

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTER-DEPARTMENT CORRESPONDENCE

FILE: 0008375, Douglas County
CSSFT-0009-00(375), Douglas County
SR 8/US78 @ Mason Creek Road and Post Road

OFFICE: Office of Program
Delivery

DATE: December 22, 2014

FROM: Albert V. Shelby III *Albert Shelby*
State Program Delivery Engineer

TO: Lisa Myers, State Project Review Engineer
Attn: Matt Sanders

SUBJECT: Request for VE Reversal

Reference is made to the VE Implementation letter dated May 3, 2012 for the subject project. Gresham, Smith and Partners (GS&P), the design consultant on this project, requests a Value Engineering (VE) Study Implementation Revision.

The alternate ROW-1 recommended using more slope easements in lieu of right of way throughout the extent of the project.

GS&P recommends reversing the implementation of alternate ROW-1 in its entirety. At the Preliminary Field Plan Review, held on April 24, 2013, the inspection team recommended that the VE Alternative ROW-1 be reversed so right of way could be acquired instead of permanent easement, this will allow for flexibility in negotiations. It was also noted that since some utilities are likely to be relocated on permanent easement, the cost of the easement becomes more expensive and the savings by using permanent easement is diminished. Finally, the inspection team inspection had concerns that partial use of easements would create confusing right of way limits and increase the potential that roadway support structures could be altered by property owners. Please see supporting documentation attached to this request.

This Office concurs with this request.

If you have any questions, please contact Perry Black at (404) 631-1224.

Approve: *Lisa L Myers* 12/29/14
State Project Review Engineer Date

Approve: *Alan Bowen* 1/5/2015
Director of Engineering Date

Approve: *Mary Pickle* 1/6/15
Chief Engineer Date



G R E S H A M
S M I T H A N D
P A R T N E R S

December 16, 2014

Mr. Albert Shelby
State Program Delivery Engineer
Office of Program Delivery
Georgia Department of Transportation
600 West Peachtree Street, 25th Floor
Atlanta, Georgia 30308
Attn: Mr. Perry Black

**Subject: Value Engineering Study Implementation Revision
CSSFT-0008-00(375), Douglas County
P.I. Number: 0008375
SR 8/US78 @ Mason Creek Road and Post Road**

Dear Mr. Shelby,

Gresham, Smith and Partners (GS&P) requests a Value Engineering (VE) Study Implementation Revision for PI No. 0008375. The Implementation of VE Study Alternatives report was issued by the Office of Engineering Services on May 3, 2012 in regards to this project.

GS&P requests to revise the implementation of Alternate ROW-1. This alternative recommended using more slope easements in lieu of permanent right of way throughout the extent of the project for an estimated saving of \$743,000.

As stated in the April 4, 2012 Value Engineering Study Responses, a partial implementation of this alternative was recommended. Both the GDOT Office of Maintenance and Office of Right of Way recommended to the project design team that temporary slope easement not be used outside the shoulder break points, but it would be possible to use permanent easement. Based on this input, the approved project Value Engineering Study Responses recommended the use of permanent easement outside of the shoulder break points with an Engineer's Estimated Savings on \$133,016.16.

GS&P at this juncture requests reversing the implementation of Alternate ROW-1 in its entirety. At the project's Preliminary Field Plan Review (PFPR) inspection meeting that was held on April 24, 2013, the inspection team recommended that VE Implementation Alternative ROW-1 be reversed so right of way could be acquired instead of permanent

Design Services For The Built Environment

2325 Lakeview Parkway, Suite 300 / Alpharetta, Georgia 30009-7940 / Phone 770.754.0755 / www.gspnet.com



PI No. 0008375
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and Post Road, Douglas County
Value Engineering Study Implementation Revision
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easement. This will allow for flexibility in the right of way negotiations with property owners. It was also noted that the cost of utility relocation on permanent easement was comparable to acquiring right of way. Finally, the inspection team had concerns that the partial usage of easement would create more confusing right of way limits and the increased potential that the roadway support structure (fill slopes, etc.) could be altered by adjacent property owners. The project's PFPR inspection report with the above recommendation is included as an attachment to this report.

Based on the information contained in this request, we recommend the full reversal to the implementation for VE Alternative ROW-1.

