

VALUE ENGINEERING CHANGE PROPOSAL
MISSOURI DEPARTMENT OF TRANSPORTATION

Conceptual Proposal Final Proposal Date 11/15/2011
Contract ID 111118-C04 Job No. J4P1138
County Johnson Original Bid Cost \$10,126,672.34
Contractor Emery Sapp & Sons, Inc. By Matthew Oesch
Designed By Matthew Oesch Phone 573-489-9216
VECP# 12-22 (to be completed by C.O.) VECP or PDVECP

1. Description of existing requirements and proposed change(s). Advantages/Disadvantages
The following Value Engineering Proposal regards Emery Sapp & Sons stockpiling additional waste material above the 120,000 CY limit on MODOT right of way in order to produce additional cost savings for MODOT. ESS has designed a stockpile template in which an approximate 330,000 CY of material can be stockpiled in the southwest quadrant of the Rte HH/CR 200 and Rte 13 intersection. An additional 350 FT of 48" Group A Pipe will be installed across this quadrant to insure drainage. Cross slopes on top the stockpile areas were angled to direct all runoff toward roadway drainage to reduce runoff effects at right of way limits. Savings vary depending on pipe type.

2. Estimate of reduction in construction costs. \$101,176.80 to \$111,297.79 → \$104,872.80

3. Prediction of any effects the proposed change(s) will have on other department costs, such as maintenance and operations.
NONE

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

2/22/2012
(date)

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

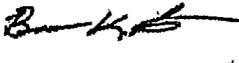
3/2/2012 Secure pricing on culvert items before materials escalate
(date) (effect)

6. Dates of any previous or concurrent submission of the same proposal.
N/A
(date and/or dates)

Additional Comments:
Spreadsheet detailing cost savings breakdown and remarks included.

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

Comments:
SEE ATTACHED MEMO


Digitally signed by Brian Iles
DN: cn=Brian Iles, o=Marshall Project Office,
ou=KC Construction,
email=brian.iles@modot.mo.gov, c=US
Date: 2012.03.19 09:22:56 -05'00'

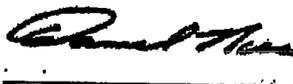
Submitted By Resident Engineer

March 19, 2012
Date

Comments: Based on the review and recommendations of the Resident Engineer, I concur with his recommendation to approve this conceptual proposal. Several questions remain relative to the costs provided in the break down as well as the final details specific to the fill condition and pipe type requirement. Final values relative to cost and savings will be computed and distributed accordingly.

Approval Recommended

Rejection Recommended


Digitally signed by Warren Roberts
DN: cn=Warren Roberts, c=US,
o=MoDOT, ou=KC District,
email=Warren.Roberts@MoDOT.MO.gov
Date: 2012.03.23 16:01:01 -05'00'

District Engineer

Date

Comments: NOT FEDERAL OVERSIGHT

Approval Recommended

Rejection Recommended

Federal Highway Administration
Required for FHWA Full Oversight Projects

Date

Comments: APPROVED PER DISTRICT RECOMMENDATION


Digitally signed by Dennis Bryant
DN: cn=Dennis Bryant,
o=MoDOT, ou=3H35,
email=dennis.bryant@modot.
mo.gov, c=US
Date: 2012.04.23 14:06:52
-05'00'

Approval

Rejection

State Construction and Materials Engineer

4-16-12
Date

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

Value Engineering Proposal #1

Cost Savings Generated from Stockpiling Excess Embankment on Right of Way

Cost to Waste Addition Material Off Right of Way

Description	Quantity	Unit	Unit Cost	Total
Excess Wasting Fee	200,832	CY	\$0.40	\$80,332.80
Seed & Mulch Waste Site	18	AC	\$1,010.00	\$18,180.00
Strip Topsoil	12000	CY	\$1.69	\$20,280.00
Cover w/Topsoil 2xThickness	24000	CY	\$1.69	\$40,560.00
Erosion Control Items	1	LS	\$3,500.00	\$3,500.00
Total Cost to Waste OFF R/W =				\$162,852.80

