

VALUE ENGINEERING CHANGE PROPOSAL MISSOURI DEPARTMENT OF TRANSPORTATION

Conceptual Proposal **Final Proposal** **Date** 04/19/12

Contract ID 120217-F01 **Job No.** J6I2010D

County St. Louis **Route** I-270 **Original Contract Amount** \$10,694,739.21

Contractor Fred Weber, Inc. **By** Brian J. Carlson

Designed By Fred Weber, Inc. **Phone** (314) 344-0070

VECP# 12-30 (to be completed by C.O.) **VECP** **or** **PDVECP**

1. Description of existing requirements and proposed change(s). Advantages/Disadvantages
Existing: Construct MSE wall #002 along SB 270 from approx. Sta. 693+50 to 699+00 & #003 along NB 270 from approx. Sta. 691+50 to 698+00 according to original plan.

Proposed: Eliminate both MSE walls #002 & #003 by use of excess rock fill from project with approx. 2:1 rock slopes.

2. Estimate of reduction in construction costs. \$321,020.50

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

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

04/19/12
(date)

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

05/07/12 Need to know prior to the start of rock excavation work & release of wall material production..
(date) (effect)

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

N/A
(date and/or dates)

Additional Comments:

Schedule will also benefit from this change as work in this area can start sooner than would be with use of originally planned MSE walls. Don't have to wait for shop drawing approval or material production for wall.

If VE is not accepted and walls have to be built a change order will have to be written for approx. 6,376 CY of additional Class A qty. that's not included in original plans for over excavation necessary to build walls.

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

Comments: The core team has reviewed this VE and approves it based on the following merit: 1. It saves money and time to the contract 2. It is green and will earn green credits 4. Reduces maintenance and future inspections required of MSE walls 5. Improves safety by eliminating a Wall and reduces the maintenance of said wall.	
_____	_____
Submitted By Resident Engineer	Date

Comments: I recommend approval based on the core team's review and recommendation.		
<input checked="" type="checkbox"/> Approval Recommended	_____	_____
<input type="checkbox"/> Rejection Recommended	District Engineer	Date

Comments:		
<input checked="" type="checkbox"/> Approval Recommended	_____	_____
<input type="checkbox"/> Rejection Recommended	Federal Highway Administration Required for FHWA Full Oversight Projects	Date

Comments:		
<input checked="" type="checkbox"/> Approval	_____	_____
<input type="checkbox"/> Rejection	State Construction and Materials Engineer	Date

