

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA**

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**INTERDEPARTMENT CORRESPONDENCE**

**FILE:** STP00-1004-00(002) Gilmer **OFFICE:** Engineering Services  
P.I. No.: 631260  
SR 382 Ext. from CR 239 to SR 5/SR 515 **DATE:** February 3, 2012

**FROM:** Lisa L. Myers, Acting State Project Review Engineer *LLM*

**TO:** Bobby K. Hilliard, PE, State Program Delivery Engineer  
Attn.: Suzanne Dunn

**SUBJECT: IMPLEMENTATION OF VALUE ENGINEERING STUDY ALTERNATIVES**

The VE Study for the above project was held November 14-17, 2011. Responses were received on February 2, 2012. Recommendations for implementation of Value Engineering Study Alternatives are indicated in the table below. The Project Manager shall incorporate the VE alternatives recommended for implementation to the extent reasonable in the design of the project. Please note, if the implementation of a VE recommendation requires a Design Exception and/or Design Variance, the DE or DV must be requested separately.

ALT #	Description	Potential Savings/LCC	Implement	Comments
EW-1	Use Geogrid from Sta. 547+00 to Sta. 549+50 to increase slopes from 2:1 up to 1.5 to 1, requiring less embankment and ROW	\$459,379	No	OMR has stated that the VE Team was using the terms "fabric" and "geo-textile" incorrectly and interchangeably; they are separate items. The VE Team also stated that the amount of borrow excavation was incorrectly calculated; it was not. If the VE Team had used the correct borrow quantity the cost savings would have been a cost increase because the correct installation would also require soil reinforcing mat.
EW-2	Revise SR 382 profile to reduce earthwork and ROW impacts on west side of CR 239	\$100,678	Yes	This will be done.
EW-2.1	Revise SR 382 and SR 382 Extension profile to reduce earthwork and ROW impacts	\$307,748	No	Because EW-2 will be implemented, this cannot be done. This recommendation would negatively impact the installation and functionality of the proposed culvert at Sta. 531+60 on SR 382

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Implementation of Value Engineering Study Alternatives**

EW-4	Revise front slopes from 4:1 to 6:1 effectively raising the ditch bottom one foot	\$34,630	Yes	This will be done.
EW-6	Reduce travel lane width from 12 ft to 11 ft on SR 382 and CR 239	\$76,667	No	A 12 foot lane provides desirable clearance between large commercial vehicles traveling in opposite directions on two-lane, two-way rural highways when high percentages of commercial vehicles are expected.
PV-2	Reduce paved shoulder width from 6.5 ft to 4 ft on SR 382 Extension and CR 239	\$48,402	No	According to the Acting State Bicycle and Pedestrian Coordinator, SR 382 is on a designated bike route, and the bike route should continue on the extension of SR 382.
PV-2.1	Reduce paved shoulder width from 2 to 4 ft on SR 382 Extension and CR 239	\$87,103	No	According to the Acting State Bicycle and Pedestrian Coordinator, SR 382 is on a designated bike route, and the bike route should continue on the extension of SR 382.
PV-4	Reconfigure interchange at CR 239 and SR 382 by reducing lane width, bike lanes, and striping	Proposed = \$101,129  Actual = \$108,506	Yes	Only the median width and striping will be reduced. The VE Team used a very low spread rate so the quantities were revised. This is reflected in the actual savings.
PV-6	Eliminate the extension of SR 382 to SR 515 by making improvements to SR 382 and SR 515 approximately 1.5 miles to the south	\$4,251,998	No	This recommendation does not meet the need and purpose of the project, which is to provide a more direct route from CR 239 to SR 5/SR 515 and to alleviate the poor horizontal and vertical alignment for traffic at this intersection.
PV-6.1	Eliminate the relocation and extension of SR 382 to SR 515 by making improvements to SR 382 and SR 515 approximately 1.5 miles to the south	\$7,611,087	No	This recommendation does not meet the need and purpose of the project, which is to provide a more direct route from CR 239 to SR 5/SR 515 and to alleviate the poor horizontal and vertical alignment for traffic at this intersection.

The Office of Engineering Services concurs with the Project Manager's responses.