Cost to Waste Material on Right of Way

Description	Quantity	Unit	Unit Cost	Total
Seed & Mulch Waste Site	18	AC	\$1,010.00	\$18,180.00
Field Drain for Terrace SW Corner	1	LS	\$3,000.00	\$3,000.00
Silt Fence	2000	LF	\$1.90	\$3,800.00

Pipe Option #1	48" RCP Class IV	120	LF	\$116.80	\$14,016.00
	48" RCP Class III	230	LF	\$86.00	\$19,780.00
	48" Precast FES	2	EA	\$1,450.00	\$2,900.00
Pipe Option #2	48" CL 3 RCP	350	LF	\$86.00	\$30,100.00
	48" Precast FES	2	EA	\$1,450.00	\$2,900.00
Pipe Option #3	48" 12 GA Spiral Rib CMP	350	LF	\$81.50	\$28,525.35
	48" Metal FES	2	EA	\$1,329.30	\$2,658.60
Pipe Option #4	48" 14 GA Spiral Rib CMP	350	LF	\$68.35	\$23,922.41
	48" Metal FES	2	EA	\$1,329.30	\$2,658.60

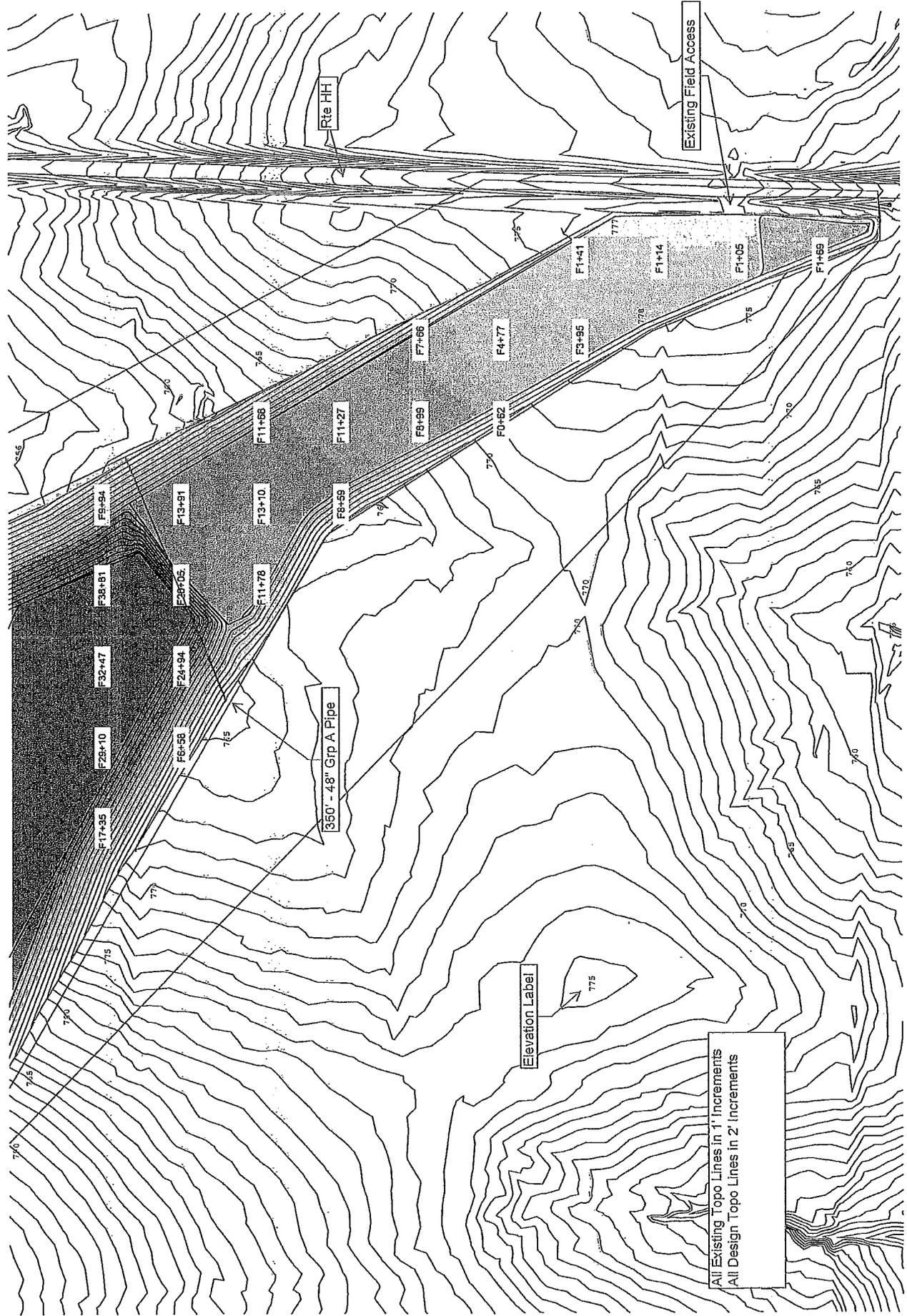
Option #1 Total Cost = \$61,676.00

Option #2 Total Cost = \$57,980.00

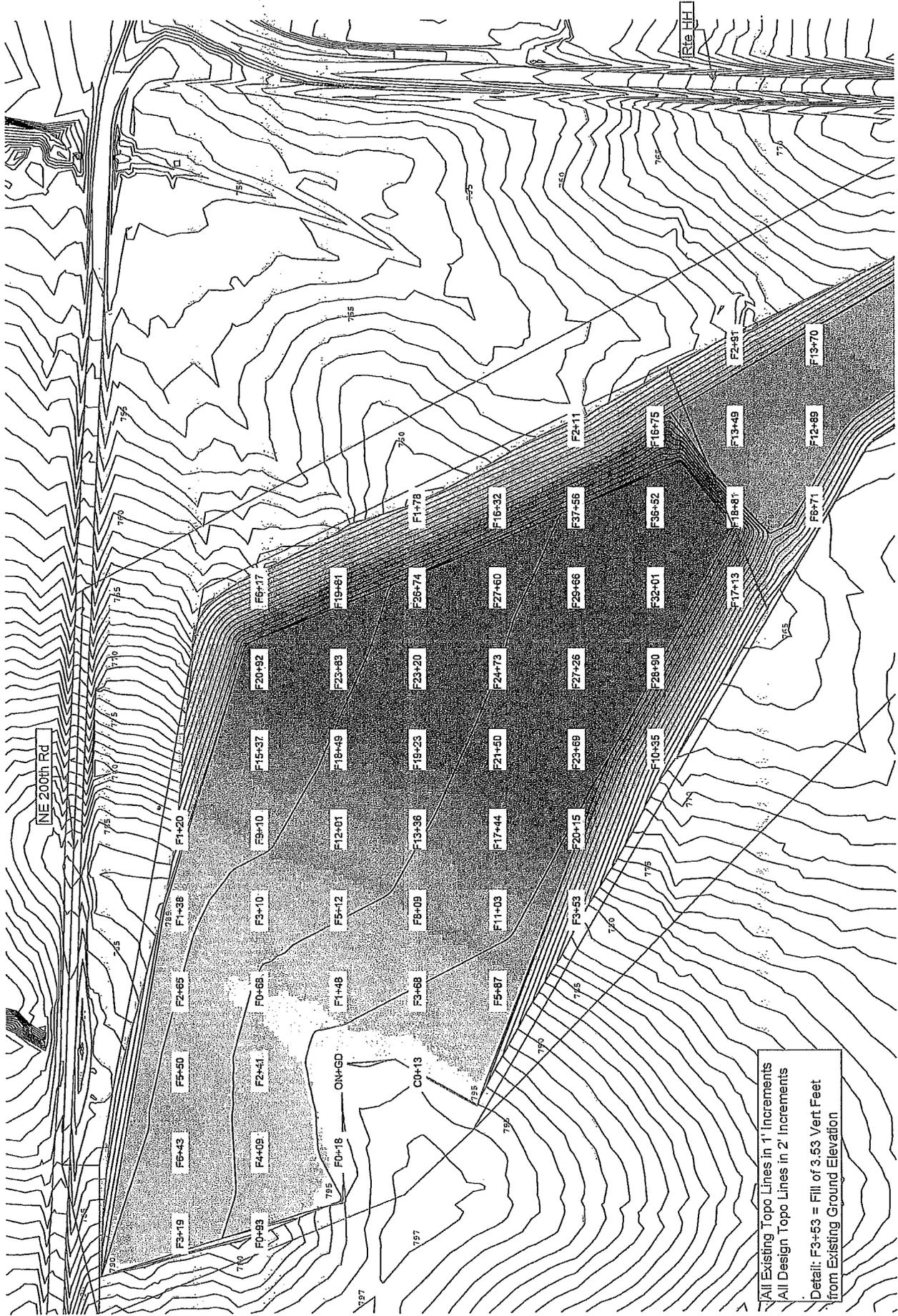
Option #3 Total Cost = \$56,163.95

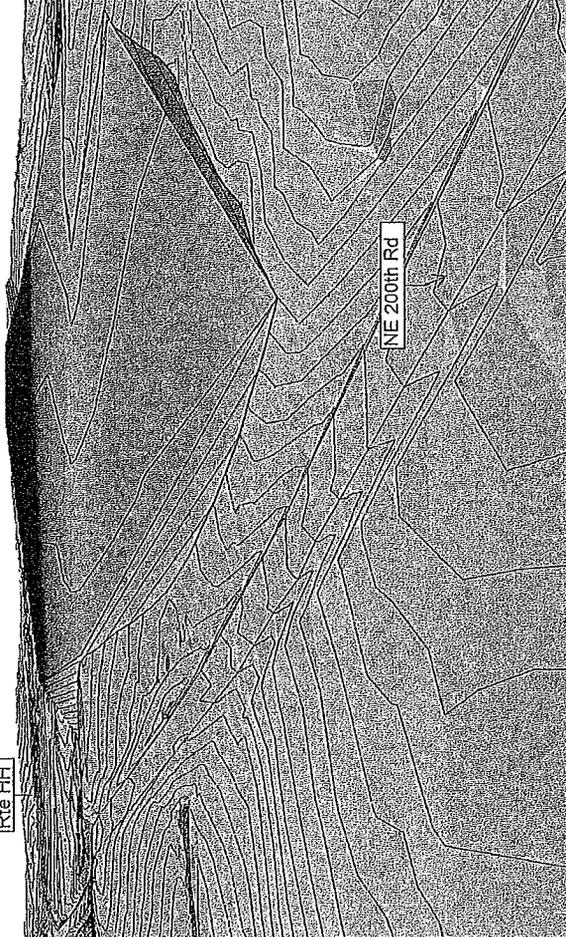
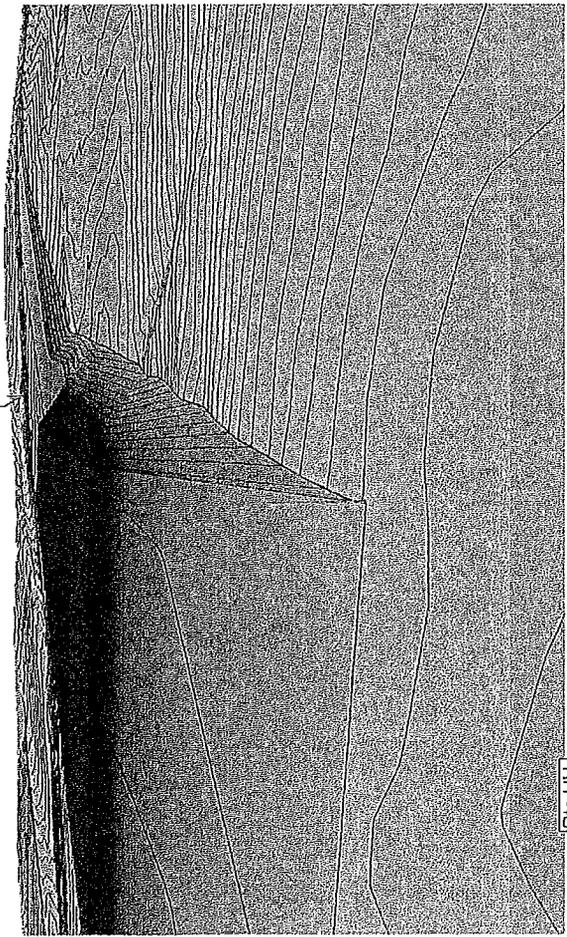
