

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA**

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**INTERDEPARTMENT CORRESPONDENCE**

**FILE:** HPP00-9347-00(001) DeKalb County **OFFICE:** Engineering Services  
P.I. No.: 753230  
Lithonia Industrial Blvd. Widening **DATE:** August 20, 2009

**FROM:** Ronald E. Wishon, Project Review Engineer *REW*

**TO:** James B. Buchan, PE, State Urban Design Engineer  
Attn.: Albert Welch, Project Manager

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

The VE Study for the above projects was held February 23-27, 2009 as part of a Value Engineering training class. Responses were received on August 19, 2009. Recommendations for implementation of Value Engineering Study Alternatives are indicated in the table below. Incorporate the VE alternatives recommended for implementation to the extent reasonable in the design of the project.

ALT No.	Description	Savings PW & LCC	Implement	Comments
B-1	Shift the alignment of Lithonia Industrial Boulevard (LIB) toward the north with a flatter curve between Sta. 122+00 and 145+00. New LIB will go under the railroads where the railroad main line and lead line are parallel.	\$110,000	No	This proposal will increase required ROW and will necessitate reopening negotiations with property owners. The current alignment is a result of multiple public meetings, and has been agreed upon by CSX. The cost of redesign would negate any savings, and the time to redesign would delay the proposed December 2009 letting date.
B-4.1	Eliminate Type 6 Side Barrier Wall and Concrete V Gutter and utilize a 1:1 slope, temporary barrier and extended temporary pavement.	\$99,000	Yes	This will be done pending a review of the proposed drainage.

B-4.2	Change Temporary Wall type & provide Temporary Barrier.	\$108,500	Yes	The retaining wall will be changed from Type 2A and 2B to a contractor designed temporary wall. No additional right of way will be required for the historic parcel.
R-7	Modify the typical sections to provide a 6-foot paved shoulder instead of curb and gutter and sidewalks.	\$890,400	No	This project is part of a system of improvements along the corridor. All of the existing and proposed projects include urban shoulders. Additional ROW would be required, and this would make a December 2009 letting unlikely.
R-10	Reduce median width from 20-foot variable grass to 8-foot variable concrete.	\$11,100	No	Future development is anticipated and an 8-ft median would not provide sufficient width to allow for future median openings and turn lanes. The cost of redesign would negate the savings.
R-12	Eliminate the 5-foot sidewalk on Lithonia Industrial Boulevard.	\$187,575	No	This will be done as part of R-14 and the savings are accounted for in R-14.
R-14	Eliminate sidewalk throughout the project except at radius returns at signalized intersections.	Proposed = \$316,700 Actual = \$158,350	Yes	Sidewalks will be removed on one side of the mainline, and will remain on the other. Sidewalk on Rogers Lake Road will be removed due to the industrial nature of the roadway, but sidewalk on South Stone Mountain/Lithonia Road will remain as there are plans to construct additional sidewalks from Tucker to Stone Mountain.
R-17	Construct all Front and Back slopes at 2:1.	\$36,120	No	The implementation of this recommendation would require at least \$200,000 of guardrail that was not included in the VE Study report. This change would negate the proposed savings.

DS-1	Bid Earthwork using Grading Complete.	Design Suggestion	No	Earthwork exceeds 325,500 cy. This far exceeds the 100,000 cy limit for Grading Complete.
DS-2	Increase Eyebrow size for trucks.	Design Suggestion	No	This would require additional right of way. The change to the plans would result in additional cost and would delay the December 2009 letting.
DS-3	Use Concrete Pavement on Lithonia Industrial Boulevard.	Design Suggestion	No	The County will be responsible for the maintenance of this roadway and their crews are not familiar with the maintenance of concrete pavement.

The results above reflect the consensus of those in attendance and those who provided input.

Approved:  Date: 8/21/09  
 Gerald M. Ross, P. E., Chief Engineer

REW/LLM

Attachments

c: Genetha Rice Singleton  
 Ben Buchan  
 Darrell Richardson  
 Butch Welch  
 Paul Liles  
 Bill Ingalsbe  
 Mickey McGee  
 Ken Werho  
 Lisa Myers  
 Matt Sanders

VE Team – Jack Grant  
 Bill DuVall  
 Jeff Simmons  
 Charity Belford  
 Stanley Kim  
 Karyn Matthews



**3. Value Engineering Alternative B-4.2: Change type of retaining wall from Type 2A and 2B to a contractor designed temporary wall - *Recommended***

This alternative is recommended for implementation due to the following reasons:

- The retaining wall will be changed from Type 2A and 2B to a contractor designed temporary wall.
- No additional ROW will be necessary on the historic parcel.

