

D.O.T. 66

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE P. I. No. 222520-, Jefferson-Warren Counties **OFFICE** Preconstruction
EDS-545(49)
SR 17 Widening and Reconstruction **DATE** February 13, 2007

FROM *Genetha Rice-Singleton*
Genetha Rice-Singleton, Assistant Director of Preconstruction

TO SEE DISTRIBUTION

SUBJECT APPROVED REVISED PROJECT CONCEPT REPORT

Attached for your files is the approval for subject project.

GRS/cj

Attachment

DISTRIBUTION:

Brian Summers
Harvey Keepler
Ken Thompson
Jamie Simpson
Michael Henry
Keith Golden
Angela Alexander (file copy)
Babs Abubakari
Mike Thomas
BOARD MEMBER

1020

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE: EDS-545(49)
P.I. No. 222520
Jefferson\Warren Counties,
FROM: *HDK/DRP*
Harvey D. Keepler, State Environmental/Location Engineer
TO: Genetha Rice-Singleton, Assistant Director of Preconstruction
OFFICE: Environment/Location
DATE: January 24, 2007
SUBJECT: **Revised Project Concept Report – SR 17 Improvements in Jefferson and Warren Counties**

Attached is the original copy of the revised concept Report for your further handling for approval in accordance with the Plan Development Process (PDP).

This project is part of the Governor's Road Improvement Program (GRIP). In order to meet the Department's current guidelines for GRIP projects, the urban typical section for project EDS-545(49) is proposed to be revised. The urban section is proposed to be extended from the beginning of the project to SR 80 in order to minimize social impacts. SR 17 is part of an official bicycle route called the "Savannah River Run" in the State Bicycle Route Network. The urban typical sections would be revised to include four foot bike lanes at the edges of the travelway for a total of eight feet of additional width. In the rural sections, the GDOT standard GRIP bicycle accommodating shoulders would be utilized.

The revised concept as presented herein is submitted for approval. This project is not shown in the State Transportation Improvement Program (STIP), because the phase(s), PE, ROW, and CST are outside the three (3) year range of the STIP. This project will be added to the STIP when appropriate.

DATE: 1-26-07

Angela S. Alexander
State Transportation Planning Administrator

HDK/DRP/KLP/kp

Attachments

Distribution:

Brian Summers, Project Review Engineer
Keith Golden, State Traffic Safety & Design Engineer
Angela T. Alexander, State Transportation Planning Administrator
Jamie Simpson, State Transportation Financial Management Administrator
Babs Abubakari, State Program Delivery and Consultant Design Engineer
Michael L. Thomas, Tennille District Engineer
Paul Liles, State Bridge & Structural Design Engineer

REVISED PROJECT CONCEPT REPORT
EDS-545(49) JEFFERSON/WARREN COUNTIES
P.I. # 222520

Need and Purpose:

SR 17 is a primary north-south corridor in eastern Georgia. The proposed project EDS-545(49) involves the widening and reconstruction of SR 17 from CR 59 to CR 47 in Jefferson County to SR 296 in Warren. The project will increase the capacity and level of service on SR 17 by widening it from two lanes to four lanes with a 13.6 m (44 foot) divided median. The entire length of the SR 17 is part of the Governor's Road Improvement Program (GRIP). The purpose of the GRIP System of Roadways is to provide multi-lane access to areas of the state that are not served by the interstate system. The Governor's Road Improvement Program (GRIP) as enacted by the Georgia Legislature in the 1980's is an integrated system of developmental highways designed to stimulate growth in the state. The system consists of nineteen major inter-city corridors that effectively link rural Georgia with a multi-lane primary network and the already completed interstate system. The system will interconnect principal urban centers and geographic regions and establish energy efficient links between resources, industries, and markets. The GRIP highways will encourage a positive and stable base for future economic growth. In addition, the system will provide a needed stimulus in areas of Georgia where populations and economic growth have historically lagged.

The SR 17 corridor is one of the GRIP corridors identified and approved for implementation by the Governor and the state legislature. Widening SR 17 will assist in the four-laning of this corridor.