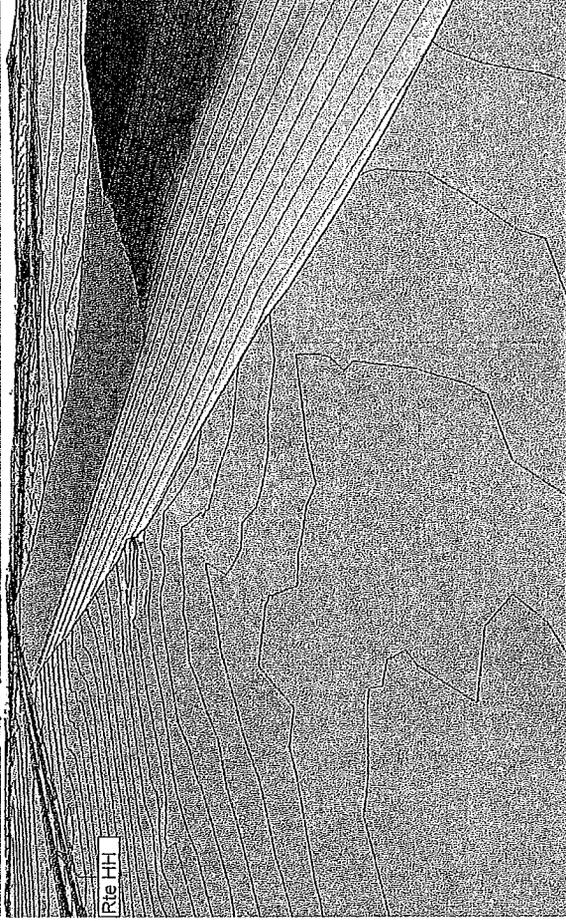
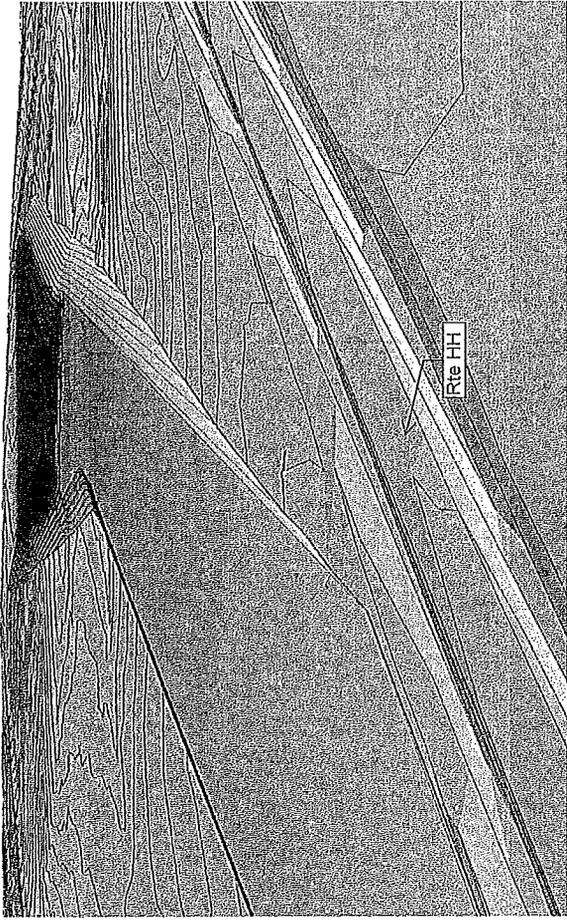
Option #4 Total Cost = \$51,561.01

Total Savings from Stockpiling on R/W = \$111,291.79 \$101,176.80



All Existing Topo Lines in 1' Increments
All Design Topo Lines in 2' Increments







MEMORANDUM

Missouri Department of Transportation Design – Northwest District

TO: Gayle Unruh, Environmental & Historic Preservation Manager
Environmental & Historic Preservation Section (1 copy)
West Main Annex - 601 West Main Street - 2nd Floor

CC: Charles Pursley
Design Liaison Engineer w/o attachments

FROM: Brian Rosenthal
Senior Highway Designer

DATE: March 8, 2012

SUBJECT: Route 13, Johnson County
From Rte. OO/V to Veterans Road Extension
Warrensburg East Loop Project North of US 50
Job. No. J4P1138
Request for Environmental Studies-Contractor Value Engineering Proposal

This RES request is for a possible value engineering proposal brought up by the contractor on this project.