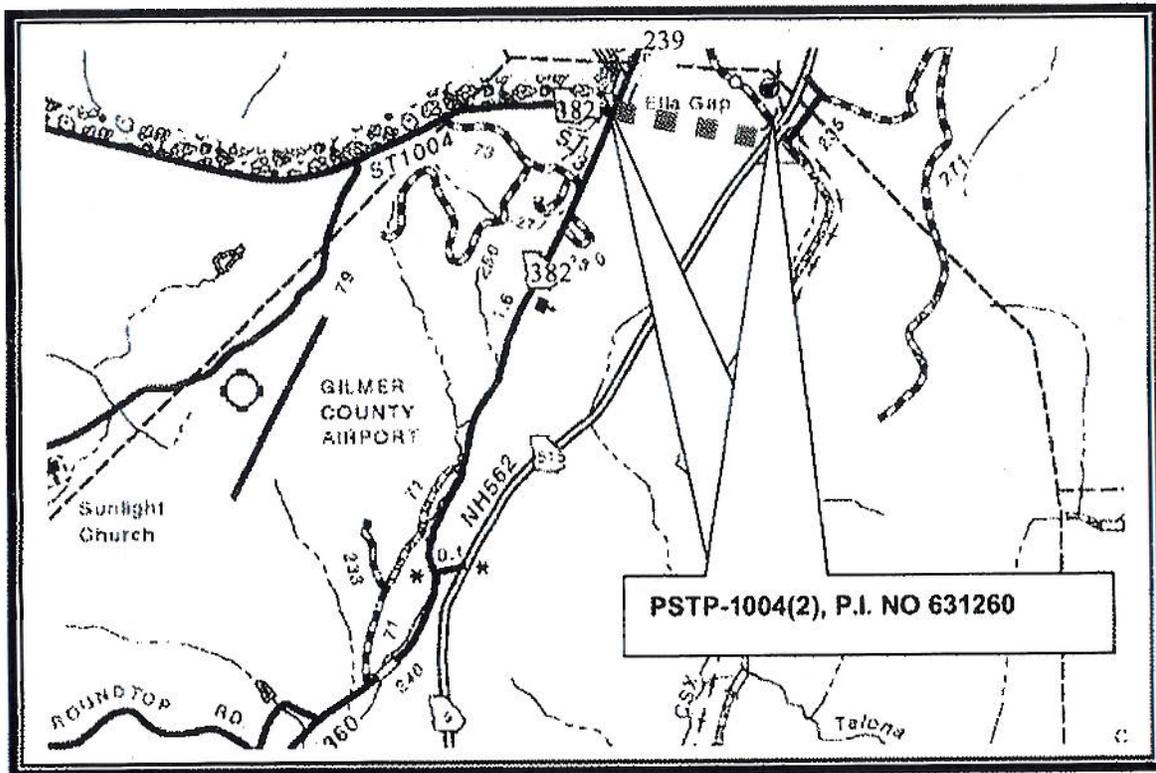
Approved:  Date: 2/7/12  
Gerald M. Ross, PE, Chief Engineer

LLM

Attachments

c: Russell McMurry  
Bobby Hilliard/Mike Haithcock/Suzanne Dunn  
DeWayne Comer/David Ray/Niosi "Sam" Samu  
Galen Barrow  
Patrick Bowers/Kenny Beckworth  
Ken Werho/Nabil Raad  
Matt Sanders





## EARTHWORK/PROFILE (EW)

1. EW-1.0 - Use GEOGRID fabric from Station 547+00 to Station 549+50 to increase slopes from 2:1 up to 1.5:1 requiring less embankment and ROW.  
VE Team Savings: \$459,379

No, will not implement. The Office of Materials and Research has stated that the consultants were using the terms fabric and geo-textile incorrectly and interchangeably, which they are not. They stated that the cubic yardage of Borrow Exc. savings (page 16) was incorrectly calculated, and should have only been roughly 10% not 96%. If the correct borrow quantity was calculated, the cost would have actually been an increase as the correct installation would also require soil reinforcing mat.

2. EW-2.0 - Revise SR 382 profile to reduce earthwork and ROW impacts on West side of CR 239.  
VE Team Savings: \$100,678

Yes, will implement.

