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D.O.T. 66

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE EDS-545(23)/BHF-038-1(37) **OFFICE** Preconstruction
Appling-Toombs Counties
P. I. Nos. 522220/522225 **DATE** July 30, 2001
CW Hutto
FROM C. Wayne Hutto, Assistant Director of Preconstruction
TO SEE DISTRIBUTION

SUBJECT REVISED PROJECT CONCEPT REPORT APPROVAL

Attached for your files is the approval for subject project.

CWH/cj

Attachment

DISTRIBUTION:

Tom Turner
David Mulling
Harvey Keeper
Jerry Hobbs
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Jimmy Chambers
Gary Priester
BOARD MEMBER

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Tom

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENTAL CORRESPONDENCE

FILE EDS-545(23), Appling/Toombs Counties **OFFICE** Environment/Location
BHF-038-1(37), Toombs County
P.I. No. 522220, 522225 Respectively **DATE** July 10, 2001

FROM  Harvey D. Keeper, State Environmental/Location Engineer

TO C. Wayne Hutto, Assistant Director of Preconstruction

SUBJECT **Revised Project Concept Report – US 1/SR 4 Improvements**

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

For EDS-545(23), the proposed changes to the approved concept would be a revision to the alignment, speed design, and typical section. The alignment would be revised to avoid impacts to two eligible historic. The speed design of the approved concept would be increased from 55 mph to 65 mph in accordance with the Department's current GRIP policy and the median would be reduced from 44 ft. to 32 ft. to reduce wetland impacts. The median reduction would be from the beginning of the project to just south of CR 147.

For BHF-038-1(37), the proposed changes to the approved concept would be to widen the existing bridge at Cobb Creek and to replace the existing bridges at Altamaha River, Altamaha River Overflow, and Williams Creek under a new project number.

The revised concept as presented herein and submitted for approval is consistent with that which is included in the State Transportation Improvement Program (STIP).

DATE 7-17-01



State Transportation Planning Administrator

Distribution:

David Mulling
Marion Waters
Marta Rosen
Herman Griffin
Jim Chambers
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Paul Liles

REVISED PROJECT CONCEPT REPORT

Need and Purpose: US 1/SR 4 is the major north-south corridor in mid-east Georgia and is part of the Governor's Road Improvement Program. The proposed multi-laning of US 1/SR 4 would eliminate congestion and enhance the traffic flow, while improving the operational characteristics and the safety along US 1/SR 4.

Project Location: The proposed concept would be located along US 1/SR 4 beginning at mile post 20.69 in Appling County and ending at mile post 7.66 in Toombs County. The total length of the project is approximately 8.2 miles.

Description of the approved concept: The approved concept for EDS-545(23) in Appling and Toombs Counties is proposed to widen and reconstruct US 1/SR 4 from Plant Hatch in Appling County to SR 56 in Toombs County. At the beginning of the project, US 1/SR 4 would be widened on the east side to have four lanes with a 44 ft grassed median. The widening would continue on the east side to the end of the project at SR 56, the beginning of EDS-545(24) in Toombs County. Existing right-of-way along US 1/SR 4 varies from 100 feet to 200 feet. The proposed right-of-way would vary from 184 feet to 234 feet for the length of the project. The speed design is 55 mph, and access would be by permit.

The approved concept for BHN-038-1(37) in Appling and Toombs Counties is proposed to widen and rehabilitate the existing bridges over the Altamaha River, Altamaha River Overflow, Williams Creek, and Cobb Creek. All bridges are contained within the project limits of EDS-545(23). To accommodate the proposed typical section of EDS-545(23), new parallel bridge structures would be constructed along with the EDS project.

PDP Classification: Major/Construction on existing location

Full Oversight (), Exempt (X), SF (), Other ()

Functional Classification: Rural Principal Arterial

U. S. Route Number(s): 1

State Route Number(s): 4

Traffic (AADT) as shown in the approved concept:

Current Traffic		Design Traffic	
Year: 1998	ADT: 4550	Year: 2018	ADT: 6700

Proposed Features to be revised:

EDS-545(23)

1. The speed design is recommended for revision
2. The median is recommended for revision for a portion of the project.
3. The proposed alignment is recommended for revision.