Project Location and Description of the Approved Concept:

Project EDS-545(49) in Jefferson County is proposed to improve SR 17 from CR 59/Quaker Road just north of Wrens to CR 47/Old Thomson Road. Improvements would consist of extending the newly constructed five lane section just north of Wrens EDS-545(5). SR 17 would be widened symmetrically to 4-lanes with a 4.3 m (14 ft) flush median to a point approximately 0.55 m (1.8 ft) north of CR 59. At that point, the widening would begin to shift to the west and taper to 4 lanes with a 13.6 m (44 ft) grass median typical section. In addition, it is proposed that the existing posted speed limit of 70 km/h (45 mph) be extended to the point at which the taper begins. Widening along the west is proposed to avoid wetlands, reduce residential displacements, and stay off of a major gas line that runs along the east from Wrens to Thomson. West side widening would continue to CR 47/Old Thompson Road. The total length of the project is 6.4 km (4 miles).

PDP Classification: Major X Minor

Federal Oversight: Full Oversight (), Exempt (X), State Funded (), or Other ()

Functional Classification: Rural Principal Arterial

U. S. Route Number(s): N/A **State Route Number(s):** 17

Traffic (AADT) as shown in the approved concept:

Initial Design Year:	2001	ADT:	3,150 – 4,750
Final Design Year:	2021	ADT:	4,750 – 7,150

Proposed features to be revised:

- **Project Description:** Due to several changes along the project, the description is to be updated.
- **Typical Section:** The 14-foot flush urban typical section of EDS-545(49) is proposed to be extended to SR 80 to minimize social impacts and to be revised in order to meet the Department's current standards for the accommodation of bike lanes on GRIP projects.
- **Design Speed:** Due to the proposed extension of the 14-foot flush median urban section, the design speed is recommended to be revised.
- **Ending Terminus:** It is recommended that the northern terminus of EDS-545(49) be revised to extend the project.

Describe the revised feature(s) to be approved:

- **Project Description:** Project EDS-545(49) begins in Jefferson County at the intersection of SR 17 and CR 59/Old Quaker Road near mile post 26.8, and would widen and reconstruct SR 17 from just north of Wrens in Jefferson County to the intersection of SR 17 and SR 296 near mile post 0.1 in Warren County. The revised project length would be approximately 4.6 miles.

The symmetrical widening and improvement of SR 17 from 2 to 4 lanes with a 14-foot flush median urban typical section begins at the intersection of SR 17 with CR 59/Old Quaker Road. This project would extend the five lane section just north of Wrens [Project EDS-545(5)] by widening SR 17 symmetrically until just north of SR 80. Just north of SR 80, the typical section would transition to a 4-lane rural section with a 44-foot grassed median. In order to avoid potential hazardous waste sites and longitudinal encroachments, the widening of the alignment would transition to the opposite side of the existing roadway to minimize impacts. The proposed alignment would continue northward, widening to the west of the existing roadway until reaching CR 53/Gene Howard Road. At the intersection of SR 17 and CR 53/Gene Howard Road, the proposed alignment shifts to widen to the east of the existing roadway until it reaches approximately CR 47/Old Thompson Road, where the alignment shifts to return to west side widening. The project would proceed northward and continue to widen SR 17 to the west until approximately SR 296 in Warren County, where the project would end.

- **Typical Section:** The urban typical section will extend to SR 80 and add an additional 4 feet of pavement to the edge of travelway in each direction for a total of eight additional feet of pavement for the accommodation of bike lanes. The rural typical section will utilize the Department's bicycle accommodating shoulders.
- **Design Speed:** It is recommended that a 45 mph design speed be utilized throughout the 14-foot flush median urban typical section portion of the project. The 44-foot grassed median rural typical section portions would remain at 65 mph.
- **Ending Terminus:** The ending of EDS-545(49) is proposed to be moved northward

to the intersection of SR 17 and SR 296 near mile post 0.14 in Warren County.

Updated traffic data (AADT):

Current Traffic:
Year: 2010 ADT: 6300

Design Traffic:
Year: 2030 ADT: 9900

Programmed/Schedule:

P.E.: 2002

R/W: 2010

Construction: LR

Estimated Cost:

Approved

Proposed

Construction (including E&C):

\$ 14,167,000

\$ 19,262,000

Right-of-way:

\$ 3,633,700

\$ 3,633,700

Utilities (Reimbursable):

Not available

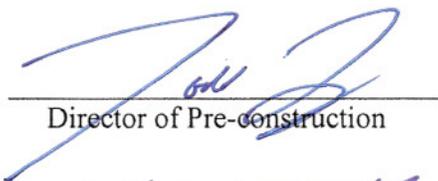
\$ 806,000¹

Is the project located in a Non-attainment area? Yes No

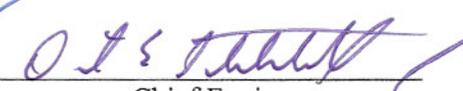
Recommendations:

- It is recommended that any necessary design variances/exceptions be requested during the design phase to allow changing the posted speed limit for the 14-foot flush median typical section portion of the project to 45 mph. This section ranges from CR 59/Old Quaker Road to just north of SR 80 and is currently posted at 55 mph.
- It is recommended that the proposed revisions to the concept be approved for implementation.