If you have any questions or request any additional information, please do not hesitate to contact me at (678)-518-3682.

Sincerely,

A handwritten signature in black ink that reads "Eric Rickert" with a stylized flourish at the end.

Eric Rickert, P.E.,
Project Engineer
Gresham, Smith & Partners

12-16-14
Date

Attachments:

PI #0008375 Implementation of VE Study Alternatives Report
PI #0008375 PFPR Inspection Report

P-1	Revise the profile and alignment on Bankhead Highway to account for a 45 mph design speed in lieu of the 55 mph design speed	Proposed = \$62,000 Actual = \$72,167	Yes, with modifications	This will be done; however, the proposed sag vertical curve on SR8/US78 from Sta. 34+51.95 to Sta. 42+01.95 will be revised to have a 'K value' closer to the revised 45 mph posted speed.
ROW-1	Use more slope easements in lieu of permanent right of way	Proposed = \$743,000 Actual = \$133,017	Yes, with modifications	GDOT Office of Maintenance recommends that all drainage structures and ditches be placed on permanent right of way. Relocated utilities cannot be placed on temporary easement. However, the Office of Maintenance and Office of Right of Way were amicable to using permanent easement on the project outside of the shoulder break points.
S-1	Reduce the clear zone dimension to 24 feet and 18 feet for the 45 mph and 35 mph design sections, respectively	Proposed = \$203,800 Actual = \$219,269	Yes, with modifications	The engineer's cost savings were calculated differently once the plans were revised.
S-2	Use a 4 foot shoulder in lieu of a 6.5 foot shoulder on Bankhead Highway	Proposed = \$136,000 Actual = \$173,867	Yes, with modifications	The engineer's cost savings were calculated differently once the plans were revised.
S-6	Change the 4:1 slopes to 2:1 slopes and reduce the amount of required right of way	\$49,300	No	For the placement of the GDOT Type 12 guardrail approach anchors, a shoulder with an additional 9 feet paved width would be necessary. In areas where a standard ditch is utilized, the amount of savings in earthwork or right of way versus the typical section would be negligible. Except on proposed high fill height locations where traversable slopes are impractical and guardrail would be utilized, such as the left side of SR8/US78 between Sta. 34+00 to Mann Road and the left side of Mann Road from SR8/US78 to Sta. 25+50, the roadway slopes within the project are designed to be traversable.

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

Approved:  Date: 5/4/12
Gerald M. Ross, PE, Chief Engineer

LLM/MJS

Attachments

c: Russell McMurry
Bobby Hilliard/Stanley Hill/Perry Black/Derrick Cameron
Larry Bowman
Melissa Harper
Lee Upkins
Ken Werho/Nabil Raad
Matt Sanders

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE CSSFT-0008-00(375) Douglas County OFFICE Program Delivery
P.I. No. 0008375
SR 8/US78 @ Mason Creek Rd. and Post Road DATE April 4, 2012

FROM Bobby K. Hilliard, PE, State Program Delivery Engineer B.K.H.

TO Lisa Myers, State Project Review Engineer,

ATTEN: Matt Sanders, Value Engineering Specialist

SUBJECT **Response To Value Engineering Study Alternatives**

Attached are the responses for the Value Engineering Study. This office concurs with the responses.

If there are any questions please contact Perry Black of this Office at (404) 631-1224

BKH:SH:DDC:pb

Attachments

Cc: Russell McMurry, P.E., Director of Engineering

Streets guidance are dictated more by headlight trajectories than line of sight, a reduced 'K value' based on a 45 mph design would have less impact on sight distance than a crest vertical curve. Further, this proposed sag curves on SR 8 traverses a relatively high fill area and would have a significant difference in elevation from the existing grade of SR 8, so the most savings in earthwork and right of way will be realized in this location by the 45 mph speed design.