**4. Value Engineering Alternative R-7: Rural Typical - *Not Recommended***

This alternative is not recommended for implementation due to the following reasons:

- This project is part of a system of improvements along Lithonia Industrial Blvd. All of the existing Lithonia Industrial Blvd, as well as the phase of Lithonia Industrial Blvd currently under construction, includes urban shoulders.
- Rural shoulders will cause the limits of construction to be pushed out in areas where ditch sections will be required. It is estimated that the cost of the additional permanent easement will be approximately \$43,740. In addition, the required revised appraisals for 17 parcels along Lithonia Industrial Blvd will cost approximately \$42,500, and the acquisition cost will cost approximately \$34,000. This cost of land and acquisition services does not appear to have been factored into the net savings. In addition, the time required to acquire any additional ROW will make achieving the current scheduled let date of Jan 2010 unlikely.

**5. Value Engineering Alternative R-10: 8-ft median - *Not Recommended***

This alternative is not recommended for implementation due to the following reasons:

- This project is located in an industrial area and future development is anticipated. An 8-ft raised median will not provide sufficient width to allow for future median openings and turn lanes.
- The potential savings included a reduction of ROW cost of \$43,990. The majority of parcels along Lithonia Industrial Blvd have either closed or been condemned; this savings will not actually be realized. This proposal will have a net increase in cost as a result of the increase in median paving quantities.
- The cost of re-design of the construction plans along with the cost of ROW appraisals and additional negotiations will outweigh any potential savings in construction cost.

**6. Value Engineering Alternative R-12: Remove the proposed 5-ft sidewalks from the mainline – *Partially Recommended***

This alternative is partially recommended for implementation due to the following reasons:

- It is a policy of DeKalb County to provide ADA accessible sidewalks on all of the County's arterial roadways and prefers to include sidewalk on both sides of the roadway. However, the County recommends having sidewalks along one side only. This will provide an ADA accessible path and will also meet the Department's goal to discourage pedestrian mid-block crossings.
- DeKalb County does not recommend any changes to the proposed shoulder widths so that sidewalks can be constructed in the future.

- Department policy requires a Design Variance for the construction of curb and gutter without sidewalk. It is requested that by approval of this VE Study Response letter that a separate Design Variance will not be required.

**7. Value Engineering Alternative R-14: Remove the proposed 5-ft sidewalks throughout project except at radius returns of intersections – *Partially Recommended***

This alternative is partially recommended for implementation due to the following reasons:

- As outlined in the responses for R-12 above, DeKalb County recommends that sidewalk be maintained along one side of Lithonia Industrial Blvd at a minimum.
- DeKalb County does not recommend any changes to the proposed shoulder widths so that sidewalks can be constructed in the future.
- Rogers Lake Road is highly industrial and the proposed sidewalks will not link to any system of other sidewalks. DeKalb County recommends that sidewalks along Rogers Lake be eliminated as proposed. However, DeKalb County does not recommend changing the proposed shoulder width.
- South Stone Mountain/ Lithonia Road is an arterial roadway that connects the City of Tucker with the City of Stone Mountain. DeKalb County has plans to make this corridor a more pedestrian friendly route. These plans include projects to construct sidewalks and bike lanes from Tucker to Stone Mountain. The first phase of this project is currently programmed (PI # 0006899). Due to these reasons, DeKalb County does not recommend that sidewalks be eliminated throughout the limits of construction along South Stone Mountain/ Lithonia Road.
- Department policy requires a Design Variance for the construction of curb and gutter without sidewalk. It is requested that by approval of this VE Study Response letter that a separate Design Variance will not be required.

**8. Value Engineering Alternative R-17: Construct all front and back slopes at 2:1–  
*Not Recommended***

This alternative is not recommended for implementation due to the following reasons:

- This change will require additional guardrail. It does not appear that the VE team deducted the cost of additional guardrail from the total savings. The estimated cost will be in excess of \$200,000, making this proposal a net cost increase.
- DeKalb County will be required to maintain Lithonia Industrial Blvd upon completion. The cost to maintain guardrail should be included in this decision.
- This change will require the consultant to revise all cross sections as well as earthwork calculations. The cost of the construction plan revisions should be considered when making the decision to change the slopes.
- If the majority of ROW had not already been acquired, this would be a more attractive proposal. However, since the savings from reduced ROW and easements cannot be realized at this point, DeKalb County prefers to move forward with the more desirable design of flatter slopes.

## Myers, Lisa

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**From:** Welch, Albert (Butch)  
**Sent:** Wednesday, August 19, 2009 5:26 PM  
**To:** Myers, Lisa  
**Cc:** Coll, Marcela; Buchan, Ben; Richardson, Darrell  
**Subject:** FW: PI#753230 - VE Responses to DS

Lisa,

Please see the below responses from DeKalb County. Each of these Design Suggestions have been discussed with Ben and modified accordingly. Please discuss with Marcela if you should have any questions concerning these responses as I will be out Thursday and Friday.

Thanks,

Butch

*Albert S. Welch, Jr. (Butch)*  
*Design Group Manager - UD5*  
*ph. 404-631-1690*

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**DS-1 Bid Earthwork using Grading Complete – This design suggestion is NOT recommended for implementation due to the following reasons:**

- Earthwork on this project currently exceeds 325,500 cy. This amount exceeds the 100,000 cy limit for specifying Grading Complete. Unclassified Excavation should be used to bid earthwork on this job.

**DS-2 Increase Eyebrow Size for Trucks – This design suggestion is NOT recommended for implementation due to the following reasons:**

- Increasing the eyebrow size would result in the need for additional right-of-way. Most of the right-of-way along Lithonia Industrial Blvd has already been purchased. Revising the plans, revising appraisals and opening up negotiations would result in additional cost and would make meeting the December 2009 let date impossible.
- The Lithonia Industrial Blvd area is comprised of primarily industrial zoned parcels. Development that would occur along Lithonia Industrial Blvd is expected to be comprised of large sites. DeKalb County expects that left turn access to these sites will be available at full-access median openings at proper spacing. Inter-parcel access will be created through the zoning process if necessary. For these reasons, truck u-turns would not be necessary along Lithonia Industrial Blvd, making the larger eyebrow sizes unnecessary.

**DS-3 Use Concrete Pavement on LIB – This design suggestion is NOT recommended for implementation due to the following reasons:**

- The County is concerned that using concrete pavement on the entire length of the project would add significant cost to the project. In addition, Lithonia Industrial Blvd will become a County roadway and County crews are not familiar with the maintenance of concrete pavement.
- LIB 2, the adjacent project which is currently under construction, has an AC pavement design.
- If concrete pavement is to be used, it should only be at the intersections and for 100' of the approaches in each direction due to the potential for rutting at the intersections at South Stone Mountain-Lithonia Road and Rogers Lake Road, where trucks will be decelerating and turning.

**PRECONSTRUCTION STATUS REPORT FOR PI:753230-**

**PROJ ID :** 753230-  
**COUNTY :** Dekalb  
**LENGTH (MI) :** 1.33  
**PROJ NO.:** HPP00-9347-00(001)  
**PROJ MGR:** Welch, Albert  
**AOHD Initials:** DMR  
**OFFICE :** Urban Design  
**CONSULTANT:** Local Design, Local PE funds  
**SPONSOR :** Dekalb County  
**DESIGN FIRM:** Jordan, Jones & Goulding, Inc.

**LITHONIA IND FM STN MTN-LITHONIA TO ROGERS LAKE&RR SEP-GRTA**  
**MPO :** Atlanta TMA  
**TIP #:** DK-270A  
**MODEL YR :** 2020  
**TYPE WORK:** Widening  
**CONCEPT:** ADD 4U(MED 20)  
**PROG TYPE:** Reconstruction/Rehabilitation  
**Prov. for ITS:** N  
**BOND PROJ :** GRTA-ARTERIAL

**MGMT LET DATE :** 12/11/2009  
**MGMT ROW DATE :** 01/15/2006  
**SCHED LET DATE :** 1/21/2010  
**WHO LETS? :** GDOT Let  
**LET WITH :**