Concur:


Director of Pre-construction

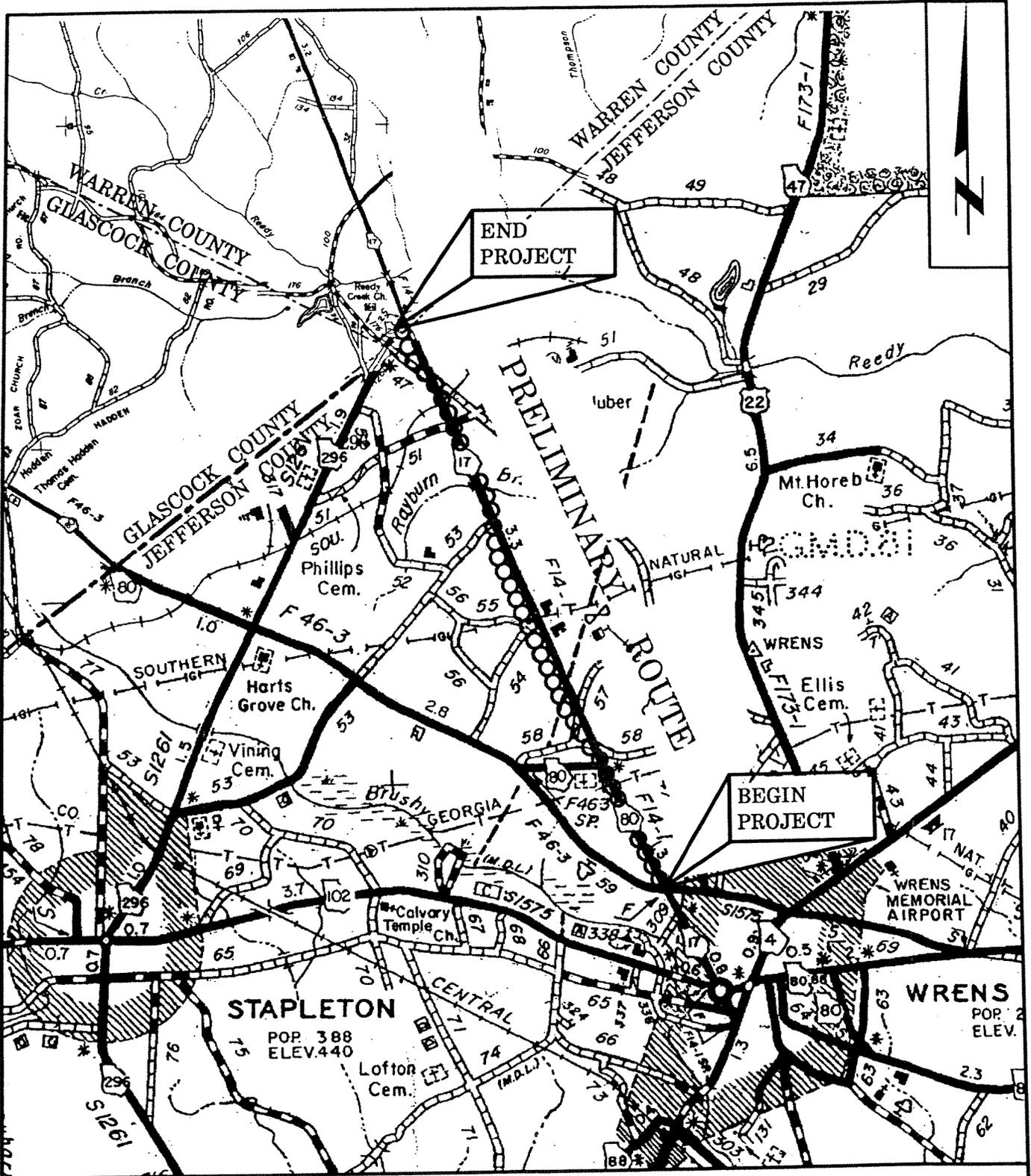
Approve:


Chief Engineer

HDK/DRP/KLP/kp

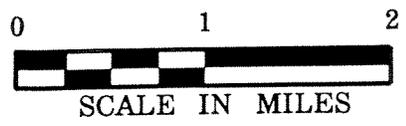
Attachment: Sketch Map
Cost Estimates
Typical Sections

1. Estimated non-reimbursable utility costs are \$ 298,476.



END PROJECT

BEGIN PROJECT



LOCATION

STRIPMAP
EDS-545(49)
SR 17 IMPROVEMENTS
JEFFERSON & WARREN CO.
P.I.# 222520

PRELIMINARY COST ESTIMATE

Office of Environment/Location

January 23, 2007

County(s)

PI Number Project Number

Project Name Project Length Miles

Project Description

Existing Roadway

Comments

TRAFFIC:

Current Design Year Daily Volume (AADT)

Future Design Year Daily Volume (AADT)

Concept Estimate Feasibility Estimate

Typical Section(s) Used in Estimate

Typical Section Length

<input type="text" value="Urban Widening: 2 To 4-Lanes with 14 ft Flush Median"/>	<input type="text" value="1"/> Miles
<input type="text" value="Rural New Location: 4-Lanes with 44 ft Divided Median"/>	<input type="text" value="3.5"/> Miles
<input type="text"/>	<input type="text"/> Miles
<input type="text"/>	<input type="text"/> Miles
<input type="text"/>	<input type="text"/> Miles
<input type="text"/>	<input type="text"/> Miles

Prepared By

Typical Section

Urban Widening: 2 To 4-Lanes with 14 ft Flush Median

Typical Section Length Miles

Right-of-Way Width Feet

GRADING AND DRAINAGE

- 1. EARTHWORK
 - a. Unclassified Excavation Soil
 - b. Unclassified Excavation Rock
 - c. Borrow Excavation
- 2. MINOR DRAINAGE

QUANTITY	UNIT COST	TOTAL
500 CY	6.98	3,000
100 CY	15.00	2,000
8,000 CY	6.62	53,000
1 MI	353,479	353,000
GRADING AND DRAINAGE SUBTOTAL		\$411,000

BASE AND PAVING

- 1. GRADED AGGREGATE BASE
- 2. ASPHALT PAVING
 - a. Asph Conc 9.5 mm Superpave
 - b. Asph Conc 19 mm Superpave
 - c. Asph Conc 25 mm Superpave
 - d. Bituminous Tack Coat
- 3. CONCRETE PAVING
 - a. Curb and Gutter
 - b. Miscellaneous
- 4. OTHER PAVING

THICKNESS AND SPREAD RATE	QUANTITY	UNIT COST	TOTAL
10"	15,488 TN	25.00	387,000
1 1/2" (165 LB/SY)	3,001 TN	88.00	264,000
3" (330 LB/SY)	3,678 TN	80.00	294,000
4" (440 LB/SY)	4,905 TN	90.58	444,000
	2,600 GL	2.20	6,000
	11,216 LF	31.57	354,000
	0 MI	52,177	0
BASE AND PAVING SUBTOTAL			\$1,924,000

LUMP ITEMS

- 1. TRAFFIC CONTROL
- 2. CLEARING AND GRUBBING
- 3. LANDSCAPING
- 4. EROSION CONTROL
- 5. SIGNING/STRIPING
- 6. OTHER

QUANTITY	UNIT COST	TOTAL
1 MI	105,130	105,000
15 AC	6,000	87,000
1 MI	12,345	12,000
1 MI	58,594	59,000
1 MI	51,723	52,000
1 MI	120,592	121,000
LUMP ITEM SUBTOTAL		\$436,000

MISCELLANEOUS

- 1. GUARDRAIL
 - a. GUARDRAIL ANCHORS
- 2. DETOURS

QUANTITY	UNIT COST	TOTAL
3,200 LF	10.10	32,000
10 EA	448.14	4,000
MI	300,000.00	0
MISCELLANEOUS SUBTOTAL		\$36,000

SPECIAL FEATURES

4"sidewalk 5'x5280' X \$56/foot

\$ 1,478,400

Typical Section

Rural New Location: 4-Lanes with 44 ft Divided Median

Typical Section Length Miles

Right-of-Way Width Feet

GRADING AND DRAINAGE

- 1. EARTHWORK
 - a. Unclassified Excavation Soil
 - b. Unclassified Excavation Rock
 - c. Borrow Excavation
- 2. MINOR DRAINAGE