This project has already been awarded to contractor Emery Sapp & Sons, Inc in December of 2011. The final plans RES was submitted on August 18, 2011.

The contractor is proposing a value engineering (VE) proposal to waste all the excess earthwork within existing R/W. One of the decisions in accepting this VE proposal from the contractor is obtaining environmental clearance for expanding the project's disturbed area. No additional trees will need to be removed as the area this excess earthwork is being placed on is currently an open field.

See the attachments for drawings and information provided by the contractor of this proposed VE.

The contractor's proposed VE involves placing and compacting the project's excess earthwork (388,000 cubic yards of uncompacted excess) on existing R/W at the southwest quadrant of the intersection of new Rte. 13 with Route HH / County Road 200. This area that the contractor wants to place the excess earthwork on is for the future diamond interchange. If the contractor gets approval for this VE, they will place their concrete batch plant on the flat portion of the excess mound of dirt and use the severed portion of Rte. HH as the truck entrance to the concrete batch plant.

Also attached are J4P1138 plan sheets 26 and 31 showing the proposed VE new slope limits along with the proposed VE 350 foot long 48" pipe.

If you have any questions or need more information, let me know.

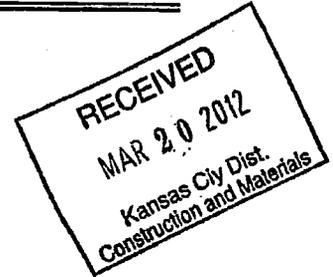


MEMORANDUM
Missouri Department of Transportation
Construction
Marshall Project Office

TO: Perry Allen – KC DCME
CC: File
FROM: Brian K. Iles – Resident Engineer
DATE: March 19, 2012
SUBJECT: VE Concept Proposal No. 1
Job No. J4P1138 (Contract ID 111118-C04)
Route 13, Johnson County

BKI

Digitally signed by Brian K. Iles
DN: cn=Brian K. Iles, ou=Marshall Project Office, o=MoDOT,
c=United States of America, email=brian.iles@moDOT.missouri.gov, #01
Date: 2012.03.19 08:33:11 -0500



Attached is a Construction Value Engineering Concept Proposal for the above referenced project submitted by Emery Sapp & Sons, Inc. The project has an estimated 388,000-CY of uncompacted excess. Job Special Provision Section V allows for 120,000-CY to be disposed within right of way. The contractor was to secure a location off of right of way to waste the remainder of the uncompacted excess. This VECP indicates wasting all excess on MoDOT right of way.

The waste location is in the open row crop field located in southwest quadrant of County Road 200 and the new Route 13 intersection. There are no wetlands and no additional tree removal will be required at the proposed waste area. MoDOT originally chose to dispose this material off site because it will not be needed for the future expansion to four lanes. The only concern brought forward at this point is the cost and/or conflict the material could have with the future interchange that would be built with the expansion to four lanes.

This VECP has been forwarded this to MoDOT Project Manager Wes Moore and MoDOT Environmental staff (Bree McMurray, Nathan Muenks, and Rob Meade) for review. No issues were presented. An RES has been submitted at the request of MoDOT Design Division. A copy of the RES is attached.

This proposal will require installation of 48-inch pipe that is 350-feet long beneath the waste area. The proposal has several options for this pipe type. Due to the height of fill above the pipe MoDOT Design has indicated that Pipe Option No. 2 will suffice but Pipe Option No. 1 may need to be used if the standard fill heights are exceeded. I recommend we use Pipe Option No. 2 because the pipe is outside the roadbed. The pipe will be under the roadbed for the future expansion, but the fill should be cut down to within the standard fill height at that time.

I recommend approval of this Value Engineering Concept Proposal. As previously stated, this recommendation comes with the use of Pipe Option No. 2. Therefore, the proposed savings is \$104,872.80 (\$162, 852.80-\$57,980).

Feel free to contact me with any questions or comments.