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October 23, 2015

Mr. Dan Mathis Division Administrator Federal Highway Administration 711 S. Capitol Way, Suite 501 Olympia, WA 98501-1284

Attn: Sharon Love

City of Sultan Alder Avenue Reconstruction STP-S310(004) SEP-14 Report

Dear Mr. Mathis:

Federal Highway Administration (FHWA) approved the use of Special Experimental Project No. 14 (SEP-14) for the Alder Avenue Reconstruction Project in the City of Sultan on February 11, 2014. There are multiple funding sources for this project including Federal funds from both the U.S. Department of Housing and Urban Development (HUD) and FHWA. As part of the requirements, a comparison of bid analysis was to be conducted, along with any project issues that were encountered, as well as with the remedy for those issues.

Bid Analysis

The project purpose of the Alder Avenue Reconstruction project was:

- Build new curb, gutter and sidewalk improvements
- Replace the sanitary sewer, water and storm drainage facilities
- Reconstruct the roadway pavement

Four other FHWA funded projects were selected to compare with the Alder Avenue project for the bid analysis. They are selected based on similar work and geographic location. The four projects are:

Agency	County	Fed Aid#	Contract Award Date	Project length (mile)	Project cost	DBE goal	Cost per mile (thou)
Sultan	Snohomish	S310(004)	May-14	0.25	\$869,934	0%	\$3,480
Federal Way	King	0443(007)	May-14	0.15	\$165,625	10%	\$1,104
Mountlake Terrace	Snohomish	0815(005)	Mar-13	0.20	\$236,300	7%	\$1,182
Woodinville	Snohomish	2456(004)	Sep-13	0.90	\$670,689	10%	\$745
Goldbar	Snohomish	0002(822)	Jul-12	0.34	\$288,422	0%	\$848

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The cost per mile comparison did not indicate any obvious trend. Three of the four selected projects were sidewalk construction projects only. The Woodinville project had only two similar work elements - paving and sidewalk improvements. Due to the difference in the scope of the work, the project to project comparison is not a good tool for the bid analysis.

Instead of utilizing project to project comparison, this report focused on unit bid item analysis. Using the WSDOT Unit Bid Analysis database, a bid item comparison was conducted with projects that were located in WSDOT Northwest Region and awarded in 2014. Four bid items were selected to perform the bid analysis because the item bid prices were significantly different from the engineer's estimate. These four bid items were:

			Successful Low Bid		Unit Bid Analysis		
Bid Item	Q	with the	Unit		Unit	Amount	
	Quantity	Unit	price	Amount	price		
Catch Basin, Type 2, 48 in. Diam.	2	EA	\$3,390.00	\$6,780.00	\$3,305.00	\$6,610.00	
Cement Conc. Traffic Curb and Gutter	1925	LF	\$21.56	\$41,503.00	\$24.43	\$47,027.75	
Cement Concrete Sidewalk	130	LF	\$56.40	\$7,332.00	\$86.63	\$11,261.90	
Cement Concrete Curb Ramp		EA	\$2,076.00	\$22,836.00	\$1,661.93	\$18,281.23	

There was not enough data to perform the bid item comparison for the sanitary sewer and water line work. For example, WSDOT had no data in Northwest Region in 2014 for the bid item "Manhole, 48-inch diameter". Expanding the search criteria to statewide projects from 2011 to 2015, the unit bid prices ranging from \$1,800 to \$5,000 depending on the type of manhole. The unit bid price from the successful low bidder was \$3,960.

Based on the available data, the unit bid prices were in range with other transportation projects within the project surrounding area in 2014. There were three bidders competing for the project. With the SEP-14 wavier, this project still provided similar bid prices for all the item sand the SEP-14 approval had no effect on the bid prices for the project.

Project Issues:

- 1. The prime contractor was not required to achieve a DBE Condition of Award goal on this project. Instead, the prime contractor was required to adhere to the HUD local hiring preferences. The prime contractor in this case was familiar with HUD requirements and there were no problems meeting those requirements.
- 2. Snohomish County CDBG personnel reviewed the certified payrolls, performed wage interviews, and reviewed subcontractor paperwork to ensure that the HUD requirements were met. The Local Agency's consultant performed these same services to ensure that FHWA requirements were met. There was likely some duplication of work, but there were no conflicts.

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3. WSDOT Local Programs, the Local Agency, the Engineer, and the Contractor formally signed and approved the change orders. Snohomish County CDBG reviewed the change orders and gave verbal approval. Some of the change orders on this project had to do with additional work required due to changed conditions. Said additional work was tracked via force account methods. Snohomish County CDBG staff received the draft change orders to review after the additional work had taken place. They later indicated that they wanted to give verbal approval for additional work earlier in the process, before the costs were known.

Resolution of Issues:

- 1. There were no issues with having a zero DBE goal. This reduced the construction administration costs. There were no issues with the HUD local hiring preferences because the prime contractor was already familiar with HUD grant requirements.
- 2. There were no conflicts between the Local Agency's consultant and Snohomish County CDBG staff regarding certified payroll reviews, wage rate interviews, or subcontractor approval.
- 3. The Local Agency's consultant sent the change orders to Snohomish County after the costs had been negotiated. The County reviewed and gave email approval of same, although they wanted to be alerted to the change orders at an earlier stage in the change order process.

Recommendations for Improvement on Future Projects:

- 1. There are no recommendations needed for improvement on the first issue.
- 2. It appears that the HUD requirements for certified payroll review, wage rate interviews, and subcontractor approval are as good as, or more rigorous than, what is required by FHWA. We recommend that the HUD requirements for same satisfy the FHWA requirements so there is no duplication of work.
- 3. We recommend that clear communication be made to the Local Agency regarding Change Order review and approval process in order to satisfy both HUD and FHWA requirements.

If you have any questions, please do not hesitate to call me at 360-705-7379 or email mounted@wsdot.wa.gov.

Sincerely

David Mounts

Local Programs

Project Development Engineer

DM:sas

cc: Ed Conyers, Northwest Region Local Programs Engineer, MS NB82-121