ORIGINAL TO GENERAL FILES

D.O.T. 66

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE P. I. No. 421910, Coffee-Telfair Counties EDS-441(27) Us 441 Widening

OFFICE Preconstruction

DATE December 7, 2005

FROM Margaret B. Pirkle, P.E., Assistant Director of Preconstruction

TO SEE DISTRIBUTION

SUBJECT APPROVED REVISED PROJECT CONCEPT REPORT

Attached for your files is the approval for subject project.

MBP/cj

Attachment

DISTRIBUTION:

Brian Summers
Harvey Keepler
Ken Thompson
Jamie Simpson
Michael Henry
Keith Golden
Joe Palladi (file copy)
Babs Abubakari
Joe Sheffield
BOARD MEMBER

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE: EDS-441(27)
P.I. No. 421910
Coffee & Telfair Counties

OFFICE: Environment/Location

DATE: November 28, 2005

HDK/DRP

FROM: Harvey D. Keepler, State Environmental/Location Engineer

TO: Meg Pirkle, Assistant Director of Preconstruction

SUBJECT: **Revised Project Concept Report** – Widening of US 441/SR 31 from north of Broxton city limits in Coffee County to just north of the Ocmulgee River Bridge in Telfair County

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

In order to minimize environmental impacts, it is recommended to revise the alignment, the typical section, and the corresponding design speed of EDS-441(27) in Coffee County. The northern project terminus is also recommended for revision in order to include the three existing bridges over the Ocmulgee River. Due to multiple changes in the project alignment, it is also recommended to update the project description.

The revised concept as presented herein and submitted for approval is not currently listed in the State Transportation Improvement Program (STIP), but is consistent with that which is included in the Department's Construction Work Program (CWP).

DATE: 12/1/05

State Transportation Planning Administrator

HDK/DRP/gtw

Attachments

Distribution:
Brian Summers, Project Review Engineer
Keith Golden, State Traffic Safety & Design Engineer
Joe Palladi, State Transportation Planning Administrator
Jamie Simpson, State Transportation Financial Management Administrator
Babs Abubakari, State Program Delivery & Consultant Design Engineer
Joe Sheffield, District 4 Engineer
Gary Priester, District 5 Engineer
Paul Liles, State Bridge & Structural Design Engineer

REVISED PROJECT CONCEPT REPORT
EDS-441(27) – COFFEE & TELFAIR COUNTIES
P.I. # 421910

Need and Purpose:
The US 441/SR 31 Improvements are part of the Governors Road Improvement Program (G.R.I.P.) and involves the multi-laning of this primary north-south corridor in South Georgia, serving as a catalyst for the development of this region. The improvements will aid in the economic development of sparsely populated rural areas and small towns along this route. Traffic carrying capacity will be increased; safety and operational characteristics along this segment will be improved.

Project Location:
Beginning approximately at mile post 18.3 in Coffee County, project EDS-441(27), would widen and reconstruct US 441/SR 31 from approximately 1.1 miles north of the Broxton city limits to just north of the Ocmulgee River in Telfair County, for a project length of approximately 11.5 miles. The revised project would end near mile post 1.3 in Telfair County.

Description of the approved concept:
The proposed concept is at a 55 MPH desirable speed which meets 65 MPH minimum; this will allow a posted speed limit of 65 MPH. It was revised based upon the latest environmental studies.

The concept would begin approximately one mile north of the Broxton City limits. The concept would construct four 12-foot lanes and a 44-foot grassed median, while continuing northward on a skew crossing the existing roadway to the east side and continue approximately 2,100 feet north of CR 336/Bro Smith Road. This concept would avoid impacting a cemetery along the east side of the existing roadway just south of CR 342/Gasman Road and avoid a historical resource on the east side just north of CR 342/Gasman Road. The concept would impact a historical resource along the west side resulting in a programmatic 4F. The alignment would continue northward holding the existing right of way widening to the east to approximately 1,100 feet north of CR 118/Lindsey Merrit Road. This concept would avoid impacting a historical resource along the west side of the roadway at CR 336/Bro Smith Road. The median would reduce to a 20-foot raised median in an urban section adding two 12-foot lanes widening from the existing edge of pavement on the west side. It would continue approximately 800 feet north of CR 124/Ernest Pridgen Road. This concept would avoid impacting a community center located along the west side of the existing roadway near CR 124/Ernest Pridgen Road and minimize impacts to a church located along the east side of the existing roadway just north of CR 333/Pridgen Church Road. The median would widen to a 44-foot grassed median while constructing four 12-foot lanes towards the east side. It would continue to just south of CR 498/Sapps Sill Road. This concept would minimize impacts to wetlands. The concept would shift to the west side holding the existing right of way on the east side and continue northward to approximately 1,850 feet north of SR 107 east. This concept would minimize impacts to wetlands and reduce displacements. The concept would shift to the east side and continue adding a 44-foot grassed median and two 12 foot lanes of pavement to a point just north of Mill Creek bridge. The existing bridge at Mill Creek will be replaced under project BRN 023-2(7) at an estimated cost, including inflation and E & C, of $2,001,000. SR 107 located just north of Mill Creek Bridge will be relocated to provide an intersection skewed nearer to 90°.