- In order for SR8/US78/Bankhead Highway to have vertical geometry that is compliant with AASHTO guidelines for its 45 mph posted speed limit and to eliminate the hidden dip, its profile grade will need to be raised as much as 7 ft within the project limits. Due to such a significant change in profile grade, the alignment will need to be offset in order to maintain traffic during construction.
- If implemented as above, the above considerations would modify the cost/benefit for Alternative P-1 as follows:

Category	Savings from VE Study Report			Engineer's Estimated Savings		
	Savings	Add'l Cost	Net	Savings	Add'l Cost	Net
Grassing	\$0.00		\$0.00	\$217.39		\$150.00
Erosion Control Mats, Slopes	\$0.00		\$0.00	\$1,090.00		\$1090.00
Right of Way	\$44,702.00		\$44,702.00	\$57,926.51		\$60,210.00
Earthwork	\$16,914.00		\$16,914.00	\$7,700.00		\$13,160.00
Drainage Structures	\$0.00		\$0.00	\$2,479.00		\$2,479.00
			\$61,616.00			\$72,166.70

9. Value Engineering Alternative No. ROW-1 – Use more slope easements and less permanent right of way. Approval of the VE Alternative ROW-1 is partly recommended as follows:

- According to the GDOT Office of Maintenance, all drainage structures and facilities such as ditches would need to be on permanent right of way (either right of way or permanent easement) and not temporary slope easement to ensure that they can be readily accessed by GDOT maintenance forces. Permanent right of way would still need to be used between the shoulder break points on all roadways.
- Relocated utilities within the GDOT right of way are typically placed between the construction limits and proposed right of way limit. However, relocated utilities can not be placed on temporary easement.
- The GDOT Office of Maintenance also prefers that other support structure such as fill slopes be placed on permanent right of way/easement. Otherwise, the fill slopes, etc. would revert to the adjacent property owners where they could potentially be altered (such as excavating a fill slope) that could have repercussions on the roadway.
- However, both the GDOT Office of Maintenance and Office of Right of Way were amicable to using permanent easement on the project outside of the proposed shoulder break points. Unlike slope easement, access is retained for maintenance concerns, but the cost can potentially be half than right of way. Therefore, it is recommended that permanent easement be purchased outside of the shoulder break point instead of temporary easement in the place of permanent right of way.
- If implemented as above, the above considerations would modify the cost/benefit for Alternative ROW-1 as follows:

Category	Savings from VE Study Report			Engineer's Estimated Savings		
	Savings	Add'l Cost	Net	Savings	Add'l Cost	Net
Right of Way	\$1,858,440.00		\$1,858,440.00	\$266,032.32		\$266,032.32
Easement		\$(1,115,064.00)	\$(1,115,064.00)		\$(133,016.16)	\$(133,016.16)
			\$743,376.00			\$133,016.16

PRELIMINARY FIELD PLAN REVIEW INSPECTION REPORT

PI No.: 0008375, Douglas County
PROJECT NUMBER: CSSFT-0008-00(375)

Intersection Improvement - SR 8 @ Conners Road; @ Mann Road / Mason Creek Road & @
Post Road

INSPECTION DATE: April 24, 2013
REPORT DATE: April 26, 2013
RESPONSES VERIFIED: June 4, 2013

This inspection was requested by Genetha Rice-Singleton, State Program Delivery Engineer. The Project Manager is Perry Black.

The plans were prepared by Gresham Smith and Partners.

The report was prepared by Ted Crabtree, Design Review Manager and approved by Lisa L. Myers, State Project Review Engineer, Office of Engineering Services.

The NEPA document was approved on February 22, 2013.

This report is being distributed via E-mail. Final plan preparation can now begin.

The Inspection Plans were reviewed in College Park Area Office prior to the site inspection.

This project is currently scheduled for the February 2014 Letting.

All comments marked with an arrow symbol (⇒) should be addressed with a written response by the Project Manager.

Projects Let to construction after July 1, 2013 will require the use of the 2011 AASHTO "GREEN BOOK", GDOT Design Manual, 2011 Roadside Design Guide, 2012 Guide for the Development of Bicycle Facilities and the 2001 Georgia Standard Specifications. Please revise all notes that make reference to previous GDOT Design Manuals and Specifications. Any substandard features that cannot be complied with due to project restraints will require the submission of a design exception/variance to the State Design Policy and Support Engineer.