BHN-038-1(37)

- Due to decreasing bridge sufficiency ratings since the approval of the original concept report for this project, only the existing bridge over Cobb Creek would be widened and/or rehabilitated under this project.

Revised feature(s) to be approved:

EDS-545(23)

1. In order to remain consistent with Department policy for GRIP Corridor roadways, the speed design would be 65 mph. To accommodate the new slopes, the proposed right-of-way would vary from 184 feet to 253 feet.
2. To reduce impacts to wetlands and comply with Department policy, the median would be reduced to 32 feet from the beginning of the project to just south of SR 147.
3. To avoid two eligible historic resources and minimize wetland impacts along US 1, the alignment would be revised. The proposed concept would extend northward onto new location from just north of Cobb Creek. It would roughly parallel US 1 to the east and tie into SR 56 approximately 0.3 miles east of US 1. This intersection would be the ending terminus of the project and the beginning terminus for EDS-545(24). Access would be partially controlled for the new location section. The total length of the project would be 8.3 miles.

BHN-038-1(37)

- The existing bridges over the Altamaha River, Altamaha River Overflow, and Williams Creek are now proposed to be replaced under project **BR-0001-00(216)** in Appling and Toombs Counties.

Updated traffic data (AADT):

Current Traffic		Design Traffic	
Year: 2008	AADT: 5500	Year: 2028	AADT: 8000

Programmed/Schedule:

EDS-545(23)

P.E. FY 2002 R/W FY 2005 Construction FY 2006

BHN-038-1(37)

P.E. July/1992 R/W None Construction FY 2006

BR-0001-00(216)

P.E. FY 2002 R/W FY 2004 Construction FY 2005

Revised Cost Estimates:

EDS-545(23)

Construction cost including inflation and E&C:	\$ 29,009,000
Right-of-way:	\$ 1,925,000

BHN-038-1(37)

Construction cost including inflation and E&C:	\$ 1,069,000
Right-of-way:	\$ 0

BR-0001-00(216)

Construction cost including inflation and E&C:	\$ 12,782,000
Right-of-way:	\$ 200,000

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

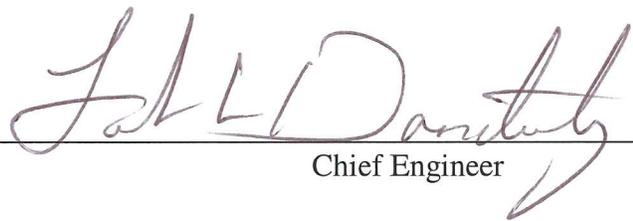
Recommendation: It is recommended that the proposed revisions to this concept be approved for implementation.

HDK/KET

Attachments:

- Sketch Map,
- Cost Estimate
- Typical Sections

Concur: 
Director of Preconstruction

Approve: 
Chief Engineer

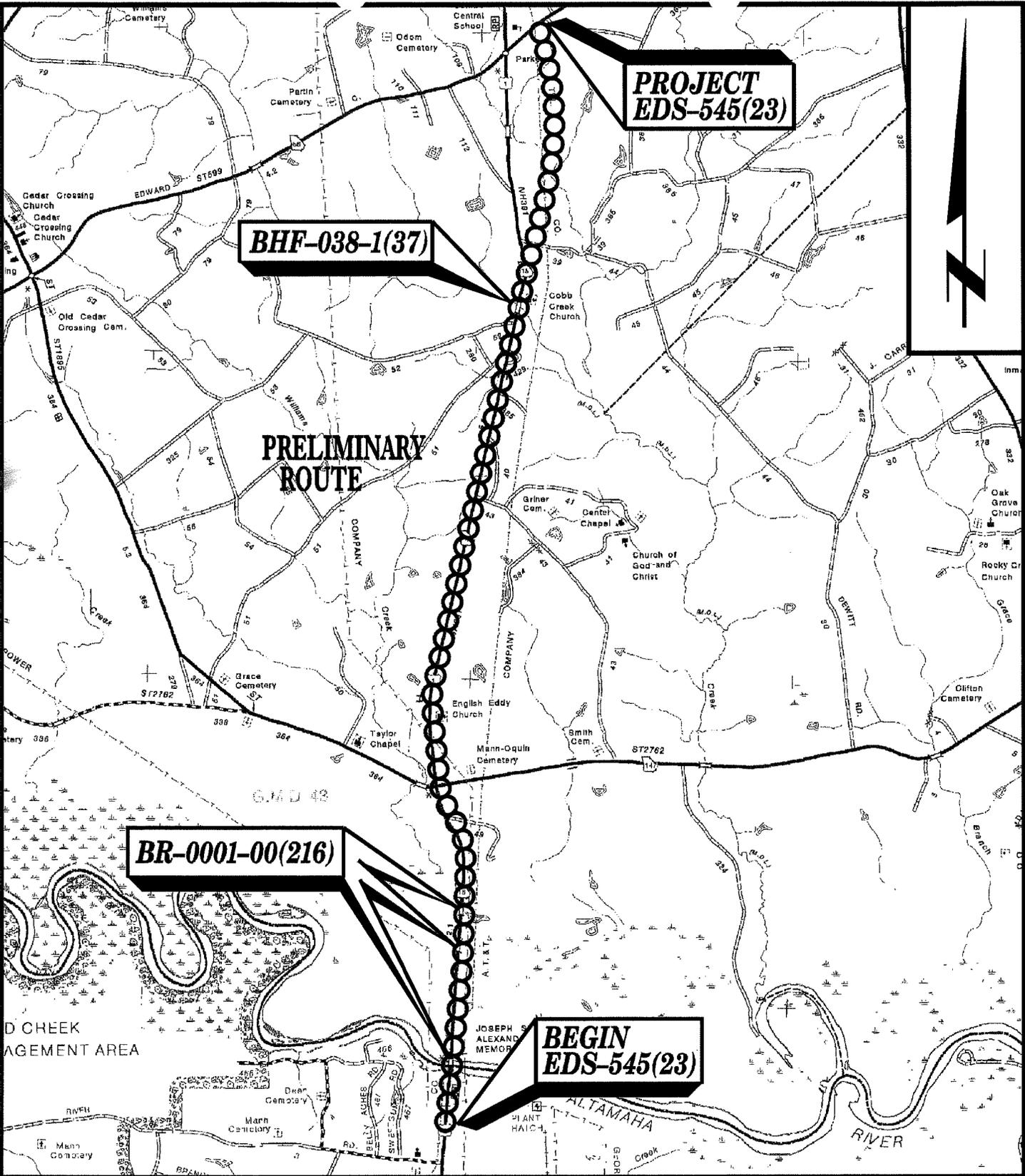
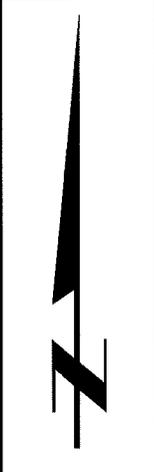
**PROJECT
EDS-545(23)**

BHF-038-1(37)

**PRELIMINARY
ROUTE**

BR-0001-00(216)

**BEGIN
EDS-545(23)**



SCALE IN MILES



LOCATION

STRIP MAP
EDS-545(23), BHF-038-1(37),
BR-0001-00(216)
US 1SR 4 IMPROVEMENTS
APPLINGTOOMBS
P.I.# 522220, 522225, 0001216

SOURCE: GENERAL HIGHWAY MAP, APPLINGTOOMBS CO., GEORGIA
PREPARED BY THE GEORGIA DEPARTMENT OF TRANSPORTATION, 1986

PRELIMINARY COST ESTIMATE

Office of Environment/Location

July 9, 2001

County(s)

PI Number Project Number

Project Name Project Length Miles

Project Description

Improve US 1 from Plant Hatch to just north of Cobb Creek, then extend on new location east of the existing road to SR 56.

