ORIGINAL TO GENERAL FILES

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE P. I. No. 621082-, Chattooga County
EDS00-0027-00(095)
Summerville Bypass

OFFICE Preconstruction

DATE January 23, 2008

FROM 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.

Attachment

DISTRIBUTION:

Brian Summers
Glenn Bowman
Ken Thompson
Michael Henry
Keith Golden
Angela Alexander
Paul Liles
Kent Sager
Dewayne Comer
BOARD MEMBER

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE EDS-27(95) Chattooga County
P.I. No. 621082
SUMMERVILLE BYPASS

OFFICE Road Design

DATE November 2, 2007

FROM Brent A. Story, P.E, State Road & Airport Design Engineer

TO Genetha Rice-Singleton, Assistant Director of Preconstruction

SUBJECT Revised Project Concept Report

This project consists of the reconstruction and relocation of a segment of SR1/US27 from CR 329 to Taylor Ridge then on new location to existing SR1/US27 near East Trion. The gross length of the project is 8.0 miles.

The original concept called for a 4 lane 44' depressed median beginning at CR 329 northward one-half mile, then transitioned to a 14' flushed median for approximately one mile, then at the crest of Taylor Ridge transitioned to a 4' median for approximately 0.7 mile. From this point the proposed typical section called for a 44' depressed median for the remainder of the project.

The concept has been revised to call for two 12' lanes in each direction with a 44' depressed median from CR 329 extending northward for 870', then transitions to a 14.5' median barrier for 5800'. Then it will proceed northeasterly on new location to continue the four-lane highway along Taylor's Ridge to bypass the town of Summerville and then return to the existing alignment of SR1/US27 near East Trion. The width of the depressed median will vary from 44' to 32' in areas of high cut or fill in order to minimize construction limits.

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

BAS:MBM:NFR

cc: Brian Summers w/attachments
Glenn Bowman w/attachments
Keith Golden, w/attachments
Angela T. Alexander w/attachments
Jamie Simpson w/attachments
Kent L. Sager w/attachments
Paul Liles w/attachments

Angela T. Alexander
State Transportation Planning Administrator

12-13-07
Date

REVISED PROJECT CONCEPT REPORT
EDS-27(95), P.I. NO. 621082
Chattooga County

Need and Purpose:
The proposed project is part of the Economic Development Highway System that has been proposed to spur economic growth throughout the State. This project will help the economic growth in the western section of the State. In addition to the economic growth, the proposed improvement will provide the traveling public a better and safer highway on which to travel.

The existing highway is substandard for the volume of traffic that it will be required to carry in the future. The reason for bypassing Summerville is that the existing highway cannot be improved through Summerville to provide a high speed highway for the trucks and cars that will be traveling through this area. It is anticipated that when the entire U.S. 27 route has been improved, that it will reduce the volume of traffic now using I-75 and provide a more direct connection between Rome and Lafayette, Georgia.

The proposed termini are appropriate in that they will begin at a four-lane section and end at a point near Trion City.

Project location:
Project No. EDS-27 (95) is proposed to widen the existing SR 1/US27 route to provide a four-lane rural roadway section with a depressed median through Mack White Gap. It will then proceed northeasterly on new location to continue the four-lane highway along Taylor's Ridge to bypass the town of Summerville and then tie into the existing alignment of SR1/US 27 near East Trion.

Description of the approved concept: See attachment (Approved Concept)

PDP Classification:
Full Oversight ( ), Exempt ( ), SF(X), Other ( )

Functional Classification: Rural Principal Arterial

U. S. Route Number(s): 27 **State Route Number(s):** 1

Traffic (AADT) as shown in the approved concept:
Current Year: (1990), 7800 Design Year: (2010), 12300

Proposed features to be revised:
The original concept called for a 4 lane 44' depressed median beginning at CR 329 northward one-half mile, then transitioned to a 14' flushed median for approximately one mile, then at the crest of Taylor Ridge transitioned to a 4' median for approximately 0.7 mile. From this point the proposed typical section called for a 44' depressed median for the remainder of the project

Proposed features to be revised and approved:
The concept has been revised to call for two 12' lanes in each direction with a 44' depressed median from CR 329 extending northward for 870', then transitions to a 14.5' barrier for 5800'. Then it will proceed northeasterly on new location to continue the four-lane highway along Taylor's Ridge to bypass the town of Summerville and then return to the existing alignment of SR1/US27 near East Trion. The width of the depressed median will vary from 44' to 32' in areas of high cut or fill in order to minimize construction limits.

Updated traffic data (AADT):
Current Year: (2012), 14,000 Design Year: (2032), 23,600

Programmed/Schedule:
P.E.: 1993 R/W: 2008 Construction: 2009

Revised cost estimates:

Construction cost including inflation and ~~R&C~~: ~~$68,051,860~~ $53,071,000 12/17/07
1. *Right-of-way*: $17,289,000
2. *Utilities*: 477,000.00

