ORIGINAL TO GENERAL FILES

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE P. I. No. 245190-, Newton County
STP00-0957-00(009)
SR 212 Widening

OFFICE Preconstruction

DATE May 4, 2009

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:

Ron Wishon
Glenn Bowman
Ken Thompson
Michael Henry
Keith Golden
Tony Collins
Paul Liles
George Brewer
Alan Smith
BOARD MEMBER

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

DATE April 7, 2009

FILE: STP00-0957-00(009) P.I. No. 245190 Newton County
State Route 212 Widening

FROM Alan Smith, District Design Engineer

TO Assistant Director of Preconstruction

SUBJECT Revised Project Concept Report

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

The project scope and the typical section have been revised at the recommendations of the Value Engineering Study. Site No. 1 shall begin just South of Bethany Road / CR 8 (MP 2.90) continuing north on SR 212 to just North of the Newton County Elementary School (MP 1.76). Site No. 2 will begin just South of Oak Hill Road / CR 19 (MP 1.41) and continue North to just North of Oak Hill Road (MP 0.98). The proposed typical section is now comprised of one 12-ft. travel lane in each direction with rural shoulders. A 12-ft. flush median will be constructed throughout Site 1.

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).

DATE 4/13/09

State Transportation Planning Administrator

Distribution:
Project Review Engineer
State Environmental / Location Engineer
State Traffic Safety and Design Engineer
State Transportation Planning Administrator
State Transportation Financial Management Administrator (OFM Concepts)

REVISED PROJECT CONCEPT REPORT

Need and Purpose: *See Attached*

Project Location: *This project is located on State Route 212 southeast of Porterdale in Newton County. The project begins at MP 2.90 and extends to MP 0.98. The total length of the project is 1.92 miles.*

Description of the approved concept:

The project consist of widening and reconstruction of State Route 212 from just south of Bethany Road (MP 2.90) to just north of Oak Hill Road (MP 0.98). The proposed typical section consist of 1-12' lane in each direction separated by a 14' flush median with rural shoulders.

PDP Classification: Major ☐ Minor ☒

Federal Oversight: Full Oversight ☐ Exempt ☒ State Funded ☐ Other ☐

Functional Classification: *Rural Minor Arterial*

U.S. Route Number(s): *None* **State Route Number(s):** *212*

Traffic (AADT) as shown in the approved concept:
Current Year: *13,000 (2008)* Design Year: *23,000 (2028)*

Proposed features to be revised:

Project Scope, Typical Section

Describe the revised feature(s) to be approved:

Project Scope:
In accordance with the Value Engineering Study the project is being separated into 2 Sites. Site No. 1 shall begin just South of Bethany Road / CR 8 (MP 2.90) continuing north on SR 212 to just North of the Newton County Elementary School (MP 1.76). Site No. 2 will begin just South of Oak Hill Road / CR 19 (MP 1.41) and continue North to just North of Oak Hill Road (MP 0.98).

Proposed Typical Sections:

SR 212: (Site # 1) One 12-ft. travel lane in each direction with rural shoulders. A 12-ft. flush median will be constructed throughout this location. (Site # 2) One 12-ft. travel lane in each direction with a 12-ft. left turn lane on both the southbound and northbound approaches of CR 19 / Oak Hill Road. (WITH NO MEDIAN ON SITE 2)

Revised Project Concept
Project: STP00-0957-00(009) Newton County, P.I. # 245190

Bethany Road / CR 8: *One 12-ft. travel lane in each direction with rural shoulders with a 12-ft. flush median on the both the westbound and eastbound approaches to SR 212.*
(Auxilliary lanes will be constructed as right turn movements indicate need)

Oak Hill Road / CR 19: *One 12-ft. travel lane in each direction with rural shoulders.*
(Auxilliary lanes will be constructed as right turn movements indicate need)

Updated traffic data (AADT):

Current Year: *11,450 (2011)* Design Year: *20,375 (2031)*

Programmed Schedule:

P.E. *Authorized* R/W: *2010* Construction: *2012*

Revised Cost Estimates:

1. Construction Costs including Engineering and Construction Contingency & Fuel Index: *$2,361,196.91*
2. Right of Way Cost: *$3,819,200.00*
3. Utility Costs: $ *78,650.00*

Is the project in a Non-Attainment area? ☒ Yes ☐ No

Recommendation:

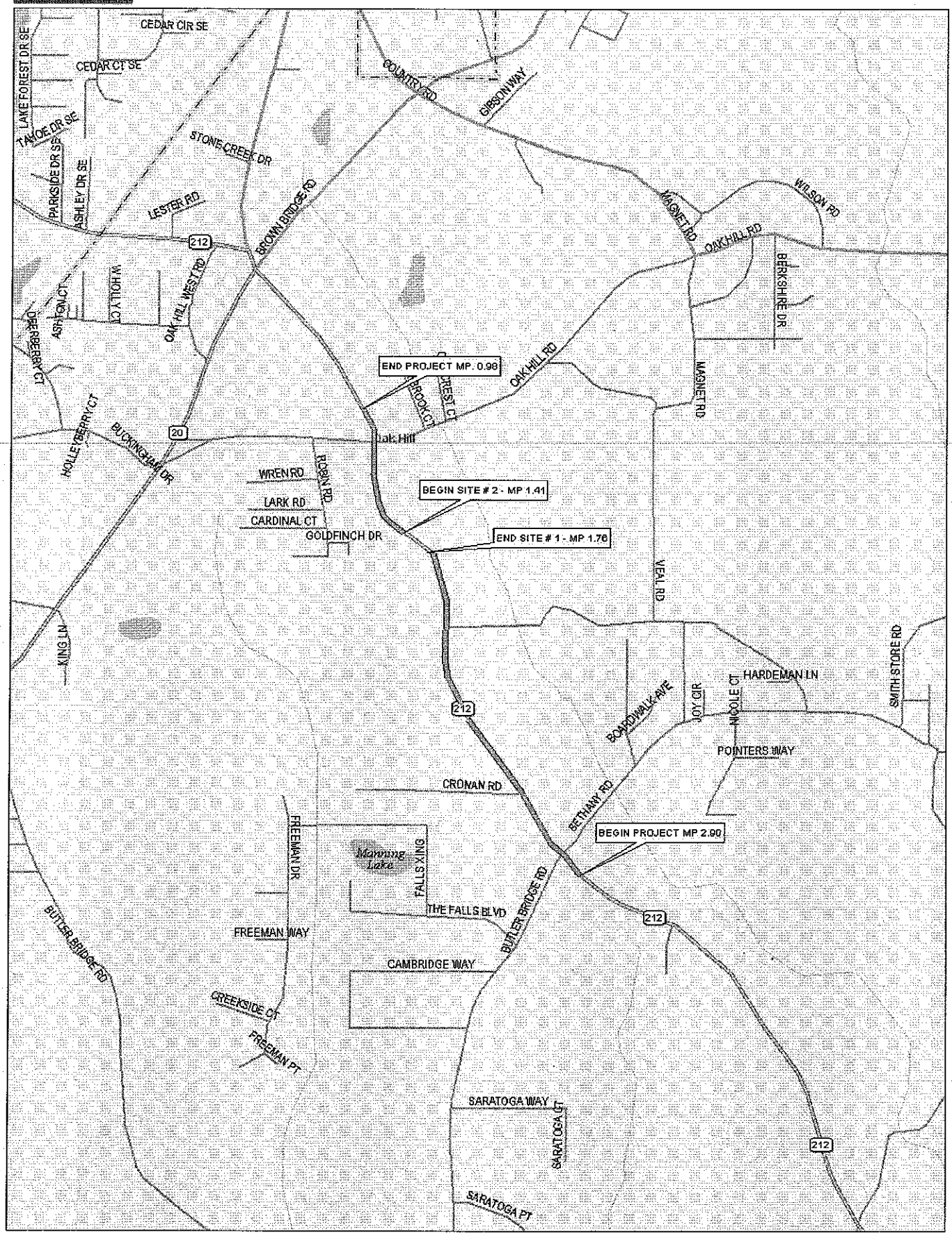
The District recommends that this proposed revision to the concept be approved for implementation.

Attachments:

Location Sketch
Cost Estimate
Typical Section
Need and Purpose Statement

Concur: Kenneth Rice-Lyle for Director
Director of Preconstruction

Approved: Daniel M Ross
Chief Engineer



MN (4.6° W)

0 800 1600 2400 3200 4000 ft

Data Zoom 13-0

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE PROJECT No. STP00-0957-00(009), Newton County
State Route 212
P.I. No. 245190

OFFICE Tennille-Design

DATE 4/3/2009

FROM **Foster C. Grimes, District Design Squad Leader**

TO Ron Wishon, P.E., Project Review Engineer

SUBJECT REVISIONS TO PROGRAMMED COSTS

PROJECT MANAGER Foster Grimes

MNGT LET DATE 9/15/2012

MNGT R/W DATE 2/15/2010

PROGRAMMED COST (TPro W/OUT INFLATION)

LAST ESTIMATE UPDATE

CONSTRUCTION	$5,474,000.00	DATE 6/12/2008
RIGHT OF WAY	$5,375,000	DATE 3/26/2008
UTILITIES	$60,500.00	DATE 10/21/2008

REVISED COST ESTIMATES

CONSTRUCTION*	$2,361,196.91
RIGHT OF WAY	$3,819,200.00
UTILITIES**	$78,650.00

* Costs contain 5% Engineering and Inspection and 6% Construction Contingencies and Fuel and Liquid AC Adjustments.

** Costs contain 30% contingency.

REASON FOR COST INCREASE **Concept revision as recommended by the Value Engineering Study**

CONTINGENCY SUMMARY

Construction Cost Estimate:	$1,819,891.11 (Base Estimate)	
Engineering and Inspection:	$90,994.56	(Base Estimate x 5 %)
Construction Contingency:	$109,193.47	(Base Estimate x 6 %) (The Construction Contingency is based on the Project Improvement Type in TPro.)
Total Fuel Adjustment	$ 336,954.07	(From attached worksheet)
Total Liquid AC Adjustment	$ 4,163.70	(From attached worksheet)
Construction Total:	$2,361,196.91	
Utility Cost Estimate:	$60,500	
Utility Contingency:	$18,150	30 %
Utility Total:	$78,650	

REIMBURSABLE UTILITY COST

Utility Owner	Reimbursable Costs
Snapping Shoals EMC	$10,500
GA Transmission Corp.	$50,000