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

Rural Widening: 2 To 4-Lanes with 44 ft Divided Median	<input type="text" value="6.31"/> Miles
Rural New Location: 4-Lanes with 44 ft Divided Median	<input type="text" value="2.0"/> Miles
<input type="text"/>	<input type="text"/> Miles
<input type="text"/>	<input type="text"/> Miles
<input type="text"/>	<input type="text"/> Miles
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Prepared By

PROJECT COSTS

MAJOR STRUCTURES

1. Bridges: Stream Crossings & Grade Separations

NO	LOCATION	QTY	TYPE *		W(FT)	L(FT)	UNIT COST	TOTAL
			S/G/R	W/N				
1	Altamaha River	1	S	N	41.3	4,082.0	54.00	9,104,000
2	Altamaha River Overflow	1	S	N	41.3	290.0	54.00	647,000
3	Williams Creek	1	S	N	41.3	354.0	54.00	789,000
4	Cobb Creek	1	S	N	41.3	420.0	54.00	937,000
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								

* S = Stream Crossing G = Grade Separation R = Railroad W = Widening N = New

2. Bridge Culverts

NO	LOCATION	TYPE	SIZE	L(FT)	UNIT COST	TOTAL
		S/D/T/Q	W x H (FT)			
1	Branch of Open Creek	Double	10 x 5	90.0	1,011.11	91,000
2	Unnamed Creek	Double	6 x 5	90.0	566.67	51,000
3						
4						
5						
6						
7						

3. Walls

NO	LOCATION	TYPE	H(FT)	L(FT)	UNIT COST	TOTAL
1						
2						
3						
4						

MAJOR STRUCTURES SUBTOTAL \$ 11,619,000

Typical Section

Rural Widening: 2 To 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
288000 CY	2.50	720,000
CY	10.00	
CY	3.72	
6.31 MI	\$100,927.20	637,000
GRADING AND DRAINAGE SUBTOTAL		\$1,357,000

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"	82,846 TN	13.05	1,081,000
1 1/2" (165 LB/SY)	19,851 TN	34.55	686,000
3" (330 LB/SY)	25,043 TN	34.54	865,000
4" (440 LB/SY)	22,803 TN	34.62	789,000
	15,194 GL	0.82	12,000
	0 LF	9.39	0
	0 MI	\$28,409.50	0
BASE AND PAVING SUBTOTAL			\$3,776,000

LUMP ITEMS

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

QUANTITY	UNIT COST	TOTAL
6.31 MI	\$88,000.00	555,000
191 AC	6,000	1,147,000
6.31 MI	\$40,526.56	256,000
6.31 MI	\$99,000.00	625,000
6.31 MI	\$17,594.37	111,000
6.31 MI	\$110,500.00	697,000
LUMP ITEM SUBTOTAL		\$3,391,000

MISCELLANEOUS

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

QUANTITY	UNIT COST	TOTAL
3,200 LF	10.11	32,000
64 EA	435.59	28,000
0 MI	300,000.00	0
MISCELLANEOUS SUBTOTAL		\$60,000

SPECIAL FEATURES

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
179,200	CY	2.50	448,000
	CY	10.00	
	CY	3.72	
2.0	MI	101,000	202,000
GRADING AND DRAINAGE SUBTOTAL			\$650,000

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"	44,210 TN	13.05	577,000
1 1/2" (165 LB/SY)	6,292 TN	34.55	217,000
3" (330 LB/SY)	12,584 TN	34.54	435,000
4" (440 LB/SY)	13,423 TN	34.62	465,000
	7,249 GL	0.82	6,000
	0 LF	9.39	0
	0 MI	42,000	0
			170,000
BASE AND PAVING SUBTOTAL			\$1,870,000

LUMP ITEMS

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

QUANTITY	UNIT COST	TOTAL
2.0 MI	41,000	82,000
61 AC	6,000	364,000
2.0 MI	80,002	160,000
2.0 MI	97,000	194,000
2.0 MI	19,321	39,000
2.0 MI	96,000	192,000
LUMP ITEM SUBTOTAL		\$1,031,000

ESTIMATE SUMMARY

Typical Section	Section Cost (per mile)
1. Rural Widening: 2 To 4-Lanes with 44 ft Divided Median	\$1,351,000
2. Rural New Location: 4-Lanes with 44 ft Divided Median	\$1,776,000

PROJECT COST

A. MAJOR STRUCTURES	\$11,619,000
B. GRADING AND DRAINAGE	\$2,007,000
C. BASE AND PAVING	\$5,646,000
D. LUMP ITEMS	\$4,422,000
E. MISCELLANEOUS	\$60,000
F. SPECIAL FEATURES	\$166,000
SUBTOTAL CONSTRUCTION COST	\$23,920,000
E. & C. (10%)	\$2,392,000
INFLATION 2 yrs @ 5 % per yr	\$2,696,980
GRAND TOTAL CONSTRUCTION COST	\$29,009,000

