

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

**OFFICE OF DESIGN POLICY & SUPPORT
INTERDEPARTMENTAL CORRESPONDENCE**

FILE P.I. #610750-
IM000-0075-03(189)
GDOT District 6 - Cartersville
Gordon County
I-75 @ SR 156

OFFICE Design Policy & Support

DATE March 15, 2011

FROM  Brent Story, State Design Policy Engineer

TO SEE DISTRIBUTION

SUBJECT **APPROVED REVISED PROJECT CONCEPT REPORT**

Attached is the approved Revised Project Concept Report for the above subject project.

Attachment

DISTRIBUTION:

Rodney Barry, Division Administrator, FHWA-Georgia Division
Genetha Rice-Singleton, Program Control Administrator
Bobby Hilliard, State Program Delivery Engineer
Cindy VanDyke, State Transportation Planning Administrator
Angela Robinson, Financial Management Administrator
Glenn Bowman, State Environmental Administrator
Ben Rabun, State Bridge Engineer
Russell McMurry, State Roadway Design Engineer
Attn: Fletcher Miller, Design Group Manager
Kathy Zahul, State Traffic Engineer
Georgene Geary, State Materials & Research Engineer
Ron Wishon, State Project Review Engineer
Jeff Baker, State Utilities Engineer
Ken Thompson, Statewide Location Bureau Chief
Kent Sager, District Engineer
DeWayne Comer, District Preconstruction Engineer
Kerry Bonner, District Utilities Engineer
Terry Rogers, Project Manager
BOARD MEMBER - 11th Congressional District

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
REVISED PROJECT CONCEPT REPORT**

Project Number: IM000-0075-03(189)

County: Gordon

P. I. Number: 610750-

Federal Route Number: I-75

State Route Number: 156

The variable raised median as approved in the project concept is proposed to be changed to a 14 ft. flush median. A design variance has been approved to reduce the required minimum limited access. Columbus Circle Extension is proposed to be eliminated from the project.

Submitted for approval:

DATE 11/05/2010

Russell R. McMurtry
State Roadway Design Engineer

DATE 11/8/2010

Robert Hilliard
State Program Delivery Engineer

DATE 11/8/10

Gregory Rogers
Project Manager

Recommendation for approval:

DATE 11/12/10

Glenn Bowman **
State Environmental Administrator

DATE 2/12/11

Ben Rabun **
State Bridge Design Engineer

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

DATE 11/16/10

Matthew Fowler
for State Transportation Planning Administrator

* This project is not currently programmed in the FY 11-14 STIP. However, the project description matches that which was included in a previous STIP + will match the description which will be included in a future STIP once construction is advanced.

** Recommendation on file. KKF

REVISED PROJECT CONCEPT REPORT

P.I. Number: 610750-
Project Number: IM000-0075-03(189)
County: Gordon

Need and Purpose: The Project will incorporate the reconstruction of SR 156, beginning on the west side of I-75 at the intersection of Curtis Parkway/Warrior Drive and extend east crossing under I-75 to the Newtown Church Road intersection. SR 156/Redbud Road, after reconstruction, will have two east and west bound lanes separated by a variable width six inch high curbed median. Interstate 75 overpasses SR 156/Redbud Road currently and will continue to do so in the future. However, in order to provide for the widening of Redbud Road, the I-75 Bridge will have to be reconstructed. In addition, all four ramps of the diamond interchange will have to be realigned and reconstructed along with the new bridge construction.

In 1989, the Department identified a priority list of interstate interchanges that had operational problems. This location was given a Priority of 2. Sight distance under the I-75 Bridge, and the accidents that occur as a result of the poor sight distance, is a problem that must be corrected.

There are no other transportation projects in the vicinity of the proposed project. The proposed termini are logical in that the project begins at a four-lane section and ends at a two-lane section, where the traffic flow is less.

Project location: The reconstruction begins along SR 156/Redbud Road at mile marker 12.97, approximately 500' west of the Curtis Parkway/Warrior Drive intersection and ends at mile marker 13.75, approximately 800' east of the Harmony Church Road/Newtown Church Road intersection. In addition, the I-75 diamond interchange ramps will be reconstructed from mile marker 314.52 until mile marker 315.66. This project will also realign the side roads of Harmony Church Road/Newtown Church Road as well as South Moss Drive. An extension road will be built (Conference Drive Extension) to provide access to properties north of SR 156/Redbud Road and east of I-75. The total length of the project on SR 156/Redbud Road and I-75 is 0.78 miles and 1.14 miles respectively. The entire project lies within Gordon County.

Description of the approved concept: This project is the reconstruction of the I-75/SR 156 Interchange in Gordon County. The project will incorporate the reconstruction of SR 156/Redbud Road beginning on the West side of I-75 just west of the intersection of Curtis Parkway/Warrior Path and extend east crossing underneath I-75 to the intersection of SR 156 with Newtown Church Road/Harmony Church Road. SR 156 will be widened to provide two through lanes eastbound and two through lanes westbound with a variable width raised median. Left turn lanes will be provided eastbound and westbound on SR 156 for access to the I-75 entrance ramps. The widening of SR 156 will necessitate the replacement of the I-75 Bridge over SR 156 with a bridge long enough to span the proposed widening. Also required is the realignment and reconstruction of all four of the I-75 Interchange ramps. Sidewalks will be constructed on both sides of SR 156 through the limits of the project. This project will also include the construction of the Conference Drive Extension and the Columbus Circle Extension. Conference Drive Extension will connect Conference Drive to Harmony Church Road northeast of the I-75/SR 156 Interchange. Columbus Circle Extension will connect Columbus Circle to Warrior Path northwest of the I-75/SR 156 Interchange.

PDP Classification: Major Minor

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

Functional Classification: I-75: Rural Principal Interstate
SR 156/Redbud Road: Urban Minor Arterial

U. S. Route Number(s): I-75

State Route Number(s): 156

Traffic (AADT) as shown in the approved concept:

I-75:	Opening Year: <u>65,000 (2002)</u>	Design Year: <u>104,000 (2022)</u>
S.R. 156:	<u>16,700 (2002)</u>	<u>26,900 (2022)</u>

Updated traffic data (AADT):

I-75:	Opening Year: <u>86,900 (2020)</u>	Design Year: <u>108,450 (2040)</u>
S.R. 156:	<u>15,800 (2020)</u>	<u>19,750 (2040)</u>

Approved Programmed/Schedule:

P.E.: 1995 R/W: 2005 Construction: LR

VE Study Required Yes (X) No ()

Is the project located in an Ozone Non-attainment area? Yes () No (X)

Is the project in a PM2.5 Non-Attainment area? Yes () No (X)

<p>Approved Features:</p> <p>1. Typical Section The approved project concept proposes a variable width (20 ft. to 32 ft.) 6 in. high raised concrete median for SR 156/Redbud Road.</p> <p>2. Access Control The approved project concept proposes limited access controlled 100 ft. beyond each ramp radius point along SR 156/Redbud Road.</p> <p>3. Project Scope The approved project concept proposes the construction of Columbus Circle Extension to Warrior Path.</p>	<p>Proposed Features:</p> <p>1. Typical Sections It is proposed that SR 156/Redbud Road will provide a 14 ft. flush median, except at the following three locations, where a raised concrete median will be constructed.</p> <ul style="list-style-type: none"> • West of the I-75/SR156 interchange from station 22+39 to station 24+67, approximately 228 ft. long and 10 ft. to 28 ft. wide. • At the interchange from station 25+77 to station 29+87, approximately 410 ft. long and 4 ft. wide. • East of the I-75/SR156 interchange from station 30+94 to station 33+73, approximately 279 ft. long and 28 ft. to 10 ft. wide. <p>2. Access Control There is an approved project design variance that proposes limited access control ending 167 ft. east of the northbound ramp (north side of SR 156), 228 ft. east of the northbound ramp (south side of SR 156), and 282 ft. west of the southbound ramp (both sides of SR 156).</p> <p>3. Project Scope It is proposed to eliminate the construction of Columbus Circle Extension.</p>
<p>Reasons for Change:</p> <p>1. Design year traffic volumes do not currently warrant a raised median. The proposed typical section provides for conversion to a 20 ft. raised median once traffic volumes warrant.</p> <p>2. A design variance was approved to break the current policy for the following reasons: (1) the current typical section constructs a raised median which restricts left turns within the minimum 300 ft. limited access area at the ramps and will help enhance the operations in the interchange area; (2) extending the limits of access along SR 156 for a distance of 300 ft. will require an additional estimated \$701,000 in damages, additional impacts to properties plus damages that could be awarded in condemnation of the Waffle House parcel.</p> <p>3. The construction of Columbus Circle Extension is no longer justified due to the proposal of the flush median on SR 156/ Redbud Road.</p>	

Potential Environmental Impacts of the Proposed Revision:

There are no anticipated increases to environmental impacts.