PDP Classification: Major ___X___ Minor _____

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

Functional Classification: Rural Arterial

U.S. Route Number(s): 441 **State Route Number(s):** 31

Traffic (AADT) as shown in the approved concept:

Initial Design Year:	1997	Daily Volume:	5,700
Final Design Year:	2017	Daily Volume:	8,900

Proposed features to be revised:

- **Project Description:** Due to several changes along the project, it is recommended that the project description be updated.
- **Alignment Change:** In order to avoid impacting protected cultural resources, a bypass to the west of Pridgen is proposed
- **Typical Section:** In order to comply with the Department's policy for G.R.I.P. corridors, the typical section is recommended to be revised for EDS-441(27).
- **Design Speed:** In order to accommodate current Department guidelines for G.R.I.P. projects, the design speed is recommended to be revised to 65 mph.
- **Project Termini:** The northern terminus for this project is proposed to be changed. The Ocmulgee River Bridges are to be included in this project unit.

Describe the revised feature(s) to be approved:

- **Project Description:** Project EDS-441(27), a bike corridor, would begin approximately at mile post 18.3 in Coffee County, about 1.1 miles north of the Broxton city limits. The project would begin at the intersection of US 441/SR 31 and CR 342/Solomon Road (formerly Gasman Road). The concept would construct four 12-foot lanes with a 44-foot grassed median on 250 feet of right-of-way. Continuing northward, the alignment would shift west at CR 342/Solomon Road, while holding the eastern right-of-way to avoid impacting the Reedy Branch Baptist Church cemetery. The alignment crosses US 441/SR 31 approximately 1,100 feet north of the intersection of US 441/SR 31 and CR 342/Solomon Road, where the alignment widens to the east. Beginning nearly 500 feet north of CR 338/Cecil Shrouder Road, the right-of-way is held to the west in order to minimize displacements and avoid impacts to a historic resource located on the west side of the existing roadway approximately 400 feet from the intersection of US 441/SR 31 and CR 336/Todd Road. The alignment continues northward widening to the east while holding the western right-of-way until nearly 200 feet north of CR 118/Lindsey Merrit Road where the road turns westward onto new location to begin the Pridgen bypass. The Pridgen bypass passes to the west of Pridgen, avoiding impacts to two historic resources, a park, and a cemetery located along CR 124 and US 441/SR 31. The alignment then shifts eastward, crossing CR 124/Ernest Pridgen Road at grade, approximately 1,800 west of the existing intersection of CR 124/Ernest Pridgen Road and US 441/SR 31. Roughly half of a mile north of the existing intersection of US 441/SR 31 and CR 174/Old Relie Road, the proposal ties back into US 441/SR 31. As the alignment returns to the existing US 441/SR 31 corridor, the alignment shifts east while holding the right-of-way to the west. The alignment then continues northward widening to the east, minimizing impacts to wetlands, and realigning CR 323/Farbow Road and CR 122/Will Smith Road. About 900 feet north of CR 122/Will Smith Road, the proposed alignment crosses the existing roadway. The alignment then widens to the

west and holds the eastern right-of-way to avoid the historic Bush Farm Complex west of US 441/SR 31. Approximately half a mile north of SR 107, the proposed roadway shifts to hold the west edge-of-pavement where two new northbound lanes would be constructed to the east and parallel to the existing roadway. The proposed alignment follows the existing west edge of pavement as it approaches the Mill Creek Bridge. The proposed eastern (northbound) lanes would line up with the newly constructed Mill Creek Bridge [project BRN-023-2(10)] and a new bridge would be constructed parallel to the Mill Creek Bridge for the southbound lanes. The new parallel bridge would be built in the location of the earlier Mill Creek Bridge, which was removed as part of project BRN-023-2(10). North of Mill Creek, the alignment widens east while holding the existing west edge-of-pavement, constructing three new parallel bridges to the east of the two existing Ocmulgee River Overflow bridges and the Ocmulgee River Bridge, crossing the Coffee/Telfair county line. Project EDS-441(27) ends at approximately 2,500 feet north of the Ocmulgee River Bridge in Telfair County, near mile post 1.3.

- **Alignment Change:** Approximately 200 feet north of CR 118/Lindsey Merrit Road, where the road turns westward onto new location to bypass Pridgen. The bypass of Pridgen passes to the west of Pridgen, avoiding impacts to two historic resources, a park, and a cemetery located along CR 124 and US 441/SR 31. The alignment then turns eastward, crossing CR 124/Ernest Pridgen Road at grade, approximately 1,800 west of the existing intersection of CR 124/Ernest Pridgen Road and US 441/SR 31. Roughly half of a mile north of the existing intersection of US 441/SR 31 and CR 174/Old Relie Road, the proposal ties back into US 441/SR 31. This bypass would allow the employment of a typical section which meets current design standards for 65 mph.
- **Typical Section:** It is proposed to utilize the four 12-foot lane, 44-foot depressed median rural typical section throughout this project.
- **Design Speed:** It is proposed to revise the design speed to 65 mph.
- **Project Termini:** It is proposed to revise the southern terminus to approximately mile post 18.3 at CR 342/Solomon Road in Coffee County. This terminus corresponds to the recommended northern terminus of EDS-441(35). Additionally, District 4 has requested for the northern terminus of project EDS-441(27) to be revised in order to include the bridges over the Ocmulgee River in this project. It is recommended that the northern terminus be moved northward to approximately mile post 1.3 in Telfair County, approximately 2,500 feet north of the Ocmulgee River Bridge.

Updated traffic data:

Current Traffic:		Design Traffic:	
Year: 2010	AADT: 2,750 – 4,150	Year: 2030	AADT: 4,500 – 7,300

Estimated Cost:	**Proposed**	**Approved**
Construction (incl. E&C + infl.)	$36,284,000.00	$20,757,000.00
Right-of-way	$ 2,145,500.00	$ 2,641,000.00
Utilities	not available	$ 21,500.00

Is the project located in a Non-attainment area? _____Yes ____X___No

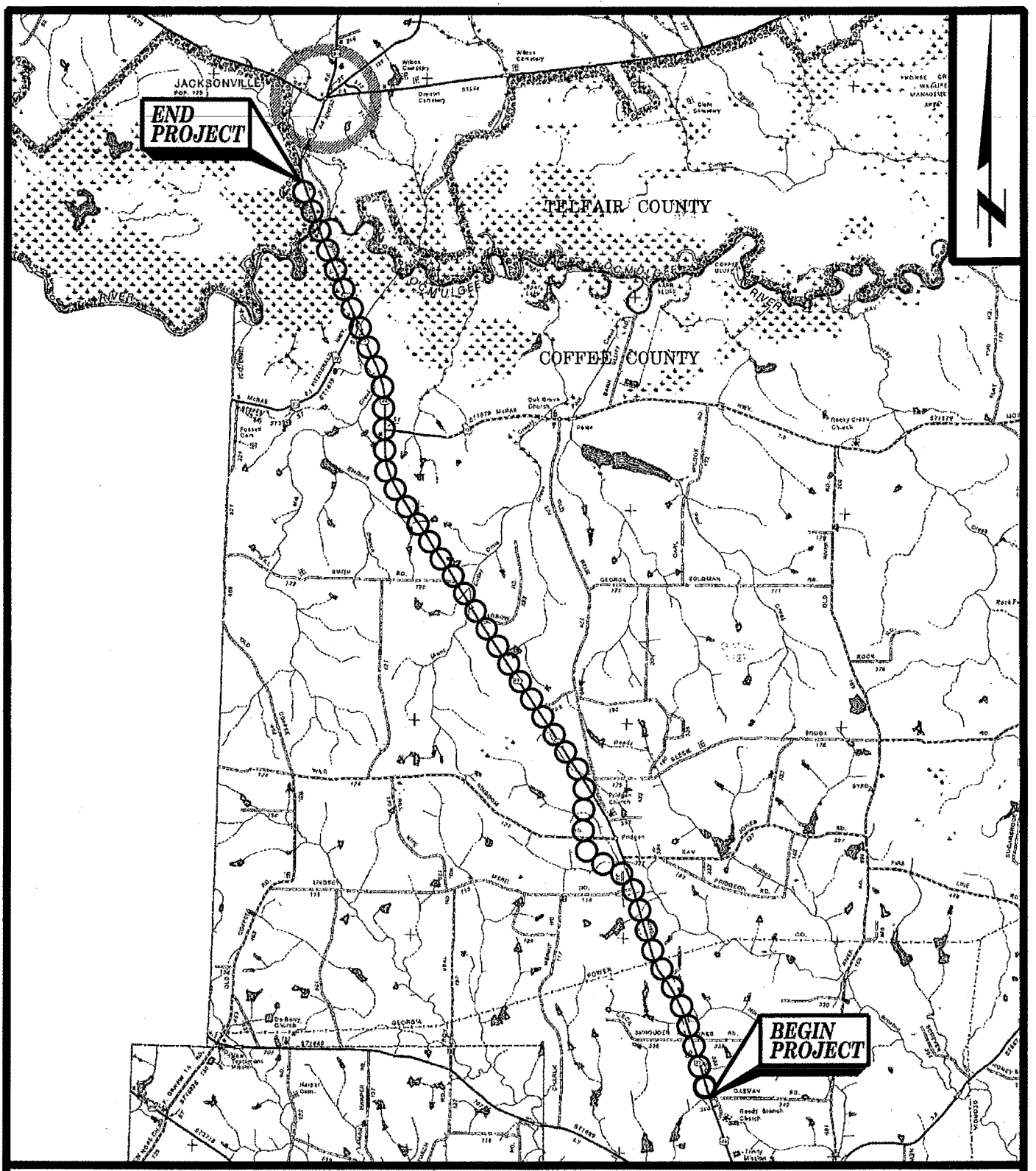
Recommendation: It is recommended that the proposed revision to the concept be approved for implementation.

Concur: _____
Director of Pre-Construction

Approve: _____
Chief Engineer

HDK/KET/DRP/gtw

Attachments: Sketch Map
Cost Estimates
Typical Sections



0 1.5 3

SCALE IN MILES

LOCATION

STRIPMAP

EDS-441(27)
IMPROVEMENTS TO US 441/SR 31
COFFFEE /TELFAIR COUNTIES
P.I.# 522540

SOURCE: GENERAL HIGHWAY MAP, COFFEE /TELFAIR CO., GEORGIA
PREPARED BY THE GEORGIA DEPARTMENT OF TRANSPORTATION, 1996, 1993

090805

CONCEPT COST ESTIMATE

Office of Environment/Location

November 22, 2005 11:15 AM

County(s) Coffee / Telfair

PI Number 421910 **Project Number** EDS441(27)

Project Name US 441/SR 31 IMPROVEMENTS **Project Length** 11.5 **Miles**

Project Description

GRIP PROJECT TO WIDEN & IMPROVE FROM NORTH OF BROXTON IN COFFEE COUNTY TO 2500 FT NORTH OF THE OCMULGEE RIVER BRIDGE IN TELFAIR COUNTY

Existing Roadway

12 FOOT LANES EACH DIRECTION WITH RURAL SHOULDERS

Comments

TRAFFIC:

Current Design Year	2010	**Daily Volume (AADT)**	4,450
Future Design Year	2030	**Daily Volume (AADT)**	7,300

[X] **Concept Estimate** [ ] **Feasibility Estimate**

Typical Section(s) Used in Estimate	Typical Section Length
Rural New Location: 4-Lanes with 44 ft Divided Median	11.50 **Miles**
Rural New Location: 2-Lanes with 24 ft Pavement	0.20 **Miles**
	Miles
	Miles
	Miles
	Miles

Prepared By KENNETH FRANKS

MAJOR STRUCTURES

Note! All distances are in feet

Bridges: Stream Crossings & Grade Separations

NO	LOCATION	QTY	CROSSING TYPE	WIDTH	LENGTH	UNIT COST	TOTAL
1	MILL CREEK BRIDGE	1	Stream-New	41.50	191.0	54.00	428,000
2	OCMULGEE OVERFLOW 1	1	Stream-New	41.50	520.0	54.00	1,165,000
3	OCMULGEE OVERFLOW 2	1	Stream-New	41.50	320.0	54.00	717,000
4	OCMULGEE RIVER BRIDGE	1	Stream-New	41.50	1,240.0	54.00	2,779,000
5							
6							
7							
8							
9							
10							
11							
12							

Bridge Culverts

NO	LOCATION	TYPE / W x H / FILL	LENGTH	UNIT COST	TOTAL
1	STREAM	Triple / 8 x 5 / 10	225.0	1,191.77	268,000
2					
3					
4					
5					
6					
7					
8					

Walls

NO	LOCATION	TYPE	HEIGHT	LENGTH	UNIT COST	TOTAL
1						
2						
3						
4						
5						
6						

MAJOR STRUCTURES SUBTOTAL $ 5,357,000

Typical Section

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

Typical Section Length 11.50 **Miles** **Right-of-Way Width** 250 **Feet**

GRADING AND DRAINAGE

	QUANTITY		UNIT COST	TOTAL
1. EARTHWORK				
a. Unclassified Excavation Soil	642,500	CY	2.18	1,401,000
b. Unclassified Excavation Rock		CY		
c. Borrow Excavation	64,250	CY	5.90	379,000
2. MINOR DRAINAGE	11.50	MI	82,114	944,000
GRADING AND DRAINAGE SUBTOTAL				**$2,724,000**

BASE AND PAVING

	THICKNESS and SPREAD RATE	QUANTITY		UNIT COST	TOTAL
1. GRADED AGGREGATE BASE	10"	248,913	TN	15.25	3,796,000
2. ASPHALT PAVING					
a. Asph Conc 9.5 mm Superpave	1 1/2" (165 LB/SY)	36,179	TN	43.87	1,587,000
b. Asph Conc 19 mm Superpave	3" (330 LB/SY)	72,999	TN	42.08	3,072,000
c. Asph Conc 25 mm Superpave	4" (440 LB/SY)	90,042	TN	39.47	3,554,000
d. Bituminous Tack Coat		52,992	GL	1.03	55,000
3. CONCRETE PAVING					
a. Curb and Gutter			LF		
b. Miscellaneous		11.50	MI	59,170	680,000
4. OTHER PAVING					1,274,000
BASE AND PAVING SUBTOTAL					**$14,018,000**

LUMP ITEMS

	QUANTITY		UNIT COST	TOTAL
1. TRAFFIC CONTROL	11.50	MI	41,000	472,000
2. CLEARING AND GRUBBING	348.48	AC	6,000	2,091,000
3. EROSION CONTROL	11.50	MI	167,267	1,924,000
4. SIGNING & MARKING	11.50	MI	24,305	280,000
5. MISCELLANEOUS	11.50	MI	112,128	1,289,000
LUMP ITEM SUBTOTAL				**$6,056,000**

MISCELLANEOUS PROJECT ITEMS

	QUANTITY		UNIT COST	TOTAL
1. GUARDRAIL	9,000	LF	10.37	93,000
2. GUARDRAIL ANCHORS	35	EA	432.93	15,000
3. DETOURS	3.00	MI	354,098	1,062,000
4. SPECIAL FEATURES				
MISCELLANEOUS SUBTOTAL				**$1,170,000**

Typical Section

Rural New Location: 2-Lanes with 24 ft Pavement

Typical Section Length 0.20 **Miles** **Right-of-Way Width** 50 **Feet**

GRADING AND DRAINAGE

	QUANTITY		UNIT COST	TOTAL
1. EARTHWORK				
a. Unclassified Excavation Soil		CY		
b. Unclassified Excavation Rock		CY		
c. Borrow Excavation	22,638	CY	5.90	134,000
2. MINOR DRAINAGE	0.20	MI	26,069	300,000
GRADING AND DRAINAGE SUBTOTAL				**$434,000**

BASE AND PAVING

	THICKNESS and SPREAD RATE	QUANTITY		UNIT COST	TOTAL
1. GRADED AGGREGATE BASE	10"	2,196	TN	15.25	33,000
2. ASPHALT PAVING					
a. Asph Conc 9.5 mm Superpave	1 1/2" (165 LB/SY)	358	TN	43.87	16,000
b. Asph Conc 19 mm Superpave	3" (330 LB/SY)	722	TN	42.08	30,000
c. Asph Conc 25 mm Superpave	4" (440 LB/SY)	637	TN	39.47	25,000
d. Bituminous Tack Coat		457	GL	1.03	
3. CONCRETE PAVING					
a. Curb and Gutter			LF		
b. Miscellaneous		0.20	MI	22,322	4,000
4. OTHER PAVING					11,000
BASE AND PAVING SUBTOTAL					**$119,000**

