular traffic, environmental permitting, community impacts, safety, the time period necessary to design and construct the project, and life-cycle Project and infrastructure costs, including the cost of repair, operations and maintenance. Therefore, the ATC process led to approved ATCs that neither reduced the overall quality of the final product nor increased the cost of the contract.
- The proposers' development of an ATC typically included engineering design beyond the design level provided by the LA DOTD when the Scope of Services Package (RFP) was prepared.
- Approval of ATCs during the pre-proposal process provided proposers with the ability to further develop the Project's design and construction schedules.

¹ The same ATC process was used during the procurement for the US 90 @ LA 85 Interchange Design-Build Project. However, none of the Proposers for that project submitted ATCs to LA DOTD.

- By carefully maintaining the full confidentiality of the ATCs submitted, the LA DOTD encouraged proposers to develop and submit ATCs. This provided an opportunity for proposers to differentiate their proposals by being creative and innovative.

Summary of ATCs Submitted by Proposers

Proposer	ATCs Submitted	Approved	Submitted with Proposal
Boh Bros. Construction Company	9	5	5
Coastal Bridge Company	4	1	1
Gilchrist Construction Company	0	0	0

Description of ATCs

- Several ATCs on the I-10 Widening Contract were related to structures. These ATCs were associated with the replacement of the bridge spans over the railroad, and therefore, provided the benefit of enhanced vertical and horizontal clearances over the Kansas City Southern Railroad. In addition, the replacement of the bridge spans provided the LA DOTD with the opportunity to remove non-redundant fracture critical structural elements at the railroad crossing from their inventory. These ATCs were interrelated and even though they were submitted as separate ATCs, they were considered and were approved for use as a combined ATC proposal. They included:
 - ATC #7 Bridge Deck and Girder Replacement
 - ATC #8 Skewed Deck Joints
 - ATC #9 Modified Bent Risers
- ATC #5 involved the removal of the existing raked rumble strips in the outside shoulders to allow the shoulder section to be used as a travel lane during certain phases of the Maintenance of Traffic plan. The Design-Builder was able to demonstrate that the shoulder section was structurally adequate to carry the traffic loads for the durations required, and committed to replace the rumble strips in the permanent shoulder by grinding or by the use of raised pavement marker strips. This ATC was approved based on the benefits to the safety and efficiency of the Maintenance of Traffic operations, maximization of the lane openings, minimization of queuing, and potential positive public perception.
- ATC #6 involved the placement of the median traffic railing. The Design-Builder proposed the use of a single double faced barrier, and in some areas this exceeded the

maximum offset from edge of travel lane to the face of barrier. This ATC was approved on the basis of the small deviation from the allowed offset dimension and the anticipated cost savings of using a single barrier rather than two separate barriers.

Several proposed ATCs submittals were determined not to be ATCs because they were in fact consistent with the requirements of the Scope of Services Package, and could, therefore, be included in the Proposal without separate ATC approval.

Conclusion

This ATC process gives the LA DOTD the ability to factor the proposers' technical solutions into the selection process and gives the LA DOTD access to solutions from all proposers. It also gives the successful proposer a head start on implementation of its ATCs, and avoids unnecessary costs for proposers to advance a base design that ultimately will not be used. We did not receive any complaints regarding the ATC process from any of the three short listed design-build firms. Out of 13 ATCs that were submitted, 6 were approved. Five of the approved ATCs were incorporated into the contract for the I-10 Widening Design-Build Project, resulting in significant innovation in the Project's design. The opportunity to introduce innovative concepts resulted in greater competition among the proposers by allowing the LA DOTD to consider a broader spectrum of technical solutions for the Project. Overall, we feel that the ATC process utilized for the I-10 Widening Design-Build Project was a success.