PRELIMINARY COST ESTIMATE

Office of Environment/Location

July 12, 2001

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"/>	<input type="text"/> Miles

Prepared By

PROJECT COSTS

MAJOR STRUCTURES

1. Bridges: Stream Crossings & Grade Separations

NO	LOCATION	QTY	TYPE *		W(FT)	L(FT)	UNIT COST	TOTAL
			S/G/R	W/N				
1	Cobb Creek	1	S	W	17.5	420.0	120.00	882,000
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								

* S = Stream Crossing G = Grade Separation R = Railroad W = Widening N = New

2. Bridge Culverts

NO	LOCATION	TYPE	SIZE	L(FT)	UNIT COST	TOTAL
		S/D/T/Q	W x H (FT)			
1						
2						
3						
4						
5						
6						
7						

3. Walls

NO	LOCATION	TYPE	H(FT)	L(FT)	UNIT COST	TOTAL
1						
2						
3						
4						

MAJOR STRUCTURES SUBTOTAL						\$ 882,000
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Typical Section

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
	CY	2.50	
	CY	10.00	
	CY	3.72	
0	MI		
GRADING AND DRAINAGE SUBTOTAL			

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"	TN	13.05	
1 1/2" (165 LB/SY)	TN	34.55	
3" (330 LB/SY)	TN	34.54	
4" (440 LB/SY)	TN	34.62	
	GL	0.82	
	0 LF	9.39	
	0 MI		
BASE AND PAVING SUBTOTAL			

LUMP ITEMS

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

QUANTITY	UNIT COST	TOTAL
0 MI		
0 AC	6,000	
0 MI		
LUMP ITEM SUBTOTAL		

MISCELLANEOUS

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

QUANTITY	UNIT COST	TOTAL
	LF	10.11
	EA	435.59
	MI	300,000.00
MISCELLANEOUS SUBTOTAL		

SPECIAL FEATURES

ESTIMATE SUMMARY

Typical Section	Section Cost (per mile)

PROJECT COST	
A. MAJOR STRUCTURES	\$882,000
B. GRADING AND DRAINAGE	
C. BASE AND PAVING	
D. LUMP ITEMS	
E. MISCELLANEOUS	
F. SPECIAL FEATURES	
SUBTOTAL CONSTRUCTION COST	\$882,000
E. & C. (10%)	\$88,000
INFLATION 2 yrs @ 5 % per yr	\$99,425
GRAND TOTAL CONSTRUCTION COST	\$1,069,000

PRELIMINARY COST ESTIMATE

Office of Environment/Location

June 19, 2001

County(s)

PI Number Project Number

Project Name Project Length Miles

Project Description

US 1/SR 4 @ Altamaha River, Altamaha River Overflow, and Williams Creek

Existing Roadway

2 Lanes Rural

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"/>	<input type="text"/> Miles

Prepared By

PROJECT COSTS

MAJOR STRUCTURES

1. Bridges: Stream Crossings & Grade Separations

NO	LOCATION	QTY	TYPE *		W(FT)	L(FT)	UNIT COST	TOTAL
			S/G/R	W/N				
1	Altamaha River	1	S	N	41.3	4,082.0	54.00	9,104,000
2	Altamaha River Overflow	1	S	N	41.3	290.0	54.00	647,000
3	Williams Creek	1	S	N	41.3	354.0	54.00	789,000
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								

* S = Stream Crossing G = Grade Separation R = Railroad W = Widening N = New

2. Bridge Culverts

NO	LOCATION	TYPE	SIZE	L(FT)	UNIT COST	TOTAL
		S/D/T/Q	W x H (FT)			
1						
2						
3						
4						
5						
6						
7						

3. Walls

NO	LOCATION	TYPE	H(FT)	L(FT)	UNIT COST	TOTAL
1						
2						
3						
4						

MAJOR STRUCTURES SUBTOTAL \$ 10,540,000

Typical Section

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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
	CY	
	CY	
	CY	
0	MI	
GRADING AND DRAINAGE SUBTOTAL		