LUMP ITEMS

	QUANTITY		UNIT COST	TOTAL
1. TRAFFIC CONTROL	0.20	MI	10,696	2,000
2. CLEARING AND GRUBBING	1.21	AC	6,000	7,000
3. EROSION CONTROL	0.20	MI	117,737	24,000
4. SIGNING & MARKING	0.20	MI	8,801	2,000
5. MISCELLANEOUS	0.20	MI	29,251	6,000
LUMP ITEM SUBTOTAL				**$41,000**

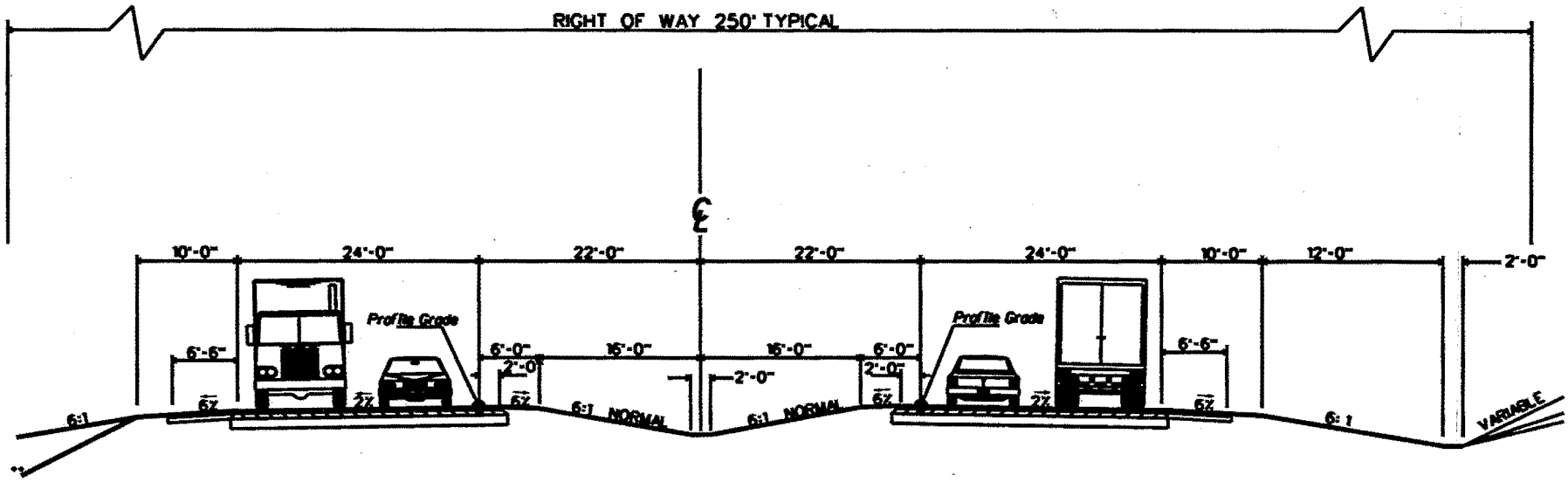
ESTIMATE SUMMARY

TYPICAL SECTION	COST (per mile)
1. Rural New Location: 4-Lanes with 44 ft Divided Median	$ 1,982,000
2. Rural New Location: 2-Lanes with 24 ft Pavement	$ 2,970,000

PROJECT COST

A. MAJOR STRUCTURES	**$**	**5,357,000**
B. GRADING AND DRAINAGE	**$**	**3,158,000**
C. BASE AND PAVING	**$**	**14,137,000**
D. LUMP ITEMS	**$**	**6,097,000**
E. MISCELLANEOUS	**$**	**1,170,000**
SUBTOTAL CONSTRUCTION COST	**$**	**29,919,000**
ENGINEERING & CONTINGENCIES (10%)	**$**	**2,992,000**
INFLATION 2 yr(s) @ 5 % per yr	**$**	**3,373,000**
GRAND TOTAL CONSTRUCTION COST	**$**	**36,284,000**

TYPICAL SECTION
44–FOOT DEPRESSED GRASS MEDIAN RURAL SECTION
65 MPH SPEED DESIGN



** Guardrail Required when steeper than 6:1
15'-6" shoulder with guardrail

US 441 IMPROVEMENTS
EDS–441 (27) COFFEE CO. & TELFAIR CO.

FROM THE INTERSECTION AT US 441/SR 31 & CR 342/SOLOMON ROAD IN COFFEE CO.
TO 2500 FT. NORTH OF OCMULGEE RIVER BRIDGE

NOT TO SCALE