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

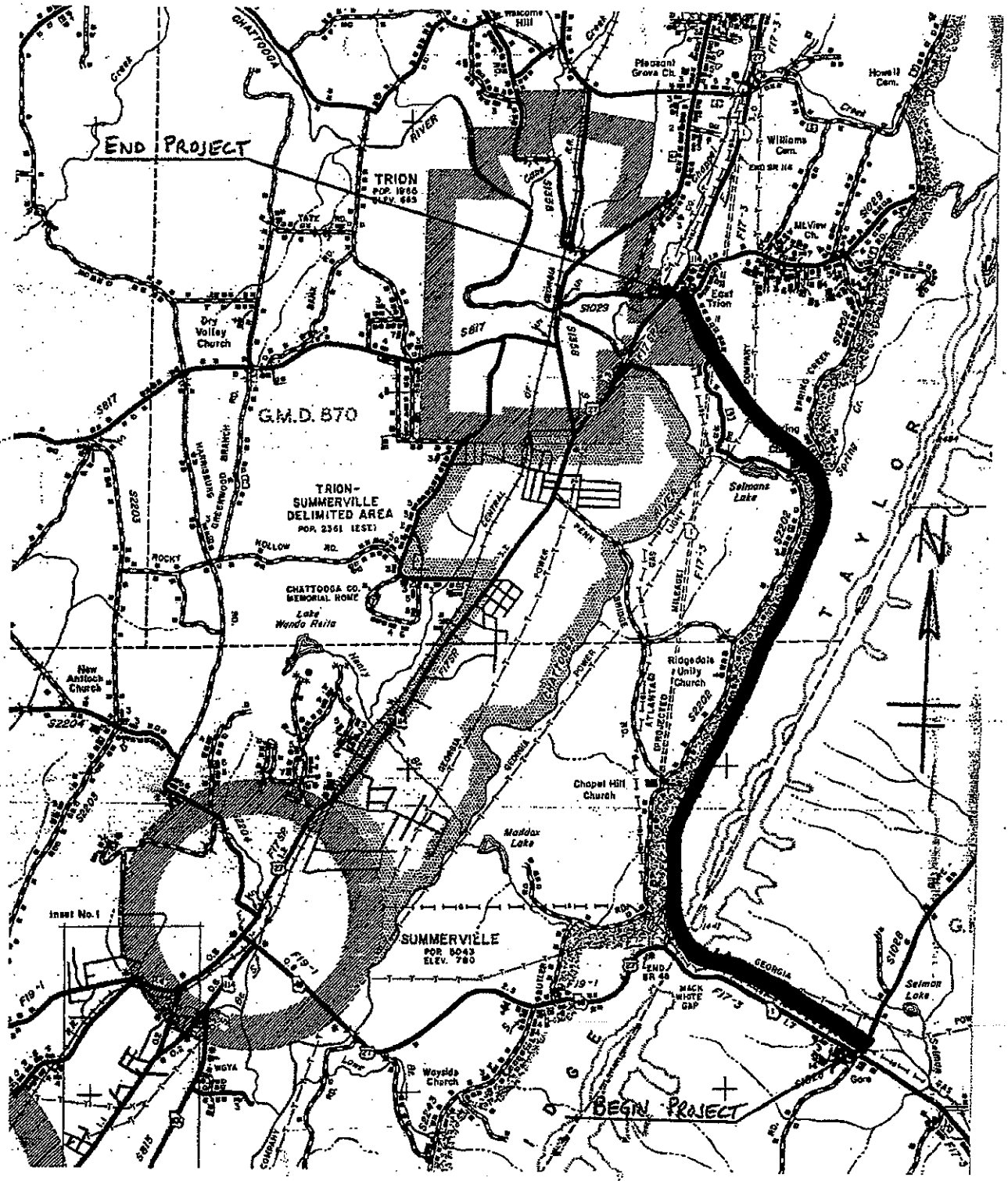
Recommendation: Recommend that the proposed revision to the concept be approved for implementation.

Attachments:
1. Sketch Map
2. Cost Estimate
3. Approved Concept

Concur: _____
Director of Preconstruction

Approve: _____
Chief Engineer

EDS-27(95) SUMMERVILLE BYPASS
CHATTOOGA COUNTY



Estimate Report for file "EDS-27(95) 621082"

Section BASE AND PAVING

Item Number	Quantity	Units	Unit Price	Item Description	Cost
150-1000	1	LS	950000.00	TRAFFIC CONTROL -	950000.00
153-1300	1	EA	75763.76	FIELD ENGINEERS OFFICE TP 3	75763.76
210-0100	1	LS	15696950.00	GRADING COMPLETE -	15696950.00
310-5120	158568	SY	21.15	GR AGGR BASE CRS, 12 INCH, INCL MATL	3353713.20
402-1812	4907	TN	75.00	RECYCLED ASPH CONC LEVELING, INCL BITUM MATL & H LIME	368025.00
402-3113	20080	TN	75.00	RECYCLED ASPH CONC 12.5 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME	1506000.00
402-3121	71356	TN	75.00	RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME	5351700.00
402-3190	26773	TN	75.00	RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2,INCL BITUM MATL & H LIME	2007975.00
413-1000	90000	GL	2.01	BITUM TACK COAT	180900.00
441-0016	6089	SY	41.33	DRIVEWAY CONCRETE, 6 IN TK	251658.37
441-0018	16100	SY	53.05	DRIVEWAY CONCRETE, 8 IN TK	854105.00
446-1100	10000	LF	3.28	PVMT REINF FABRIC STRIPS, TP 2, 18 INCH WIDTH	32800.00
				Section Sub Total:	**$30,629,590.33**

Section GRADING & DRAINAGE

Item Number	Quantity	Units	Unit Price	Item Description	Cost
207-0203	200	CY	56.90	FOUND BKFILL MATL, TP II	11380.00
441-6222	4900	LF	18.59	CONC CURB & GUTTER, 8 IN X 30 IN, TP 2	91091.00
550-1180	1033	LF	44.54	STORM DRAIN PIPE, 18 IN, H 1-10	46009.82
550-1240	2612	LF	54.43	STORM DRAIN PIPE, 24 IN, H 1-10	142171.16
550-1300	10993	LF	70.20	STORM DRAIN PIPE, 30 IN, H 1-10	771708.60
550-1360	360	LF	86.16	STORM DRAIN PIPE, 36 IN, H 1-10	31017.60
550-1424	811	LF	165.00	STORM DRAIN PIPE, 42 IN, H 25-30	133815.00
550-1480	1533	LF	128.12	STORM DRAIN PIPE, 48 IN, H 1-10	196407.96
550-2180	2000	LF	33.87	SIDE DRAIN PIPE, 18 IN, H 1-10	67740.00
550-4218	35	EA	664.32	FLARED END SECTION 18 IN, STORM DRAIN	23251.20
550-4224	8	EA	775.31	FLARED END SECTION 24 IN, STORM DRAIN	6202.48
550-4230	5	EA	942.53	FLARED END SECTION 30 IN, STORM DRAIN	4712.65
550-4236	5	EA	1247.55	FLARED END SECTION 36 IN, STORM DRAIN	6237.75
550-4242	6	EA	1646.01	FLARED END SECTION 42 IN, STORM DRAIN	9876.06
573-2006	2200	LF	19.06	UNDDR PIPE INCL DRAINAGE AGGR, 6 IN	41932.00
668-1100	52	EA	2741.66	CATCH BASIN, GP 1	142566.32
668-1110	53	LF	279.53	CATCH BASIN, GP 1, ADDL DEPTH	14815.09
668-2100	95	EA	3922.33	DROP INLET, GP 1	372621.35
				Section Sub Total:	**$2,113,556.04**

Section LUMP SUM ITEMS

Item Number	Quantity	Units	Unit Price	Item Description	Cost
201-1500	1	LS	1500000.00	CLEARING & GRUBBING -	1500000.00
541-0001	1	LS	400000.00	DETOUR BRIDGE -	400000.00
				Section Sub Total:	**$1,900,000.00**

Section MAJOR STRUCTURES

Item Number	Quantity	Units	Unit Price	Item Description	Cost
000-000	57760	SF	75.00	BRIDGES	4332000.00
000-0000	115500	SF	50.00	RETAINING WALLS	5775000.00
000-0001	1	Lump Sum	1098730.00	BOX CULVERTS	1098730.00
				Section Sub Total:	**$11,205,730.00**

Section MISCELLANEOUS

Item Number	Quantity	Units	Unit Price	Item Description	Cost
641-1100	8	LF	50.01	GUARDRAIL, TP T	400.08
641-1200	19900	LF	17.12	GUARDRAIL, TP W	340688.00
641-5001	25	EA	642.22	GUARDRAIL ANCHORAGE, TP 1	16055.50
641-5012	25	EA	1835.14	GUARDRAIL ANCHORAGE, TP 12	45878.50

647-1000	5	LS	50407.56	TRAFFIC SIGNAL INSTALLATION NO -	252037.80
				Section Sub Total:	**$655,059.88**

Section TEMPORARY EROSION CONTROL

Item Number	Quantity	Units	Unit Price	Item Description	Cost
163-0232	25	AC	703.79	TEMPORARY GRASSING	17594.75
163-0240	2620	TN	165.18	MULCH	432771.60
163-0300	1	EA	1620.67	CONSTRUCTION EXIT	1620.67
163-0501	410	EA	823.15	CONSTRUCT AND REMOVE SILT CONTROL GATE, TP 1	337491.50
163-0502	40	EA	690.54	CONSTRUCT AND REMOVE SILT CONTROL GATE, TP 2	27621.60
163-0521	420	EA	212.10	CONSTRUCT AND REMOVE TEMPORARY DITCH CHECKS	89082.00
163-0550	570	EA	280.29	CONSTRUCT AND REMOVE INLET SEDIMENT TRAP	159765.30
165-0010	55000	LF	0.79	MAINTENANCE OF TEMPORARY SILT FENCE, TP A	43450.00
165-0040	415	EA	66.23	MAINTENANCE OF EROSION CONTROL CHECKDAMS/DITCH CHECKS	27485.45
165-0087	40	EA	163.89	MAINTENANCE OF SILT CONTROL GATE, TP 3	6555.60
165-0101	1	EA	584.83	MAINTENANCE OF CONSTRUCTION EXIT	584.83
165-0105	570	EA	96.20	MAINTENANCE OF INLET SEDIMENT TRAP	54834.00
167-1000	3	EA	1291.85	WATER QUALITY MONITORING AND SAMPLING	3875.55
167-1500	160	MO	980.37	WATER QUALITY INSPECTIONS	156859.20
171-0010	75000	LF	1.67	TEMPORARY SILT FENCE, TYPE A	125250.00
				Section Sub Total:	**$1,484,842.05**

Section PERMANENT EROSION CONTROL

Item Number	Quantity	Units	Unit Price	Item Description	Cost
700-6910	15	AC	1050.40	PERMANENT GRASSING	15756.00
700-7000	100	TN	59.67	AGRICULTURAL LIME	5967.00
700-7010	90	GL	21.85	LIQUID LIME	1966.50
700-8000	30	TN	299.50	FERTILIZER MIXED GRADE	8985.00
700-8100	350	LB	2.32	FERTILIZER NITROGEN CONTENT	812.00
				Section Sub Total:	**$33,486.50**

Section SIGNING & MARKING

Item Number	Quantity	Units	Unit Price	Item Description	Cost
636-1020	600	SF	14.99	HIGHWAY SIGNS, TP 1 MATL, REFL SHEETING, TP 3	8994.00
636-1031	500	SF	19.00	HIGHWAY SIGNS, TP 1 MATL, REFL SHEETING TP 6	9500.00
636-2030	2000	LF	9.20	GALV STEEL POSTS, TP 3	18400.00
652-9001	21120	SY	2.23	TRAFFIC STRIPE, WHITE	47097.60
652-9002	4224	SY	1.74	TRAFFIC STRIPE, YELLOW	7349.76
653-0120	310	EA	73.13	THERMOPLASTIC PVMT MARKING, ARROW, TP 2	22670.30
653-0160	40	EA	150.56	THERMOPLASTIC PVMT MARKING, ARROW, TP 6	6022.40
653-0170	25	EA	83.45	THERMOPLASTIC PVMT MARKING, ARROW, TP 7	2086.25
653-1501	65042	LF	0.64	THERMOPLASTIC SOLID TRAF STRIPE, 5 IN, WHITE	41626.88
653-1502	47232	LF	0.62	THERMOPLASTIC SOLID TRAF STRIPE, 5 IN, YELLOW	29283.84
653-3501	47232	GLF	0.52	THERMOPLASTIC SKIP TRAF STRIPE, 5 IN, WHITE	24560.64
654-1001	200	EA	3.13	RAISED PVMT MARKERS TP 1	626.00
654-1003	1500	EA	3.66	RAISED PVMT MARKERS TP 3	5490.00
				Section Sub Total:	**$223,707.67**

Total Estimated Cost: $48,245,972.47

Subtotal Construction Cost	**$48,245,972.47**
E&C Rate 10.0 %	$4,824,597.25
Inflation Rate 5.0 % @ 5.0 Years	~~$14,662,419.92~~ Del 12/17/07
	53,070,569.72

Total Construction Cost	53,070,569.72 ~~$67,732,989.64~~ SDell 12/17/07
Right Of Way	$17,289,000.00
ReImb. Utilities	$400,000.00
Grand Total Project Cost	~~$85,421,989.64~~ SDell 12/17/07 $70,759,570 ≈ $70,760,000

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	EDS-27(95)		

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

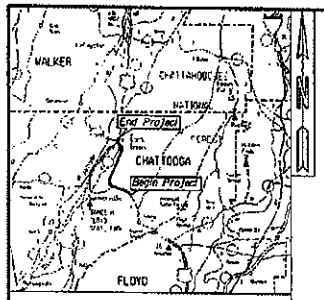
PLAN AND PROFILE OF PROPOSED

Summerville Bypass

CHATTOOGA COUNTY
FEDERAL AID PROJECT

EDS-27(95)

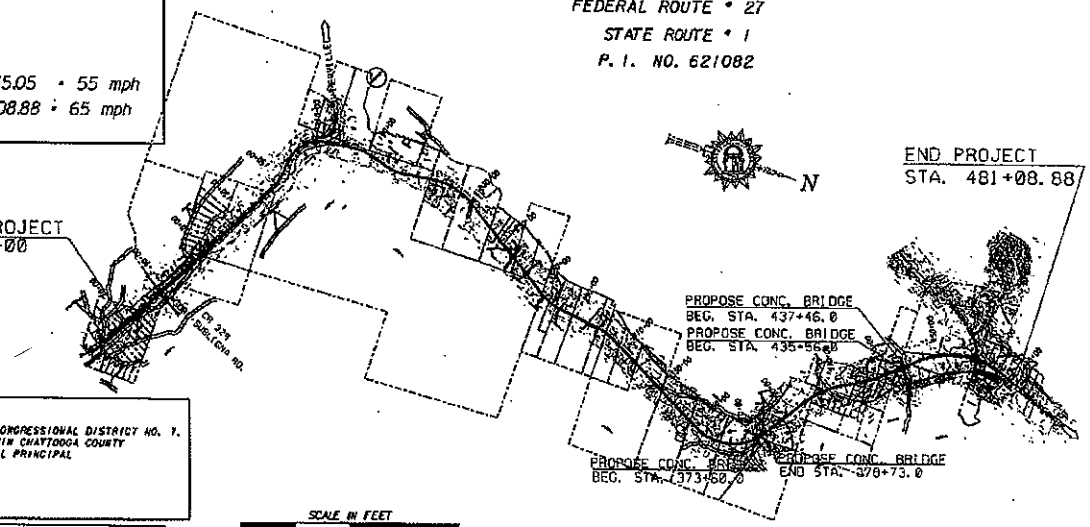
FEDERAL ROUTE # 27
STATE ROUTE # 1
P. I. NO. 621082



LOCATION SKETCH

DESIGN DATA:
TRAFFIC A.D.T.: 14,000 (2012)
TRAFFIC A.D.T.: 23,600 (2032)
TRAFFIC D.H.V.: 2235
DIRECTIONAL DIST.: 50%
% TRUCKS: 7%
24 HR.TRUCKS 12%:
SPEED DESIGN:
Sta.50+00.00 To Sta.182+35.05 - 55 mph
Sta.182+35.05 To Sta.481+08.88 - 65 mph

NOTE:
-ALL REFERENCES IN THIS DOCUMENT, WHICH INCLUDES ALL PAPERS, WRITINGS, DOCUMENTS, DRAWINGS, OR PHOTOGRAPHS USED, OR TO BE USED IN CONNECTION WITH THIS DOCUMENT, TO " STATE HIGHWAY DEPARTMENT OF GEORGIA ", "STATE HIGHWAY DEPARTMENT ", GEORGIA STATE HIGHWAY DEPARTMENT ", " HIGHWAY DEPARTMENT ", OR " DEPARTMENT " WHEN THE CONTEXT THEREOF MEANS THE STATE HIGHWAY DEPARTMENT OF GEORGIA MEAN, AND SHALL BE DEEMED TO MEAN THE DEPARTMENT OF TRANSPORTATION.



PREPARED BY: _____

RECOMMENDED FOR SUBMISSION BY: _____
TRANSPORTATION ENGINEER

SUBMITTED BY: _____
STATE ROAD AND AIRPORT DESIGN ENGINEER

DATE STATE HIGHWAY ENGINEER

PLANS COMPLETED	
REVISIONS	

NOTES:
-THIS PROJECT IS IN ENGLISH UNITS
-THIS PROJECT IS LOCATED 100% IN CONGRESSIONAL DISTRICT NO. 7.
-THIS PROJECT IS LOCATED 100% WITHIN CHATTOOGA COUNTY
-FUNCTIONAL CLASSIFICATION : RURAL PRINCIPAL
-PROJECT DESIGNATION : EXEMPT
-HORIZONTAL DATUM: NAD83(1994)
-VERTICAL DATUM: NAVD 88
-ZONE COORDINATES: WEST

NOTE: ALL WORK TO BE DONE IN ACCORDANCE WITH THE DEPARTMENT OF TRANSPORTATION OF GEORGIA STANDARD SPECIFICATIONS FOR THE CONSTRUCTION OF ROADS AND BRIDGES, CURRENT EDITION, AND SUPPLEMENTS THERETO, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION.

THE DATA, TOGETHER WITH ALL OTHER INFORMATION SHOWN ON THESE PLANS OR IN ANYWAY INDICATED THEREBY, WHETHER BY DRAWINGS OR NOTES, OR IN ANY OTHER MANNER, ARE BASED UPON FIELD INVESTIGATIONS AND ARE BELIEVED TO BE INDICATIVE OF ACTUAL CONDITIONS. HOWEVER, THE SAME ARE SHOWN AS INFORMATION ONLY, ARE NOT GUARANTEED, AND DO NOT BIND THE DEPARTMENT OF TRANSPORTATION IN ANY WAY. THE ATTENTION OF BIDDER IS SPECIFICALLY DIRECTED TO SUBSECTIONS 102.04, 102.05, AND 104.03 OF THE SPECIFICATIONS.

SCALE IN FEET
0 2000 4000 6000

LENGTH OF PROJECT	MILES
NET LENGTH OF ROADWAY	
NET LENGTH OF BRIDGES	
NET LENGTH OF PROJECT	
NET LENGTH OF EXCEPTIONS	
GROSS LENGTH OF PROJECT	7.98

Fri Aug 10 11:27:23 2007
Fri Aug 10 11:27:23 2007

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	EDS 27 (95)		

TYPICAL SECTION I

ALLOWABLE RANGES TABLE

FOR THIS PROJECT, CROSS SLOPES THAT ARE MEASURED IN "FEET PER" EXISTING PAVEMENT SURFACE ARE SUBJECT TO THE FOLLOWING LIMITS:

A. NORMAL CROWN

SECTION WITH GRADES -0.5% OR GREATER	SECTION WITH GRADES -0.5% THRU 0.5%
0.0250 FT/FT = MINIMUM	0.0150 FT/FT = MINIMUM
0.0500 FT/FT = RECOMMENDED	0.0300 FT/FT = RECOMMENDED
0.0250 FT/FT = MAXIMUM	0.0300 FT/FT = MAXIMUM

B. SUPERELEVATION RATE

S.E. RATE SHOWN ON PLANS OR SI RATE EQUIVALENT OF FIELD MEASUREMENT IS CALCULATED.

C. SUPERELEVATION TRANSITION LENGTH (LANEWAY FROM FLAT, NORM TO FULL SLP)

RATE OF CURVE		SUPERELEVATION DIFFERENCE TO BRING BETWEEN RIGHT EDGE AND EDGE OF PAVEMENT
MINIMUM	0.033	0.070
RECOMMENDED	0.050	0.060
MAXIMUM	0.100	0.033

LENGTH SHALL BE NOT LESS THAN GREATER A FLAT SURFACE SHALL BE ON THE EDGE AND TO BRING FLAT UPPER SLOPES OF 0% NORM THE THE POINT OF VERTICAL CURVE.

D. PROFILEMAKING OF SUPERELEVATION TRANSITION LENGTH ON SIMPLE CURVES

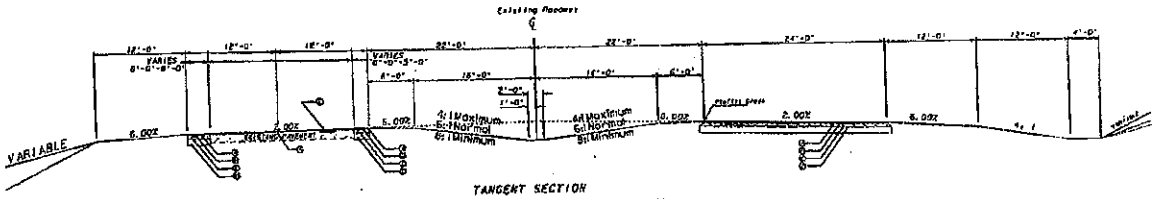
END OF TANGENT/SIMPLE CURVE = MINIMUM
END OF TRANSITION SIMPLE CURVE = RECOMMENDED
END OF TRANSITION SIMPLE CURVE = MAXIMUM

NOTE: GRADE WITHIN THE SHALL BE AT THE SAME RATE AS THE SE TRANSITION.

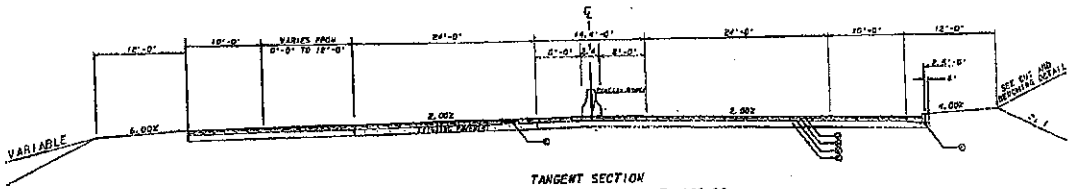
E. PROFILEMAKING OF SHOULD SE CURVE MODIFIED AT BEGIN AND END OF TRANSITION SHALL BE ACCOMPLISHED BY VERTICAL CURVE WITH A MINIMUM LENGTH 100 FEET EQUAL TO THE SPEED REDUCED FOR CURVE.

NOTE: Standard Cross-slope of 1/4" per foot may be varied as directed by the engineer to match the existing roadway as per SPC 413 of the Supplemental Specifications. See "Allowable Ranges Table".

NOTE: an additional 5'-0" on the shoulder will be required on all 24 ft widths to facilitate the installation of guardrail.



TANGENT SECTION
APPLIES TO STA. 60+00 TO STA. 116+00



TANGENT SECTION
APPLIES TO STA. 116+00 TO STA 126+00

△ NOTE: SEE GA. STD 9028C FOR METHOD OF SLOPING SHOULDER.

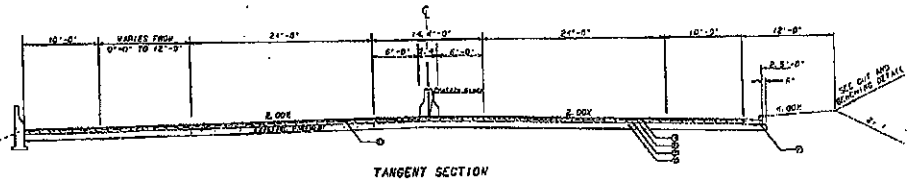
REQUIRED PAVEMENT
- Ⓐ RECYC ASPH CONC, 12.5mm SUPERPAVE MIX, 165# / SY
- Ⓑ RECYC ASPH CONC, 19 mm SUPERPAVE MIX, 220# / SY
- Ⓒ RECYC ASPH CONC, 25 mm SUPERPAVE MIX, 660# / SY
- Ⓓ GRADED AGGREGATE BASE, 12"
- Ⓔ RECYC ASPH CONC LEVELING, AS REQ'D

PROJECT EDS-27(95)
CHATTOOGA COUNTY
P. I. No. 621082
TYPICAL SECTIONS
U.S. 27/S.R. 1

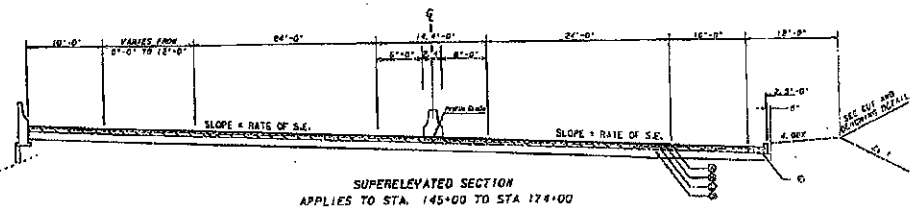
Fri Apr 06 08:22:45 2007
Fri Apr 06 08:22:45 2007

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	EDS 27(95)		

TYPICAL SECTION 2



TANGENT SECTION
APPLIES TO STA. 127+00 TO STA 144+00



SUPERELEVATED SECTION
APPLIES TO STA. 145+00 TO STA 174+00

ALLOWABLE RANGES TABLE

FOR THIS PROJECT, CROSS SLOPES THAT ARE ADJUSTED TO "BEST FIT" EXISTING PAVEMENT SLOPES ARE SUBJECT TO THE FOLLOWING LIMITS:

A. [illegible]

[illegible]	[illegible]
[illegible]	[illegible]

B. [illegible]

[illegible]

C. [illegible]

	RATE OF CHANGE	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]

[illegible]

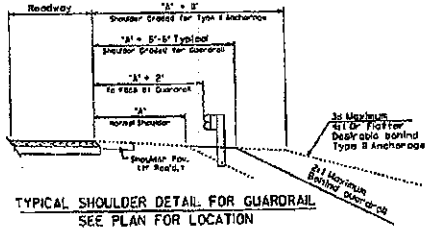
D. [illegible]

[illegible]

E. [illegible]

NOTE: Standard Cross-slope of 1/4" per foot may be varied as directed by the engineer to best fit the existing roadway as per Section 47 the Supplemental Specifications. See "Allowable Ranges Table".

NOTE: An additional 5'-6" to the shoulder will be required on all 36 FM slopes to facilitate the installation of guardrail.



TYPICAL SHOULDER DETAIL FOR GUARDRAIL
SEE PLAN FOR LOCATION

△ NOTE: SEE GA. STD 9028C FOR METHOD OF SLOPING SHOULDER.

REQUIRED PAVEMENT

- Ⓐ RECYC ASPH CONC. 12.5mm SUPERPAVE MIX. 165# / SY
- Ⓑ RECYC ASPH CONC. 19 mm SUPERPAVE MIX. 220# / SY
- Ⓒ RECYC ASPH CONC. 25 mm SUPERPAVE MIX. 660# / SY
- Ⓓ GRADED AGGREGATE BASE. 12"
- Ⓔ RECYC ASPH CONC LEVELING. AS REQ'D
- Ⓕ 8" X 30" CONC. CURB & GUTTER. GA. STD. 9032 B. TYPE 3

PROJECT EDS-27(95)
CHATTOOGA COUNTY
P. I. No. 621082
TYPICAL SECTIONS
U. S. 27/S. R. 1

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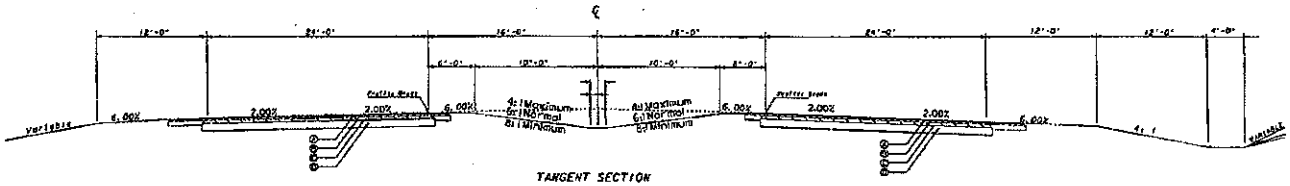
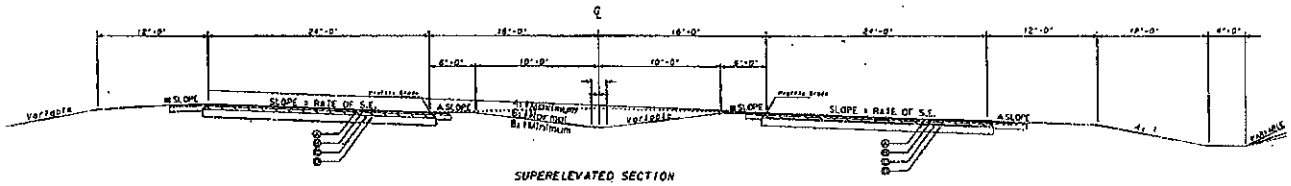
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	EDS 27 (95)		

TYPICAL SECTION 3



TANGENT SECTION
APPLIES TO STA. 234+00 TO STA. 271+00



SUPERELEVATED SECTION
APPLIES TO STA. 175+00 TO STA. 234+00
APPLIES TO STA. 271+00 TO STA. 284+00

△ NOTE: SEE GA. STD 9028C FOR METHOD OF SLOPING SHOULDER.

REQUIRED PAVEMENT
Ⓐ RECYC ASPH CONC, 12.5mm SUPERPAVE MIX, 165° / SY
Ⓑ RECYC ASPH CONC, 19 mm SUPERPAVE MIX, 220° / SY
Ⓒ RECYC ASPH CONC, 25 mm SUPERPAVE MIX, 660° / SY
Ⓓ GRADED AGGREGATE BASE, 12'

ALLOWABLE RANGES TABLE

FOR THIS PROJECT, CROSS SLOPES THAT ARE ADJUSTED TO "BEST FIT" EXISTING PAVEMENT SLOPES ARE SUBJECT TO THE FOLLOWING LIMITS:

A. NORMAL CROWN

SECTION WITH GRADES 6.5% OR GREATER	SECTION WITH GRADES LESS THAN 6.5%
0.0150 FT/FT - MAXIMUM	0.0150 FT/FT - MAXIMUM
0.0200 FT/FT - DESIRABLE	0.0200 FT/FT - DESIRABLE
0.0250 FT/FT - MINIMUM	0.0250 FT/FT - MINIMUM

B. SUPERELEVATION RATE

S.E. RATE SHOWN ON PLANS OR BE RATE EXISTING IN FIELD WHICHEVER IS GREATER.

C. SUPERELEVATION TRANSITION LENGTH LENGTH FROM FLAT POINT TO FULL SEA

	RATE OF CHANGE	CONDITIONAL DIFFERENCE IN GRADE BETWEEN FLAT POINT AND EDGE OF PAVEMENT
MAXIMUM	1:150	0.010
DESIRABLE	1:200	0.500
MINIMUM	1:300	0.330

LENGTH SHALL BE SET TO AVOID CREATING A FLAT WATER WHERE ON LOW SIDE AND TO AVOID FLAT CROSS SLOPES AT OR NEAR THE LOW POINT OF VERTICAL CURVE.

D. POSITIONING OF SUPERELEVATION TRANSITION LENGTH ON SIMPLE CURVES

[illegible]

NOTE: CROWN SLOPE-BUT SHALL BE AT THE SAME RATE AS THE SE TRANSITION

E. INDICATION OF GRADES IN EACH PROFILE AT BEGIN AND END OF TRANSITION SHALL BE ACCOMPLISHED BY VERTICAL CURVE WITH A MINIMUM LENGTH FOR FLAT CURVE TO THE SPEED BELOW 110 KPH.

NOTE: Standard Cross-slope of 1/4" per foot may be varied as directed by the engineer to best fit the existing roadway as per Sec. 105 of the Supplemental Specifications. See "Allowable Ranges Table".

NOTE: An additional 5'-0" to the shoulder will be required on at 24 KM places in facilitate the installation of grandrail.

PROJECT EDS-27(95)
CHATTOOGA COUNTY
P. I. No. 621082
TYPICAL SECTIONS
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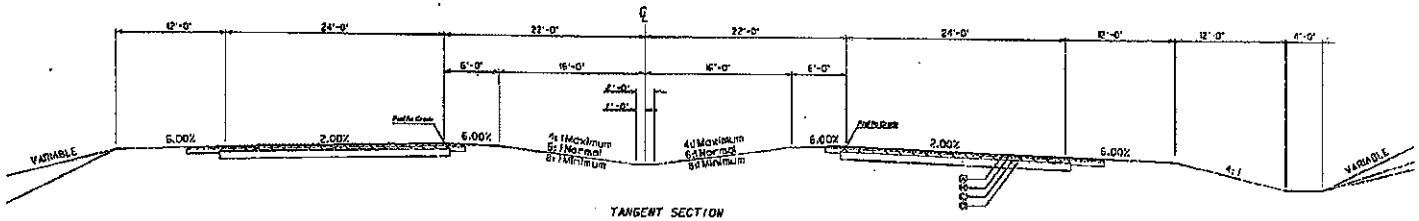
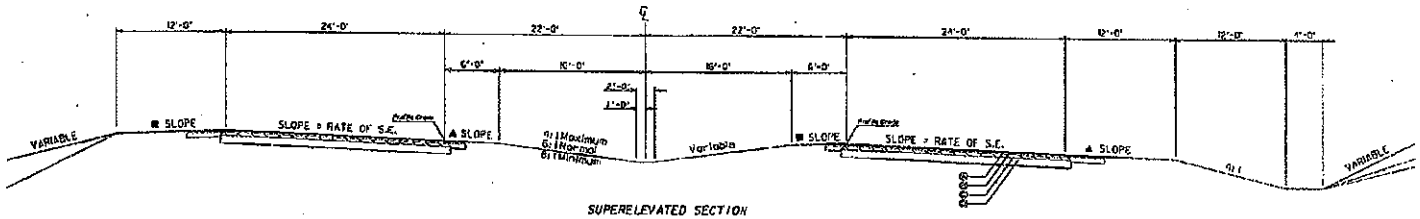
GA.	EDS 27 (95)		

TYPICAL SECTION 4



TANGENT SECTION
APPLIES TO STA. 285+00 TO STA. 349+00
APPLIES TO STA. 413+00 TO STA. 442+00



SUPERELEVATED SECTION
APPLIES TO STA. 350+00 TO STA. 412+00
APPLIES TO STA. 443+00 TO STA. 461+00

ALLOWABLE RANGES TABLE

[illegible]

1. [illegible]

[illegible]	[illegible]
[illegible]	[illegible]

2. [illegible]

3. [illegible]

[illegible]	[illegible]
[illegible]	[illegible]

4. [illegible]

5. [illegible]

NOTE: Standard Construction at 1/2-inch [illegible] may be varied as directed by the engineer to best fit the existing roadway as per 300-19 of the Supplemental Specifications. See "Allowable Ranges Table".

NOTE: An additional 3-ft [illegible] shoulder will be required on [illegible] to facilitate the installation of guardrail.

△ NOTE: SEE GA. STD 9028C FOR METHOD OF SLOPING SHOULDER.

REQUIRED PAVEMENT

Ⓐ RECYC ASPH CONC, 12.5mm SUPERPAVE MIX, 165# / SY
Ⓑ RECYC ASPH CONC, 19 mm SUPERPAVE MIX, 220# / SY
Ⓒ RECYC ASPH CONC, 25 mm SUPERPAVE MIX, 660# / SY
Ⓓ GRADED AGGREGATE BASE, 12"

PROJECT EDS-27(95)
CHATTOOGA COUNTY
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TYPICAL SECTIONS
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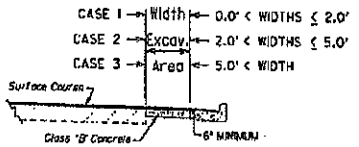
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	EDS 27 (95)		

TYPICAL SECTION 5



NO SCALE
CLASS 'B' CONCRETE BASE OR PAVEMENT WIDENING
Item Code 500-9999 - Cu. Yds.

Case 1:

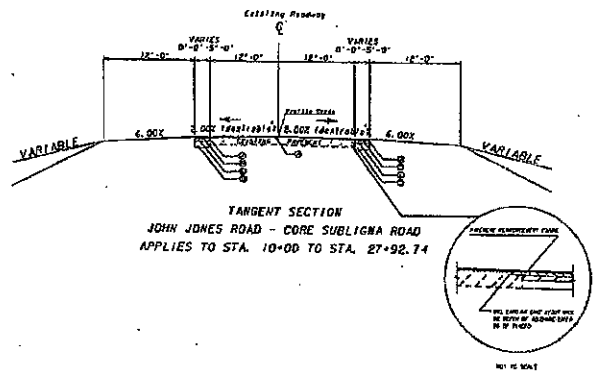
In excavated areas between the existing paving and new curb and gutter that are 2'-0" or less in width, Class 'B' concrete shall be placed in lieu of the base and paving specified by the typical section. Payment will be made under "Class B Concrete Base and Pavement Widening.

Case 2:

In excavated areas between the existing paving and new curb and gutter greater than 2'-0" but no more than 5'-0" in width, the Contractor may place Class 'B' in lieu of the base and paving specified. In these areas, payment will not be made for Class 'B' concrete but payment for the entire width will be made at the prices bid for the equivalent base and paving quantities otherwise required.

Case 3:

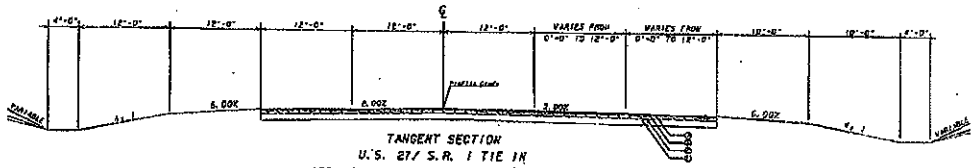
In excavated areas greater than 5'-0" in width, the Contractor shall place base and paving as specified on the typical section.