Attachments

c: Genetha Rice - Singleton, Assistant Director of Preconstruction

Angela Whitworth, Financial Management Administrator

Estimate Report for 245190 STP00-0957-00(009)Newton

Section ROADWAY

Item Number	Quantity	Units	Unit Price	Item Description	Cost
150-1000	1	Lump Sum	75000.00	TRAFFIC CONTROL - STP00-0957-00(009)	75000.00
210-0100	1	Lump Sum	150000.00	GRADING COMPLETE - STP00-0957-00(009)	150000.00
310-1101	11344	TN	17.99	GR AGGR BASE CRS, INCL MATL	204078.56
318-3000	800	TN	21.06	AGGR SURF CRS	16848.00
402-1812	1000	TN	69.44	RECYCLED ASPH CONC LEVELING, INCL BITUM MATL & H LIME	69440.00
402-3121	3979	TN	60.11	RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM	239177.69
402-3130	3372	TN	64.00	RECYCLED ASPH CONC 12.5 MM SUPERPAVE, GP 2 ONLY, INCL BITUM	215808.00
402-3190	2128	TN	68.26	RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2,INCL BITUM MATL & H LIME	145257.28
413-1000	2160	GL	2.15	BITUM TACK COAT	4644.00
441-0016	620	SY	36.96	DRIVEWAY CONCRETE, 6 IN TK	22915.20
441-0018	50	SY	45.60	DRIVEWAY CONCRETE, 8 IN TK	2280.00
441-4030	300	SY	46.42	CONC VALLEY GUTTER, 8 IN	13926.00
441-6222	800	LF	15.92	CONC CURB & GUTTER, 8 IN X 30 IN, TP 2	12736.00
444-1000	165	LF	2.71	SAWED JOINTS IN EXIST PAVEMENTS - PCC	447.15
446-1100	6500	LF	5.20	PVMT REINF FABRIC STRIPS, TP 2, 18 INCH WIDTH	33800.00
456-2015	4	GLM	837.53	INDENTATION RUMBLE STRIPS - GROUND-IN-PLACE (SKIP)	3350.12
500-9999	100	CY	190.70	CLASS B CONC, BASE OR PVMT WIDENING	19070.00
550-1180	200	LF	38.29	STORM DRAIN PIPE, 18 IN, H 1-10	7658.00
550-1240	170	LF	45.52	STORM DRAIN PIPE, 24 IN, H 1-10	7738.40
550-2180	840	LF	33.42	SIDE DRAIN PIPE, 18 IN, H 1-10	28072.80
550-2240	66	LF	35.94	SIDE DRAIN PIPE, 24 IN, H 1-10	2372.04
550-3518	4	EA	1142.78	SAFETY END SECTION 18 IN, STORM DRAIN, 6:1 SLOPE	4571.12
550-3518	42	EA	1142.78	SAFETY END SECTION, 18" 6:1 SLOPE	47996.76
550-3624	2	EA	889.27	SAFETY END SECTION 24 IN, SIDE DRAIN, 6:1 SLOPE	1778.54
550-4224	4	EA	744.88	FLARED END SECTION 24 IN, STORM DRAIN	2979.52
573-2006	500	LF	15.84	UNDDR PIPE INCL DRAINAGE AGGR, 6 IN	7920.00
634-1200	75	EA	96.88	RIGHT OF WAY MARKERS	7266.00
				Section Sub Total:	**$1,347,131.18**

Section EROSION CONTROL					
Item Number	**Quantity**	**Units**	**Unit Price**	**Item Description**	**Cost**
603-2181	100	SY	35.36	STN DUMPED RIP RAP, TP 3, 18 IN	3536.00
603-7000	100	SY	4.35	PLASTIC FILTER FABRIC	435.00
700-6910	24	AC	824.81	PERMANENT GRASSING	19795.44
700-7000	48	TN	65.41	AGRICULTURAL LIME	3139.68
700-7010	60	GL	22.15	LIQUID LIME	1329.00
700-8000	40	TN	458.16	FERTILIZER MIXED GRADE	18326.40
700-8100	2400	LB	2.34	FERTILIZER NITROGEN CONTENT	5616.00
716-2000	250	SY	0.96	EROSION CONTROL MATS, SLOPES	240.00
				Section Sub Total:	**$52,417.52**

Section TEMPORARY EROSION CONTROL					
Item Number	**Quantity**	**Units**	**Unit Price**	**Item Description**	**Cost**
163-0232	72	AC	375.19	TEMPORARY GRASSING	27013.68
163-0240	450	TN	164.91	MULCH	74209.50
163-0300	2	EA	1220.17	CONSTRUCTION EXIT	2440.34
163-0522	100	EA	92.93	CONSTRUCT AND REMOVE TEMPORARY DITCH CHECKS - TYPE A SILT FENCE	9293.00
165-0030	3000	LF	0.79	MAINTENANCE OF TEMPORARY SILT FENCE, TP C	2370.00
165-0041	1500	LF	1.94	MAINTENANCE OF CHECK DAMS - ALL TYPES	2910.00
165-0101	2	EA	500.48	MAINTENANCE OF CONSTRUCTION EXIT	1000.96
167-1000	2	EA	559.68	WATER QUALITY MONITORING AND SAMPLING	1119.36
167-1500	18	MO	746.02	WATER QUALITY INSPECTIONS	13428.36
171-0030	6000	LF	3.67	TEMPORARY SILT FENCE, TYPE C	22020.00
				Section Sub Total:	**$155,805.20**