3. EW-2.1 - Revise SR 382 & SR 382 Extension profile to reduce earthwork and ROW impacts.  
VE Team Savings: \$307,748

No, will not implement- Because we are implementing EW-2.0. Only one of the recommendations can be implemented. The GDOT Designer of Record chose 2.0 over 2.1 as

implementing 2.1 would negatively impact the ability of the culvert along the stream to be installed and function properly (at station 531+59.62 of SR 382).

4. EW-4.0 - Revise front slopes from 4:1 to 6:1 effectively raising the ditch bottom one foot.  
VE Team Savings: \$34,630

Yes, will implement.

5. EW-6.0 - Reduce travel lane width from 12'-0" to 11'-0" wide on SR 392 & CR 239.  
VE Team Savings: \$76,667

No, will not implement. The 12 feet lane provides desirable clearance between large commercial vehicles traveling in opposite directions on two-lane, two-way rural highways when high percentages of commercial vehicle are expected. Considering the recorded 9% truck volume during a 24 hour traffic count (which is high) for this project and the fact that the proposed roadway is on new location (nobody has any prior experience of driving on it) The Designer of Record recommends keeping the standard 12 feet instead of the 11 feet lane as proposed by the VE team (because the 11 feet lane width will not accommodate the truck volume expected to use this section of the road).

## PAVEMENT (PV)

6. PV-2.0 - Reduce paved shoulder width from 6'-6" to 4'-0" on SR 382 Extension and CR 239 improvements.  
VE Team Savings: \$48,402

No, will not implement. According to the Acting State Bicycle & Pedestrian Coordinator, as the existing SR382 is on a designated bike route, the extension of that same road should continue the route.

7. PV-2.1 - Reduce paved shoulder width from 6'-6" to 2'-0" on SR 382 Extension and CR 239 improvements.  
VE Team Savings: \$87,103

No, will not implement. According to the Acting State Bicycle & Pedestrian Coordinator, as the existing SR382 is on a designated bike route, the extension of that same road should continue the route.

8. PV-4.0 – Eliminate paved and marked medians at intersection of CR 239 and SR 382, including the bike lanes.  
VE Team Savings: \$101,129

Yes, will partially implement; Only the median width and striping will be reduced, the bike lane will remain (See EW-6.0 also for reason). Per the GDOT Designer of Record: "The VE Study cost saving calculation came short because they use a very low spreading rate (of 110 lb/sy) on every layer of the pavement structure. The Designer of Record's calculations used a varying spreading rate (165-660 lb/sy) depending on the pavement structure layer as recommended by OMR"

Revised Savings:

Asphaltic Pavement Summary for 2545.11 sq.yd Pavement Reduction					
Item #	Description	Quantity	Unit	Unit Price	Price
310-1101	GAB	1717.95	Tn	\$16.13243	\$ 27,714.71
402-3130	12.5mm Superpave	209.9716667	Tn	\$68.27790	\$ 14,336.42
402-3190	19mm Superpave	279.9622222	Tn	\$62.66416	\$ 17,543.60
402-3121	25mm Superpave	839.8866667	Tn	\$57.80570	\$ 48,550.24
413-1000	Total Tack Coat	178.1577778	Gallon	\$ 2.02733	\$ 361.18
<b>Total :</b>					<b>\$ 108,506.15</b>

9. **PV-6.0 - Major Scope Change:** Eliminate the extension of SR 382 to SR 515 by making improvements to SR 382 and SR 515 intersection approximately 1.5 miles to the South.  
VE Team Savings: \$4,251,998

No, will not implement. Implementing this option would not meet the need and purpose of the project, which is to provide a more direct route from CR239 to SR5/SR515 and to alleviate the poor horizontal and vertical alignment for traffic at this intersection.

10. **PV-6.1 - Major Scope Change:** Eliminate the relocation and extension of SR 382 to SR 515 by making improvements to SR 382 and SR 515 approximately 1.5 miles to the south.  
VE Team Savings: \$7,611,087

No, will not implement. See PV-6.0 for explanation.

