

VALUE ENGINEERING CHANGE PROPOSAL
MISSOURI DEPARTMENT OF TRANSPORTATION

Contract ID 080523-~~801~~⁵⁰¹ # 2 Date 07/14/08
 Job No. J5P0934/J5P0952
 County Pettis Route 65 Original Bid Cost \$4,335,778.54
 Contractor APAC-Missouri, Inc. By Josh Davis
 Designed By _____ Phone 573-449-0886
 VECP # VECP 08-57 VECP or VECP/PDU

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

On Job J5P0934 we would like to propose coldmilling the asphalt section 2" and replacing with 2" of SP190C. This will eliminate the 1/2" scratch course in this area and reduce the thickness of the asphalt on the shoulders. The locations will be from logmile 138.433 to logmile 143.4849 minus exceptions, 26055.22 feet. Savings are as follows. SP 190C will be reduced to 24' wide instead of 25.5072' wide saving 480 tons or \$24,278.40. BP1 scratch course will be eliminated in this area saving 2100 with 105 tons in irregularities. BP1 outside shoulder will have a depth reduction from 2.625" average to 1.375" average, totaling 1660 tons savings. BP1 inside shoulder will also have a depth reduction from 4.25" to 1.75", totaling 1660 tons savings. BP1 total savings will be 5525 tons or \$243,210.50. Additional costs will be 69,480.6 SY of milling at \$1.78/SY or \$123,675.47

2. Estimate of reduction in construction costs. \$143,813.43

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

None anticipated.

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

(date)

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

(date)

(effect)

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

(date and/or dates)

Additional Comments:

Comments:

E. A. Ben

7/16/08

Submitted By Resident Engineer

Date

Comments:

This VE concept is acceptable to the district for application under the conditions that a "no bump" policy in both the SPI90 + SPI25 lifts be in place for the project. No grinding or milling of bumps occurring will be allowed. Such bumps will require removal and replace.

- Approval Recommended
- Rejection Recommended

[Signature]

7/16/08

District Engineer

Date

Comments:

This VE proposes a design that is structurally less than what was in the contract, so is considered a practical design VE proposal. The savings realized on the shoulders should be split 75/25, i.e., 25% to the contractor and 75% to MoDOT

- Approval
- Rejection

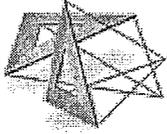
PLM for Steve Ahlers

7/29/08

State Construction and Materials Engineer

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



Thomas J Anna/SC/MODOT
07/28/2008 01:27 PM

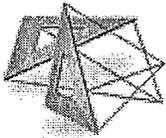
To Patrick L McDaniel/SC/MODOT@MODOT
cc
bcc
Subject Fw: 0.5" Scratch Course

Pat,
FYI.

Thomas J. Anna
1617 Missouri Blvd.
P.O. Box 270
Jefferson City, MO 65102
Office: 573-522-1948
Fax: 573-751-8682



----- Forwarded by Thomas J Anna/SC/MODOT on 07/28/2008 01:25 PM -----



Thomas J Anna/SC/MODOT
02/15/2008 04:19 PM

To Jason R Vanderfeltz/D5/MODOT@MODOT
cc Patricia L Lemongelli/D5/MODOT@MODOT, Randall D
Potts/D5/MODOT@MODOT
Subject Re: 0.5" Scratch Course 

I've cored the SPS-9 asphalt from the southbound Rte 65 job J5P0934. The cores show that the mixes are, for the most part, still stable. There is rutting going on right as you enter the asphalt section on the north side. It isn't a long section of rutting but it is concerning. Is there going to be a milling machine on the job anyway for tie-ins? If so, it may be best to mill out that rutted section at the beginning. If not, hopefully the 1/2" scratch course and 3-3/4" overlay will get the wheel loads up and away from the problem. Being realistic though, it will likely be the first part of the overlay that will rut again if the rutted asphalt is left in place.

Otherwise, there was only one other core, (#14) about 4.4 miles south of the north end, that showed noticeable deterioration. There was a layer of rubble about 1 rock thick just below the surface mix. This is an indication that the asphalt is beginning to rapidly deteriorate. It was taken next to a shallow pothole so that is the reason why the core looked as it does. I've attached photos of this location for your viewing pleasure.