Have proposed Revisions Been Reviewed by Environmental Staff? Yes (X) No ()
Environmental Responsibilities (Studies/Documents/Permits): GDOT

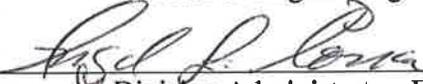
Updated Cost Estimate	
Construction including Contingencies	\$22,715,479
Right-of-Way	\$14,888,000 (Authorized)
Utilities (Reimbursable)	\$163,746

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

Attachments:

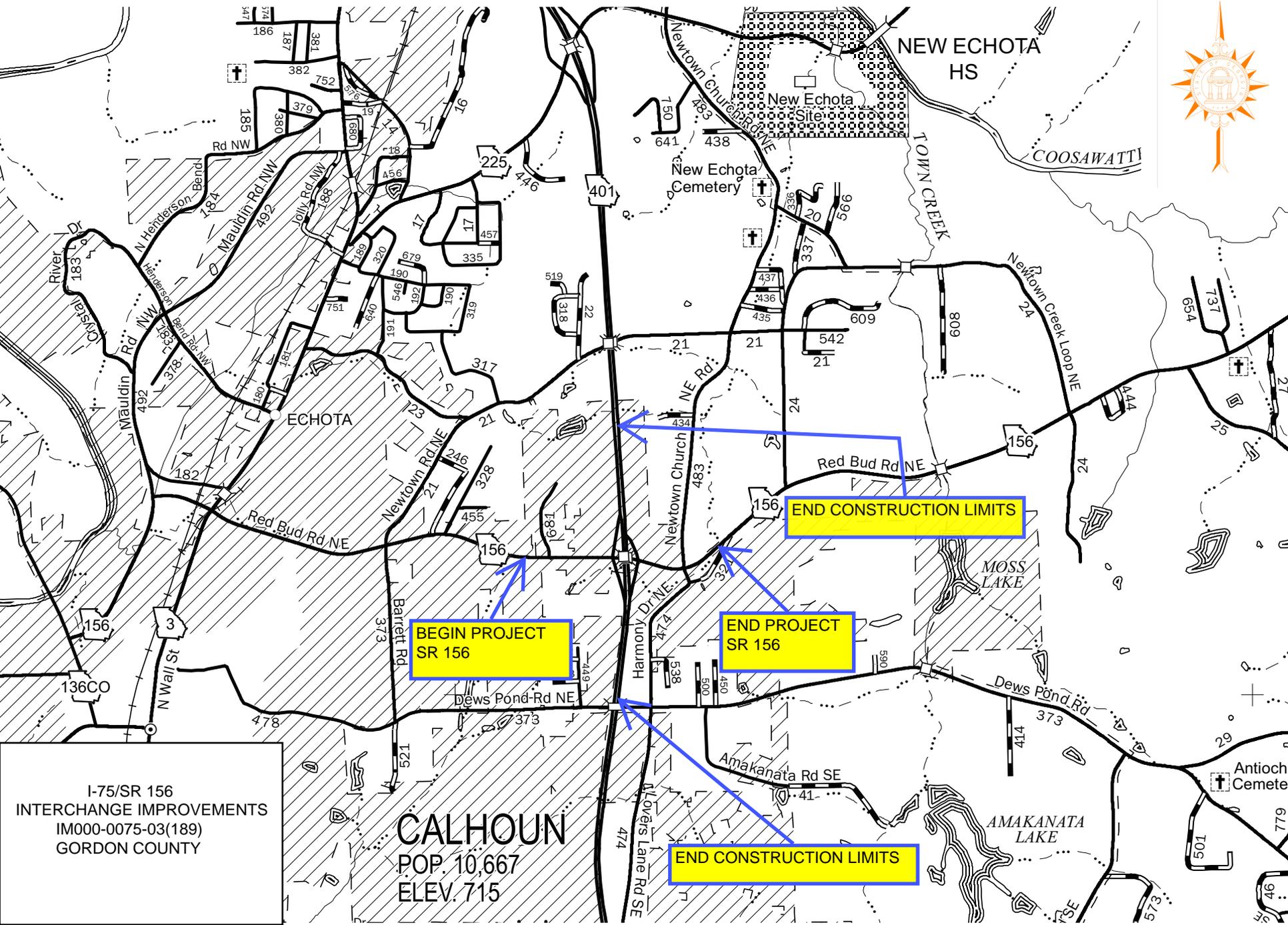
1. Sketch Map
2. Cost Estimate
3. Typical Section
4. Updated Traffic
5. Approved Design Variance
6. Plan view of proposed features
7. QC/QA for Revised Concept Report
8. VE Implementation Summary

Concur: 
Director of Engineering

Approve: 
for Division Administrator, FHWA

Approve: 
Chief Engineer

Date: 3/8/2011



I-75/SR 156
INTERCHANGE IMPROVEMENTS
IM000-0075-03(189)
GORDON COUNTY

CALHOUN
POP. 10,667
ELEV. 715

**BEGIN PROJECT
SR 156**

**END PROJECT
SR 156**

END CONSTRUCTION LIMITS

END CONSTRUCTION LIMITS

NEW ECHOTA
HS

New Echota
Site

New Echota
Cemetery

ECHOTA

MOSS
LAKE

AMAKANATA
LAKE

Antioch
Cemete

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE PROJECT No. , **OFFICE**
 DATE

P.I. No.

FROM *B.A.*

TO Ronald E. Wishon, Project Review Engineer

SUBJECT REVISIONS TO PROGRAMMED COSTS

PROJECT MANAGER

MNGT LET DATE

MNGT R/W DATE

PROGRAMMED COST (TPro W/OUT INFLATION)

LAST ESTIMATE UPDATE

CONSTRUCTION \$

DATE

RIGHT OF WAY \$

DATE

UTILITIES \$

DATE

REVISED COST ESTIMATES

CONSTRUCTION* \$

RIGHT OF WAY \$

UTILITIES \$

* Costs contain % Engineering and Inspection

REASON FOR COST INCREASE

CONTINGENCY SUMMARY

Construction Cost Estimate:	\$ 17,619,302.27	(Base Estimate)
Engineering and Inspection:	\$ 880,965.11	(Base Estimate x 5 %)
Total Fuel Adjustment	\$ 1,685,659.65	(From attached worksheet)
Total Liquid AC Adjustment	\$ 2,529,551.90	(From attached worksheet)
Construction Total:	\$ 22,715,478.93	

REIMBURSABLE UTILITY COST

Utility Owner

Reimbursable Cost

Attachments

S.H.
BKH:SH:TR

JOB ESTIMATE REPORT

1210	207-0203	CY	FOUND BKFILL MATL, TP II	1000.000	50.03	50034.76
1215	441-0204	SY	PLAIN CONC DITCH PAVING, 4 IN	740.000	30.99	22936.32
1220	441-0301	EA	CONC SPILLWAY, TP 1	4.000	2231.13	8924.54
1225	441-0303	EA	CONC SPILLWAY, TP 3	6.000	1882.62	11295.75
1230	500-3101	CY	CLASS A CONCRETE	150.000	378.75	56813.99
1235	500-3200	CY	CL B CONC	400.000	116.73	46695.00
1240	500-3800	CY	CL A CONC, INCL REINF STEEL	50.000	610.33	30516.96
1245	511-1000	LB	BAR REINF STEEL	25000.000	0.59	14895.50
1250	550-1150	LF	STM DR PIPE 15",H 1-10	140.000	26.41	3698.53
1255	550-1180	LF	STM DR PIPE 18",H 1-10	2305.000	28.52	65752.34
1260	550-1181	LF	STM DR PIPE 18",H 10-15	300.000	33.98	10196.00
1265	550-1240	LF	STM DR PIPE 24",H 1-10	1607.000	35.35	56822.93
1270	550-1300	LF	STM DR PIPE 30",H 1-10	841.000	43.34	36449.77
1275	550-1301	LF	STM DR PIPE 30",H 10-15	300.000	47.33	14200.43
1280	550-1360	LF	STM DR PIPE 36",H 1-10	220.000	57.88	12734.64
1285	550-1421	LF	STM DR PIPE 42",H 10-15	300.000	92.50	27750.00
1290	550-4215	EA	FLARED END SECT 15 IN, ST DR	3.000	380.90	1142.70
1295	550-4218	EA	FLARED END SECT 18 IN, ST DR	12.000	464.06	5568.82
1300	550-4224	EA	FLARED END SECT 24 IN, ST DR	6.000	495.55	2973.30
1305	550-4230	EA	FLARED END SECT 30 IN, ST DR	6.000	572.01	3432.06
1310	550-4242	EA	FLARED END SECT 42 IN, ST DR	2.000	956.76	1913.53
1315	576-1018	LF	SLOPE DRAIN PIPE, 18 IN	60.000	25.49	1529.45
1320	603-7000	SY	PLASTIC FILTER FABRIC	1000.000	3.44	3442.09
1325	611-3010	EA	RECONSTR DROP INLET, GROUP 1	1.000	1284.66	1284.67
1330	611-8040	EA	ADJUST DROP INLET TO GRADE	6.000	881.99	5291.97
1335	668-1100	EA	CATCH BASIN, GP 1	36.000	1942.00	69912.00
1339	668-1110	LF	CATCH BASIN, GP 1, ADDL DEPTH	9.000	159.36	1434.33
1340	668-1200	EA	CATCH BASIN, GP 2	5.000	2776.99	13884.96
1345	668-2100	EA	DROP INLET, GP 1	19.000	1680.64	31932.29
1350	668-4300	EA	STORM SEW MANHOLE, TP 1	1.000	1754.80	1754.80
1355	668-8011	SF	SAFETY GRATE, TP 1	100.000	44.78	4478.35
1360	603-2024	SY	STN DUMPED RIP RAP, TP 1, 24"	120.000	41.34	4960.81
1365	603-2181	SY	STN DUMPED RIP RAP, TP 3, 18"	300.000	45.78	13734.91
1370	700-6910	AC	PERMANENT GRASSING	35.000	598.18	20936.47
1375	700-7000	TN	AGRICULTURAL LIME	105.000	48.18	5059.11
1380	700-7010	GL	LIQUID LIME	88.000	16.99	1495.51
1385	700-8000	TN	FERTILIZER MIXED GRADE	35.000	381.53	13353.61
1390	700-8100	LB	FERTILIZER NITROGEN CONTENT	1750.000	2.05	3603.30
1395	710-9000	SY	PERM SOIL REINFORCING MAT	5000.000	2.78	139307.50
1400	716-2000	SY	EROSION CONTROL MATS, SLOPES	5000.000	0.95	4786.90
1405	163-0232	AC	TEMPORARY GRASSING	35.000	600.00	21000.00
1410	163-0240	TN	MULCH	758.000	164.08	124372.83
1415	163-0300	EA	CONSTRUCTION EXIT	12.000	1055.29	12663.51
1420	163-0501	EA	CONSTR AND REMOVE SILT CONTROL GATE,TP 1	1.000	567.43	567.43
1425	163-0503	EA	CONSTR AND REMOVE SILT CONTROL GATE,TP 3	9.000	347.32	3125.94
1430	163-0520	LF	CONSTR AND REMOVE TEMP PIPE SLOPE DRAIN	68.000	16.38	1113.87
1435	163-0530	LF	CONSTR AND REMOVE BALED STRW EROSION CHK	4000.000	3.50	14000.00
1440	163-0550	EA	CONS & REM INLET SEDIMENT TRAP	66.000	135.46	8940.69
1445	165-0010	LF	MAINT OF TEMP SILT FENCE, TP A	47500.000	1.00	47500.00