QUANTITY	UNIT COST	TOTAL
555,000 CY	6.98	3,874,000
3000 CY	15.00	45,000
	6.62	
	101,000	0
GRADING AND DRAINAGE SUBTOTAL		\$3,919,000

BASE AND PAVING

- 1. GRADED AGGREGATE BASE
- 2. ASPHALT PAVING
 - a. Asph Conc 9.5 mm Superpave
 - b. Asph Conc 19 mm Superpave
 - c. Asph Conc 25 mm Superpave
 - d. Bituminous Tack Coat
- 3. CONCRETE PAVING
 - a. Curb and Gutter
 - b. Miscellaneous
- 4. OTHER PAVING

THICKNESS AND SPREAD RATE	QUANTITY	UNIT COST	TOTAL
10"	77,368 TN	25.00	1,934,000
1 1/2" (165 LB/SY)	11,011 TN	88.00	969,000
3" (330 LB/SY)	22,022 TN	80.00	1,762,000
4" (440 LB/SY)	23,490 TN	90.58	2,128,000
	12,686 GL	2.20	28,000
	0 LF	31.57	0
		MI	42,000
			682,000
BASE AND PAVING SUBTOTAL			\$7,503,000

LUMP ITEMS

- 1. TRAFFIC CONTROL
- 2. CLEARING AND GRUBBING
- 3. LANDSCAPING
- 4. EROSION CONTROL
- 5. SIGNING/STRIPING
- 6. OTHER

QUANTITY	UNIT COST	TOTAL
3.5 MI	41,000	144,000
106 AC	6,000	636,000
3.5 MI	80,002	280,000
3.5 MI	97,000	340,000
3.5 MI	19,321	68,000
3.5 MI	96,000	336,000
LUMP ITEM SUBTOTAL		\$1,804,000

ESTIMATE SUMMARY

Typical Section	Section Cost (per mile)
1. Urban Widening: 2 To 4-Lanes with 14 ft Flush Median	\$2,771,000
2. Rural New Location: 4-Lanes with 44 ft Divided Median	\$3,779,000

PROJECT COST	
A. MAJOR STRUCTURES	<input type="text"/>
B. GRADING AND DRAINAGE	<input type="text" value="\$4,330,000"/>
C. BASE AND PAVING	<input type="text" value="\$9,427,000"/>
D. LUMP ITEMS	<input type="text" value="\$2,240,000"/>
E. MISCELLANEOUS	<input type="text" value="\$36,000"/>
F. SPECIAL FEATURES	<input type="text" value="\$1,478,000"/>
SUBTOTAL CONSTRUCTION COST	<input type="text" value="\$17,511,000"/>
E. & C. (10%)	<input type="text" value="\$1,751,000"/>
INFLATION yrs @ % per yr	<input type="text"/>
GRAND TOTAL CONSTRUCTION COST	<input type="text" value="\$19,262,000"/>

Department of Transportation State of Georgia

Interdepartmental Correspondence

FILE	R/W Cost Estimate	OFFICE	Atlanta
		DATE	July 13, 2006
FROM	Phil Copeland, Right of Way Administrator		
TO	To: Babs Abubakari, P.E. State Consultant Design Engineer		
	Attention : Yun Tang		

SUBJECT Preliminary Right of Way Cost Estimate
 Project: EDS-545(49)Jefferson / Warren
 P.I. No.: 222520
 Description: SR 17 from CR 59 to SR 296

As per your request, attached is a copy of the approved Preliminary Right of Way Cost Estimates on the above referenced projects.

Please note the area of Required R/W was furnished with your request.
Please include total Required R/W areas for the entire corridor in all future requests.

If you have any questions, please contact Jerry Milligan at the West Annex Right of Way Office at (770) 986-1541.