DSC00027.JPG



DSC00029.JPG

Also, there is extensive block cracking occurring in the riding surface; however, not as noticeable in the SMA areas. The photo below shows a good example of the block cracking. A 1/2" scratch course is still recommended and I do not see a reason to remove the existing asphalt, except for the short rutted section at the north end of the SPS-9 asphalt section if a milling machine is going to be on the job. If one is not, then MoDOT maintenance may be able to offer some assistance in removing that area prior to the contract. Leaving it in-place is the least desirable situation.



DSC00034.JPG

I hope this helps. Let me know if you have any questions. The cores are out and available for viewing in the HQ lab's mix room for the next couple of days (next week) if anyone is interested. Otherwise I will store them until the contract is let and throw them away at that time.

Thomas J. Anna
1617 Missouri Blvd.
P.O. Box 270
Jefferson City, MO 65102
Office: 573-522-1948
Fax: 573-751-8682



Jason R Vanderfeltz/D5/MODOT



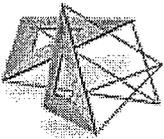
Jason R
Vanderfeltz/D5/MODOT
02/11/2008 04:46 PM

To Thomas J Anna/SC/MODOT@MODOT
cc Patricia L Lemongelli/D5/MODOT@MODOT, Randall D
Potts/D5/MODOT@MODOT
Subject Re: 0.5" Scratch Course 

Tom,

Thanks for checking into this and getting us a quick answer. I feel comfortable sticking with the 3 3/4" superpave overlay in the NBL. Let us know how the coring goes on Thursday in the SBL.

Jason Vanderfeltz, P.E.
Transportation Project Manager
Missouri Department of Transportation
Work: (573) 751-7688
Fax: (573) 751-8267
Email: Jason.Vanderfeltz@modot.mo.gov
Thomas J Anna/SC/MODOT



Thomas J Anna/SC/MODOT
02/11/2008 01:23 PM

To Patricia L Lemongelli/D5/MODOT@MODOT
cc Jason R Vanderfeltz/D5/MODOT@MODOT, Randall D
Potts/D5/MODOT@MODOT
Subject Re: 0.5" Scratch Course 

I just spoke with Joe Schroer about cutting the thickness of the NB lane overlay. Joe advised against it because thinner than 4" of asphalt will put more stress on the tack coat and we will likely experience failures. So, we need to stay with the 3-3/4" on the NB lanes.

Another thought has come about but it would entail more extensive concrete repairs on the NB lanes. We could overlay with UBAWS (same stuff as what's on Rte 50 through Jeff City.) There are several joint issues with the NB lanes that would cause some future problems with a UBAWS though. These joints would have to be taken care of first and I don't think we have enough time to do it....but, I'm open for

discussion for the UBAWS for the NB lanes. I believe the UBAWS will be cheaper than the 3-3/4" but it won't have the life of the 3-3/4" either in this situation....the bad joints will come through and require patching sooner than the 3-3/4" will. We would also need to address the shoulders too as we normally don't carry the UBAWS out onto the shoulder more and 1-2 feet. The shoulder could be chip sealed.

Other than those ideas, I don't know how we can save anymore money right now.

Thomas J. Anna
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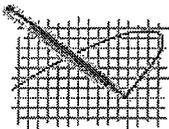
Patricia L Lemongelli/D5/MODOT

**Patricia L
Lemongelli/D5/MODOT**
02/11/2008 12:48 PM

To Randall D Potts/D5/MODOT@MODOT
cc Jason R Vanderfeltz/D5/MODOT@modot, Thomas J
Anna/SC/MODOT@modot
Subject Re: 0.5" Scratch Course

I would really like to include the scratch course.
Randall D Potts/D5/MODOT

Randall D Potts/D5/MODOT
02/11/2008 12:42 PM



To Thomas J Anna/SC/MODOT@MODOT
cc Jason R Vanderfeltz/D5/MODOT@MODOT, Patricia L
Lemongelli/D5/MODOT@MODOT
Subject 0.5" Scratch Course

Tom,

The coldmilling price is \$189,586.00 while the 0.5" scratch course is \$ 229,711.50. A difference of \$40,125.50. If we can find some savings elsewhere in the contract, it is do-able.

Randall D. Potts
MoDOT, District 5 Design
1511 Missouri Blvd. P.O. Box 718
Jefferson City, MO 65109
Phone (573) 526-0515
Fax (573) 751-8267
Email randall.potts@modot.mo.gov





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)

Milling the existing asphalt 2" instead of placing a 1/2" leveling course and reducing the asphalt overlay thickness on the shoulders

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.

All.