JOB ESTIMATE REPORT

1455	165-0070	LF	MAINT OF BALED STRAW EROSION CHECK	2000.000	1.50	3000.00
1460	165-0085	EA	MAINT OF SILT CONTROL GATE, TP 1	1.000	169.22	169.23
1465	165-0087	EA	MAINT OF SILT CONTROL GATE, TP 3	9.000	118.04	1062.39
1470	165-0101	EA	MAINT OF CONST EXIT	12.000	500.00	6000.00
1475	165-0105	EA	MAINT OF INLET SEDIMENT TRAP	66.000	51.09	3372.16
1480	167-1000	EA	WATER QUALITY MONITORING AND SAMPLING	2.000	244.27	488.55
1485	167-1500	MO	WATER QUALITY INSPECTIONS	24.000	216.66	5200.00
1490	171-0010	LF	TEMPORARY SILT FENCE, TYPE A	94100.000	0.95	90317.18
1495	171-0030	LF	TEMPORARY SILT FENCE, TYPE C	31100.000	2.56	79720.50
1499	001-0000	\$	MISC ITEMS ARROWS AND WORDS	65.000	100.00	6500.00
1500	636-1020	SF	HWY SGN,TP1MAT,REFL SH TP3	500.000	12.76	6383.56
1505	636-1029	SF	HWY SGN,TP2 MATL,REFL SH TP 3	170.000	13.83	2351.15
1510	636-2070	LF	GALV STEEL POSTS, TP 7	1100.000	7.05	7763.77
1515	636-2080	LF	GALV STEEL POSTS, TP 8	150.000	9.17	1376.35
1520	653-1501	LF	THERMO SOLID TRAF ST 5 IN, WHI	35500.000	0.31	11047.60
1525	653-1502	LF	THERMO SOLID TRAF ST, 5 IN YEL	34600.000	0.27	9638.87
1530	653-1704	LF	THERM SOLID TRAF STRIPE,24",WH	710.000	3.61	2566.27
1535	653-1804	LF	THERM SOLID TRAF STRIPE, 8",WH	5600.000	1.60	8988.00
1540	653-1810	LF	THER SLD TRAF STRIPE, 10 IN, W	6400.000	0.99	6367.94
1545	653-3501	GLF	THERMO SKIP TRAF ST, 5 IN, WHI	31000.000	0.16	5241.48
1550	653-3502	GLF	THERMO SKIP TRAF ST, 5 IN, YEL	1560.000	0.20	318.05
1555	653-6004	SY	THERM TRAF STRIPING, WHITE	1170.000	2.90	3403.94
1560	653-6006	SY	THERM TRAF STRIPING, YELLOW	880.000	2.84	2503.33
1565	654-1001	EA	RAISED PVMT MARKERS TP 1	478.000	3.18	1524.78
1570	639-3004	EA	STEEL STRAIN POLE, TP IV	4.000	6390.92	25563.71
1575	647-1000	LS	TRAF SIGNAL INSTALLATION NO - 1	1.000	70000.00	70000.00
1590	647-1000	LS	TRAF SIGNAL INSTALLATION NO - 2	1.000	70000.00	70000.00
1595	647-2140	EA	PULL BOX, PB-4	6.000	1253.95	7523.74
1600	647-2150	EA	PULL BOX, PB-5	4.000	1413.00	5652.00
1605	935-1113	LF	OUT PLNT FBR OPT CBL,LOOSE TB,SM,24 FBR	2988.000	1.83	5469.62
1610	935-3103	EA	FIBER OPTIC CLOSURE,UNDRGRD,24 FBR	4.000	406.23	1624.93
1615	935-5050	EA	FIBER OPTIC PATCH CORD, SM	4.000	64.95	259.80
1620	935-5060	EA	FIBER OPTIC SNOWSHOE	4.000	255.00	1020.00
1625	935-6562	EA	EXT TRNSCVR,DRP&RPT,1310SM,(SIGNAL JOBS)	4.000	1460.80	5843.21
1630	500-3101	CY	CLASS A CONCRETE	177.000	378.75	67040.51
1635	511-1000	LB	BAR REINF STEEL	25793.000	0.59	15331.36
1640	681-6646	EA	LUMINAIRE,TP A, 250W,HP SODIUM	14.000	1300.00	18200.00
1645	682-1404	LF	CABLE, TP XHHW, AWG NO 10	13656.000	0.47	6509.41
1650	682-1406	LF	CABLE, TP XHHW, AWG NO 6	50358.000	1.08	54864.54
1655	682-1407	LF	CABLE, TP XHHW, AWG NO 4	10764.000	1.92	20702.72
1660	682-1408	LF	CABLE, TP XHHW, AWG NO 2	6780.000	2.03	13785.98
1665	682-6110	LF	CONDUIT, RIGID, 1 IN	960.000	6.65	6393.23
1670	682-6115	LF	CONDUIT, RIGID, 1 1/2 IN	984.000	9.13	8987.03
1675	682-6120	LF	CONDUIT, RIGID, 2 IN	132.000	12.97	1713.23
1680	682-6219	LF	CONDUIT, NONMETL, TP 2, 1 IN	312.000	4.36	1361.12
1685	682-6221	LF	CONDUIT, NONMETL, TP 2, 1 1/2"	9624.000	2.00	19248.00
1690	682-6222	LF	CONDUIT, NONMETL, TP 2, 2 IN	120.000	6.00	720.00
1695	682-9000	LS	MAIN SVC PICK UP POINT A	1.000	11000.00	11000.00
1700	682-9000	LS	MAIN SVC PICK UP POINT B	1.000	11000.00	11000.00
1705	682-9000	LS	MAIN SVC PICK UP POINT C	1.000	11000.00	11000.00

JOB ESTIMATE REPORT

ITEM NO	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL PRICE
1710	682-9021 EA ELEC JCT BX,CONC GRD MOUNTED		11.000	2391.20	26303.24
1715	682-9023 EA ELEC JCT BX,GALVANIZED, SIZE -		5.000	403.66	2018.33
1720	683-1101 EA LIGHT TOW/STEL/100'MH/LW EQUIP		18.000	14677.04	264186.84
1725	683-6586 EA HI-LEVEL LUMIN,TP 5,1000W,HP		72.000	848.44	61088.16
1730	540-1101 LS REM OF EX BR, STA NO - 442+50 LT		1.000	131100.00	131100.00
1735	540-1101 LS REM OF EX BR, STA NO - 442+50 RT		1.000	131100.00	131100.00
1740	543-9000 LS CONSTR OF BRIDGE COMPLETE - BRIDGE #1		1.000	2269289.00	2269289.00
1745	627-1000 SF MSE WALL FACE, 0 - 10 FT HT, WALL NO - 1		1500.000	34.11	51174.12
1750	627-1010 SF MSE WALL FACE, 10 - 20 FT HT, WALL NO - 1		3000.000	38.87	116638.86
1755	627-1100 LF COPING A, WALL NO - 1		500.000	65.96	32984.25
1760	627-1180 CY ADDITIONAL MSE BACKFILL		1800.000	26.38	47496.01
1765	500-3107 CY CL A CONC, RET WALL		125.000	458.83	57354.58
1770	511-1000 LB BAR REINF STEEL		14440.000	0.62	8971.72
1775	530-0105 SY WATERPROOFING		4.000	46.60	186.40
1780	627-1010 SF MSE WALL FACE, 10 - 20 FT HT, WALL NO - 3		1754.000	42.10	73853.75
1785	627-1100 LF COPING A, WALL NO - 3		227.000	68.02	15440.54
1790	627-1180 CY ADDITIONAL MSE BACKFILL		1039.000	26.38	27415.75
1795	627-1010 SF MSE WALL FACE, 10 - 20 FT HT, WALL NO - 4		1882.000	41.66	78418.59
1800	627-1100 LF COPING A, WALL NO - 4		241.000	65.96	15898.41
1805	627-1180 CY ADDITIONAL MSE BACKFILL		1394.000	26.38	36783.02
1300	109-0100 *\$* PRICE ADJ - UNLEADED FUEL		1.000	384549.27	384549.27
1305	109-0200 *\$* PRICE ADJ - DIESEL FUEL		1.000	1301110.38	1301110.38
1310	109-0300 *\$* PRICE ADJ - ASPHALT CEMENT		1.000	2529551.90	2529551.90
1315	610-9099 LS REM WINGWALLS/PARAPETS, STA - 37+20 LT		1.000	1500.00	1500.00
1320	610-9099 LS REM WINGWALLS/PARAPETS, STA - 37+20 RT		1.000	1500.00	1500.00
1325	610-9099 LS REM WINGWALLS/PARAPETS, STA - 440+50 LT		1.000	1500.00	1500.00
1330	610-9099 LS REM WINGWALLS/PARAPETS, STA - 439+90 RT		1.000	1500.00	1500.00
1335	610-9099 LS REM WINGWALLS/PARAPETS, STA - 28+60 LT		1.000	1500.00	1500.00
1340	610-9099 LS REM WINGWALLS/PARAPETS, STA - 28+50 RT		1.000	1500.00	1500.00

ITEM TOTAL 21834513.82
INFLATED ITEM TOTAL 21834513.82

TOTALS FOR JOB 610750

ESTIMATED COST: 21834513.91
CONTINGENCY PERCENT (0.0): 0.00
ESTIMATED TOTAL: 21834513.91

P.I. Number 610750-

County Gordon

Project Number IM000-0075-03(189)

Special Provision, Section 109-Measurement and Payment
FUEL PRICE ADJUSTMENT (*ENGLISH 125% MAX*)

ENTER FPL DIESEL	3.092
ENTER FPM DIESEL	6.957

ENTER FPL UNLEADED	2.776
ENTER FPM UNLEADED	6.246

<http://www.dot.ga.gov/doingbusiness/Materials/Pages/asphaltcementindex.aspx>

INCREASE ADJUSTMENT
125.00%

INCREASE ADJUSTMENT
125.00%

ROADWAY ITEMS	QUANTITY	DIESEL FACTOR	GALLONS DIESEL	UNLEADED FACTOR	GALLONS UNLEADED	REMARKS
Excavations paid as specified by Sections 205 (CUBIC YARD)	132868.000	0.29	38531.72	0.15	19930.20	
Excavations paid as specified by Sections 206 (CUBIC YARD)	33934.000	0.29	9840.86	0.15	5090.10	
GAB paid as specified by the ton under Section 310 (TON)	105201.000	0.29	30508.29	0.24	25248.24	
Hot Mix Asphalt paid as specified by the ton under Sections 400 (TON)	10947.000	2.90	31746.30	0.71	7772.37	
Hot Mix Asphalt paid as specified by the ton under Sections 402 (TON)	80561.000	2.90	233626.90	0.71	57198.31	
PCC Pavement paid as specified by the square yard under Section 430 (SY)	7560.000	0.25	1890.00	0.20	1512.00	

BRIDGE ITEMS	Quantity	Unit Price	QF/1000	Diesel Factor	Gallons Diesel	Unleaded Factor	Gallons Unleaded	REMARKS
Bridge Excavation (CY) Section 211				8.00		1.50		
Class __ Concrete (CY) Section 500	1.00	2,269,289.00	2269.2890	8.00	18154.31	1.50	3403.93	Total Cost for Bridge
Class __ Concrete (CY) Section 500	452.00	247.05	111.6666	8.00	893.33	1.50	167.50	Culverts, Lighting & Wall No. 2
Class __ Concrete (CY) Section 500	50.00	639.91	31.9955	8.00	255.96	1.50	47.99	Endwalls
Superstru Con Class__(CY) Section 500				8.00		1.50		
Superstru Con Class__(CY) Section 500				8.00		1.50		
Superstru Con Class__(CY) Section 500				8.00		1.50		
Concrete Handrail (LF) Section 500				8.00		1.50		
Concrete Barrier (LF) Section 500				8.00		1.50		

BRIDGE ITEMS	Quantity	Unit Price	QF/1000	Diesel Factor	Gallons Diesel	Unleaded Factor	Gallons Unleaded	REMARKS
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Stru Steel <u>Plan Quantity</u> (LB) Section 501				8.00		1.50		
Stru Steel <u>Plan Quantity</u> (LB) Section 501				8.00		1.50		
PSC Beams____ (LF) Section 507				8.00		1.50		
PSC Beams____ (LF) Section 507				8.00		1.50		
PSC Beams____ (LF) Section 507				8.00		1.50		
Stru Reinf <u>Plan Quantity</u> (LB) Section 511				8.00		1.50		
Stru Reinf <u>Plan Quantity</u> (LB) Section 511				8.00		1.50		
Bar Reinf Steel (LB) Section 511	65233.00	0.89	58.0574	8.00	464.46	1.50	87.09	Culverts & Wall No. 2
Piling____inch (LF) Section 520				8.00		1.50		
Piling____inch (LF) Section 520				8.00		1.50		
Piling____inch (LF) Section 520				8.00		1.50		
Piling____inch (LF) Section 520				8.00		1.50		
Piling____inch (LF) Section 520				8.00		1.50		
Piling____inch (LF) Section 520				8.00		1.50		
Drilled Caisson,____ (LF) Section 524				8.00		1.50		
Drilled Caisson,____ (LF) Section 524				8.00		1.50		
Drilled Caisson,____ (LF) Section 524				8.00		1.50		
Pile Encasement,____(LF) Section 547				8.00		1.50		
Pile Encasement,____(LF) Section 547				8.00		1.50		

SUM QF DIESEL=	365912.14	SUM QF UNLEADED=	120457.73
-----------------------	------------------	-------------------------	------------------

DIESEL PRICE ADJUSTMENT(\$)	\$1,301,110.38
UNLEADED PRICE ADJUSTMENT(\$)	\$384,549.27

ASPHALT CEMENT PRICE ADJUSTMENT FOR BITUMINOUS TACK COAT(Surface Treatment 125% MAX)

APPLICABLE TO CONTRACTS CONTAINING THE 413 SPEC. SECTION 413.5.01 ADJUSTMENTS ASPHALT PRICE ADJUSTMENT FOR BITUMINOUS TACK COAT

<http://www.dot.ga.gov/doingbusiness/Materials/Pages/asphaltcementindex.aspx>

ENTER APL

ENTER APM

MISSING APL OR APM **MISSING APL OR APM**

Use this side for Asphalt Emulsion Only		
L.I.N.	TYPE	ASPHALT EMULSION (GALLONS)
TMT =		<input type="text"/>
REMARKS:		

Use this side for Asphalt Cement Only		
L.I.N.	TYPE	TACK (GALLONS)
TMT =		<input type="text"/>
REMARKS:		

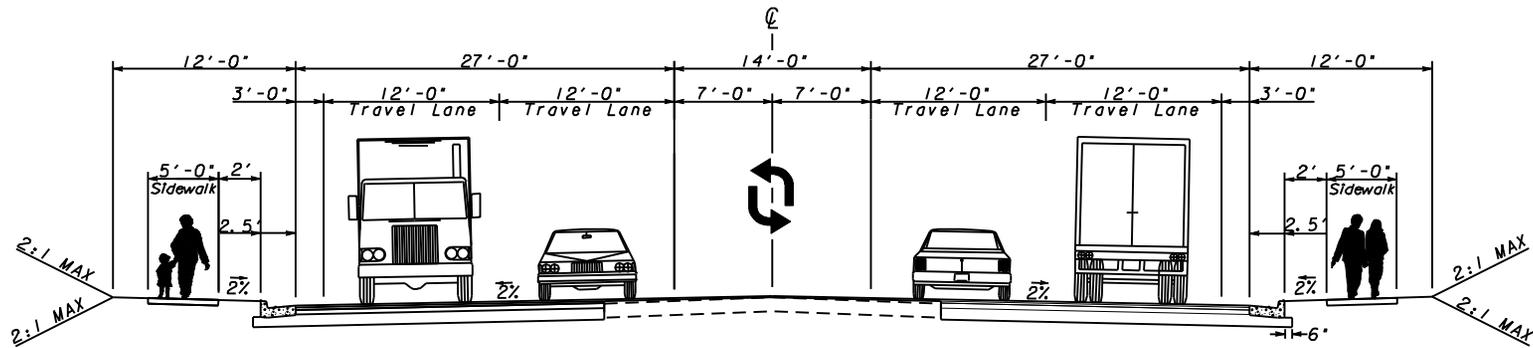
MONTHLY PRICE ADJUSTMENT(\$) **MISSING APL OR APM**

ADJUSTMENT SUMMARY

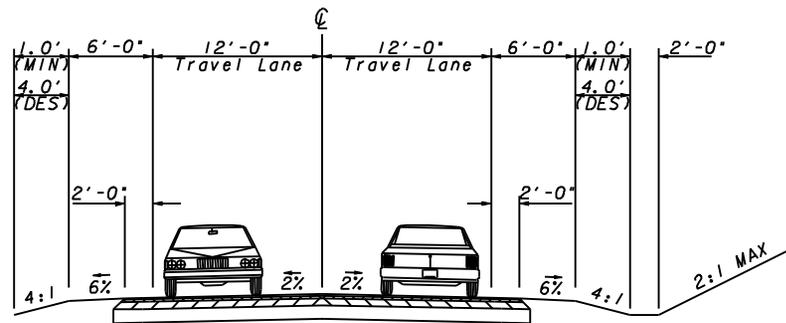
FUEL PRICE ADJUSTMENT (<i>ENGLISH 125% MAX</i>)	
DIESEL PRICE ADJUSTMENT(\$)	<u>\$1,301,110.38</u>
UNLEADED PRICE ADJUSTMENT(\$)	<u>\$384,549.27</u>
ASPHALT CEMENT PRICE ADJUSTMENT (<i>BITUMINOUS TACK COAT 125% MAX</i>)	<u>\$25,893.02</u>
400 / 402 ASPHALT CEMENT PRICE ADJUSTMENT <i>125% MAX</i>	<u>\$2,503,658.88</u>
ASPHALT CEMENT PRICE ADJUSTMENT FOR BITUMINOUS TACK COAT(<i>Surface Treatment 125% MAX</i>)	<u>MISSING APL OR APM</u>

REMARKS:

TOTAL ADJUSTMENTS **\$4,215,211.55**



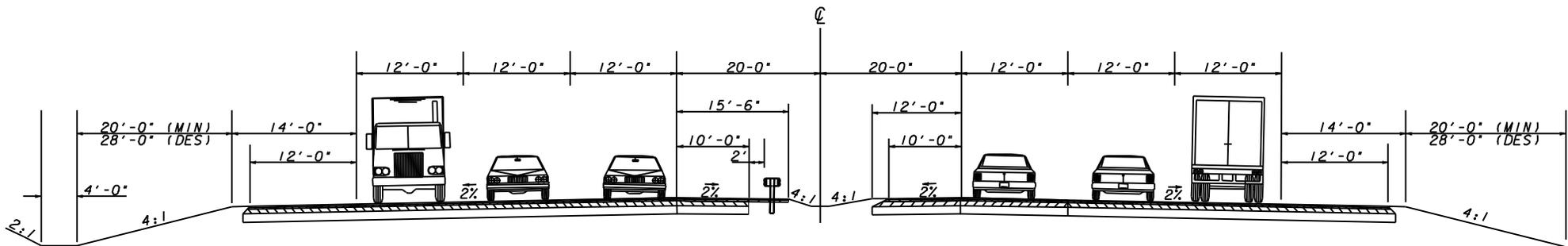
**TYPICAL SECTION NO. 1
TANGENT SECTION - WIDENING AND OVERLAY
SR 156 / REDBUD ROAD**



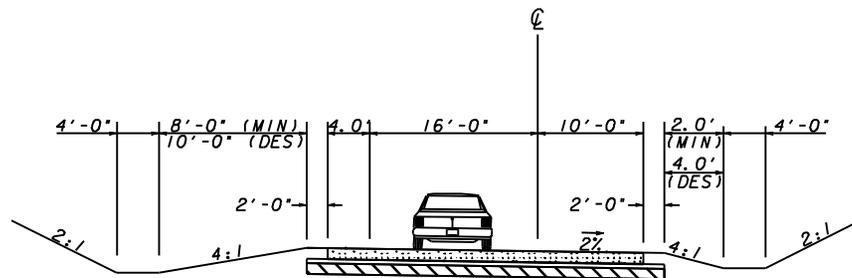
**TYPICAL SECTION NO. 2
TANGENT SECTION - FULL DEPTH
CONFERENCE DRIVE EXTENSION**



**1-75/SR 156
INTERCHANGE IMPROVEMENTS
1M000-0075-03(189)
GORDON COUNTY
SHEET 1 OF 2**



TYPICAL SECTION NO. 3
TANGENT SECTION - FULL DEPTH
I-75

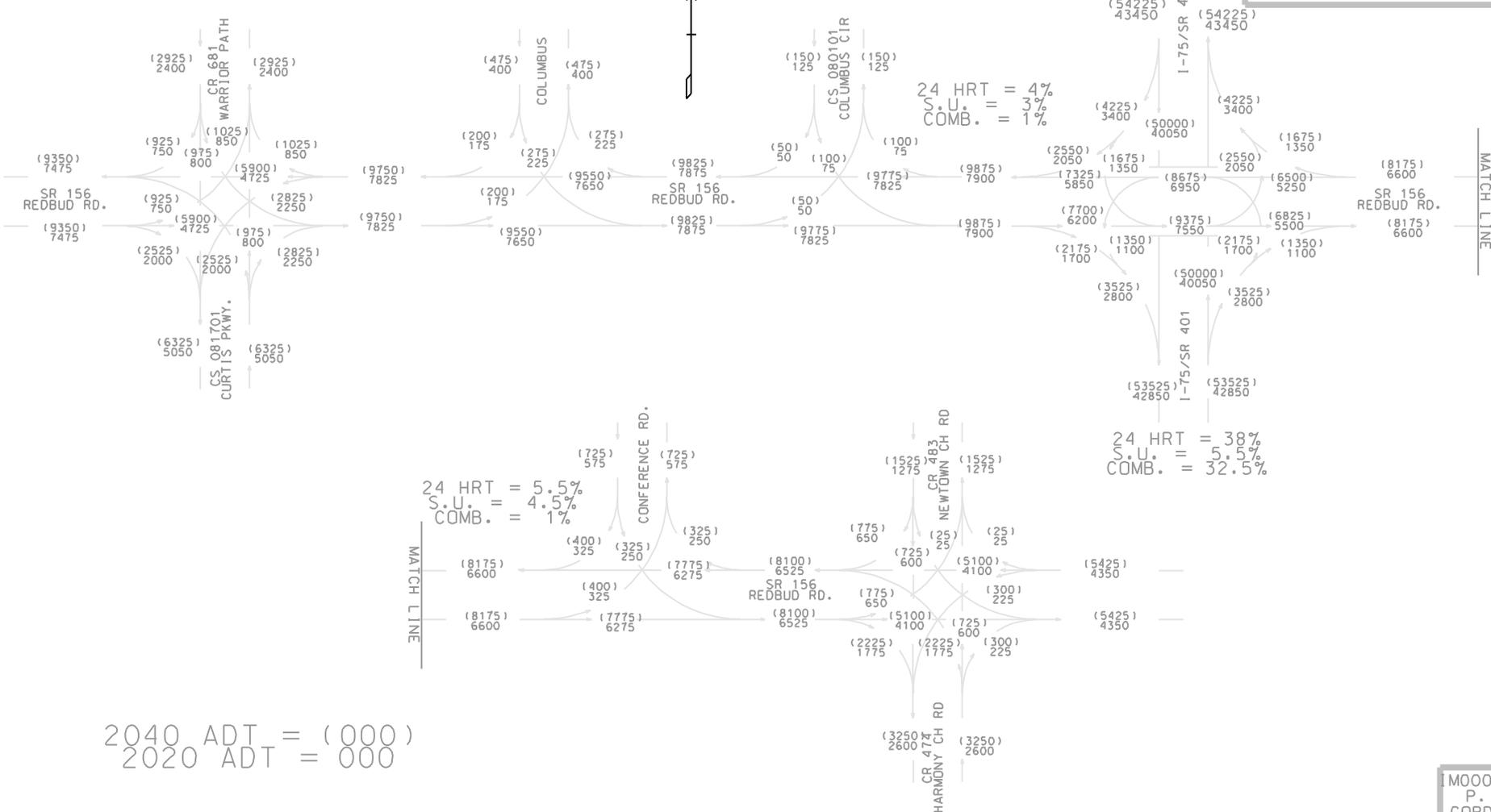


TYPICAL SECTION NO. 4
TANGENT SECTION - FULL DEPTH
I-75 RAMPS (ON / OFF)

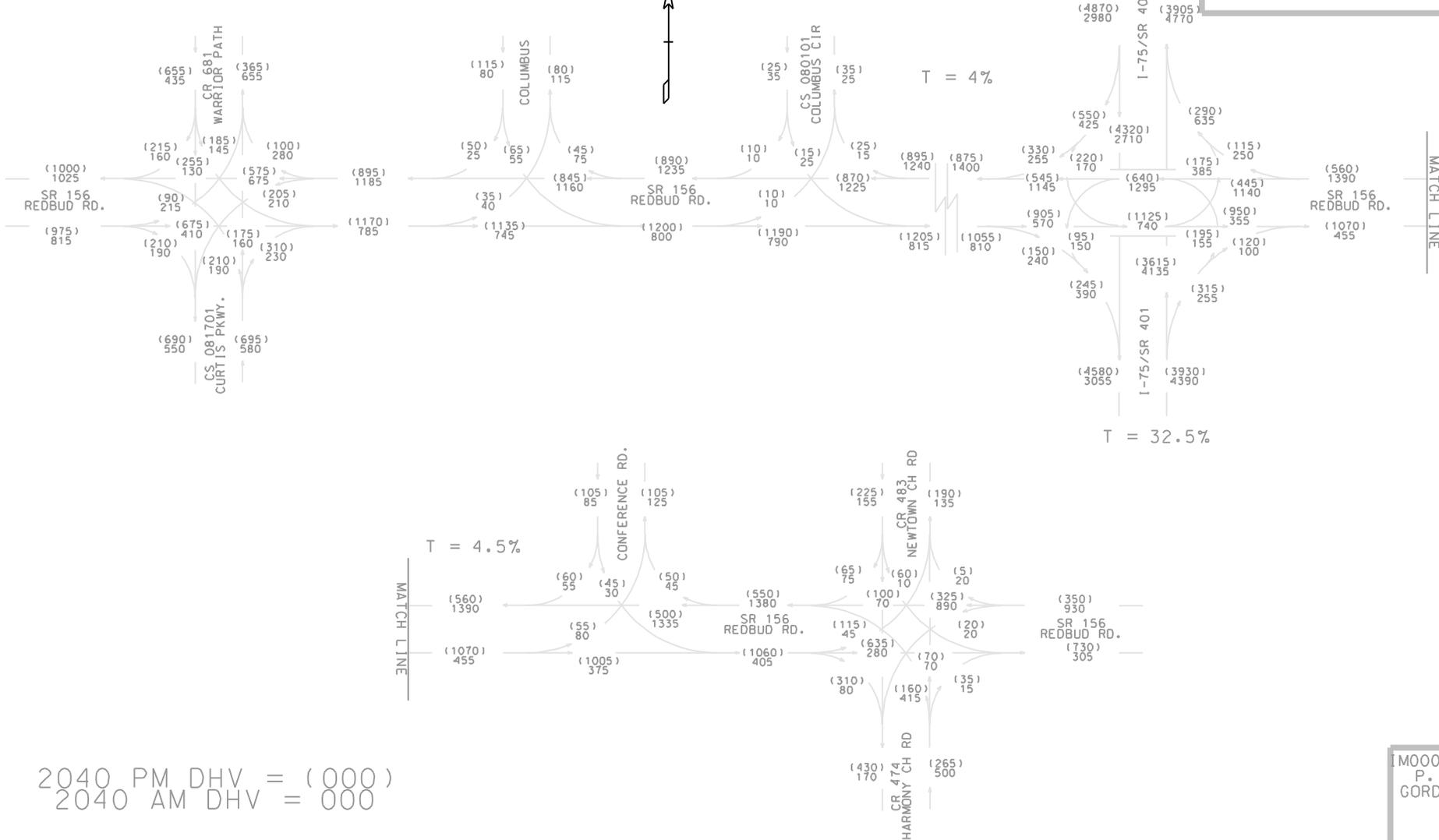


Georgia Department of Transportation

**I-75/SR 156
INTERCHANGE IMPROVEMENTS
1M000-0075-03(189)
GORDON COUNTY
SHEET 2 OF 2**



M000-0075-03 (189)
P.L. # 610750
GORDON COUNTY
SR 156



M000-0075-03(189)
P.L. # 610750
GORDON COUNTY
SR 156

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

TBLA1 3/30/07



INTERDEPARTMENT CORRESPONDENCE

FILE Project: IM-75-3(189) Gordon
P.I. Number 610750

OFFICE Consultant Design/Program Delivery
DATE January 30, 2007

FROM *M. Babs Abubakari*
M. Babs Abubakari, P.E., State Consultant Design/Program Delivery Engineer

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

SUBJECT **Request for Design Variance**

Approval of a Design Variance is requested for this project.

Project IM-75-3(189) consists of improvements to I-75 from Dews Pond Road overpass to 2882 feet north of SR 156 (Red Bud Road), a distance of 1.14 miles. The NB & SB I-75 Ramps will be reconstructed to meet current design standards. The I-75 bridge overpass will be reconstructed and raised to allow for widening SR 156 and to provide safe sight distance between the interchange intersections with Red Bud Road (SR 156).

SR 156 is being widened to a 5-lane urban section from a point 535 feet west of Warrior Path to a point 843 east of Newtown Church/Harmony Church Rd (0.72 miles). This section will be converted to a future 4-lane divided section when traffic volumes meet guidelines for a raised median. The design year ADT for SR 156 at the I-75 ramp terminals is 23,800 vehicles per day.

A pair of local access roadways (Columbus Circle Extension and Adventist Drive Extension – a distance of 0.63 miles) will be constructed parallel to SR 156 to provide access to properties north of SR 156 when the raised median is implemented. A raised median is being added on SR 156 at the northbound ramp (284 feet east of the ramp centerline) and southbound ramp (290 feet west of the ramp centerline) with the currently proposed construction. The project is entirely in Gordon County.

This request for Design Variance involves access rights along SR 156 east of the I-75 northbound ramp and west of the I-75 southbound ramp. According to current policy (TOPPS 4A-3, dated 09/30/2005) Access Control will be established along the intersecting route for a minimum of 300 feet from the intersection of the ramp centerline with the crossroad centerline. The current design proposes a limited access 167 feet east of the northbound ramp (north side SR 156), 228 feet east of the northbound ramp (south side SR 156), and 282 feet west of the southbound ramp (both sides of SR 156).

Design Variance
Project: IM-75-3(189) Gordon
P.I. Number 610750

Accident data for the section of SR 156 from 300' west of the southbound I-75 ramps to 300' east of the northbound I-75 ramps is attached.

In order to meet the current policy for access rights along the south side of SR 156 at the northbound I-75 ramps, it would be necessary to eliminate the westernmost driveway for Parcel 16 (Calhoun Antique Mall). The value of the estimated damages is \$120,000.

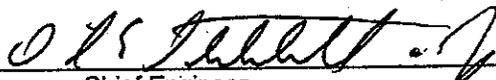
Also, to meet the current policy for access rights along the north side of SR 156 at the northbound I-75 ramps, it would be necessary to close Adventist Drive at SR 156. This would restrict access to parcel 38 (Waffle House Restaurant) by requiring a 0.55 mile detour via Red Bud Road, Newtown Road, and Adventist Road Extension. Loss of direct access from SR 156 to the Waffle House will likely result a required condemnation of the Waffle House property and additional damages could be awarded.

Again, in order to meet the current policy for access rights along the south side of SR 156 at the southbound I-75 ramps it would be necessary to eliminate a residential driveway for the residence for Parcel 37, a 14.5 acre tract on the south side of SR 156. This would require providing access to this residence through the commercial frontage of Parcel 37. The value of the estimated damages is \$581,000.

A marked plan sheet showing the Required Limits of Access is attached.

It is recommended that a design variance be approved for the following reasons: (1) the currently proposed design constructs a raised median on SR 156 at the northbound ramp (284 feet east of the ramp centerline) and southbound ramp (290 feet west of the ramp centerline) which restricts left turns within the desired 300 feet limited access area at the ramps and will help enhance the operations in the interchange area; (2) extending the limits of access along SR 156 for a distance of 300' from the ramp centerlines will require an additional estimated \$701,000 in damages, additional impacts to properties plus damages that could be awarded in condemnation of the Waffle House parcel.

Recommended for Approval

Recommend: 
Chief Engineer

1/18/07
DATE

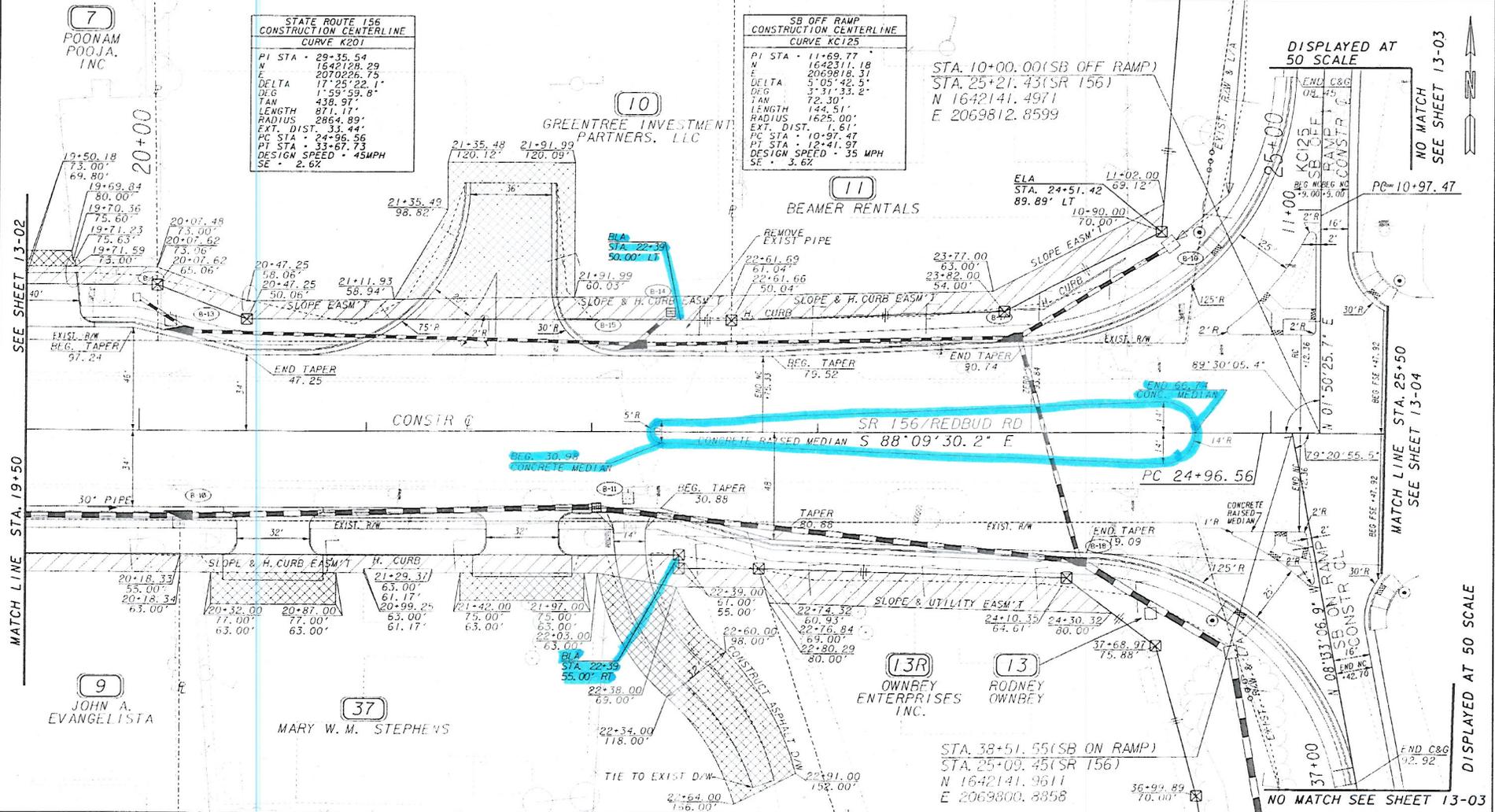
Approved: 
FHWA Division Administrator

3/19/07
Date

Attachments

MBA:TAH

ROW plans approved 3-20-07
Mr. Lindberg



**STATE ROUTE 156
 CONSTRUCTION CENTERLINE
 CURVE K201**
 PI STA - 29+35.54
 W 1642128.29
 E 2070226.75
 DELTA 17°25'22.1"
 DELG 1°59'59.8"
 TAN 438.97'
 LENGTH 871.17'
 RADIUS 2864.89'
 EXT. DIST. 31.44'
 PC STA - 24+36.56
 PT STA - 33+67.73
 DESIGN SPEED - 45MPH
 SE - 2.6%

**SB OFF RAMP
 CONSTRUCTION CENTERLINE
 CURVE K125**
 PI STA - 11+69.77
 W 1642311.18
 E 2069818.31
 DELTA 5°05'42.5"
 DELG 3°31'33.2"
 TAN 72.30'
 LENGTH 144.51'
 RADIUS 1625.00'
 EXT. DIST. 1.61'
 PC STA - 10+97.47
 PT STA - 12+41.97
 DESIGN SPEED - 35 MPH
 SE - 3.6%

STA. 10+00.00(SB OFF RAMP)
 STA. 25+21.43(SR 156)
 N 1642141.4971
 E 2069812.8599

STA. 38+51.55(SB ON RAMP)
 STA. 25+09.45(SR 156)
 N 1642141.9611
 E 2069800.8858

DISPLAYED AT
 50 SCALE

NO MATCH
 SEE SHEET 13-03

DISPLAYED AT
 50 SCALE

SEE SHEET 13-02

MATCH LINE STA. 19+50

MATCH LINE STA. 25+50
 SEE SHEET 13-04

NO MATCH SEE SHEET 13-03

PROPERTY AND EXISTING R/W LINE
 REQUIRED R/W LINE
 CONSTRUCTION LIMITS
 EASEMENT FOR CONSTR
 & MAINTENANCE OF SLOPES
 EASEMENT FOR CONSTR OF SLOPES
 EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
 END LIMIT OF ACCESS.....ELA
 LIMIT OF ACCESS
 R/W AND LIMIT OF ACCESS

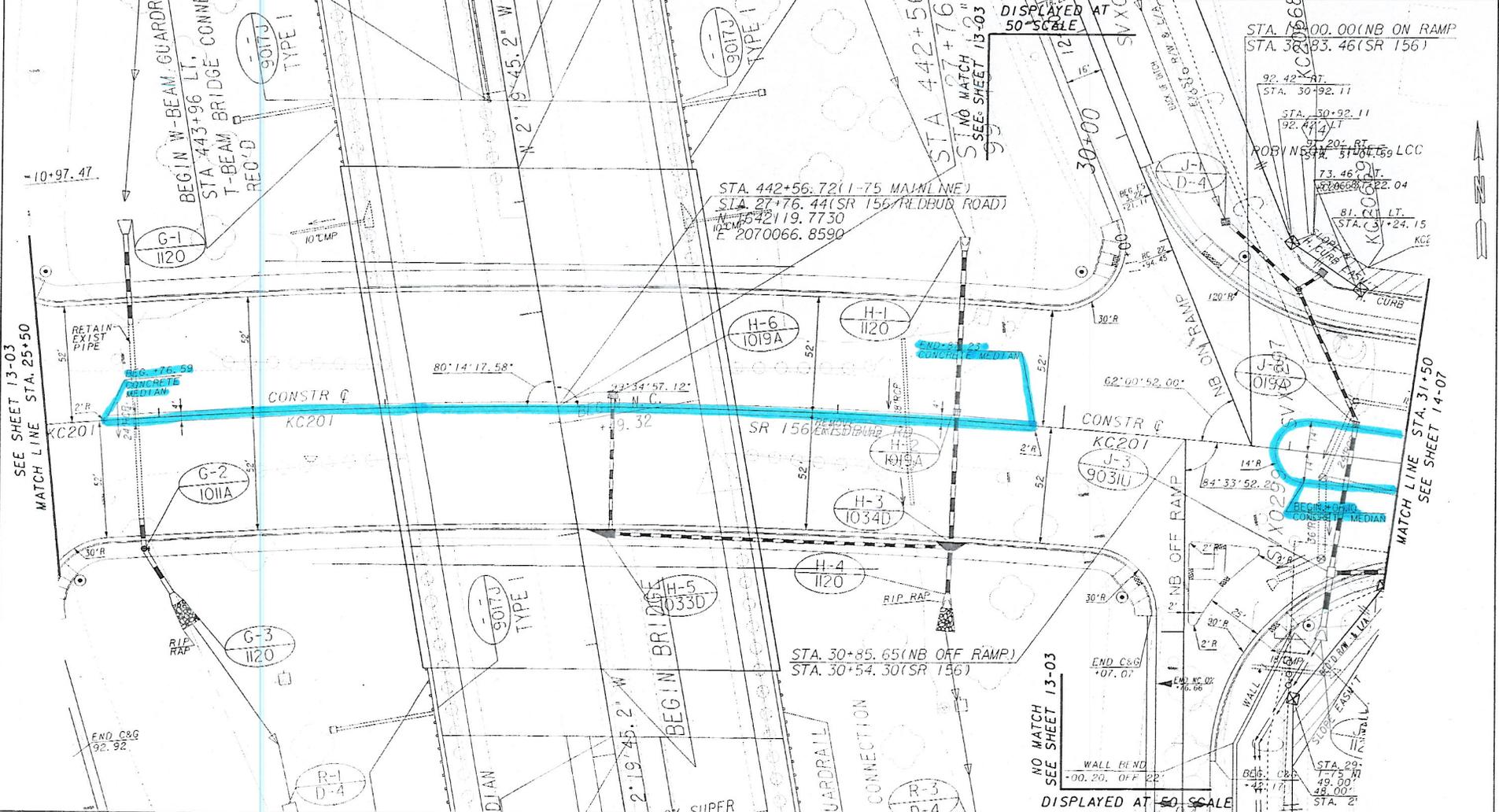
**GEORGIA
 DEPARTMENT
 OF
 TRANSPORTATION**



REVISION DATES

STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION
 OFFICE: ROAD DESIGN
MAINLINE PLAN

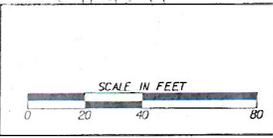
PROJECT IM000-0075-03(189)
 GORDON COUNTY
 13-03



PROPERTY AND EXISTING R/W LINE	-----
REQUIRED R/W LINE	-----
CONSTRUCTION LIMITS	-----
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES	-----
EASEMENT FOR CONSTR OF SLOPES	-----
EASEMENT FOR CONSTR OF DRIVES	-----

BEGIN LIMIT OF ACCESS.....	B/LA
END LIMIT OF ACCESS.....	E/LA
LIMIT OF ACCESS	-----
REQ'D R/W & LIMIT OF ACCESS	-----

GEORGIA
DEPARTMENT
OF
TRANSPORTATION

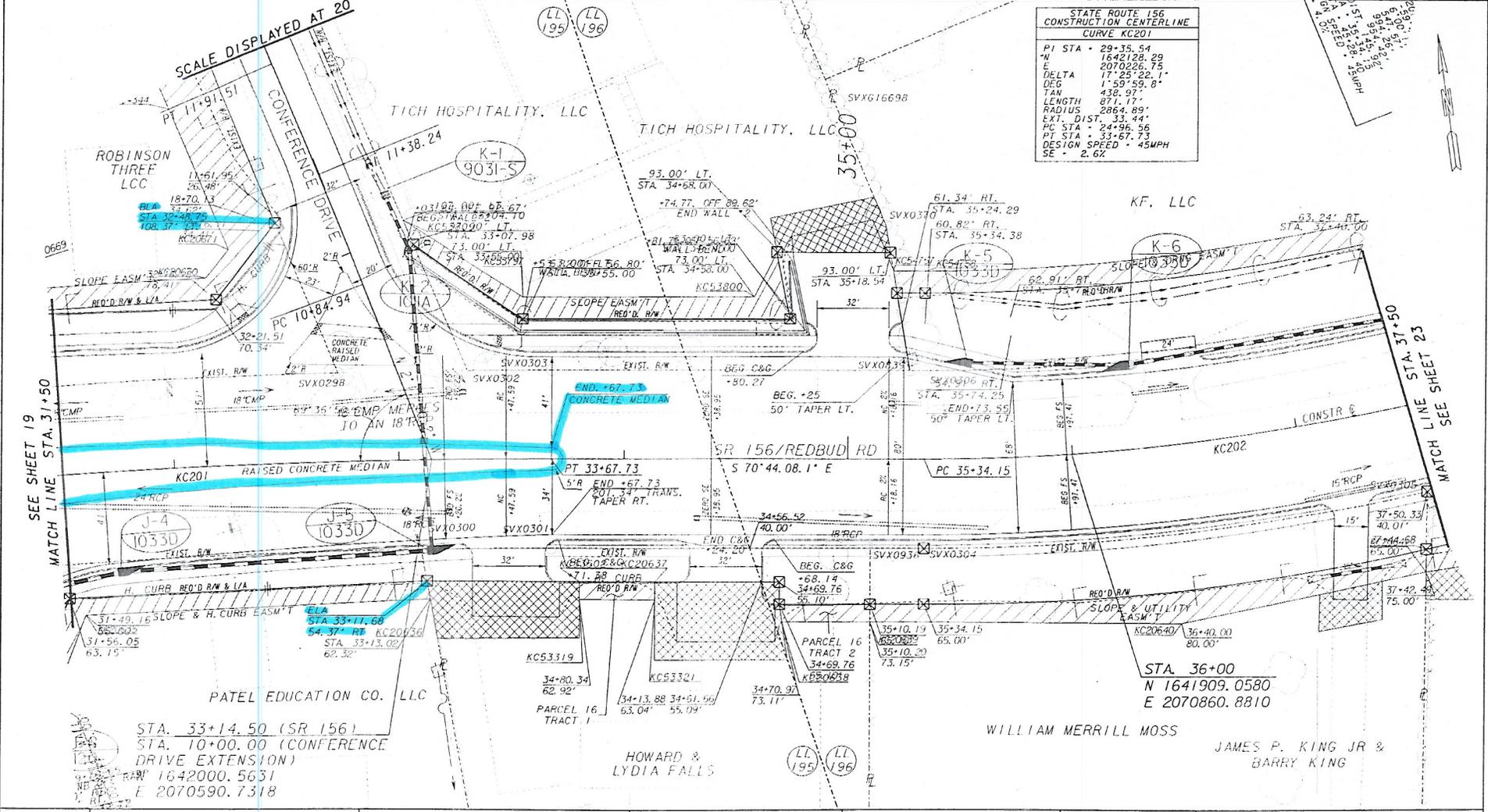
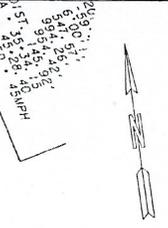


REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: ROAD DESIGN
MAINLINE PLAN
PROJECT 1M000-0075-03(189)
GORDON COUNTY

STATE ROUTE 156
 CONSTRUCTION CENTERLINE
 CURVE KC201

PI STA	29+35.54
N	1642128.29
E	2070226.75
DELTA	171°25'22.1"
DEG	1°59'59.8"
TAN	438.97'
LENGTH	871.17'
RADIUS	2864.89'
EXT. DIST	33.44'
PC STA	24+96.56
PT STA	33+67.73
DESIGN SPEED	45MPH
SE	2.6%



PROPERTY AND EXISTING R/W LINE	---
REQUIRED R/W LINE	---
CONSTRUCTION LIMITS	---
EASEMENT FOR CONSTR	---
& MAINTENANCE OF SLOPES	---
EASEMENT FOR CONSTR OF SLOPES	---
EASEMENT FOR CONSTR OF DRIVES	---

BEGIN LIMIT OF ACCESS	BLA
END LIMIT OF ACCESS	ELA
LIMIT OF ACCESS	
REQ'D R/W & LIMIT OF ACCESS	---	

GEORGIA
 DEPARTMENT
 OF
 TRANSPORTATION



REVISION DATES	

STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION
 OFFICE: ROAD DESIGN
MAINLINE PLAN

PROJECT 1M000-0075-03(189)
 GORDON COUNTY

JAMES P. KING JR &
 BARRY KING

13-05

**Georgia Department of Transportation
Quality Control and Quality Assurance Program**

Component of Quality Assurance:

Revised: September 22, 2010

REVISED

1. Concept Report & Layout Review

Review Panel: Assistant Office Head, Design Group Manager, Lead Design Engineer

Review Schedule: Hold review 4 weeks prior to submission of the concept report or revised report.

Review Elements:

- Project addresses the Need & Purpose and is consistent with Logical Termini.
- Project conforms to RTP/TIP/STIP (model yr/open to traffic, # of lanes, termini, cost estimates). **NOT TIP**
- Traffic Volumes reflect current and design year estimates and cover side roads adequately.
- Geometric Design Policy has been adequately determined – functional classification, design speed, design vehicle, min radius, max grades, max SE rate, access control, clear zone, median usage. See Chapters 3, 4, and 5 of the GDOT DPM.
- Typical Sections (see Chapter 6 of the GDOT DPM).
- Capacity Analysis demonstrates acceptable Level of Service (LOS) for Functional Classification.
- Lane configuration (number of lanes, turn lanes) is consistent with the Capacity Analysis.
- Provisions for u-turns have been assessed at appropriate locations along the roadway.
- Accident/Crash History - the concept addresses critical locations along the project?
- Avoidance of environmental resources has been adequately considered.
- State Waters and Stream Buffers have been identified by the ecologist and noted on plans.
- FEMA Flood Plains, Biota Impaired Streams, Fish Passage has been assessed.
- Avoidance of major utilities has been adequately considered.
- Considerations for pedestrian and bicycle access has been adequately addressed.
- Constructability has been assessed (staging, detours, road closures, access, major utilities, etc.).
- Structural elements have been adequately considered (bridge, culvert, retaining wall, noise wall).
- Vertical clearances are addressed (see GDOT Bridge and Structures Design Policy Manual).
- FAA coordination has occurred (if project is within 2 miles of an airport or aviation facility). **N/A**
- Design Exceptions and Variances are addressed.
- Coordination with stakeholders has occurred (FHWA, local governments, civic groups, utility companies, railroad companies, other federal and state agencies, etc...).
- R/W & easement limits are reasonable (see Chapter 3 of the GDOT DPM).
- V.E. study recommendations have been implemented if applicable.
- Feasible alternative alignments have been adequately considered and noted.
- Roadway Quantities have been reviewed and are satisfactory.**

Action:

- Lead Design Engineer will incorporate revisions resulting from the review into the Concept Report and layout; and/or conduct additional studies to support decisions or resolve questions, and follow-up with Assistant Office Head for closure.
- Document and file, in QC/QA folder, a copy of the review notes and any actions taken by the review panel.

Project: 1M000-0075-03(189) AOH: CAC Date: 11-3-10
GORDON CO.
610750

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE: IM-75-3(189) Gordon
P. I. No.: 610750
I-75 @ S.R. 156/Redbud Road Interchange

OFFICE: Engineering Services

DATE: September 6, 2007

FROM: Brian Summers, P.E., Project Review Engineer

TO: Babs Abubakari, P.E., State Program Delivery and Consultant Design Engineer

SUBJECT: IMPLEMENTATION OF VALUE ENGINEERING STUDY ALTERNATIVES

Recommendations for implementation of Value Engineering Study Alternatives are indicated in the table below. Incorporate alternatives recommended for implementation to the extent reasonable in the design of the project.

ALT No.	Description	Savings PW & LCC	Implement	Comments
BRIDGE WORK (B)				
B-1	Remove end spans and use wall abutments	\$1,301,353	Yes	This should be done.
B-2	Build entire right side and shift traffic and then build balance of bridge	\$347,153	No	Would require additional width on the bridge that is not necessary to accommodate Staging.
PAVING (P)				
P-2	Use GDOT separation of 100' Limited Access	\$4,263,212*	No	The raised median is necessary to restrict left turn lanes from S.R. 56 EB to Adventist Drive. A Design Variance has already been approved by GDOT and FHWA for the configuration shown.
P-3	For future growth condition, use minimum 11' lane widths	\$618,165	No	Based on the high traffic volumes and high truck traffic, 11' lanes are not recommended.

ALT No.	Description	Savings PW & LCC	Implement	Comments
PAVING (P) - continued				
P-5	Delete right turn lane from Sta. 8+00 to Sta. 12+00 Eastbound S.R. 156	Design Suggestion	No	The Right Turn Decel Lane should be included to improve the overall operation of the Curtis Pkwy. Intersection.
P-6	Eliminate Concrete Paving on Ramps	\$645,878	No	Future maintenance costs would minimize the savings.
P-7	Use Keystone Wall in lieu of Poured-in-Place Concrete Retaining Wall	\$112,117	No	Current GDOT Bridge Office Policy is to not construct Modular Walls that support traffic because of concerns with settlement.
P-8	Eliminate all construction west of Curtis Drive	Design Suggestion	No	The additional construction is required in order to provide adequate taper lengths.
P-9	Provide additional left turn storage for north movement on S.R. 156	Design Suggestion	No	According to the traffic study, the storage provided is adequate.
P-11 and P-12 combined	Move SB On/Off Ramps to the east and NB On/Off Ramps to the west (move ramps closer together)	\$4,000,000*	No	The separation between Ramp termini should be as much as possible. A Design Variance has already been approved by GDOT and FHWA for the configuration shown.

* These estimated initial cost savings reflect the VE Team's estimate of \$4,000,000 for four (4) service station Right of Way acquisitions which could be realized.

A meeting was held on September 6, 2007 to discuss the above recommendations. Stanley Hill with Consultant Design and Brian Summers, Ron Wishon and Lisa Myers with Engineering Services were in attendance.

Approved: signed by Gerald M. Ross Date: September 10, 2007
Gerald M. Ross, P. E., Chief Engineer

Approved: signed by Gus Shanine Date: September 18, 2007
for **Rodney Barry, P.E., FHWA Division Administrator**

IM-75-3(189) Gordon
P.I. No. 610750
VE Study Implementation
Page 3.

Attachments

c: Gus Shanine/Christy Poon-Atkins
Todd Long
Stanley Hill
Lonnie Jones
Doug Franks
Kenny Beckworth
Stephen Lively
Ken Werho
Kevin Wilson
Alexis John
Lisa Myers