PC:GAM

Attachments

c: Brian Summers, Engineering Services
 Wilhelmina Mueller, R/W
 Windy Bickers, Financial Management
 File

Preliminary Right of Way Cost Estimate

Date: July 12, 2006
 Project: EDS-545(49), Jefferson/Warren
 Existing/Required R/W: Varies/Varies
 Project Termini: SR 17 from CR 59 to SR 296
 Project Description: 5 Lanes/4 Lane with Median

P.L Number: 222520
 No. Parcels: +/- 50

Land:

R/W	Small Tract Residential				
	13	Ac.	@ \$ 7,500 / Ac.	= \$	97,500
R/W	Medium Tract Residential				
	30	Ac.	@ \$ 3,000 / Ac.	= \$	90,000
R/W	Large Wooded Tracts				
	43	Ac.	@ \$ 2,500 / Ac.	= \$	107,500

Improvements:

Signs, fencing and site improvements = \$ 574,100
4 Houses, 2 Mobile Home, 2 Billboards

Relocation:

6 Residential @ \$20,000 = \$ 120,000 = \$ 120,000

Damages:

Proximity - 10 Parcels = \$ 57,500 = \$ 57,500

Net Cost

\$ 1,046,600

Scheduling Contingency 55 %
 Adm/Court Cost 60 %
 Inflation Factor 40 %

\$ 575,600
 \$ 973,300
\$ 1,038,200
 \$ 3,633,700 Rd.

Total Cost

\$ 3,633,700

Prepared By :

Dean Williamson
 Dean Williamson

Approved :

Herold R. Miller
 GDOT R/W

Jefferson County Land Sales

<u>Highest & Best Use</u>	<u>Size (acres)</u>	<u>Value/sf./ac.</u>	<u>Sales price</u>
Small Tract Residential	1.00	\$ 7,500	\$ 7,500
	1.00	\$ 6,000	\$ 6,000
	2.06	\$ 4,854	\$ 10,000
Medium Residential	17.69	\$ 3,000	\$ 53,100
	53.25	\$ 2,460	\$ 131,000
	58.63	\$ 2,700	\$ 158,400
Large Wooded Tracts	97.00	\$ 2,350	\$ 228,000
	126.51	\$ 2,500	\$ 316,300
	135.00	\$ 1,501	\$ 202,700

PROJECT #		COUNTY		WARREN COUNTY		P.I. NUMBER		LAYOUT DATE	
EDS-545 (49)		Warren		SR 17 fm Warren County Line to North of SR 296		222520			
REIMBURSABLE QUANTITY	NON-REIMBURSABLE QUANTITY	UNITS	ITEM DESCRIPTION	UNIT PRICE	REIMBURSABLE COST	NON-REIMBURSABLE COST			
			POWER	\$\$\$\$\$	\$0.00	\$0.00			
			JEFFERSON ENERGY COOPERATIVE		\$0.00	\$0.00			
			Jefferson Energy has facilities located within the existing Right of Way throughout this portion of the project that should not be eligible for reimbursement. Information provided by Kenny Johnson with Jefferson Energy.		\$0.00	\$0.00			
			WATER / SEWER		\$0.00	\$0.00			
			NONE		\$0.00	\$0.00			
			There are no water or sewer facilities located within this portion of the project.		\$0.00	\$0.00			
					\$0.00	\$0.00			
					\$0.00	\$0.00			
			TELEPHONE		\$0.00	\$0.00			
			BELLSOUTH		\$0.00	\$0.00			
			BellSouth has aerial and underground facilities located within the existing Right of Way throughout the project limits that should not be eligible for reimbursement. Information for this estimate was provided by Warren Geigey with BellSouth.		\$0.00	\$0.00			
					\$0.00	\$0.00			
					\$0.00	\$0.00			
			GAS		\$0.00	\$0.00			
			*CITY OF THOMSON		\$31.50	\$0.00	\$37,800.00		
			Relocate Gas Main - 6" HPS		\$0.00	\$0.00	\$0.00		
0		1200	Lin Ft		\$0.00	\$0.00	\$0.00		
			Information for this estimate was provided by Chuck Cason with the City of Thomson. Also see estimate for G.D.O.T. Project # EDS-545 (43) McDuffie - Warren Counties, P.I. # 222590.		\$0.00	\$0.00	\$0.00		
					\$0.00	\$0.00	\$0.00		
TOTAL ESTIMATE UTILITY COSTS FOR WARREN COUNTY PORTION OF PROJECT					\$0.00	\$0.00	\$37,800.00		
TOTAL ESTIMATED UTILITY COST FOR PROJECT					\$806,000.00	\$0.00	\$298,476.00		

Unit Prices are based on former "Force Account Agreements" and the Department of Transportation's "Mean Item Index"

The above information is an estimate and is subject to change as plans are developed and prior rights research has been performed.

Also see estimate for G.D.O.T. Project # EDS-545 (43) McDuffie - Warren County, P.I. # 222590