Section TRAFFIC SIGNS AND MARKINGS					
Item Number	**Quantity**	**Units**	**Unit Price**	**Item Description**	**Cost**
636-1033	134	SF	20.25	HIGHWAY SIGNS, TP 1 MATL, REFL SHEETING, TP 9	2713.50
636-1041	30	SF	45.57	HIGHWAY SIGNS, TP 2 MATL, REFL SHEETING, TP 9	1367.10
636-2070	150	LF	9.01	GALV STEEL POSTS, TP 7	1351.50
636-2080	150	LF	11.81	GALV STEEL POSTS, TP 8	1771.50
636-3010	8	EA	578.37	GROUND-MOUNTED BREAKAWAY SIGN SUPPORT	4626.96
639-4004	8	EA	5869.88	STRAIN POLE, TP IV	46959.04
647-1000	1	Lump Sum	85000.00	TRAFFIC SIGNAL INSTALLATION NO.1	85000.00
647-1000	1	Lump Sum	85000.00	TRAFFIC SIGNAL INSTALLATION NO.2	85000.00
653-0120	58	EA	75.17	THERMOPLASTIC PVMT MARKING, ARROW, TP 2	4359.86
653-1501	23100	LF	0.46	THERMOPLASTIC SOLID TRAF STRIPE, 5 IN, WHITE	10626.00
653-1502	10100	LF	0.46	THERMOPLASTIC SOLID TRAF STRIPE, 5 IN, YELLOW	4646.00
653-1704	360	LF	3.46	THERMOPLASTIC SOLID TRAF STRIPE, 24 IN, WHITE	1245.60
653-1804	1400	LF	1.68	THERMOPLASTIC SOLID TRAF STRIPE, 8 IN, WHITE	2352.00
653-3501	2000	GLF	0.32	THERMOPLASTIC SKIP TRAF STRIPE, 5 IN, WHITE	640.00
653-6004	200	SY	2.74	THERMOPLASTIC TRAF STRIPING, WHITE	548.00
653-6006	2800	SY	2.68	THERMOPLASTIC TRAF STRIPING, YELLOW	7504.00
654-1001	300	EA	3.05	RAISED PVMT MARKERS TP 1	915.00
654-1003	140	EA	3.26	RAISED PVMT MARKERS TP 3	456.40
654-1010	75	EA	32.73	RAISED PVMT MARKERS TP 10	2454.75
				Section Sub Total:	**$264,537.21**

Total Estimated Cost: $1,819,891.11

Date 4/3/2009

P.I. Number 245190 County Newton

Project Number STP00-0957-00(009)

Special Provision, Section 109-Measurement and Payment

FUEL PRICE ADJUSTMENT (*ENGLISH 125% MAX*)

ENTER FPL DIESEL	2.056
ENTER FPM DIESEL	4.626

ENTER FPL UNLEADED	1.818
ENTER FPM UNLEADED	4.0905

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)**		0.29		0.15		
Excavations paid as specified by Sections 206 **(CUBIC YARD)**		0.29		0.15		
;AB paid as specified by the ton under Section 310 **(TON)**	11344.000	0.29	3289.76	0.24	2722.56	
ot Mix Asphalt paid as specified by the ton under Sections 400 **(TON)**		2.90		0.71		
ot Mix Asphalt paid as specified by the ton under Sections 402 **(TON)**	10479.000	2.90	30389.10	0.71	7440.09	
PCC Pavement paid as specified by the square yard under Section 430 **(SY)**		0.25		0.20		

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				8.00		1.50		
Class __Concrete (CY) Section 500				8.00		1.50		
Class __Concrete (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		
Superstru Con Class__(CY) Section 500				8.00		1.50		
Concrete Handrail (LF) Section 500				8.00		1.50		
oncrete Barrier (LF) Section 500				8.00		1.50		

BRIDGE ITEMS	Quantity	Unit Price	QF/1000	Diesel Factor	Gallons Diesel	Unleaded Factor	Gallons Unleaded	REMARKS
tru Steel Plan Quantity (LB) Section 501				8.00		1.50		
tru Steel Plan Quantity (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		
tru Reinf Plan Quantity(LB) Section 511				8.00		1.50		
tru Reinf Plan Quantity(LB) Section 511				8.00		1.50		
ar Reinf Steel (LB) Section 511	44768.00	0.94	42.0819	8.00	336.66	1.50	63.12	
ing___inch (LF) Section 520				8.00		1.50		
ing___inch (LF) Section 520				8.00		1.50		
ing___inch (LF) Section 520				8.00		1.50		
ing___inch (LF) Section 520				8.00		1.50		
ing___inch (LF) Section 520				8.00		1.50		
ing___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=	34015.52	SUM QF UNLEADED=	10225.77

DIESEL PRICE ADJUSTMENT($)	$80,426.28
UNLEADED PRICE ADJUSTMENT($)	$21,379.02

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

APPLICABLE TO CONTRACTS/PROJECTS CONTAINING THE 413 SPECIFICATION, SECTION 413.5.01 ADJUSTMENTS ASPHALT PRICE ADJUSTMENT FOR BITUMINOUS TACK COAT

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

ENTER APL: 374 ENTER APM: 841.5

125.00% | INCREASE ADJUSTMENT

I.N.	TYPE	TACK (GALLONS)	TACK (TONS)	REMARKS
13-1000	PG 58-22	2160	9.2774	

TMT = 9.2774

PRICE ADJUSTMENT($) $4,163.70

400 / 402 ASPHALT CEMENT PRICE ADJUSTMENT 125% MAX

ENTER APL: 374 ENTER APM: 841.5

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

125.00% | INCREASE ADJUSTMENT

I.N. / Spec Number	MIX TYPE	HMA	JMF AC%	AC	REMARKS
402-1812	4.75 mm	1000	5.00	50.00	
402-3121	25 mm SP	3979	5.00	198.95	
402-3130	12.5 mm SP	3372	5.00	168.60	
402-3190	19 mm SP	2128	5.00	106.40	
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			TMT =	523.95	