SCHED START	SCHED FINISH	TASKS	ACTUAL START	ACTUAL FINISH	%	PROGRAMMED FUNDS					STIP AMOUNTS				
						Activity	Approved	Proposed	Cost	Fund	Status	Date Auth	Activity	Cost	Fund
		Concept Development	3/13/2001	6/4/2002	100	PE	2002	2002	57,000.00	Q92	AUTHORIZED	3/13/2002	PE		Q92
		Concept Meeting	11/28/2001	11/28/2001	100	ROW	2006	2006	3,327,160.80	RRB	AUTHORIZED	4/11/2006	ROW	0.00	RRB
		PM Submit Concept Report	5/7/2002	5/14/2002	100	CST	2010	2010	16,900,000.00	C240	PRECST		CST	1,076,398.00	Q92
		Receive Preconstruction Concept Approval	5/17/2002	6/4/2002	100	CST	2010	2012	1,442,476.26	Q92	PRECST		CST	5,990,000.00	C240
	9/8/2009	Management Concept Approval Complete	10/21/2008		85										
		Value Engineering Study	3/22/2004	3/22/2004	100										
		Public Information Open House Held	7/17/2005	1/18/2005	100										
		Environmental Approval	3/22/2004	3/22/2004	100										
		Pub Hear Held/Comm Resp (EA/FONSI, GEPA)	1/25/2002	6/25/2005	100										
		Field Surveys/SDE	6/2/2002	8/1/2005	100										
		Preliminary Plans	3/1/2005	3/7/2005	100										
		Underground Storage Tanks	8/1/2005	8/15/2006	100										
		404 Permit Obtainment	9/30/2005	11/2/2005	100										
		PFPR Inspection	9/13/2005	9/13/2005	100										
		R/W Plans Preparation	9/21/2005	11/15/2005	100										
		R/W Plans Final Approval	11/30/2005	12/5/2005	100										
		L & D Approval	11/23/2005	12/5/2005	100										
		R/W Acquisition	2/28/2006		97										
		Stake R/W	2/28/2006	3/13/2006	100										
		Soil Survey	3/3/2004	7/22/2009	100										
		Bridge Foundation Investigation	2/13/2007	5/11/2007	100										
		Final Design	1/23/2006	8/3/2009	88										
8/28/2009	8/31/2009	Final Bridge Plans Preparation	10/31/2006	2/19/2007	100										
9/14/2009	9/25/2009	PFPR Inspection			0										
		Submit FFPR Responses (OES)			0										

**District Comments**

DEKALB CO./PBS&JJ & G (1/3/05) NEED PLANS AND ENV. APPVL; SOIL SURVEY SUBMITTED (3/8/05) PLANS BEING REVIEWED BY PBS&J; SUBMIT TO GO BY END OF MONTH. (7/12/05) REVISED PRELIM PLANS SUBMITTED TO GDOT; WORKING ON CONCEPT REVISIONS AND ENV. RE-EVAL. (11/8/05) PFPR HELD 9/13; R/W PLANS TO GDOT ON 11/16; RE-EVAL SUBMITTED 10/6. (3/14/06) R/W PLANS APPVD 1/23/06 RR coordination ongoing. Plans ready for FFPR. Project on schedule for a Dec09 Let/ ASW.

**PDD:** BOND, NB MARCH 99 - ASSIGNED URBAN DESIGN 3/26/99, GRTA Art. 9/22/03, Ph I. 3/10/04.  
**Bridge:** RAG 04/01/08 - CONSUL - J&G (FINAL PLANS SENT 3/20/08)  
**Design:** UDS-Rowland; Submitting plans for FFPR - 4Aug09  
**EIS:** EA/FONSI 18.05/Reeval 1.18.06 OnSched(TIGHT)DEC '09 LetLB 8.10.09  
**LGPA:** REV PMA SGN DEKALB DO PEIROW/UTIL & CST9-29-03.  
**Prog. Develop:** CST STIP AMENDMENT #5 11-07  
**Programming:** TEMP SR 1117, 1117TA - 1117TD/ARC had this for Q23 in 2004 but can not be in 2 years 11-03#1 3-05#2 7-06/#3 3-08  
**Traffic Op:** AWAITING FFPR PLANS FOR REVIEW-PFPR SENT 8/26/05  
**Utility:** WW:MRPLANS TO DZN 07/06 (-1)  
**EMG:** RECST/REHAB (WIDENING); PE BY COUNTY

**Prel. Parcel CT:** 42 **Total Parcel in ROW System:** 38 **Cond. Filed:** 3  
**Under Review:** 2 **Options - Pending:** 4 **Relocations:** 0  
**Released:** 35 **Condemnations- Pend:** 4 **Acquired:** 15

**Acquired by:** LOC  
**Acquisition MGR:** Black, Pam (LOC)  
**R/W Cert Date:**

**DEEDS CT:** 12