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"		TN	
1 1/2" (165 LB/SY)		TN	
3" (330 LB/SY)		TN	
4" (440 LB/SY)		TN	
		GL	
	0	LF	
	0	MI	
BASE AND PAVING SUBTOTAL			

LUMP ITEMS

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

QUANTITY	UNIT COST	TOTAL
	MI	
	AC	
	MI	
LUMP ITEM SUBTOTAL		

MISCELLANEOUS

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

QUANTITY	UNIT COST	TOTAL
	LF	10.11
	EA	435.59
	MI	300,000.00
MISCELLANEOUS SUBTOTAL		

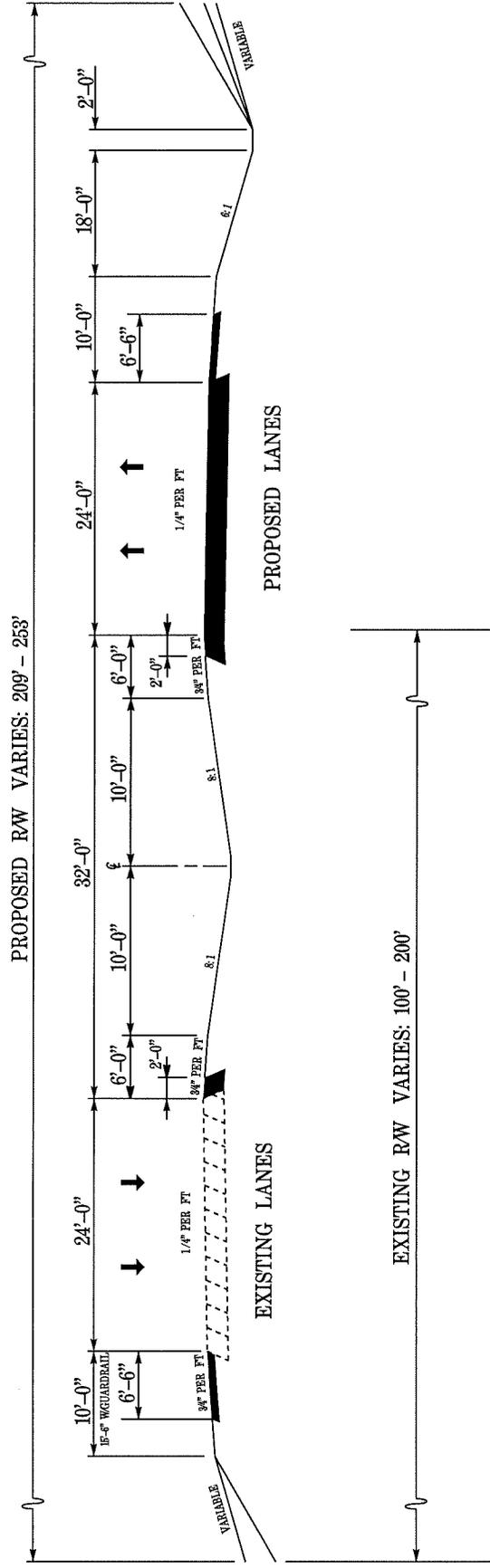
SPECIAL FEATURES

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ESTIMATE SUMMARY

Typical Section	Section Cost (per mile)

PROJECT COST	
A. MAJOR STRUCTURES	\$10,540,000
B. GRADING AND DRAINAGE	
C. BASE AND PAVING	
D. LUMP ITEMS	
E. MISCELLANEOUS	
F. SPECIAL FEATURES	
SUBTOTAL CONSTRUCTION COST	\$10,540,000
E. & C. (10%)	\$1,054,000
INFLATION 2 yrs @ 5 % per yr	\$1,188,385
GRAND TOTAL CONSTRUCTION COST	\$12,782,000