TANGENT SECTION
JOHN JONES ROAD - CORE SUBLIGNA ROAD
APPLIES TO STA. 10+00 TO STA. 27+92.74

SLOPE CONTROLS		
SLOPE	CUT	FILL
0-10 FT	2:1	4:1
OVER 10'-0"	2:1	2:1

* GUARDRAIL REQUIRED



TANGENT SECTION
U.S. 27/ S.R. 1 TIE IN
APPLIES TO STA. 10+00 TO STA 21+79.69

△ NOTE: SEE GA. STD 9028C FOR METHOD OF SLOPING SHOULDER.

REQUIRED PAVEMENT
Ⓐ RECYC ASPH CONC, 12.5mm SUPERPAVE MIX, 165* / SY
Ⓑ RECYC ASPH CONC, 19 mm SUPERPAVE MIX, 220* / SY
Ⓒ RECYC ASPH CONC, 25 mm SUPERPAVE MIX, 660* / SY
Ⓓ GRADED AGGREGATE BASE, 12"
Ⓔ RECYC ASPH CONC LEVELING, AS REQ'D

PROJECT EDS-27(95)
CHATTOOGA COUNTY
P. I. No. 621082
TYPICAL SECTIONS
U. S. 27/S. R. 1

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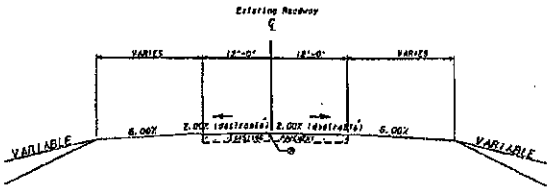
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	EDS 27 (195)		

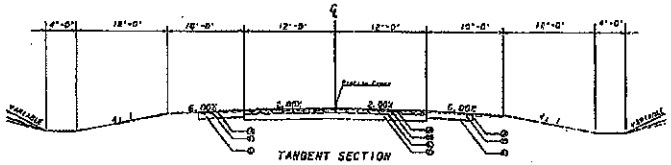
TYPICAL SECTION 6

SLOPE CONTROLS		
SLOPE	CUT	FILL
0-10 FT	2:1	4:1
OVER 10'-0"	2:1	2:1

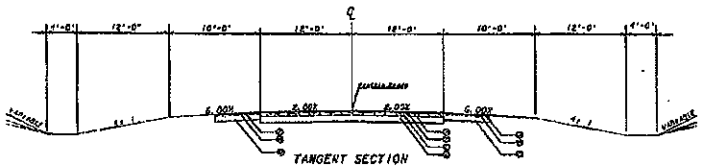
* GUARDRAIL REQUIRED



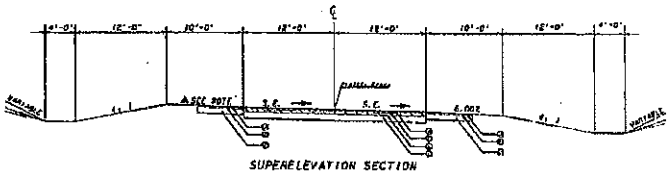
TANGENT SECTION
CR 169 / SPRING CREEK ROAD
APPLIES TO STA. 16+00 TO STA. 17+00



TANGENT SECTION
CR 324 / SPRING CREEK ROAD
APPLIES TO STA. 10+90 TO STA. 24+00



TANGENT SECTION
CR 169 / SPRING CREEK ROAD
APPLIES TO STA. 17+00 TO STA. 26+00



SUPERELEVATION SECTION
CR 324 / SPRING CREEK ROAD

△ NOTE: SEE GA. STD 9028C FOR METHOD OF SLOPING SHOULDER.

REQUIRED PAVEMENT

Ⓐ RECYC ASPH CONC, 12.5mm SUPERPAVE MIX, 165* / SY
Ⓑ RECYC ASPH CONC, 19 mm SUPERPAVE MIX, 220* / SY
Ⓒ RECYC ASPH CONC, 25 mm SUPERPAVE MIX, 660* / SY
Ⓓ GRADED AGGREGATE BASE, 12"
Ⓔ RECYC ASPH CONC LEVELING, AS REQ'D

PROJECT EDS-27(195)
CHATTOOGA COUNTY
P. I. No. 621082
TYPICAL SECTIONS
U. S. 27/S. R. 1

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PROJECT NO. : EDS -27(95)
COUNTY: CHATTOOGA COUNTY
P.I. NO.: 621082
Summerville Bypass

Office of Materials and Research found evidence of major sliding of the slopes within the southernmost portion of the project within STA 95+00 and STA170+00. Many of these areas contain a large amount of colluviums; loose rock and soil at the base of steep slopes. After heavy rains, areas of the existing roadway within this section erode 6" to 1' gaps that require immediate repairs.

A suggestion within the offices (Road Design, OMR and Environmental/Location) was that the beginning of the alignment be shifted 40' west of the current alignment within STA 99+00 and 175+00.

With the 40' shift and Median barrier we are minimizing construction limits in areas of high cuts or fills.

The original concept called for a 4 lane 44' depressed median beginning at CR 329 northward one-half mile, then transitioned to a 14' flushed median for approximately one mile, then at the crest of Taylor Ridge transitioned to a 4' median for approximately 0.7 mile. From this point the proposed typical section called for a 44' depressed median for the remainder of the project.

Functional classification for the Summerville Bypass is rural principal, and the speed design is 55 mph from station 50+00 to station 183+00. According to Design Policy Manual a 44-ft depressed median or a positive barrier system required for all arterials with design speeds greater than 45 mph. (The current Design Policy Manual would not allow a 14' flushed median to be used in this instance.)

Also In order to minimize the impacts to sliding areas, stream and the construction limits in areas of high cuts or fills we used Median barrier instead of 44-ft depressed median.

Design Policy Manual:

"All arterials with design speeds greater than 45 mph will require:

- A 24-ft raised median with a sloped curb, which will require a 2-ft. additional paved shoulder offset from the edge of the gutter.
- A 44-ft depressed median or a **positive barrier system** depending upon functional classification, the tape of development along the corridor, type of the access management and right-of-way impacts."