PRICE ADJUSTMENT($) $235,148.76

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

PPLICABLE 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		
.I.N.	TYPE	ASPHALT EMULSION (GALLONS)

TMT =

REMARKS:

Use this side for Asphalt Cement Only		
L.I.N.	TYPE	TACK (GALLONS)

TMT =

REMARKS:

MONTHLY PRICE ADJUSTMENT($)	MISSING APL OR APM

ADJUSTMENT SUMMARY

FUEL PRICE ADJUSTMENT (*ENGLISH 125% MAX)*

DIESEL PRICE ADJUSTMENT($)	$80,426.28
UNLEADED PRICE ADJUSTMENT($)	$21,379.02
ASPHALT CEMENT PRICE ADJUSTMENT (BITUMINOUS TACK COAT 125% MAX)	$4,163.70
400 / 402 ASPHALT CEMENT PRICE ADJUSTMENT 125% MAX	$235,148.76
ASPHALT CEMENT PRICE ADJUSTMENT FOR BITUMINOUS TACK COAT(Surface Treatment 125% MAX)	MISSING APL OR APM

REMARKS:

TOTAL ADJUSTMENTS	$341,117.77

/M 10/08

Preliminary Right of Way Cost Estimate

Phil Copeland
Right of Way Administrator
By: LaShone Alexander

Date: April 03, 2009
Project: STP00-00(009) Newton
Existing/Required R/W: Varies/Varies
Project Termini: SR 212 Widening and Reconstruction Newton County
Project Description: Widening and Reconstruction of SR 212

P.I. Number: 245190
No. Parcels: 37

Land:

Commercial R/W 3.5 Acres	@ $350,000/acre	$ 1,225,000.00
Residential R/W 5.3 Acres	@ $ 50,000/acre	$ 265,000.00
		1,490,000.00

Improvements: fencing, landscaping
misc. site improvements — $ 50,000.00

Relocation: Residential (0) $
Commercial (0) $ — $

Damage: Proximity (0)
Cost to Cure (0) — $ 0.000
50,000.00

Net Cost — $ 1,540,000.00

Net Cost		$ 1,540,000.00
Scheduling Contingency	55 %	847,000.00
Adm/Court Cost	60 %	1,432,200.00
		$ 3,819,200.00

Total Cost $3,819,200.00

Note: The Market Appreciation (40%) is not included in the updated Preliminary Cost Estimate.

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE STP00-0957-00 (009) Newton
P.I. No. 245190

OFFICE Tennille

DATE April 1, 2009

FROM JDC/JLL
Jack D. Cooper, Jr.
District Utilities Engineer

TO George Brewer, District Preconstruction Engineer
ATTN Foster Grimes

SUBJECT PRELIMINARY UTILITY COST (ESTIMATE)

As requested by your office, we are furnishing you with a Preliminary Utility Cost estimates for each utility with facilities potentially located within the project limits.

FACILITY OWNER	NON-REIMBURSABLE	REIMBURSABLE
Snapping Shoals EMC		$10,500.00
GA Transmission Corp.		$50,000.00
Newton Co. Water & Sewer	$344,850.00	
Totals	$344,850.00	$60,500.00
30% Utilities Contingency:		$18,150.00
Total Reimbursement Cost:		$78,650.00

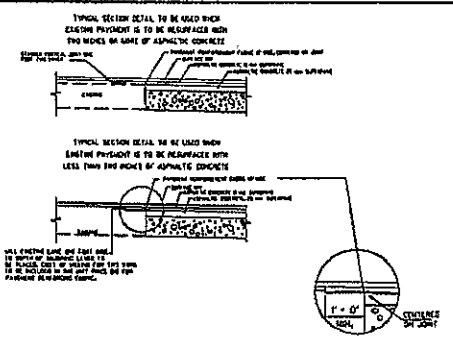
Total reimbursable cost for the above project is $78,650.00.

If you have any questions, please contact Jamie Lindsey at 478-552-4637.

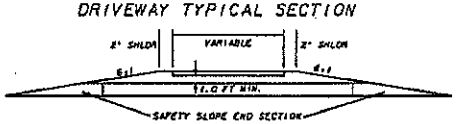
JDC/JLL

C: Jeff Baker, State Utilities Engineer;
Jamie Simpson, Office of Financial Management;
Bryan Gibbs, Area Engineer

DATE/INITIALS	TRACED	CHKD	BOOK	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
ADDED		EXPENDABLES		STP00-0957-00(009)		



DRIVEWAY TYPICAL SECTION



INTERSECTION DRIVEWAY PROFILES FOR PAVING LIMITS

RESIDENTIAL DRIVEWAYS
ASPHALT SURFACE SHALL BE PLACED WITH THE FOLLOWING: 165 lbs/yd² RECYCLED ASPHALTIC CONC. 12.5 mm SUPERPAVE TYPE I
220 lbs/yd² RECYCLED ASPHALTIC CONC. 19 mm SUPERPAVE

COMMERCIAL DRIVEWAYS
ASPHALT SURFACE SHALL BE PLACED WITH THE FOLLOWING: 165 lbs/yd² RECYCLED ASPHALTIC CONC. 12.5 mm SUPERPAVE TYPE I
440 lbs/yd² RECYCLED ASPHALTIC CONC. 19 mm SUPERPAVE

CONCRETE DRIVEWAYS
COMMERCIAL DRIVES = 8" CONCRETE
RESIDENTIAL DRIVES = 6" CONCRETE

*** STANDARD CROSS - SLOPE MAY BE VARIED - AS DIRECTED BY THE ENGINEER - TO BEST FIT THE EXISTING ROADWAY AS PER SECTION 109 OF THE STANDARD SPECIFICATIONS. SEE "ALLOWABLE RANGES TABLE" BELOW.

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 6.5% OR LESS
0.0156 FT/FT - MINIMUM	0.0156 FT/FT - MINIMUM
0.0208 FT/FT - DESIRABLE	0.0269 FT/FT - DESIRABLE
0.0258 FT/FT - MAXIMUM	0.0300 FT/FT - MAXIMUM

B: SUPERELEVATION RATE

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

C: SUPERELEVATION TRANSITION LENGTH (LENGTH FROM FLAT TO FULL S.E.)

	RATE OF CHANGE	CORRESPONDING DIFFERENCE IN GRADE BETWEEN PIVOT POINT AND EDGE OF PAVEMENT
MINIMUM	1:150	0.67%
DESIRABLE	1:200	0.50%
MAXIMUM	1:300	0.33%

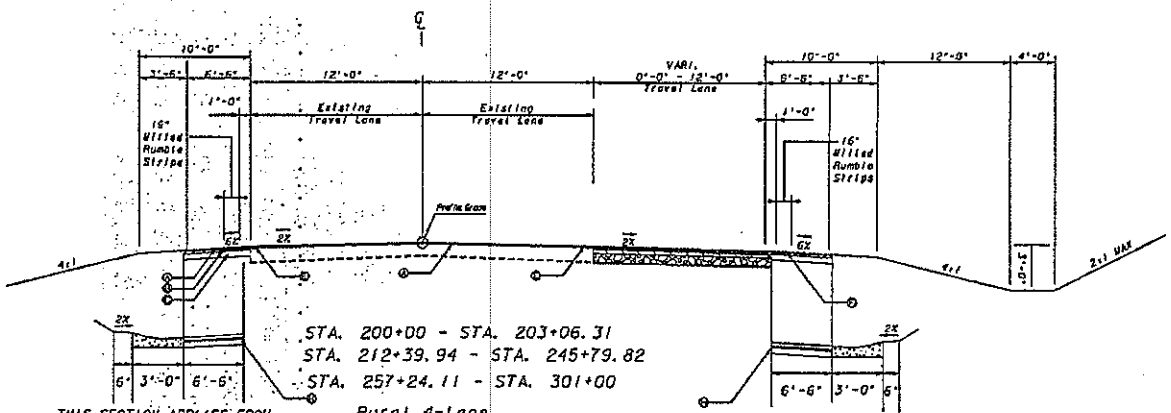
*LENGTH SHALL BE SET TO AVOID CREATING A FLAT GUTTER GRADE ON EACH SIDE AND TO AVOID FLAT CROSS - SLOPES AT OR NEAR THE LOW POINT OF VERTICAL CURVES.

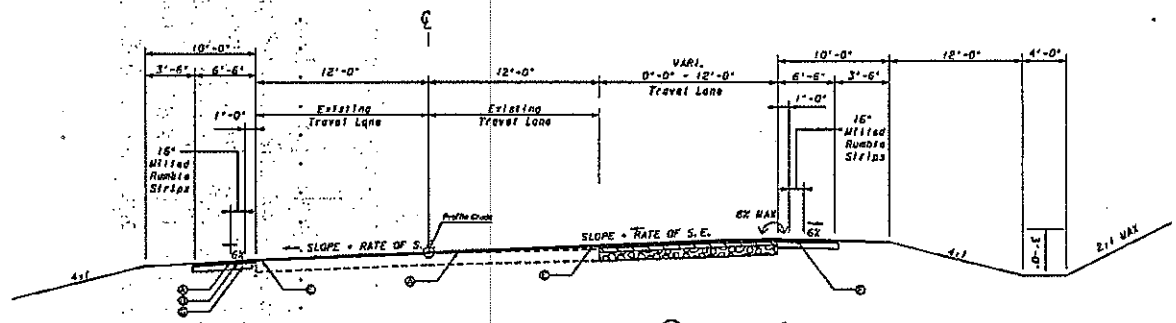
D: POSITIONING OF SUPERELEVATION TRANSITION LENGTH ON SIMPLE CURVES

66% OF TRANSITION INSIDE CURVE - MAXIMUM
33% OF TRANSITION INSIDE CURVE - DESIRABLE
20% OF TRANSITION INSIDE CURVE - MINIMUM

NOTE: CROWN VIPE OUT SHALL BE AT THE SAME RATE AS THE S.E. TRANSITION.

E: SMOOTHING OF BREAKS IN EDGE PROFILE AT BEGIN AND END OF TRANSITION SHALL BE ACCOMPLISHED BY VERTICAL CURVE WITH A MINIMUM LENGTH (IN FEET) EQUAL TO THE SPEED DESIGN (IN MPH).





SR 212

- (A) 165 LBS/YD² RECYCLED ASPH. CONC. 12.5mm SUPERPAVE, TYPE I
- (B) 220 LBS/YD² RECYCLED ASPH. CONC. 19mm SUPERPAVE
- (C) 550 LBS/YD² RECYCLED ASPH. CONC. 25mm SUPERPAVE
- (D) 12" GRADED AGGREGATE BASE
- (E) ASPHALT CONC. LEVELING AS REQ'D
- (F) 16" RUMBLE STRIPS
- (G) 6" GRADED AGGREGATE BASE
- (H) V-GUTTER

SLOPE CONTROLS		
SLOPE	CUT	FILL
4:1	0-10'	0-10'
2:1	> 10'	> 10'

NOT TO SCALE

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: DISTRICT 2 DESIGN - TENNILLE

TYPICAL SECTIONS

DRAWING NO. 5-01

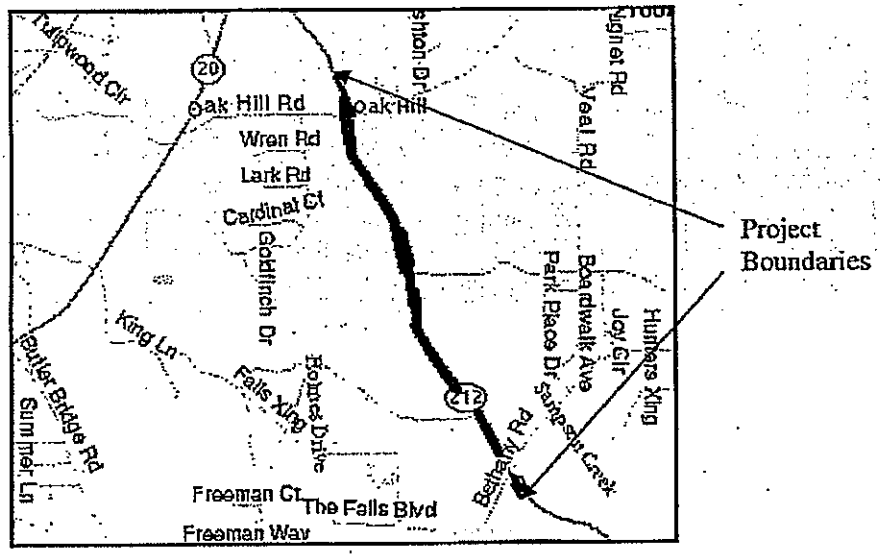
- NEED AND PURPOSE –

PROJECT STP-957(9) Newton County
P. I. NO 245190

SR 212 Intersection and Roadway Improvements Project

Background

Project STP-957(9), PI No. 245190 was addressed in the August 2002 Needs Assessment Report for Newton County, and is one of ten projects identified by citizens of Newton County as having high priority. First observed and documented in 1996, the resulting project concept and scope focuses on specific facility problems at the intersections with SR 212 at Butler Bridge Road/Bethany Road/CR 8 and the intersection of SR 212 at Oak Hill Road/CR 19. It also addresses roadway safety features on SR 212 beginning at MP 1.12 just north of Oak Hill Road/CR 19 and ending at MP 3.23 which is just south of Butler Bridge Road/Bethany Road/CR 8. The construction date in the CWP is scheduled for 2006.



Facility Overview and Operational Characteristics

SR 212 serves regional needs as a growing rural corridor beginning at the east end of the Metro-Atlanta area, traversing southeasterly through the county to the City of Monticello. It is not designated as a part of the National Highway System of Roads nor a state or county designated bicycle route, however it is a local school bus route, with a posted speed of 55 MPH throughout the corridor. Just north of the project's northern boundary, MP 1.12, SR 212 intersects with SR 20 which is another growing rural corridor which traverses southwesterly through Newton County. Just south of the project boundary SR 81 intersects with SR 212.

SR 212 is functionally classified as a Rural Minor Arterial. The truck traffic constitutes an estimated 10% of the total vehicles traveling the corridor, with most of the trucks traveling to more commercially developed areas north and south of the project boundaries. The facility

consists of two 12' lanes with variable width rural shoulders, over generally gently rolling terrain. The project boundaries are near the extreme eastern edge of Newton County. Recent development within the project boundaries includes Oak Hill Elementary School and a Newton County Fire Station. In the area of SR 212 and Oak Hill Road/CR 19, where there is sub-standard intersection alignment, there are several county historic resources.

Proposed Improvements

Project improvements including new turn lanes, additional turn lane storage at some locations, and corrections of other turn lane deficiencies at various points and throughout the entire length of the project will be addressed. At the intersection of SR 212 and Oak Hill Road/CR 19, the sub-standard intersection alignment resulting in poor sight distance in both directions will be addressed, the traffic signal will be upgraded, and dedicated left hand turn lanes will be constructed in all directions. At the SR 212 at Butler Bridge Road/Bethany Road/CR 8 intersection, SR 212 will be realigned slightly to the North to meet current design criteria, a stop and go traffic signal will be constructed, and turn lanes will be constructed on CR 8. The entire length of the roadway in the project area will be upgraded to include two (2) 12' lanes with 10' shoulder construction which includes 4' paved shoulders to provide additional safety for traffic traveling the corridor. Dedicated turn lanes will be constructed at the Newton County Firehouse and Oak Hill Elementary School. These improvements will enhance the safety and serviceability of the facility.

Operational Analysis Data

Traffic Count and Projections

TC Station 107 (Mile log 2.59 to 3.23)	2001 AADT	2006 AADT	2026 AADT
	4500	5100	7500

TC Station 109 (Mile log 1.12 to 2.59)	2001 AADT	2006 AADT	2026 AADT
	7300	8200	12,200

Level-of-Service

Level-of-Service is defined as a qualitative measure describing operational conditions within a traffic stream. There are six identified Levels-of-Service a roadway can operate under. A designated letter, A through F, identifies each of the six. Level-of-Service A representing the best operating conditions and Level-of-Service F the worst. For example, Level-of-Service A represents free flow. Individual users are virtually unaffected by the presence of others in the traffic stream. The general level of comfort and convenience provided to the motorist is excellent. Level-of-Service C marks the beginning of a range of flow in which the operation of the individual users becomes significantly affected by interactions with others in the traffic stream. The general level of comfort declines noticeably at this level. Level-of-Service E represents operating conditions at or near capacity. All speeds are reduced to a low, but relatively uniform value. Comfort and convenience levels are extremely poor. Level-of-Service F represents heavily congested flow with traffic demands exceeding capacity. Volumes are lower than capacity and speeds are below capacity speed.

Based on existing AADT traffic counts, the LOS on this facility in the project area is Level "C." The Level of Service remains at Level "C" by the construction year 2006. The Level of Service is estimated to be Level "D" in the year 2026 based on existing AADT figures and subsequent projections.

1996, 1997, & 1998
Accident Data and Statewide Comparisons

SR212 Accident Data – Beginning at MP 1.12 to MP 3.23

TYPE	Angle/ Intersect	Rear End	Side Swipe	Head on	Collisions not with a Vehicle	Total
1996	2	1	0	1	4	8
1997	5	2	0	1	10	18
1998	4	1	0	0	2	7
TOTAL	11	4	0	2	16	33

Number of Injuries: 26	Number of Fatalities: 0

Comparisons with Statewide Averages for: Rural Minor Arterial Non-NHS
Comparisons with Statewide Averages for similar Facilities Years 1999, 2000, 2001 NOT Available.

	1996	1997	1998
SR 212 Accidents per 100 MVMT	96	191	30
Comparisons with Statewide Averages for similar Facilities 100 MVMT	144	166	172
% Higher/Less than Statewide Average for Rural Principal Arterial Non-NHS	33% Less	15% Higher	83% Less

1998, 2000, & 2001 Accident Data
(Accident data not available for 1999 or 2002)

SR212 Accident Data - Beginning at Mp 1.12 to MP 3.23

TYPE	Angle/ Intersect	Rear End	Side Swipe	Head on	Collisions not with a Vehicle	Total
1998	4	1	0	0	2	7
2000	4	1	1	0	9	15
2001	0	0	0	1	2	3
TOTAL	8	2	1	1	13	25

Number of Injuries: 17	Number of Fatalities: 1

The statistics indicate that this facility does not operate at an unsafe level. However, the proposed improvements will bring this facility up to current AASHTO design standards and will provide for an enhanced level of comfort through recommended safety features.

Programmed Projects in the Area

Project	Description	Expected Beginning or Completion Date
PI 742980 Rockdale County	Bridge Replacement at SR 212 and Honey Creek	Approved for 2006
PI 730907 Rockdale County	Widening to 4 lanes SR 20 from SR 212 to Honey Creek Road	Approved for 2007

Community Characteristics

The census demographic characteristics along the SR212 project corridor in Newton County indicate a population of 4925 people of which 4088 are white, 681 African American, 9 American Indian, 39 Asian, 28 of two races or more, and 80 of Hispanic or Latino origin. Income by race is shown in the following table:

Project Area Economic Indicators	White	African American	American Indian	Asian	Two or More Races	Hispanic or Latino
Less than $10,000	115	34	0	0	0	0
$10,000 to $24,999	366	99	0	0	0	16
$25,000 to $44,999	1106	251	0	27	28	25
$45,000 to $74,999	1549	169	9	0	0	30
	793	91	0	0	0	0
	127	26	0	12	0	0
	32	11	0	0	0	9

This statistical information indicates these factors would not influence the proposed project.

Newton County, as one of Georgia's fasting growing counties, is becoming increasingly more urbanized as is indicated in the 2000 Census survey. In comparison to 1990, 2000 documentation shows a 48% percent increase in area population, with an increase of 83% in the number of families with 2 or more vehicles available.

Statement of Need and Purpose

This facility does not operate at an unsafe level. The need for the proposed project improvements comes from a variety of substandard design issues which collectively affect the overall performance of the facility and intersections. Upgrades will address the sub-standard intersection alignment on SR 212 at Oak Hill Road/CR 19 to correct the poor sight distance. Construction of turn lanes at the two intersections and intersection signal improvements will promote better

traffic flow at the intersection of SR 212 at Butler Bridge Road/Bethany Road/CR 8 and at the intersection of SR 212 at Oak Hill Road/CR 19. Turn lane construction at the new fire station and new elementary school will provide additional safety measures for area residents and through traffic. The purpose of the proposed improvements is to provide better mobility through this section of SR 212 roadway and an overall safer driving environment for thru and local traffic. The proposed improvements and safety upgrades will bring this facility up to current AASHTO design standards and provide an enhanced driving experience. The above defined improvements are necessary and recommended, to improve the operating serviceability and provide a facility that will adequately and safely serve current and future travel demand on this portion of State Route 212.