

CONSTRUCTION VALUE ENGINEERING CHANGE PROPOSAL
MISSOURI DEPARTMENT OF TRANSPORTATION

Contract ID 080425-802 Job No. J8P0885D Date 7-21-08
County Polk Route 32 Original Bid Cost \$672,014.15
Contractor APAC-Missouri, Inc. By Doug Fronick
Designed By APAC-Missouri, Inc. Phone 417-868-6700

VECP 08-69

1. Description of existing requirements and proposed change(s). Advantages/Disadvantages

Proposed Change to BP-1 Shoulders.

The original typical sections on Rt. 32 between log mile 44.167 to 45.115 and 46.254 to 47.109 show overlaying mainline with 1-3/4" SP125C 70-22 and the shoulders with 1-3/4" BP-1 64-22. The plans also call for coldmilling the entrances to make a BP-1 transition from the 1-3/4" overlay to the existing entrance surface. APAC-Missouri, Inc.'s proposal is to taper the shoulder from 1-3/4" at the edge of mainline to 1" at the edge of shoulder. The entrances would be changed from a coldmill to a taper since the edge of shoulder is only 1". The taper would be 2' max in length to tie the overlay into the existing entrances. The BP-1 at Rt. T and Rt. D will still be 1-3/4" thick

The advantages to this proposal are the project can be constructed with less impact on the traveling public since the entrance tapers can be constructed at the same time as the shoulder overlay. This would save several days of interruptions to the businesses along Rt. 32. If the project is built to the original plans then the entrances would have to be constructed after the BP-1 shoulders are paved. The second advantage to this proposal is savings of \$34,266.16 of the Missouri Tax Payers money. The final value engineering will be based on the actual tons of BP-1 laid versus the original BP-1 quantity of 2112.1 tons.

The estimated net savings is \$34,266.16. See attached sheet showing detailed breakdowns of contract items.

2. Estimate of reduction in construction costs.

3. Prediction of any effects the proposed change(s) will have on other department costs, such as maintenance and operations.

APAC-Missouri, Inc. foresees no additional costs for MODOT.

4. Anticipated date for submittal of detailed change(s) of items required by Section 104.6 of the Specifications.

Detailed breakdowns are attached

(date)

5. Deadline for issuing a change order to obtain maximum cost reduction, noting the effect of contract completion time or delivery schedule.

August 5, 2008

(date)

No change to completion date or schedule.

(effect)

6. Dates of any previous or concurrent submission of the same proposal.

(date and/or dates)

Additional Comments:

***** Portion Below This Line To Be Filled Out by MoDOT *****

Comments:

For the noted entrances, this office agrees that adequate entrance construction would be available with the BP transitions in lieu of the planned modified coldmilling. The change would provide less impact and interruptions to traveling public and businesses along Rte. 32. This change does cause alteration in the initial work scheduling and should be considered a VE. It also allows entrance paving with the BP shoulder work, saving one less stage for the contractor. We concur with the savings amount noted for Modified Coldmilling ($\$12,141.47 - \$6,717.15 = \$5,424.32$), with 50% of this available to the contractor. Although not shown, we also feel there is contractor time savings with this change that could be compared with the BP's original unit bid price, allowing further shared savings.

The contractor's proposal reflects savings on BP mixture based on differences in plan quantity versus actual quantity placed. We agree with the reduction of shoulder thickness, which MoDOT had originally planned, and shortening some of the entrance paving. For adequate transition during shoulder paving, the 2' max noted for entrance paving may have to be slightly longer during some shoulder paving operations. With the original plans allowing tonnage for irregularities, comparison to plan tonnage versus final ticket totals would not be an accurate measurement of savings, with the planned irregularities limited and variable. We do not feel the reduction in shoulder paving thickness causes any change in the contractor's initial work schedule or sequence to the contract events. We do not feel it should be part of the VE savings and only considered an underrun. This office recommends the sharing of savings involved with the \$5,424.32. MoDOT would plan to continue with the reduction in shoulder quantity as noted in these drawings and as discussed prior to the VE proposal. The contractor will receive full benefit from a time savings on his original unit price of BP mixture, which included separate stage work for entrance construction.

Bart Harper

7-28-08

Submitted By Resident Engineer

Date

Comments: District 8 was contacted about omitting the coldmilling for the entrances. They request to perform the coldmilling as specified in the plans to provide the best quality project. The recommendation to place the BP-1 on the shoulders 1 3/4" to 1" @ the edge of the shoulder @ a 75%/25% is acceptable. Quantities for the plan shoulder will be verified and subtracted from the placed quantity to calculate the savings.

- Approval
Recommended
- Rejection
Recommended

Becky Baltz
District Engineer

7-29-08

Date

Comments:

APPROVED AS RECOMMENDED BY DISTRICT

- Approval
- Rejection

David D. O'Quinn P.E.
State Construction and Materials Engineer

8-18-08

Date

Distribution: Resident Engineer, Project Manager, District Operations Engineer, State Construction and Materials Engineer
*Value Engineering Administrator - *MoDOT, P.O. Box 270, Jefferson City, MO 65102

APAC-Missouri Inc.
 Rt. 32 Polk
 J8P0885D

BP-1 Shoulders

Current Original Contract					
Item	Description	Quantity	Unit	Unit Price	Total Price
30	BP-1 64-22	2112.1	TN	\$ 56.20	\$ 118,700.02
270	Modified Coldmilling Depth Transitions	4799	SY	\$ 2.53	\$ 12,141.47
Total					\$ 130,841.49

V.E. Proposal					
1-3/4" to 1" BP-1 Shoulders					
Item	Description	Quantity	Unit	Unit Price	Total Price
30	BP-1 64-22	1598.9	TN	\$ 56.20	\$ 89,858.18
270	Modified Coldmilling Depth Transitions	2655	SY	\$ 2.53	\$ 6,717.15
Total					\$ 96,575.33

V.E. Savings

\$ 34,266.16



MEMORANDUM

Missouri Department of Transportation Construction & Materials District 7

DB

TO: Dave Ahlvers
State Construction & Materials Engineer

FROM: Michael C. Middleton *M.C.M.*
District Construction & Materials Engineer

DATE: July 30, 2008

SUBJECT: Contract 080425-802
Job No. J8P0885D
Route 32, Polk County
Value Engineering Proposal

RECEIVED
JUL 31 2008
Construction & Materials - ECR

Attached you will find three copies of a Value Engineering Proposal from APAC-Missouri, Inc. on the above referenced project for your review and signature. I recommend approval of this Value Engineering Proposal.

Please return two copies to my attention, retaining the third copy for your records.

Thank you.

VALUE ENGINEERING CHECK SHEET

TYPE OF WORK

(Check one that applies)

- Bridge/Structure/Footings
- Drainage Structures (RCP, RCB, CMP's, ect.)
- TCP/MOT
- Paving (PCCP, ect.)
- Grading/MSE Walls
- Signal/Lighting/ITS
- Misc. _____

SUMMARY OF PROPOSAL

(If needed, condense summary to a couple of lines)

_____ Modify Shoulder pavement to reduce quantities.

SCANNING OF DOCUMENT

If the proposal is large, please mark or make note, which pages need to be scanned into the database. If there are special instructions, make note of them here.

_____ Proposal is not large.