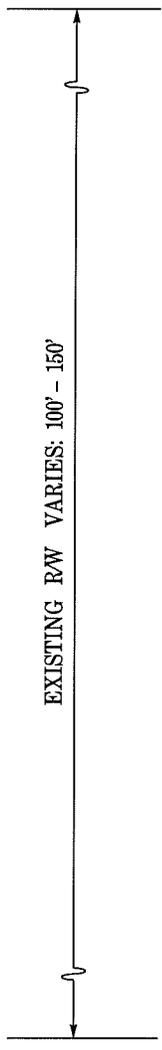
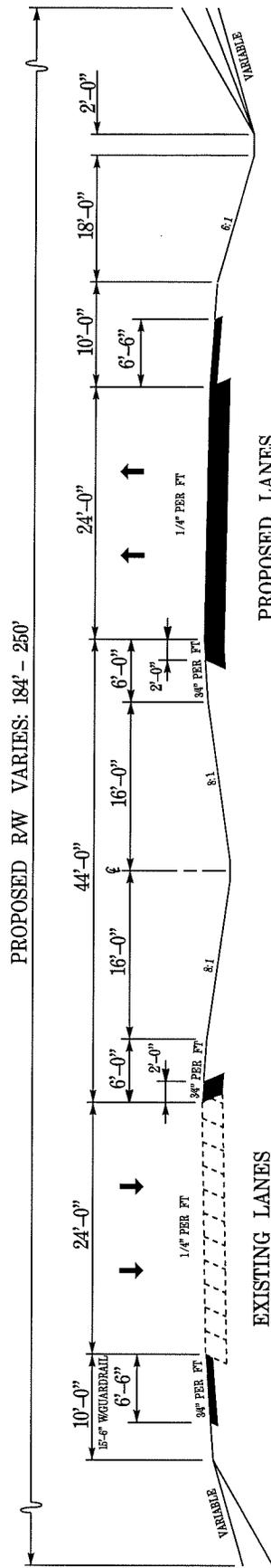


**TYPICAL CROSS SECTION - 4 LANES W/32'
 MEDIAN AND OPEN DITCH DRAINAGE**

**US 1/SR 4 IMPROVEMENTS
 EDS-545(23) APPLING/TOOMBS COUNTIES**

WIDENING - FROM PLANT HATCH
 ENTRANCE TO SR 147

NOT TO SCALE

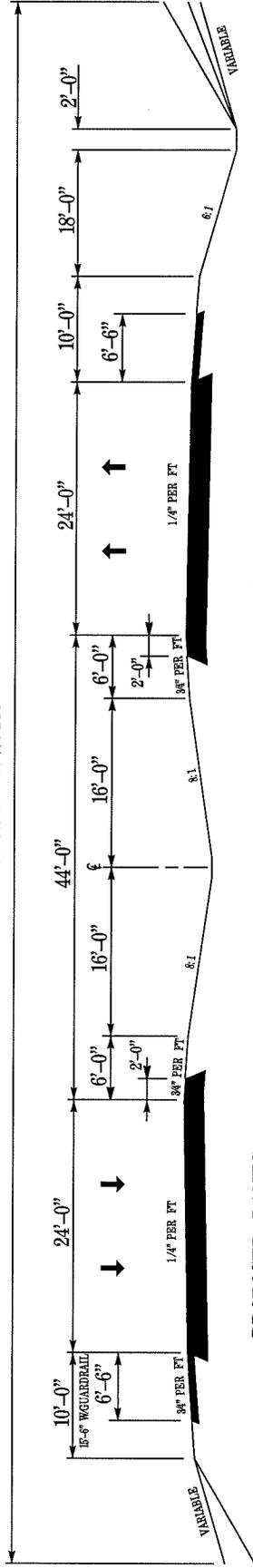


**TYPICAL CROSS SECTION - 4 LANES W/44'
 MEDIAN AND OPEN DITCH DRAINAGE
 US 1/SR 4 IMPROVEMENTS
 EDS-545(23) APPLING/TOOMBS COUNTIES**

WIDENING - FROM SR 147 TO
 NORTH OF COBB CREEK

NOT TO SCALE

PROPOSED RW: 250'



TYPICAL CROSS SECTION - 4 LANES W/44' MEDIAN AND OPEN DITCH DRAINAGE

US 1/SR 4 IMPROVEMENTS
EDS-545(23) APPLING/TOOMBS COUNTIES

NEW LOCATION - FROM NORTH OF
COBB CREEK TO SR 56

NOT TO SCALE