PROJECT DESCRIPTION

This project consists of widening US 78/SR 8 at Mann Road/Mason Creek to add a left-turn lane in each direction and an auxiliary right-turn lane on westbound direction. Mann Road will be widened to add a left turn lane in each direction and an auxiliary right-turn lane on northbound direction; a traffic signal will be installed at the intersection of SR 8 and Mann Road/Mason Creek Road. The intersection of Post Road with SR 8 will be removed and the intersection of Post Road with Mason Creek Road will be reconstructed. The project has a total project length of 0.525 miles.

The project has a scheduled Management R/W Date of December 2012

DESIGN DATA

CURRENT TRAFFIC ADT: 9,800 (2015)
DESIGN TRAFFIC ADT: 14,000 (2035)
PERCENT TRUCKS: 6%
CURRENT POSTED SPEED: 45 MPH
SPEED DESIGN: 45 MPH
FUNCTIONAL CLASSIFICATION: Urban Minor Arterial

The Concept Report was approved on September 13, 2012.

Cynthia VanDyke, State Transportation Planning Administrator, has stated that the proposed project is in conformance with the adopted Air Quality Model of the Atlanta Regional Transportation Plan and the State Transportation Improvement Program. By copy of letter, the project concept is found to conform to the Atlanta Regional Transportation Plan, based upon the December 20, 2012 review.

ENVIRONMENTAL

ENVIRONMENTAL COMMITMENTS: See Appendix "A" for Green Sheet

GENERAL ENVIRONMENTAL COMMENTS:

- ⇒ All Environmentally Sensitive Area (ESA) flags on plan sheets shall be changed to read **"ESA - See Environmental Resources Impact Table in General Notes for construction restrictions."** The ESA notes shall be placed on ALL plan sheets where an ESA exists. The notes will be added to all affected plan sheets
- ⇒ There is a small encroachment on Parcel 19 (easement and slope) on Drawing 13-006. Please ensure this is accounted for in NEPA. The encroachment will be compared against the NEPA document
- ⇒ A revised ERIT was sent to the PM on April 23, 2013. Please update plans with newer ERIT. The plans will be updated with the updated ERIT

RIGHT OF WAY

NUMBER OF PARCELS: 44 APPRAISED: 0

ACQUIRED DEEDS: 0

ACQUISITION BY: GDOT

TYPE ACCESS CONTROL: By permit

GENERAL RIGHT OF WAY COMMENTS:

Four (4) total takes anticipated.

- ⇒ There are some structures that are encroaching upon proposed R/W. PM shall coordinate with State R/W to determine who will be responsible for demolition and plan requirements. Total takes are expected in locations where structures are encroaching on required R/W. According to District R/W, GDOT will be responsible for demolition of the structures.

- ⇒ District R/W indicated that it will require 21 months (from the date R/W funds are authorized) to acquire all R/W.
The project schedule is being revised; the new schedule will take into account the required 21 months for R/W acquisition.
- ⇒ If any easements are to be used for the relocation of utilities then they need to be deeded as such and a flag will need to be added to mainline and utility plan sheets for each easement that indicates easement for relocation and maintenance of utilities.
It is the District Utilities' responsibility to coordinate with the utility companies as it relates to any potential utility easements needed. At the present, the PM has not received a response back from District Utilities regarding the utility companies' intentions. The typical proposed right of way for a GDOT highway project normally provides adequate right of way or easement for existing utility facilities.
- ⇒ A Temporary State Route Agreement will be required for this project. PM shall coordinate with the System Highway Coordinator, Bertha Bryant.
The Temporary State Route Agreement Process is in progress.

DESIGN EXCEPTIONS

DESIGN EXCEPTIONS REQUIRED: None
DESIGN EXCEPTIONS REQUESTED: None
DESIGN EXCEPTIONS APPROVED: None

DESIGN VARIANCES

DESIGN VARIANCES REQUIRED: None
DESIGN VARIANCES REQUESTED: None
DESIGN VARIANCES APPROVED: None

- ⇒ GDOT Design Policy Manual (Section 4.6) requires a minimum 100 foot tangent section between reverse curves. Currently the alignment for Mattie Lane does not have a minimum 100 foot tangent section between reverse proposed Curves 9 & 10. The Engineer of Record shall provide the PM with a letter explaining why it was not feasible to comply with this guideline. This letter is to be kept with the project files.
A letter will be provided to the GDOT PM justifying the lack of a 100 ft. tangent at this location. This portion of Mattie McCoy Lane is a low speed, urban street within a stop condition, so superelevation transitions are not necessary and would result in additional impacts.

