

**Work Plan  
Special Experimental Project No. 14 (SEP-14)  
Idaho Transportation Department  
Fixed Budget/Best Value Contracting**

**Project No. A012(319), SH-7 Gilbert Grade  
June 27, 2012**

**INTRODUCTION**

The Idaho Transportation Department (ITD) submits this work plan for review and approval as a fixed price – best value project under the provisions of Special Experimental Project No. 14 (SEP14) for the use of innovative contracting practices.

**PURPOSE**

Fixed price – best value bidding is an innovative bidding technique where a contractor bids a quantity of material for a fixed price. The contractor that bids the most quantity wins the bid. Using this fixed price – best value contracting technique will help ITD achieve one of its Strategic Goals, to “implement innovative business practices”.

Also, we believe this bidding technique will be a good tool for controlling costs and keeping a project within budget. Keeping projects within budget is a key ITD performance measure.

ITD also believes that inspection costs can be reduced with fixed cost – best value bidding, because tracking of pay items will be simpler. The last gravel resurfacing project on Gilbert Grade had 11 different pay items. The quantity of each of the 11 pay items had to be monitored and quantified on a bi-weekly basis, so the contractor was paid promptly. With fixed cost – best value bidding, only one pay item would need to be quantified to make the payments. The reduction in pay items from 11 to 1 will result in simpler bookkeeping and efficiency. Efficiency will save the taxpayer money.

**SCOPE**

The proposed project resurfaces SH-7 between MP36.783 and MP48.869 with crushed aggregate base course that is a uniform thickness for a fixed cost of \$700,000. SH-7 in this location is a low volume state highway with a gravel surface, a narrow roadway width of about 20', and steep topography. The project proposes to use gravel sources immediately adjacent to the roadway between MP 43.4 and MP 43.7 as the designated sources. The same gravel sources have been used on past projects on SH-7.

The contractor will bid a tonnage of crushed aggregate base that is excavated or blasted from the source, crushed, placed, and compacted. The tonnage will be placed in a uniform thickness throughout

the roadway. The thickness of the layer will be determined based on the quantity of aggregate that the contractor bids. All contract items including clearing and grubbing, wasting overburden soil, traffic control, mobilization, and other items will be incidental to the unit price of crushed gravel. ITD anticipates that 40 working days will be allowed in the contract and that the working days will be controlled and monitored like most other ITD contracts and include liquidated damages.

ITD estimates a layer thickness of 0.35 foot will be bid by the low bidder. ITD believes that no minimum layer thickness would be unacceptable from a maintenance standpoint and even a very thin layer of gravel would add value to the roadway; however, ITD may not accept an apparent low bidder that bids less than 90% or less of the quantity, because of the poor value. ITD does not believe maximum thickness is a concern and that a gravel layer thickness of 0.75', (more than 200% of the estimate) or more in most locations, would be acceptable. Gravel roadways typically lose gravel every year due to maintenance activities such as grading, traffic, and erosion. A thicker layer of crushed gravel is beneficial because it lasts longer. A thicker layer of gravel also allows the grader operator more flexibility in shaping the roadway.

## **SCHEDULE**

Currently, the project is proposed for advertisement during the Fall, or Winter, of 2013 for construction with a construction date during the summer of 2014.

## **EVALUATION**

In order to evaluate the success of this bidding technique, the ITD will measure three metrics:

1. The overall costs of construction engineering and inspection will be analyzed and compared with other similar ITD projects. Generally, ITD considers construction engineering and inspection costs to be efficient if less than 10% of the contract value is spent on these activities.
2. The overall construction budget including change orders will be compared to the project budget in terms of a percentage. Generally, ITD considers a project to be successful if it is constructed within 105% of the total budget.
3. Industry reaction will also be measured by interviewing the Contractor, the Resident Engineer, and District 2 management on their opinions of how well the bidding technique worked.

## **REPORTING**

ITD will prepare and submit a report on this project to FHWA after completion of the project and final acceptance by ITD. The report will contain an overall evaluation of the project along with any suggestions and recommendations for improving the process.