DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE EDS00-0545-00(017), P.I. No. 221900, Emanuel County **OFFICE** Consultant Design
SR 4/US 1 from South to North City Limits in Oak Park/New Location

Michael A. Haithcock **DATE** July 29, 2008

FROM Michael A. Haithcock, P.E., Assistant State Consultant Design Engineer

TO Brian Summers, P.E., Project Review Engineer

SUBJECT **Value Engineering Implementation Revision Request**

The Office of Consultant Design would like to request a Value Engineering (VE) Study Implementation Revision on project EDS00-0545-00(017). This project is included in the same environmental document with EDS00-0545-00(014) and EDS00-0545-00(018) that was approved on February 12, 2007 and the VE Study was conducted on all three projects at once. The VE Implementation letter was sent out by your office on April 22, 2008.

We request to reverse the Alternative II-1B. This alternative as written in the VE Study would eliminate the southernmost old US 1 access and allow residents to access it using SW Railroad Avenue which is located approximately 1420 feet north. This elimination of the southern tie-in was estimated to be a total CST and ROW savings of $253,654 in the VE Report.

After making a field visit with the Area Engineer, District Preconstruction Engineer, Assistant District Construction Engineer and others at the PFPR on July 24 it was determined that SW Railroad Avenue would need to be completely reconstructed in order to put the potential amount of traffic on this local street to use it as an access road. It is in very poor condition and only has existing 30 feet of ROW. The last 400' of SW Railroad Avenue would be new construction, as it does not currently extend to the proposed Oak Park Bypass.

The cost of constructing/reconstructing SW Railroad Ave is $342,703. By reversing this implementation and eliminating the construction/reconstruction of SW Railroad Ave and constructing the southernmost tie-in will be an overall savings of $89,049. Please see attached cost savings calculations as derived from the VE Study.

CONCUR: 7/30/08
BRIAN K. SUMMERS PE, PROJECT REVIEW ENG

MAH:DAN
Attachment

APPROVE:
STATE DESIGN POLICY & CHIEF ENGINEER

VALUE ENGINEERING ALTERNATIVE

PROJECT: **EDS-545 (14) (17) (18) US 1/SR 4 WIDENING & BYPASS** ALTERNATIVE NO.: **II-1B**
Georgia Department of Transportation

DESCRIPTION: **ELIMINATE SOUTH SR 86/US 1 CONNECTION** SHEET NO.: **1 of 4**

ORIGINAL DESIGN:

Original design has two turns off old US 1 to get to new US 1. The first route gives access to approximately ten residences that are just north of the beginning project (where the new roadway leaves the existing roadway).

ALTERNATIVE: (Sketch attached)

Do not build the southernmost old US 1 access and allow residents to the north to access it using Railway Avenue.

ADVANTAGES:

- No cost to construct roadway
- No cost for right-of-way
- Residents can travel on a paved road; plans show it as gravel

Existing Road is in terrible shape + will require complete reconstruction.

DISADVANTAGES:

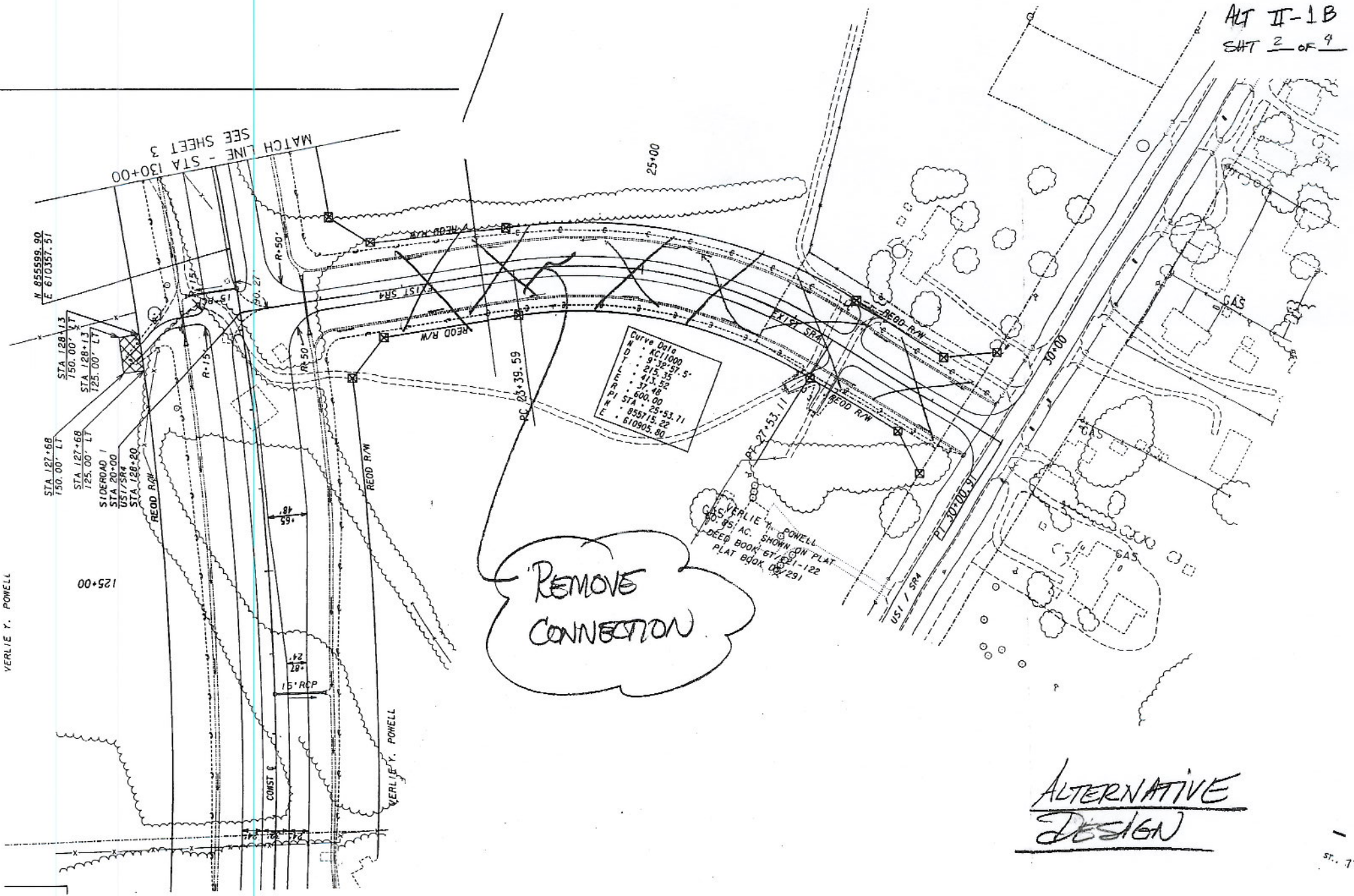
- Residents have to drive a short distance further to gain access to US 1

DISCUSSION:

The new roadway gives the residents direct access to US 1, but they can travel a short distance to Railway Avenue for access to US 1. This alternative eliminates the need for acquiring right-of-way and provides a more logical connection to US 1 via BUS 1.

COST SUMMARY	INITIAL COST	PRESENT WORTH RECURRING COSTS	PRESENT WORTH LIFE-CYCLE COST
ORIGINAL DESIGN	$ 253,654	—	$ 253,654
ALTERNATIVE	$ 0	—	$ 0
SAVINGS (Original minus Alternative)	$ 253,654	—	$ 253,654

ALT II-1B
SHT 2 OF 4



ALTERNATIVE DESIGN

CALCULATIONS

PROJECT: EDS-545(14)(17)(18) US-1/SR-4 WIDENING & BYPASS
Georgia Department of Transportation