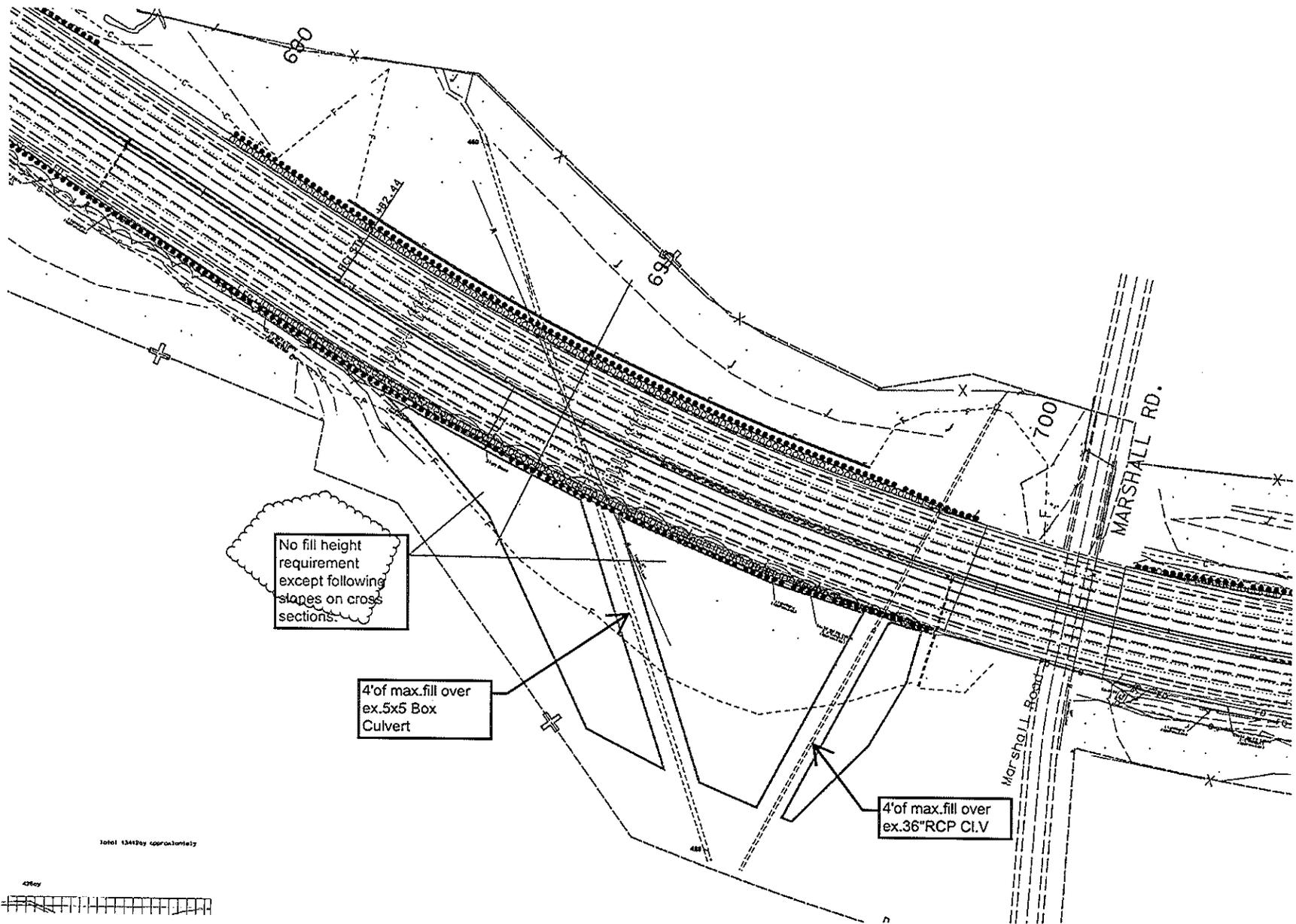
Eliminate MSE Wall #'s 002 & 003 VE

Line Item #	Description	Units	Units Previously Provided For	Units To Be Constructed	Units Overrun, Underrun	Unit Price	Amount Of Overrun, Underrun
10	CLEARING AND GRUBBING	AC	7.00	12.00	5.00	\$9,000.00	\$45,000.00
30	CLASS A EXCAVATION	CY	6,376.00	0.00	-6,376.00	\$7.00	(\$44,632.00)
50	COMPACTING EMBANKMENT	CY	34,446.00	58,925.00	24,479.00	\$0.50	\$12,239.50
190	CONCRETE GUTTER TYPE B	LF	2,034.00	822.00	-1,212.00	\$26.00	(\$31,512.00)
220	PLACING TYPE 2 ROCK BLANKET	CY	11,509.00	5,570.00	-5,939.00	\$14.00	(\$83,146.00)
610	MECHANICALLY STABILIZED EARTH WALL	SF	19,734.00	7,824.00	-11,910.00	\$25.00	(\$297,750.00)
NEW	EMBANKMENT IN PLACE	CY	0.00	1,782.00	1,782.00	\$27.50	\$49,005.00
NEW	EROSION CONTROL BLANKET TYPE C	SY	0.00	4,455.00	4,455.00	\$5.00	\$22,275.00
NEW	MISC. ADDITIONAL SEEDING	LS	0.00	1.00	1.00	\$2,500.00	\$2,500.00
NEW	ADDITIONAL CAD / SURVEY WORK	LS	0.00	1.00	1.00	\$5,000.00	\$5,000.00

Total Savings:	(\$321,020.50)
MoDOT Portion (50%)	(\$160,510.25)
FWI Portion (50%)	(\$160,510.25)

Summary of Proposed Changes:

MSE wall #'s 002 & 003 will be eliminated near Marshall Road & I-270 and replaced with rock fill from excess on jobsite. Some of the additional rock fill will come from elimination of the originally proposed slope stabilization work along SB 270 from Sta. 640+42 to 644+45. Rock fill will be placed at approximately 2:1 slopes. The total projected excess material appears to be around 24,479 CY and will be divided up between the two sides of I-270 so that 2:1 slopes are achieved. To replace the rock slope stabilization work from Sta. 640+42 to 644+45 dirt will be imported from a location to be determined later to cover the existing berm in this area, then seeded and stabilized with erosion control blanket or similar. There is an existing box culvert beneath I-270 that crosses the path of walls 002 & 003. A pipe culvert is also present at the wall 002 location. MoDOT is currently checking to see if the box culvert and pipe culvert can withstand the addition of rock fill from the changes proposed in the VE. Quantities and pricing above may change depending on the outcome of MoDOT's analysis of the existing box culvert and pipe culvert.

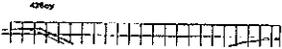


No fill height requirement except following slopes on cross sections.

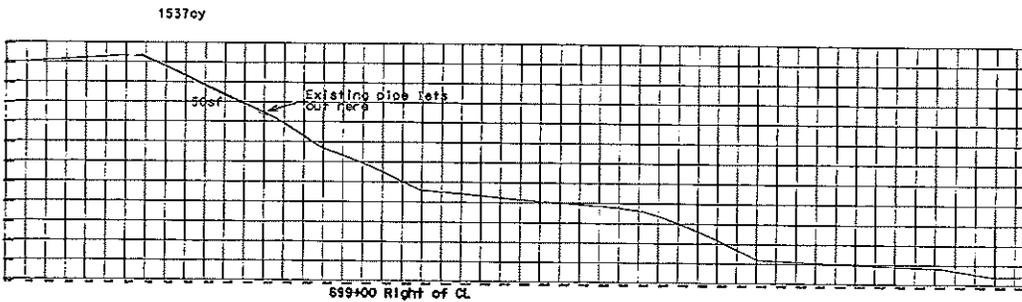
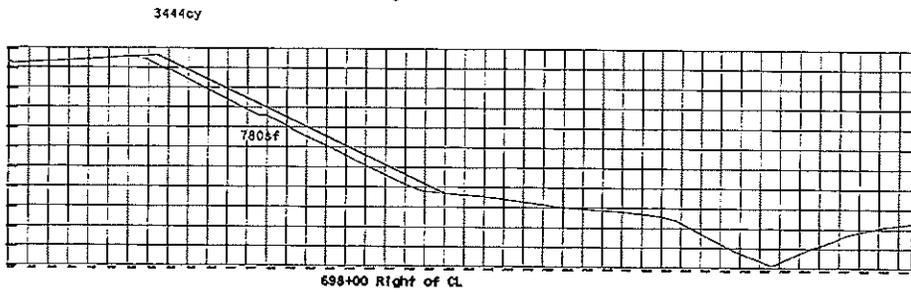
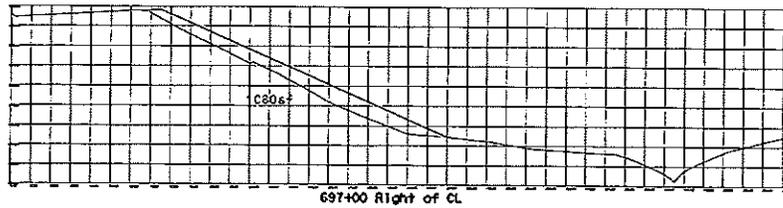
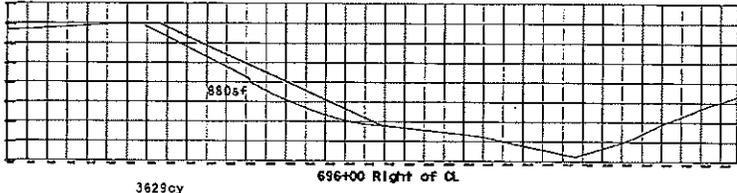
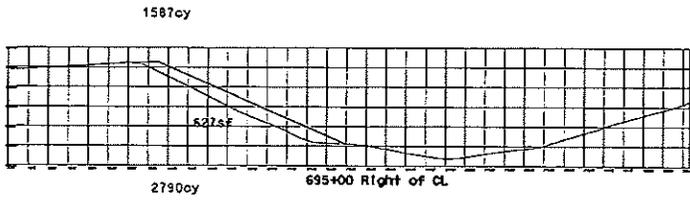
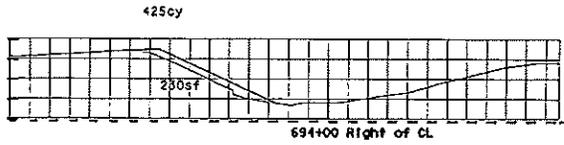
4' of max. fill over ex. 5x5 Box Culvert

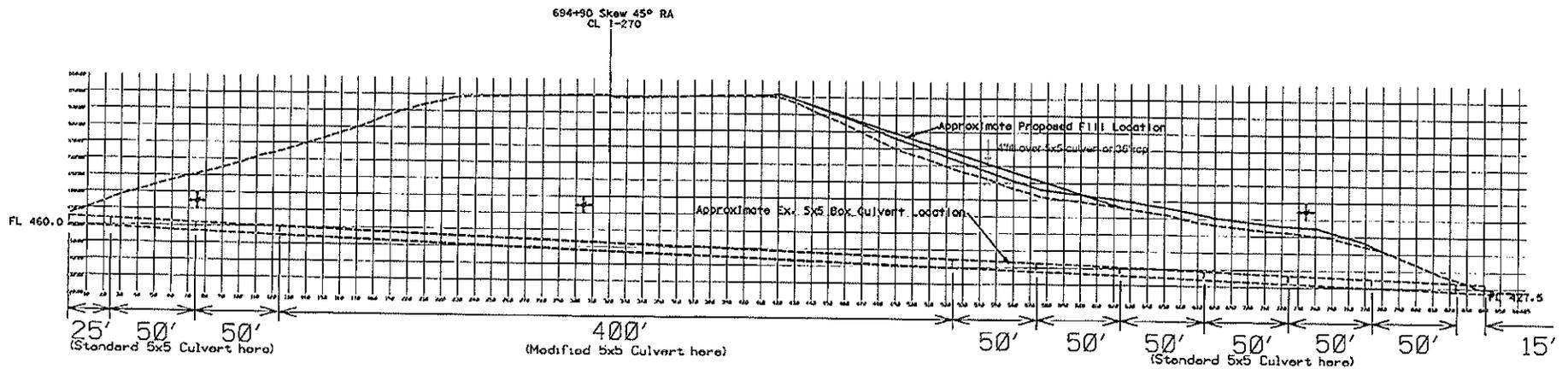
4' of max. fill over ex. 36" RCP C.I.V

Total 13412' approximately



Total 13412cy approximately





Existing Culvert Section Showing 5x5 Box Culvert