PRECONSTRUCTION STATUS REPORT FOR PI:631260-

PROJ ID: 631260-  
 COUNTY: Gilmer  
 LENGTH (MI): 0.79  
 PROJ NO.: STP00-1004-00(002)  
 PROJ MGR: Dunn, Suzanne  
 AOH Initials: MAH  
 OFFICE: District 6  
 CONSULTANT: No Consultant, GDOT In-House Design  
 SPONSOR: GDOT  
 DESIGN FIRM: GDOT D6 Design Office

SR 382 EXT FM CR 239 TO SR 5/SR 515 NEW APD CORRIDOR  
 MIPO: Not Urban  
 TIP #: Roadway Project  
 MODEL YR: NL 2R  
 TYPE WORK: New Construction  
 CONCEPT: Prov. for ITS: N  
 BOND PROJ: %

MGMT LET DATE: 06/15/2014  
 MGMT ROW DATE: 06/15/2013  
 BASELINE LET DATE: 06/20/2014  
 SCHED LET DATE: 6/27/2014  
 WHO LETS?: GDOT Let  
 LET WITH:

PRIORITY CODE: 6  
 DOT DIST: 9  
 CONG. DIST: N  
 BIKE: E  
 MEASURE: 4  
 NEEDS SCORE: BRIDGE SUFF:

BASE START	BASE FINISH	LATE START	LATE FINISH	TASKS	ACTUAL START	ACTUAL FINISH	%
11/15/2011	4/16/2012	12/13/2012		Concept Development	11/17/1992	2/17/2006	100
8/10/2012	10/4/2012	8/17/2012		Concept Meeting PM Submit Concept Report Concept Report Review and Comments Management Concept Approval Complete	1/7/2000 1/31/2006 2/7/2006 2/13/2006	1/7/2000 1/31/2006 2/13/2006 2/17/2006	100 100 100 100
	12/13/2012			Value Engineering Study Environmental Approval Pub Hear Held/Comm Resp (EA/FONSI, GEPA) Mapping Field Surveys/SDE Preliminary Plans	8/12/2011 12/4/2007 3/21/2006 4/6/1993 10/1/2007 8/7/2008		83 18 0 100 100 50
8/16/2013	1/2/2014	8/19/2013	1/3/2014	Underground Storage Tanks			0
1/11/2013	1/11/2013	1/25/2013	1/25/2013	404 Permit Obtainment			0
1/14/2013	3/8/2013	1/28/2013	3/29/2013	PFPR Inspection			0
3/11/2013	5/9/2013	4/1/2013	5/30/2013	R/W Plans Preparation R/W Plans Final Approval			100
5/10/2013	6/6/2013	5/31/2013	6/27/2013	L & D Approval	2/13/2006	2/17/2006	100
8/2/2013	8/15/2013	9/6/2013	9/19/2013	R/W Authorization Stake R/W			0
2/18/2013	11/1/2013	3/4/2013	11/22/2013	Soil Survey Final Design	5/30/2007	1/11/2008	100
12/2/2013	12/2/2013	12/23/2013	12/23/2013	FFPR Inspection			0
12/10/2013	12/23/2013	12/31/2013	1/13/2014	Submit FFPR Responses (OES)			0

Activity	Approved	Proposed	Cost	Fund	Status	Date Auth
PE	1992	1992	620,154.15	33D	AUTHORIZED	6/3/1992
ROW	2013	2014	3,048,372.00	L250	PRECAST	
UTL	2014	2015	700,397.28	L250	PRECAST	
CST	2014	2015	5,826,937.83	L250	PRECAST	

Activity	Cost Estimate Amount	Date	Activity	Cost	Fund
PE	\$620,154.15	7/12/2011	PE	0.00	33D
ROW	\$2,930,000.00	7/12/2011	ROW	3,797,460.01	L250
UTL	\$660,000.00	7/12/2011	UTL	798,771.26	L250
CST	\$5,490,853.66	7/12/2011	CST	4,366,626.25	L250

District Comments

The alignment was changed in July 2009 to save apx \$4,500,000. This alignment moved to a new location. The plans are now being redesigned on the new alignment.

TBA to Conv PM (Suzanne Dunn).

Prel. Parcel CT:	5	Total Parcel in ROW System:	Cond. Filed:	Acquired by:	DOT	DEEDS CT:
Under Review:		Options - Pending:	Relocations:	Acquisition MGR:		
Released:		Condemnations- Pend:	Acquired:	R/W Cert Date:		