ALTERNATIVE NO.: II-1B

SHEET NO.: 3 of 4

ELIMINATION OF ROADWAY

APPROX 1000 LF

ASPHALT ROAD 24' WIDE

$1000\ LF \times 24ft\ WIDE = 24{,}000\ SF \times \frac{SY}{9sf} = 2666.67\ SY$

ROW

$1000\ LF \times 120\ FT = 120{,}000\ sf \times \frac{1\ AC}{43680} = 2.75\ AC$

Cost of Constructing/Reconstructing SW Railroad Ave.:

Approx. 1450 LF

Asphalt Road - 24' wide

$1450\ LF \times 24'\ wide \times \frac{SY}{9sf} = 3867\ SY$

ROW

$400\ LF \times 120' = 48{,}000\ sf \times \frac{1\ AC}{43560} = 1.10\ Ac$

$1050\ LF \times 90' = 94{,}500\ sf \times \frac{1\ AC}{43560} = 2.17\ Ac$

$3.27\ Ac$

COST WORKSHEET

PROJECT: EDS-545(14)(17)(18) US-1/SR-4 WIDENING & BYPASS ALTERNATIVE NO.: II-1B
Georgia Department of Transportation

SHEET NO.: 4 of 4

PROJECT ITEM		~~ORIGINAL~~ PROPOSED ESTIMATE			ORIGINAL ~~PROPOSED~~ ESTIMATE		
ITEM	UNITS	NO. OF UNITS	COST/ UNIT	TOTAL	NO. OF UNITS	COST/ UNIT	TOTAL
PVMT	SY				2666.7	34.36	91628
12" AGG	SY				2666.7	19.30	51467
SUB TOTAL							143095
10% MARKUP							14309
TOTAL							157404
RIGHT OF WAY	AC				2.75	35,000	96250
(INCLUDES MARKUP)							
Cost of Constructing Railroad Ave.							
Pvmt	SY				3867	34.36	132,870
12" AGG	SY				3867	19.30	74,633
subtotal							207,503
10% markup							20,750
TOTAL							228,253
ROW							
	AC				3.27	35,000	114,450
Subtotal							253,654
Markup (%) at							—
W/ MARKUPS TOTAL				0			253,654

2000 - 3450
1450'

Total Cost to Construct/Reconstruct Railroad Ave. = 342,703

Savings of 342,703 - 253,654 = 89,049

PRECONSTRUCTION STATUS REPORT FOR PI:221900-

PROJ ID : 221900-
COUNTY : Emanuel
LENGTH (MI) : 2.20
PROJ NO.: EDS00-0545-00(017)
PROJ MGR: Norwood, David
OFFICE : Consultant Design
CONSULTANT: Consultant Design (DOT contract)
SPONSOR : GDOT
DESIGN FIRM: B & E Jackson Engineers

SR 4/US 1 FM SOUTH TO NORTH CTY LMTS IN OAK PARK/NEW LOC

MPO: Not Urban
TIP #:
MODEL YR :
TYPE WORK: Widening
CONCEPT: ADD 4R(M20/44)
PROG TYPE: Reconstruction/Rehabilitation
BOND PROJ : GRIP FEDERAL

DOT DIST: 2
CONG. DIST: 12
BIKE: E
MEASURE: Y
BRIDGE SUFF:
NEEDS SCORE: 12

MGMT LET DATE : Apr-10
MGMT ROW DATE : Oct-08
SCHED LET DATE : 5/16/2011
WHO LETS?: GDOT Let
LET WITH :