SPECIAL PROVISIONS

PROJECT SPECIFIC SPECIAL PROVISIONS FURNISHED FOR THE INSPECTION:

Section 108.08.C – Intermediate Completion Schedule
Section 150.11 – Traffic Control Special Conditions
Section 615 – Directional Boring

- ⇒ ADDITIONAL PROJECT SPECIFIC SPECIAL PROVISIONS REQUIRED:

Section 107.21 – Worksite Utility Coordination Supervisor
Section 682 – Electrical Wire, Cable, & Conduit

These special provisions will be submitted prior to the FFPR

GENERAL SPECIAL PROVISION COMMENTS:

Contracts Administration should not include the Special Provision adding the Fine Grader because there is less than 1 mile (1.6 km) of full width pavement.

Restrictions to traffic interruptions are recommended as follows: The contractor shall not close lanes or move equipment or materials within the project limits that interferes with the flow of traffic between the hours of 6:30 a.m. to 9:00 a.m. and 3:30 p.m. to 7:00 p.m. Monday through Friday. Equipment or materials moved on or across the traveled way at other times shall be done in a manner as not to interfere with traffic.

Area Construction indicated at the PFPR that they will coordinate with the contractor at the Construction Precon regarding access to Fire Station on US 78.

- ⇒ Please submit the Section 108 and Section 150 Special Provisions to the Office of Construction for their review. This should be done after the Preliminary Field Plan Review, but prior to the assembly of the Final Plan Documents.
These special provisions will be submitted prior to the FFPR

ESTIMATED CONTRACT TIME: The Inspection Team recommends 18 months.

VALUE ENGINEERING

Total Project Programmed Cost: \$ 8,084,163

VE Study Date: January 31, 2012

VE Implementation Approval Date: May 4, 2012

General VE Comments:

The Inspection Team recommends submitting a reversal letter for Recommendation ROW-1 of the implementation letter in order to use R/W in lieu of Permanent Easement for some of the proposed drainage. This will give District R/W more freedom in negotiating. Also, since some utilities are likely to be relocated on permanent easement the cost of the easement becomes more expensive and the savings by using permanent easement is diminished anyways.

CONSTRUCTION PLANS

The Project Manager is advised that this project is located within a NPDES Municipal Separate Storm Sewer System (MS4) Permitted area. Linear roadway projects that disturb 1 acre or more of land, or site development that creates or adds 5,000-sqft or greater of new impervious surface area are required to comply with section 4.2.5.1a of the permit. Section 4.2.5.1a of the permit requires design of storm water structures at outfall locations that provide:

- Removal of 80% of total suspended solids (TSS) from the first 1.2-inches of rainfall;
- Detention storage for the 1 year 24 hour storm event;
- Match pre-developed flow rates for the 25 year 24 hour storm event; and
- Control the 100 year 24 hour storm event.

Projects excluded from section 4.2.5.1a of the permit include:

- Projects that have environmental approval by June 30, 2012;
- Projects that have right of way plans submitted for review and approval by June 30, 2012;
- Design Build and P3 projects that have been awarded or received environmental approval by June 30, 2012.

Preconstruction Status Report

PI Number: 0008375 SR 8 @ CONNERS RD; @ MANN RD/MASON CREEK RD & @ POST RD

COUNTY: Douglas
LENGTH (MI): 1.2
PROJ NO: CSST-0008-00(375)
PROJ MGR: Black, Perry
AOHD INITIALS: BK
OFFICE: Program Delivery
CONSULTANT: Proposed Consultant Design (DOT contract)
SPONSOR: GOOT

MPO: Atlanta TMA
MODEL YR: Intersection Improvement
CONCEPT: INTERSECT IMP
PROG TYPE: Safety
BOND PROJ:

PRIORITY CD: 6133
DOT DIST: 7
CONG. DIST: 13
BIKE: N
MEASURE: E
SUFF:

BASELINE LET DAT: 1/12/16
SCHED LET DATE: 2/3/17
LIGHTING TYPE: None

MGMT LET DATE: 1/15/16
WHO LETS?: GDOT Let
LET WITH:

Print Date: 12/16/14
Page: 1

Phase	Approved	Proposed	Cost	Fund	Status	Date Auth
PE	2008	2008	\$795,055.91	LS30	AUTHORIZED	11/26/07
ROW	2014	2014	\$3,710,000.00	MS30	AUTHORIZED	7/1/14
CST	LUMP	LUMP	\$3,579,004.44	MS30	PRECST	
UTL	LUMP	LUMP	\$151,250.00	MS30	PRECST	

Phase	Activity	Cost	Fund
PE	2/14/14	\$795,055.91	LS30
ROW	2/14/14	\$3,710,000.00	MS30
CST	9/26/14	\$3,579,004.44	MS30
UTL		\$151,250.00	MS30

COST EST AMTS			
PE	\$795,055.91		
ROW	\$3,710,000.00		
CST	\$3,579,004.44		
UTL	\$151,250.00		

STIP AMOUNTS			
PE	\$795,055.91		
ROW	\$3,710,000.00		
CST	\$3,579,004.44		
UTL	\$151,250.00		

District Comments

Eric Rickett, Gresham Smith, Partners 678-518-3662 enc_rickett@gspnet.com
 PB 12-16-14 Received Env. Re-eval 6/23/14, ROW authorized 7/1/14, Bat survey task order executed, bat survey at SHPO for final approval.

BASE START	BASE FINISH	TASKS	ACTUAL START	ACTUAL FINISH	%
11/11/10	9/26/11	Concept Development Summary	11/11/10	9/13/12	100
5/31/11	5/31/11	Concept Meeting	11/10/11	11/10/11	100
9/28/11	9/28/11	Management Concept Approval Complete	9/13/12	9/13/12	100
5/27/11	10/27/11	VE Study Summary	10/19/11	5/3/12	100
10/10/11	10/10/11	Public Information Open House Held	10/20/11	10/20/11	100
9/27/11	2/28/13	Environmental Summary	7/22/11	2/22/13	100
9/27/11	11/15/11	Database Summary	1/5/11	4/7/11	100
9/27/11	11/15/11	Field Survey Summary	1/5/11	4/7/11	100
11/16/11	5/1/12	Preliminary Roadway Plans	9/13/12	1/24/13	100
3/29/13	3/29/13	PFPR Inspection	4/24/13	4/24/13	100
4/1/13	5/6/13	R/W Plans Preparation	5/6/13	8/8/13	100
5/7/13	7/9/13	R/W Plans Final Approval	8/23/13	9/11/13	100
4/15/14	4/15/14	R/W Authorization	7/1/14	7/1/14	100
5/7/13	5/8/15	Final Construction Plans	6/4/13		0
7/9/15	7/8/15	FFPR Inspection			0
10/27/15	10/27/15	Submit Final Plans			0
11/17/15	11/17/15	Construction Authorization			0

Bridge: NO BRIDGE REQUIRED

Conceptual Design: L&D approved on 4/10/2013 (exp).

Design: PB 12-16-14, Consultant working on final plans including MS4 drainage design, waiting on remaining 2nd submission utilities.

EIS: OnSchedCertForJan16Let | CE|RE23Jun14|LBowman|J.Brown 12Dec14

EMG: SAFETY (TURN LANES)
VE Impl Letter Approved 5/4/12

Engr Services: NOTIFICATION LETTER SENT TO DOUGLAS 12-6-06

LGA: CONFIRMED EXEMPT PER FHWA 6-1-2014PE LS 0006130|#1 7-2010|#2 10-2011|#3 1-2013|#4 2-2013|#6 6-2014|PE LS 0006129

Programming: PFPRsent 4/8/13KWINR

Traffic Op: MC

UST: LB: Due to revised drainage design letter #3 was sent to Util. on 05/21/2014. Revise plans are on F.E.

Utility:

Pre Parcel CT	Under Review	Released:	Total Parcel in ROW System:	Options Pending:	Condemnations - Pend:	Cond Filled:	Relocations:	Acquired:	Acquired by:	Acquisition MGR:	RW Cert Date:	DEEDS CT:
46	34	0	44	0	0	0	3	0	DOT	Buckley, Arthur		0