SCHED START	SCHED FINISH	ACTIVITY	ACTUAL START	ACTUAL FINISH	%
		Concept Development	11/9/1991	3/21/2002	100
		Concept Meeting	2/18/1992	2/18/1992	100
		PM Submit Concept Report	4/17/1992	4/17/1992	100
		Receive Preconstruction Concept Approval	1/6/1994	1/6/1994	100
		Management Concept Approval Complete	**3/18/2002**	**3/21/2002**	**100**
		Revise or Re-validate Approved Concept			0
		Value Engineering Study	4/3/2007	4/22/2008	100
		Public Information Open House Held	12/1/1998	12/1/1998	100
		Environmental Approval	**1/15/1996**	**2/12/2007**	**100**
		Pub Hear Held/Comm Resp (EA/FONSI, GEPA)	2/12/2007	2/12/2007	100
	9/12/2008	Mapping	1/26/2003		99
	9/19/2008	Field Surveys/SDE	1/21/2003		100
	6/1/2009	**Preliminary Plans**	**2/9/2003**		38
	1/2/2009	Underground Storage Tanks	3/31/1992		100
8/25/2008	12/5/2008	404 Permit Obtainment			0
		PFPR Inspection	6/23/2008	7/24/2008	100
		R/W Plans Preparation	3/26/2002	6/17/2002	100
8/25/2008	**9/25/2008**	**R/W Plans Final Approval**			0
	8/27/2008	L & D Approval	1/5/1994		100
9/26/2008	8/9/2010	R/W Acquisition			0
2/18/2009	3/3/2009	Stake R/W			0
		Soil Survey	2/11/2004	2/11/2004	100
10/1/2008	**10/29/2010**	**Final Design**			0
2/21/2011	2/22/2011	FFPR Inspection			0
3/8/2011	3/21/2011	Submit FFPR Responses (OES)			0

PROGRAMMED FUNDS

Phase	Approved	Proposed	Cost	Fund	Status	Date Auth
PE	2002	2002	195,479.00	CFTS	AUTHORIZED	8/23/1993
PE	1994	1994	370,000.00	EDS	AUTHORIZED	8/23/1993
PE	2002	2002	55.68	Q05	AUTHORIZED	8/23/1993
ROW	2008	2009	2,091,084.80	RRB	PRECST	
CST	2009	2009	12,782,000.00	RRB	PRECST	

PE Cost Estimate Amt:		Date:
ROW Cost Estimate Amt:	5,066,700.00	Date: 3/12/2007
Utility Cost Estimate Amt:	45,500.00	Date:
Latest CST Cost Estimate Amt:	9,958,000.00	Date: 1/3/2007

STIP AMOUNTS

Phase	Cost	Fund
PE	0.00	EDS
PE	0.00	CFTS
PE	0.00	Q05
ROW	1,667,000.00	RRB
CST	12,782,000.00	RRB

District Comments

10/28/96 PIM 11/13/96 Citizen's meeting 12/1/98 PIM 4/27/00 "C" given NTP 3/21/02 Rev concept apprvd-median= 32' to reduce wetland impacts 1/26/06 PIOH in Lyons (Major widening signs in place)

PDD: BOND. [01R] NEED 404/PAR! 9/29/99. HEL says HOT! 2/16/05.
Bridge: NO BRIDGE REQUIRED
Design: Road Design - Tim Matthews
EIS: FONSI 2-12-07 R1-30-08/OnScheduleROW/11-28-07/Phillips
LGPA: OAK PARK SGN DO UTILITIES 2-13-03|RESCISSION LETTER SENT TO OAK PARK 6-3-05.
Planning: REV PROJ CONCEPT REPORT 7-8-98/COST=$4 595 000|RWU=$1 109 000
Programming: #1 12-02|TEMP SR 1090 & TB-TC|#2 3-08|#3 7-08
ROW: 55 1-31-94: POTENTIAL RELOCATIONS = 3 LEFT/1 RIGHT
Traffic Op: >PLANS RECD FOR PRLMINR S&M 2-13-08!PFPRsent7/01/08 KW/NR
UST: P48-1/16"FP@8';P57-1/8"FP@8.5';P11;26;43;44;49;60-SHN@6'-15'
Utility: (RL) Need 2nd sub. plans from Design 6/19/08.
EMG: 1337M (H85-E/V29); C=M/S/D; REFLY 5603/'99; !PHOTOS TRANS!
Conceptual Design: XFERRED TO OCD APR 2007 - 07-30-2007
Engr Services: DV for substandard median width/DE for substandard curve rad

Prel. Parcel CT: 21
Under Review:
Released:
Total Parcel in ROW System:
Options - Pending:
Condemnations- Pend:
Cond. Filed:
Relocations:
Acquired:
Acquired by: DOT
Acquisition MGR:
R/W Cert Date: