

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

Project Type: <u>Major</u>	P.I. Number: <u>122890</u>
GDOT District: <u>1</u>	County: <u>Clarke</u>
Federal Route Number: <u>US 78</u>	State Route Number: <u>SR 10</u>

This concept revision includes changes in lane layouts, lane widths, shoulder widths, driveway access, removal of bike lanes and updated traffic volumes throughout the project corridor.

Submitted for approval:

Shawn Fleet 8-31-2015
 Shawn Fleet, Heath & Lineback Engineers, Inc. DATE

Albert V. Shelby III 1/28/2016
 Office Head (GDOT Project Manager's Office) DATE

Anthony Tate 1/21/16
 GDOT Project Manager DATE

** Recommendation on file*

Recommendation for approval:

** Eric Duff/KLP* 2-5-16
 State Environmental Administrator (recommendation required) DATE

** Christopher Raymond* 3-10-16
 State Traffic Engineer DATE

FOR

** Bill DuVall* 2-3-16
 State Bridge Design Engineer DATE

- MPO Area: This project is consistent with the MPO adopted Regional Transportation Plan (RTP)/Long Range Transportation Plan (LRTP).
- Rural Area: This project is consistent with the goals outlined in the Statewide Transportation Plan (SWTP) and/or is included in the State Transportation Improvement Program (STIP).

Cynthia L. Vauzke 2-3-16
 State Transportation Planning Administrator Date

PLANNING, APPROVED CONCEPT, AND BACKGROUND

Project Justification Statement: The project was identified by and is a component of the Madison-Athens-Clarke County-Oconee Regional Transportation Study (MACORTS) adopted in September 1997. This interchange is significant regionally in that it provides access to and between the SR 10 Loop which is a perimeter route around the city of Athens, from US 78/SR 10 (Atlanta Hwy), and provides access to the Georgia Square Mall located west of the interchange. It also serves a wide variety of other shopping, eating, and employment opportunities in the immediate vicinity.

Traffic projections estimate that volumes on US 78/SR 10 (Atlanta Hwy) will increase by approximately 30% or 13,200 vehicles per day in the next twenty years. The project proposes 0.90 miles of widening and improvements to the US 78/SR 10 (Atlanta Hwy) in the interchange area. The US 78/SR 10 (Atlanta Hwy) over the SR 10 Loop bridges are to be replaced due cracking throughout the structures and undersized edge beams. The new loop ramp, realigned ramps, auxiliary lane and additional lanes provided by this project would facilitate the flow of traffic to and from SR 10 Loop to Atlanta Highway as well as the through traffic on Atlanta Highway by providing additional capacity and eliminating many conflicting turning movements. The relocated Jennings Mill Road provided by this project would improve traffic safety and will facilitate the flow of traffic to and from Jennings Mill Road and a large shopping center to Atlanta Highway by adding a traffic signal and increasing the distance between the intersection of the northbound exit ramp and the Jennings Mill Road intersection at Atlanta Highway. Widening and improvements to Huntington Road will facilitate the flow of traffic to the Georgia Square Mall, an additional large shopping center and now provides an alternate route connection to Jennings Mill Parkway to the south.

The primary needs of the project are to increased mobility and improved safety and to enhance economic development within the interchange area.

Existing conditions: US 78/SR 10 (Atlanta Highway) consists of 4 to 6 lanes, urban shoulders and a variable width raised median and depressed median. The medians range from 8' to 40' wide. The posted speed limit on US 78/SR 10 (Atlanta Highway) is 45 mph. SR 10 Loop is a four lane facility with a forty-foot depressed median and a 55 mph posted speed limit.

Huntington Road and Jennings Mill Road have posted speeds of 25 mph and 35 mph, respectively, with Huntington Road being 2 to 4 lanes with urban shoulder and a variable width raised median, and Jennings Mill Road being a 2 lane roadway with six foot rural shoulders.

Description of the approved concept: The approved concept consists of improvements to the US 78/SR 10 (Atlanta Highway) / SR 10 Loop interchange in Athens, Georgia, and the widening of Atlanta Highway in the interchange vicinity for a total project length of .82 mile.

Accident data within the limits of the project indicate a significant problem on Atlanta Highway. Continuous commercial development along Atlanta Highway corridor will increase traffic volumes to 78,250 vehicles per day (VPD) by the year 2031, from year 2011 counts of 56,150 VPD. SR 10 Loop will see an increase of nearly 14,500 VPD to 50,500 VPD by year 2031.

The approved concept proposes construction of a new loop ramp from Atlanta Highway westbound to SR 10 Loop southbound, realigning the existing loop ramp from Atlanta Highway eastbound to SR 10 Loop northbound, and widening Atlanta Highway by adding four lanes and lengthening several turn lanes. In addition, the project includes improvements to the Huntington Road and Atlanta Highway intersection and relocating the Jennings Mill Road intersection.

Atlanta Highway will be widened to an 8 lane urban facility with 8' to 40' raised median, 4' bike lanes, 5' sidewalks, 16' shoulders and left turn lanes added or modified at various locations. SR 10 Loop will remain four lanes with a 40' depressed median. Improvements to SR 10 Loop include adding a deceleration / storage lane to the southbound exit ramp, adding a southbound entrance loop ramp with an acceleration lane on SR 10 Loop, and realigning the northbound loop ramp and the acceleration lane on

SR 10 Loop. Huntington Road will be widened to add left and right turn lanes in both directions with 5' sidewalks and 16' shoulders. Jennings Mill Road intersection with Atlanta Highway will be relocated approximately 300' east of its current location. Relocated Jennings Mill Road will consist of 2 lanes with curb and gutter, 5' sidewalks, and 16' shoulders. All lanes within the project are to be designed 12 ft wide.

DESIGN SPEEDS	
Atlanta Highway	45 mph
Jennings Mill Road	35 mph
Huntington Road	25 mph
SR 10 Loop	55 mph
SR 10 Loop - Entrance Loop Ramps	30 mph
SR 10 Loop - Exit Ramps	45 mph

Federal Oversight: PoDI Exempt State Funded Other

Projected Traffic as shown in the approved Concept Report: AADT

Atlanta Highway:

Open Year (2011): 56,150

Design Year (2031): 78,250

SR 10 Loop:

Open Year (2011): 36,000

Design Year (2031): 50,500

Updated Traffic: AADT 24 HR T: 6 %

Atlanta Highway:

Open Year (2021): 49,375

Design Year (2041): 59,600

SR 10 Loop:

Open Year (2021): 37,700

Design Year (2031): 46,000

Functional Classification (Mainline): Urban Principal Arterial

VE Study anticipated: No Yes Completed – Date: 8/10/2007

PROPOSED REVISIONS

Approved Features:	Proposed Features:
Typical Section (Atlanta Hwy): <ul style="list-style-type: none"> • 12'-0" Lane Widths • 4'-0" Bike Lanes • 16'-0" Shoulders 	Typical Section (Atlanta Hwy): <ul style="list-style-type: none"> • 11'-0" Lane Widths • No Bike lanes • 8'-0" to 16'-0" Shoulders
Typical Section (Huntington Road): <ul style="list-style-type: none"> • 16'-0" Shoulder 	Typical Section (Huntington Road): <ul style="list-style-type: none"> • 10'-0" Shoulder
Typical Section (Jennings Mill Road): <ul style="list-style-type: none"> • 16'-0" Shoulder 	Typical Section (Jennings Mill Road): <ul style="list-style-type: none"> • 10'-0" Shoulder
Project Concept Layout: <ul style="list-style-type: none"> • 4 lanes in each direction through the interchange area 	Project Concept Layout: <ul style="list-style-type: none"> • 3 lanes in each direction through the interchange area
Reason(s) for change: ROW is the highest cost item on this project. Reducing the widths and shoulder widths will result in significant cost savings (pavement bridge and ROW) and also reduce / minimize the amount of new ROW required to construct the project. The bike lane would not tie to any proposed bike routes designated by GDOT or Athens-Clarke County.	

Design Variances and/or Exceptions needed:

A variance to complete streets is anticipated due to the removal of the bike lanes.

Complete Streets - Bicycle, Pedestrian, and/or Transit Standard Warrants:

Warrants met: None Bicycle Pedestrian Transit

ENVIRONMENTAL AND PERMITS

Potential environmental impacts of proposed revision: The reduced lane width and revised lane layout along Atlanta Highway and reduced shoulder widths along Huntington Road and Jennings Mill Road were done to reduce the project foot print and its impacts on the adjacent businesses. This will reduce the environmental impacts throughout the majority of the project corridor.

Have proposed revisions been reviewed by environmental staff? No Yes

Environmental responsibilities (Studies/Documents/Permits): GDOT OES is responsible for all environmental studies for the proposed project.

Air Quality:

- Is the project located in a PM 2.5 Non-attainment area? No Yes
 Is the project located in an Ozone Non-attainment area? No Yes
 Is a Carbon Monoxide hotspot analysis required? No Yes

Environmental Comments and Information:

NEPA: A reeval of the NEPA document will be required for the revisions listed in this report.

Ecology: Project areas should be screened for Ecology resources.

Archeology: Project areas should be screened for archeology resources.

History: Project areas should be screened for History resources.

Air & Noise: Air and noise modeling will need to be performed based on the revised project footprint resources.

Public Involvement: An additional PIOH may be required.

PROJECT COST AND ADDITIONAL INFORMATION

Item	Estimated Cost	Date of Estimate	Funded By
Base Construction Cost:	\$18,994,667.35	11/10/2015	
5% Engineering and Inspection:	\$949,733.37	11/10/2015	
15% Contingency	\$ 2,991,660.11	11/10/2015	
Liquid AC Adjustment:	\$1,040,852.76	11/10/2015	
<u>Total Construction Cost:</u>	<u>\$23,976,913.58</u>		GDOT
Right-of-Way:	\$8,235,000.00	11/2/2015	GDOT
Utilities (reimbursable costs):	\$2,163,000.00	11/2/2015	GDOT
Environmental Mitigation:	\$50,000.00	Assumed	GDOT
TOTAL PROJECT COST:	\$34,424,913.59		

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

Comments:

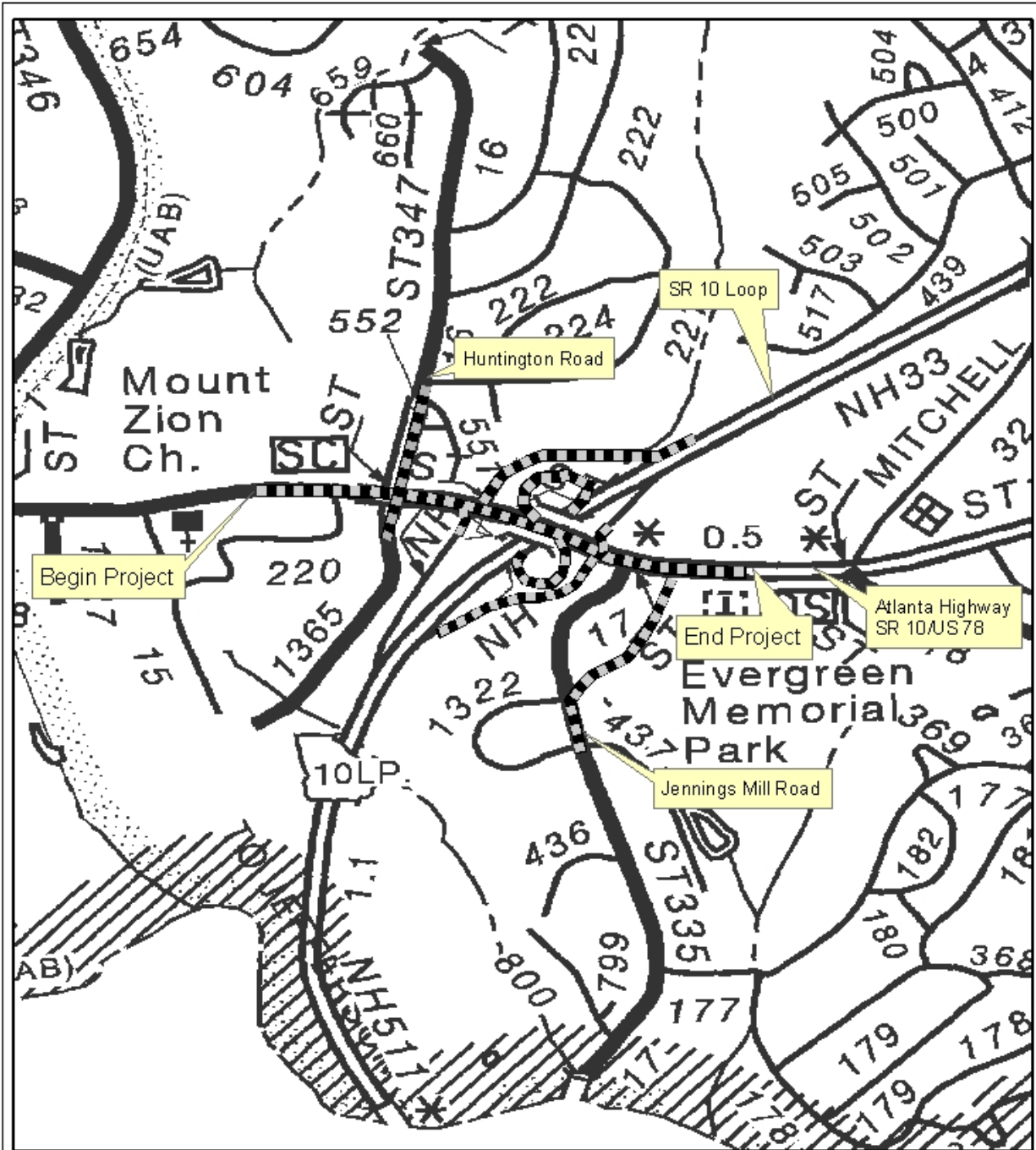
Attachments:




1. Location map
2. Revised Concept Layout
3. Roadway Typical Section
4. Cost Estimates
 - a. Construction including Engineering and Inspection and Contingencies
 - b. Completed Liquid AC Cost Adjustment forms
 - c. Right-of-Way
 - d. Utilities
 - e. Environmental Mitigation (Assumed/Not Included)
5. VE Study Implementation Letter
6. Traffic Diagrams
7. Traffic Study Synopsis and Summary Tables
8. Meeting Minutes
 - a. 2-19-2015 Meeting with GDOT District 1
 - b. 4-16-2015 Meeting with FHWA
 - c. 5-20-2015 Meeting with GDOT District 1 & Athens Clarke County
 - d. 7-1-2015 Meeting with GDOT Planning & Athens Clarke County
 - e. Additional Pertinent E-mail Chains

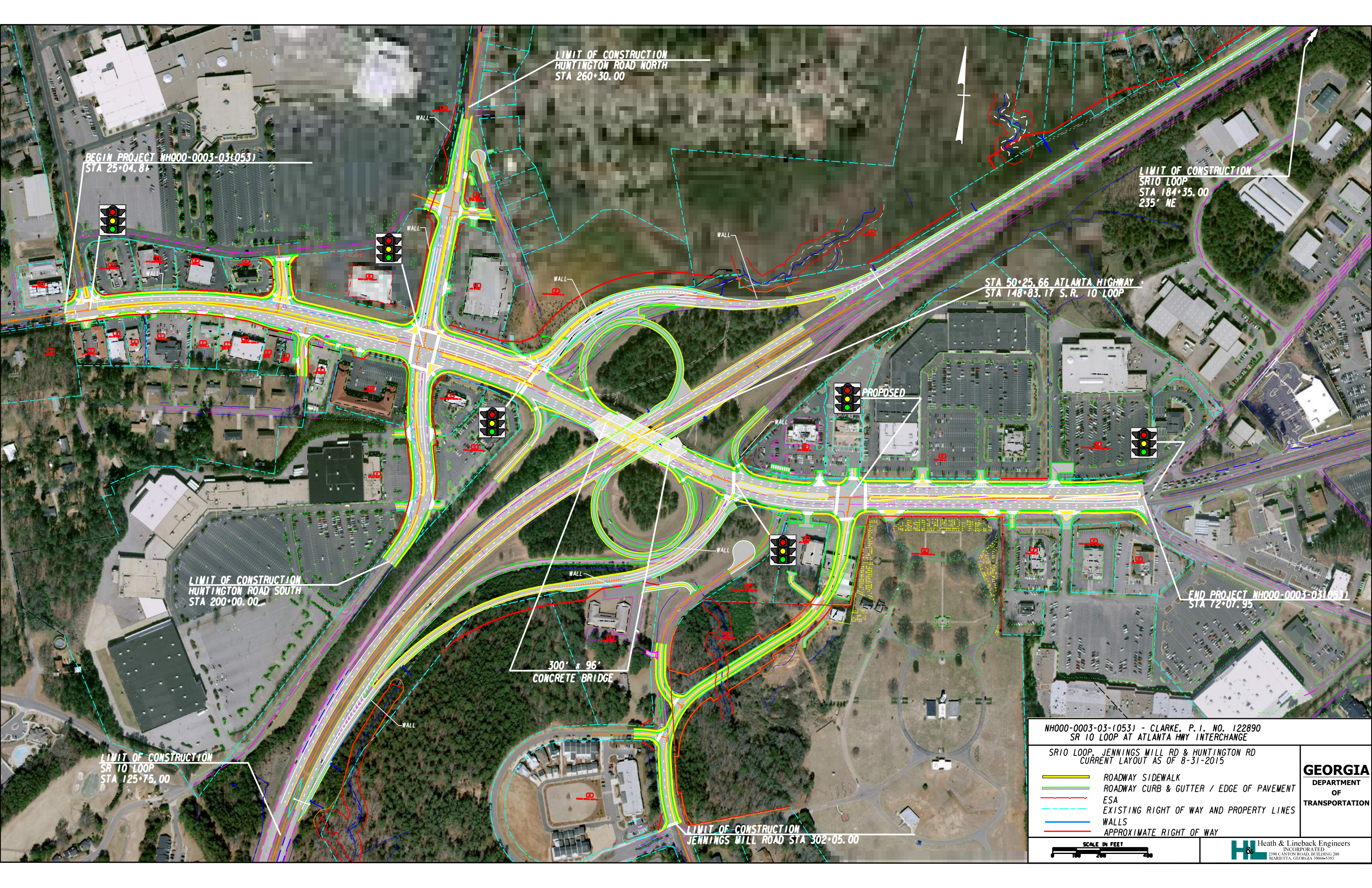
APPROVALS

Concur: *Neal Bell*
Director of Engineering

Approve: *Margaret B. Pivle* *2/29/10*
Chief Engineer Date



	Clarke County Project NH-003-3(53) PI No. 122890	Project Location Map Scale 0 570 1,140 1,710  Feet	
	SR 10 Loop/Atlanta Highway Interchange Improvements		



BEGIN PROJECT NH000-0003-03(053)
STA 25+04.81

LIMIT OF CONSTRUCTION
HUNTINGTON ROAD NORTH
STA 260+30.00

LIMIT OF CONSTRUCTION
SR10 LOOP
STA 184+35.00
235' NE

STA 50+25.66 ATLANTA HIGHWAY
STA 148+83.17 S.R. 10 LOOP

LIMIT OF CONSTRUCTION
HUNTINGTON ROAD SOUTH
STA 200+00.00

END PROJECT NH000-0003-03(053)
STA 72+07.95

LIMIT OF CONSTRUCTION
SR 10 LOOP
STA 125+75.00

300' x 96'
CONCRETE BRIDGE

LIMIT OF CONSTRUCTION
JENNINGS MILL ROAD STA 302+05.00

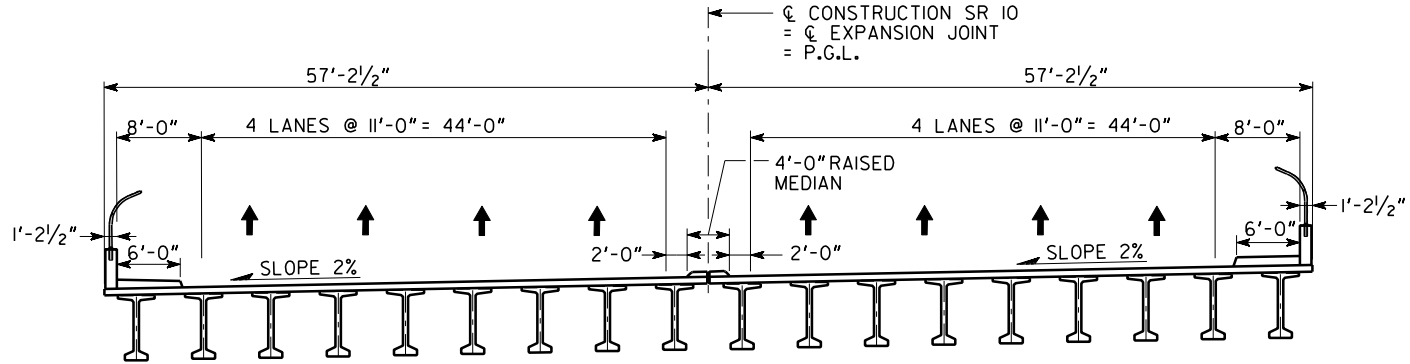
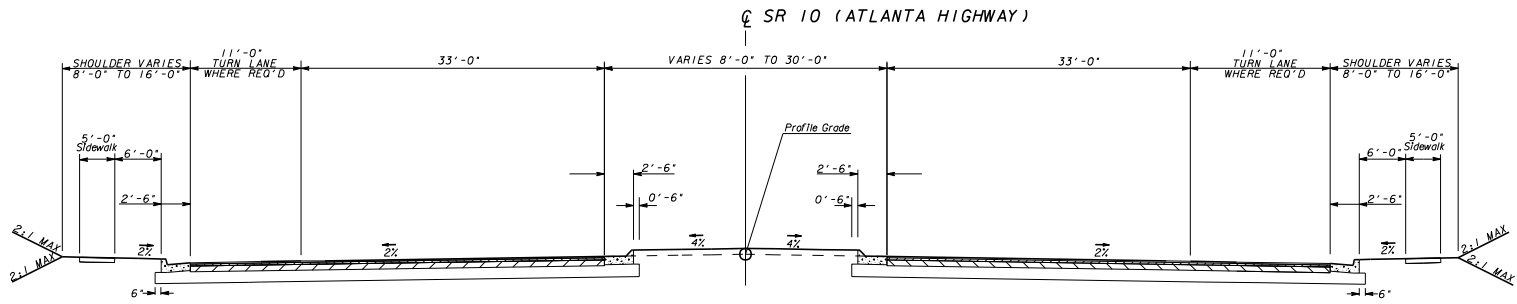
NH000-0003-03-(053) - CLARKE, P. I. NO. 122890
SR 10 LOOP AT ATLANTA HWY INTERCHANGE
SR10 LOOP, JENNINGS MILL RD & HUNTINGTON RD
CURRENT LAYOUT AS OF 8-31-2015

- ROADWAY SIDEWALK
- ROADWAY CURB & GUTTER / EDGE OF PAVEMENT
- ESA
- EXISTING RIGHT OF WAY AND PROPERTY LINES
- WALLS
- APPROXIMATE RIGHT OF WAY

GEORGIA
DEPARTMENT
OF
TRANSPORTATION



Health & Lineback Engineers
INCORPORATED
2390 CANTON ROAD, BUILDING 200
MARIETTA, GEORGIA 30066-5792



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

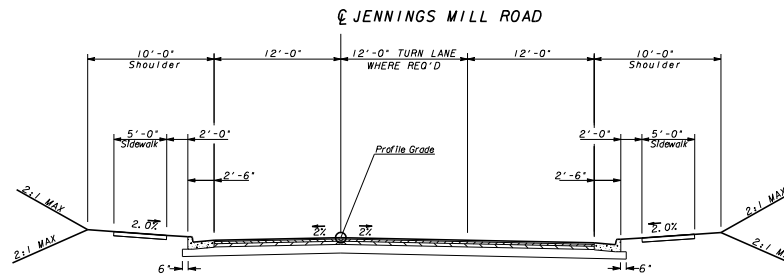
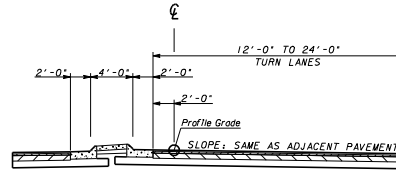
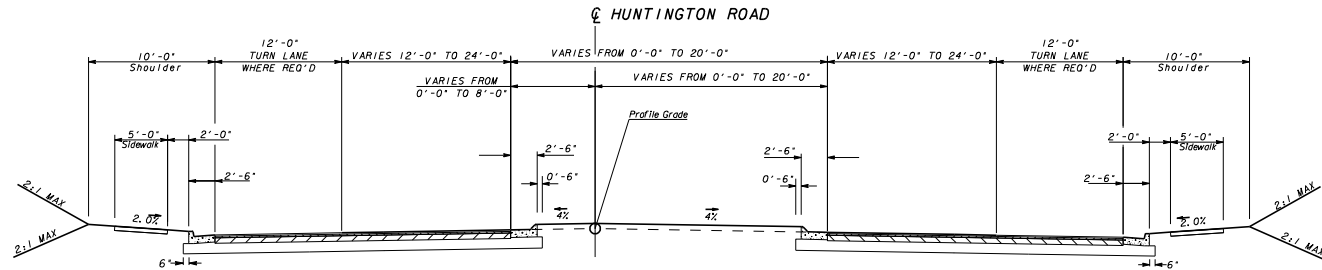
BEGIN LIMIT OF ACCESS.....BLA
 END LIMIT OF ACCESS.....ELA
 LIMIT OF ACCESS
 R/W AND LIMIT OF ACCESS
 EXISTING R/W LINE
 FIELD FENCING

Heath & Lineback Engineers
 INCORPORATED
 2348 CANTON ROAD, BUILDING 208
 MARTIN, GEORGIA 30056-7013

REVISION DATES		

STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION
 OFFICE: CONSULTANT DESIGN
 TYPICAL SECTIONS
 ATLANTA HIGHWAY
 SR 10 LOOP/ATLANTA
 HIGHWAY INTERCHANGE

DRAWING No. **5-01**



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
 EXISTING R/W LINE
 FIELD FENCING

Heath & Lineback Engineers
 INCORPORATED
 2348 CANTON ROAD, BUILDING 208
 MARTIN, GEORGIA 30056-7013

REVISION DATES

STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION
 OFFICE: CONSULTANT DESIGN
 TYPICAL SECTIONS
 SIDE ROADS
 SR 10 LOOP/ATLANTA
 HIGHWAY INTERCHANGE

DRAWING No.
5-01

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE P.I. No.

OFFICE

PROJECT DESCRIPTION

SR 10 LOOP AT SR10; INC JENNINGS MILL RD REALIGNMENT IN ATHENS

DATE

From: *Kimberly A. Abitton*

To: Lisa L. Myers, State Project Review Engineer

Subject: REVISIONS TO PROGRAMMED COSTS

PROJECT MANAGER *AT*

MGMT LET DATE

MGMT ROW DATE

PROGRAMMED COSTS (TPro W/OUT INFLATION)

LAST ESTIMATE UPDATE

CONSTRUCTION \$

DATE

RIGHT OF WAY \$

DATE

UTILITIES \$

DATE

REVISED COST ESTIMATES

CONSTRUCTION* \$

RIGHT OF WAY \$

UTILITIES \$

*Cost Contains % Contingency

REASONS FOR COST INCREASE AND CONTINGENCY JUSTIFICATION:

High Risk Reconstruction/Rehabilitation Added Capacity project. This update reflects quantities from the revised concept design. Reimbursable utility relocation costs are also included. Project cost includes 15% contingency due to the type of project at Concept Phase.

CONTINGENCY SUMMARY

A. CONSTRUCTION COST ESTIMATE:	\$	18,994,667.35	Base Estimate From CES
B. ENGINEERING AND INSPECTION (E & I):	\$	949,733.37	Base Estimate (A) x 5 %
C. CONTINGENCY:	\$	2,991,660.11	Base Estimate (A) + E & I (B) x 15 % <u>See % Table in "Risk Based Cost Estimation" Memo</u>
D. TOTAL LIQUID AC ADJUSTMENT:	\$	1,040,852.76	Total From Liquid AC Spreadsheet
E. CONSTRUCTION TOTAL:	\$	23,976,913.58	(A + B + C + D = E)

REIMBURSABLE UTILITY COSTS

UTILITY OWNER	REIMBURSABLE COST
Georgia Power - Distribution	\$ 873,000.00
Georgia Power - Transmission	\$ 1,040,000.00
AT&T Telephone	\$ 250,000.00
TOTAL	\$ 2,163,000.00

ATTACHMENTS:

Detailed Cost Estimate Printout From TRAQS
Liquid AC Adjustment Spreadsheet

PROJ. NO.
 P.I. NO. 122890
 DATE 11/13/2015

CALL NO. 9/29/2009

INDEX (TYPE)	DATE	INDEX
REG. UNLEADED	Nov-15	\$ 2.054
DIESEL		\$ 2.430
LIQUID AC		\$ 413.00

Link to Fuel and AC Index:
<http://www.dot.ga.gov/doingbusiness/Materials/Pages/asphaltcementindex.aspx>

LIQUID AC ADJUSTMENTS

PA=(((APM-APL)/APL))xTMTxAPL

Asphalt

Price Adjustment (PA)				1029670.95	\$	1,029,670.95
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	\$	660.80		
Monthly Asphalt Cement Price month project let (APL)			\$	413.00		
Total Monthly Tonnage of asphalt cement (TMT)				4155.25		

ASPHALT	Tons	%AC	AC ton
Leveling	43804	5.0%	2190.2
12.5 OGFC	3415	5.0%	170.75
12.5 mm	6035	5.0%	301.75
9.5 mm SP		5.0%	0
25 mm SP	18886	5.0%	944.3
19 mm SP	10965	5.0%	548.25
	83105		4155.25

BITUMINOUS TACK COAT

Price Adjustment (PA)				\$ 11,181.81	\$	11,181.81
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	\$	660.80		
Monthly Asphalt Cement Price month project let (APL)			\$	413.00		
Total Monthly Tonnage of asphalt cement (TMT)				45.12433029		

Bitum Tack

Gals	gals/ton	tons
10506	232.8234	45.1243303

BITUMINOUS TACK COAT (surface treatment)

Price Adjustment (PA)				0	\$	-
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	\$	660.80		
Monthly Asphalt Cement Price month project let (APL)			\$	413.00		
Total Monthly Tonnage of asphalt cement (TMT)				0		

Bitum Tack	SY	Gals/SY	Gals	gals/ton	tons
Single Surf. Trmt.		0.20	0	232.8234	0
Double Surf. Trmt.		0.44	0	232.8234	0
Triple Surf. Trmt		0.71	0	232.8234	0
					0

TOTAL LIQUID AC ADJUSTMENT \$ **1,040,852.76**

DETAILED COST ESTIMATE



Job: 122890

JOB NUMBER 122890

FED/STATE PROJECT NUMBER

SPEC YEAR: 01

DESCRIPTION: NH000-0003-03(053) - CLARKE

US78/SR10 (ATLANTA HWY) & SR 10 LOOP INTERCHANGE IMPROVEMENT

ITEMS FOR JOB 122890

0010 - ROADWAY

Line Number	ITEM	QUANTITY	UNITS	PRICE	DESCRIPTION	AMOUNT
0005	150-1000	1.000	LS	\$250,000.00000	TRAFFIC CONTROL - 122890	\$250,000.00
0007	150-5010	7.000	EA	\$7,934.58565	TRAF CTRL,PORTABLE IMPACT ATTN	\$55,542.10
0010	153-1300	1.000	EA	\$79,134.11000	FIELD ENGINEERS OFFICE TP 3	\$79,134.11
0015	201-1500	1.000	LS	\$300,000.00000	CLEARING & GRUBBING - 122890	\$300,000.00
0019	205-0001	77131.000	CY	\$6.34860	UNCLASS EXCAV	\$489,673.87
0020	208-0100	47983.000	CY	\$5.84000	IN PLACE EMBANKMENT	\$280,220.72
0025	318-3000	3500.000	TN	\$18.32316	AGGR SURF CRS	\$64,131.06
0030	433-1100	676.000	SY	\$172.12941	REF CONC APPR SL/INCL CURB	\$116,359.48
0082	436-1000	4584.000	LF	\$8.15547	ASPH CONC CURB - 4 IN	\$37,384.67
0035	441-0104	7618.000	SY	\$26.07598	CONC SIDEWALK, 4 IN	\$198,646.82
0038	441-0301	11.000	EA	\$1,670.43205	CONC SPILLWAY, TP 1	\$18,374.75
0040	441-0302	1.000	EA	\$1,763.22101	CONC SPILLWAY, TP 2	\$1,763.22
0045	441-0740	6638.000	SY	\$22.61245	CONC MEDIAN, 4 IN	\$150,101.44
0050	441-4020	49.000	SY	\$38.34063	CONC VALLEY GUTTER, 6 IN	\$1,878.69
0055	441-6222	19013.000	LF	\$12.81662	CONC CURB & GUTTER/ 8"X30"TP2	\$243,682.40
0056	441-6740	1535.000	LF	\$13.89467	CONC CURB & GUTTER/ 8"X30" TP7	\$21,328.32
0060	456-2012	2.000	GLM	\$973.70704	INTENT. RUMB. STRIPS - GRND-IN-PL (CONT)	\$1,947.41
0075	620-0100	7560.000	LF	\$24.32641	TEMP BARRIER, METHOD NO. 1	\$183,907.66
0080	634-1200	192.000	EA	\$102.42078	RIGHT OF WAY MARKERS	\$19,664.79
0085	641-1100	464.000	LF	\$43.86410	GUARDRAIL, TP T	\$20,352.94
0090	641-1200	9176.000	LF	\$16.00000	GUARDRAIL, TP W	\$146,816.00
0095	641-5001	8.000	EA	\$806.45703	GUARDRAIL ANCHORAGE, TP 1	\$6,451.66
0100	641-5012	26.000	EA	\$2,003.71895	GUARDRAIL ANCHORAGE, TP 12	\$52,096.69
0085	643-0010	3244.000	LF	\$5.27882	FIELD FENCE WOVEN WIRE	\$17,124.49
0105	643-8200	5588.000	LF	\$1.28976	BARRIER FENCE (ORANGE), 4 FT	\$7,181.38
SUBTOTAL FOR ROADWAY:						\$2,763,764.67

DETAILED COST ESTIMATE



Job: 122890

0020 - PAVEMENT

Line Number	ITEM	QUANTITY	UNITS	PRICE	DESCRIPTION	AMOUNT
0200	310-1101	53480.000	TN	\$19.55261	GR AGGR BASE CRS, INCL MATL	\$1,045,673.58
0205	400-3206	3415.000	TN	\$85.05000	ASPH CONC 12.5 MM OGFC, GP 2, INCL PMBM&HL	\$290,445.75
0210	402-1812	43804.000	TN	\$64.03847	RECYL AC LEVELING, INC BM&HL	\$2,805,141.14
0215	402-3121	18886.000	TN	\$64.10035	RECYL AC 25MM SP, GP 1/2, BM&HL	\$1,210,599.21
0220	402-3130	2627.000	TN	\$83.86794	RECYL AC 12.5MM SP, GP 2, BM&HL	\$220,321.08
0225	402-3190	10965.000	TN	\$68.26768	RECYL AC 19 MM SP, GP 1 OR 2, INC BM&HL	\$748,555.11
0227	402-3600	6035.000	TN	\$80.00000	RECY AC 12.5, SMA, GP 2 ON, INCLP-, BM&HL	\$482,800.00
0230	413-1000	10506.000	GL	\$2.68414	BITUM TACK COAT	\$28,199.57
0232	430-0200	25599.000	SY	\$40.00000	PLN PC CONC PVMT/CL1C/ 10" TK	\$1,023,960.00
0755	432-0207	4074.000	SY	\$1.00000	MILL ASPH CONC PVMT/ 1.75" DEP	\$4,074.00
0780	432-0214	29059.000	SY	\$1.67000	MILL ASPH CONC PVMT, 3.5" DPTH	\$48,528.53
0765	432-5010	8110.000	SY	\$3.10824	MILL ASPH CONC PVMT, VARB DEPTH	\$25,207.83
0770	446-1100	14823.000	LF	\$3.55383	PVMT REF FAB STRIPS, TP2, 18 INCH WIDTH	\$53,030.82
0245	500-0100	663.000	SY	\$7.49566	GROOVED CONCRETE	\$4,969.62
SUBTOTAL FOR PAVEMENT:						\$7,991,606.24

0030 - DRAINAGE

Line Number	ITEM	QUANTITY	UNITS	PRICE	DESCRIPTION	AMOUNT
0198	500-3101	8.000	CY	\$786.40067	CLASS A CONCRETE	\$6,291.21
0199	511-1000	49.000	LB	\$1.67470	BAR REINF STEEL	\$82.06
0125	550-1180	10005.000	LF	\$34.58539	STM DR PIPE 18", H 1-10	\$346,026.83
0126	550-1181	386.000	LF	\$39.01293	STM DR PIPE 18", H 10-15	\$15,058.99
0127	550-1183	92.000	LF	\$52.00000	STM DR PIPE 18", H 20-25	\$4,784.00
0130	550-1240	2178.000	LF	\$44.28267	STM DR PIPE 24", H 1-10	\$96,447.66
0131	550-1241	229.000	LF	\$51.50447	STM DR PIPE 24", H 10-15	\$11,794.52
0132	550-1243	188.000	LF	\$110.00000	STM DR PIPE 24", H 20-25	\$20,680.00
0135	550-1300	739.000	LF	\$59.57532	STM DR PIPE 30", H 1-10	\$44,026.16
0140	550-1360	516.000	LF	\$69.24093	STM DR PIPE 36", H 1-10	\$35,728.32
0141	550-1361	222.000	LF	\$72.37264	STM DR PIPE 36", H 10-15	\$16,066.73
0143	550-1480	87.000	LF	\$107.97532	STM DR PIPE 48", H 1-10	\$9,393.85
0145	550-4215	1.000	EA	\$459.91000	FLARED END SECT 15 IN, ST DR	\$459.91
0150	550-4218	13.000	EA	\$539.10743	FLARED END SECT 18 IN, ST DR	\$7,008.40
0155	550-4224	12.000	EA	\$627.53612	FLARED END SECT 24 IN, ST DR	\$7,530.43
0160	550-4230	4.000	EA	\$737.03520	FLARED END SECT 30 IN, ST DR	\$2,948.14
0165	550-4236	5.000	EA	\$1,097.50861	FLARED END SECT 36 IN, ST DR	\$5,487.54
0170	668-1100	110.000	EA	\$2,223.43476	CATCH BASIN, GP 1	\$244,577.82
0175	668-1110	153.000	LF	\$180.57002	CATCH BASIN, GP 1, ADDL DEPTH	\$27,627.21
0176	668-1200	6.000	EA	\$2,623.60145	CATCH BASIN, GP 2	\$15,741.61
0177	668-1210	37.000	LF	\$265.65235	CATCH BASIN, GP 2, ADDL DEPTH	\$9,829.14
0180	668-2100	71.000	EA	\$2,010.81701	DROP INLET, GP 1	\$142,768.01
0185	668-2110	74.000	LF	\$174.54654	DROP INLET, GP 1, ADDL DEPTH	\$12,916.44
0186	668-2200	1.000	EA	\$2,316.76653	DROP INLET, GP 2	\$2,316.77
0187	668-2210	2.000	LF	\$235.05262	DROP INLET, GP 2, ADDL DEPTH	\$470.11
0190	668-4300	19.000	EA	\$1,839.15664	STORM SEW MANHOLE, TP 1	\$34,943.98
0195	668-4311	21.000	LF	\$188.76163	ST SEW MANHOLE, TP 1, A DEP, CL 1	\$3,963.99
0196	668-4312	50.000	LF	\$200.03722	ST SEW MANHOLE, TP 1, A DEP, CL 2	\$10,001.86
SUBTOTAL FOR DRAINAGE:						\$1,134,971.69

DETAILED COST ESTIMATE



Job: 122890

0040 - EROSION CONTROL

Line Number	ITEM	QUANTITY	UNITS	PRICE	DESCRIPTION	AMOUNT
0380	163-0232	20.000	AC	\$303.56338	TEMPORARY GRASSING	\$6,071.27
0385	163-0240	585.000	TN	\$157.85893	MULCH	\$92,346.30
0390	163-0300	24.000	EA	\$1,221.73884	CONSTRUCTION EXIT	\$29,321.73
0395	163-0503	22.000	EA	\$393.72868	CONSTR AND REMOVE SILT CONTROL GATE, TP 3	\$8,662.03
0400	163-0520	954.000	LF	\$14.23036	CONSTR AND REMOVE TEMP PIPE SLOPE DRAIN	\$13,575.76
0405	163-0527	110.000	EA	\$262.49250	CNST/REM RIP RAP CKDM, STN P RIPRAP/SN BG	\$28,874.18
0407	163-0528	26520.000	LF	\$3.03902	CONSTR AND REM FAB CK DAM -TP C SLT FN	\$80,594.81
0409	163-0529	277.000	LF	\$4.43843	CNST/REM TEMP SED BAR OR BLD STRW CK DM	\$1,229.45
0377	163-0541	15.000	EA	\$587.21296	CONSTR & REM ROCK FILTER DAMS	\$8,808.19
0410	163-0550	186.000	EA	\$128.57067	CONS & REM INLET SEDIMENT TRAP	\$23,914.14
0415	165-0030	25095.000	LF	\$0.53771	MAINT OF TEMP SILT FENCE, TP C	\$13,493.83
0420	165-0041	20200.000	LF	\$0.83933	MAINT OF CHECK DAMS - ALL TYPES	\$16,954.47
0425	165-0071	139.000	LF	\$1.17798	MAINT OF SEDIMENT BARRIER - BALED STRAW	\$163.74
0422	165-0087	22.000	EA	\$70.46862	MAINT OF SILT CONTROL GATE, TP 3	\$1,550.31
0430	165-0101	24.000	EA	\$572.65570	MAINT OF CONST EXIT	\$13,743.74
0435	165-0105	93.000	EA	\$36.72808	MAINT OF INLET SEDIMENT TRAP	\$3,415.71
0440	167-1000	2.000	EA	\$233.85116	WATER QUALITY MONITORING AND SAMPLING	\$467.70
0445	167-1500	28.000	MO	\$402.51052	WATER QUALITY INSPECTIONS	\$11,270.29
0450	171-0030	50190.000	LF	\$2.74941	TEMPORARY SILT FENCE, TYPE C	\$137,992.89
0452	441-0204	8318.000	SY	\$29.08333	PLAIN CONC DITCH PAVING, 4 IN	\$241,915.14
0455	603-2180	295.000	SY	\$31.35220	STN DUMPED RIP RAP, TP 3, 12"	\$9,248.90
0460	603-7000	295.000	SY	\$3.91078	PLASTIC FILTER FABRIC	\$1,153.68
0465	700-6910	39.000	AC	\$844.13238	PERMANENT GRASSING	\$32,921.16
0470	700-7000	121.000	TN	\$75.90955	AGRICULTURAL LIME	\$9,185.06
0480	700-8000	39.000	TN	\$522.41964	FERTILIZER MIXED GRADE	\$20,374.37
0485	700-8100	1950.000	LB	\$2.14596	FERTILIZER NITROGEN CONTENT	\$4,184.62
0490	710-9000	200.000	SY	\$6.03646	PERM SOIL REINFORCING MAT	\$1,207.29
0495	716-1000	551.000	SY	\$2.31191	EROSION CONTROL MATS, WATERWAYS	\$1,273.86
0500	716-2000	20226.000	SY	\$0.97198	EROSION CONTROL MATS, SLOPES	\$19,659.27
SUBTOTAL FOR EROSION CONTROL:						\$833,673.89

0050 - ATMS

Line Number	ITEM	QUANTITY	UNITS	PRICE	DESCRIPTION	AMOUNT
0505	615-1200	1055.000	LF	\$12.53559	DIRECTIONAL BORE - 3"	\$13,225.05
0510	647-2160	11.000	EA	\$1,261.89259	PULL BOX, PB-6	\$13,880.82
0515	647-2170	4.000	EA	\$1,507.47743	PULL BOX, PB-7	\$6,029.91
0520	682-6222	1820.000	LF	\$5.35574	CONDUIT, NONMETL, TP 2, 2 IN	\$9,747.45
0525	682-6233	925.000	LF	\$4.09689	CONDUIT, NONMETL, TP 3, 2 IN	\$3,789.62
0530	935-1113	3065.000	LF	\$2.10000	OUT PLNT FBR OPT CBL, LOOSE TB, SM, 24 FBR	\$6,436.50
0535	935-1511	60.000	LF	\$2.22778	OUT PLNT FBR OPT CBL, DROP, SM, 6 FBR	\$133.67
0540	935-3101	4.000	EA	\$573.00000	FIBER OPTIC CLOSURE, UNDRGRD, 6 FIBER	\$2,292.00
0545	935-3602	4.000	EA	\$417.00000	FBR. OP. CLOS., FDC PRE-TERM., TYP. A, 6	\$1,668.00
0550	935-4010	14.000	EA	\$51.36598	FIBER OPTIC SPLICE, FUSION	\$719.12
0555	935-6562	4.000	EA	\$1,713.23247	EXT TRNSCVR, DRP & RPT, 1310SM, (SIGNAL JOBS)	\$6,852.93
0557	935-8000	1.000	LS	\$3,000.00000	TESTING	\$3,000.00
SUBTOTAL FOR ATMS:						\$67,775.07

DETAILED COST ESTIMATE



Job: 122890

0060 - BRIDGE 1

Line Number	ITEM	QUANTITY	UNITS	PRICE	DESCRIPTION	AMOUNT
0250	211-0200	103.000	CY	\$28.32225	BR EXCAV, GRADE SEPARATION	\$2,917.19
0255	211-0200	77.000	CY	\$28.32225	BR EXCAV, GRADE SEPARATION	\$2,180.81
0260	441-0004	741.000	SY	\$44.59639	CONC SLOPE PAV, 4 IN	\$33,045.92
0265	441-0004	804.000	SY	\$44.08643	CONC SLOPE PAV, 4 IN	\$35,445.49
0270	500-0100	1600.000	SY	\$5.67287	GROOVED CONCRETE	\$9,076.59
0275	500-0100	1600.000	SY	\$5.67287	GROOVED CONCRETE	\$9,076.59
0280	500-1006	600.000	LS	\$625.14000	SUPERSTR CONCRETE, CL AA, BR NO - 1 LT	\$375,084.00
0285	500-1006	590.000	LS	\$625.14000	SUPERSTR CONCRETE, CL AA, BR NO - 1 RT	\$368,832.60
0290	500-3002	173.000	CY	\$706.83314	CL AA CONCRETE	\$122,282.13
0295	500-3002	162.000	CY	\$706.83314	CL AA CONCRETE	\$114,506.97
0300	507-9033	2368.000	LF	\$245.29201	PSC BEAMS, AASHTO, BULB TEE, 74"	\$580,851.48
0305	507-9033	2368.000	LF	\$245.29201	PSC BEAMS, AASHTO, BULB TEE, 74"	\$580,851.48
0310	511-1000	28371.000	LB	\$0.86494	BAR REINF STEEL	\$24,539.21
0315	511-1000	28080.000	LB	\$0.86587	BAR REINF STEEL	\$24,313.63
0320	511-3000	111673.000	LS	\$0.64000	SUPERSTR REINF STEEL, BR NO - 1 LT	\$71,470.72
0325	511-3000	111232.000	LS	\$0.64000	SUPERSTR REINF STEEL, BR NO - 1 RT	\$71,188.48
0330	520-1151	1752.000	LF	\$77.94766	PIL-IN-PL,STEEL H,HP 14 X 89	\$136,564.30
0335	520-1151	2048.000	LF	\$77.94766	PIL-IN-PL,STEEL H,HP 14 X 89	\$159,636.81
0340	520-4151	1.000	EA	\$0.84542	LOAD TEST, STEEL H, HP 14 X 89	\$0.85
0345	520-4151	1.000	EA	\$0.84542	LOAD TEST, STEEL H, HP 14 X 89	\$0.85
0350	540-1102	1.000	LS	\$100,000.00000	REM OF EX BR, BR NO - 1 LT	\$100,000.00
0355	540-1102	1.000	LS	\$100,000.00000	REM OF EX BR, BR NO - 1 RT	\$100,000.00
0360	544-1000	1.000	LS	\$35,000.00000	DECK DRAIN SYSTEM, BR NO - 1 LT	\$35,000.00
0365	544-1000	1.000	LS	\$35,000.00000	DECK DRAIN SYSTEM, BR NO - 1 RT	\$35,000.00
0370	643-1152	291.000	LF	\$30.69863	CH LK FEN,ZC COAT, 6', 9 GA	\$8,933.30
0375	643-1152	291.000	LF	\$30.69863	CH LK FEN,ZC COAT, 6', 9 GA	\$8,933.30
SUBTOTAL FOR BRIDGE 1:						\$3,009,732.70

0070 - CULVERT

Line Number	ITEM	QUANTITY	UNITS	PRICE	DESCRIPTION	AMOUNT
0110	500-3101	28.000	CY	\$690.26116	CLASS A CONCRETE	\$19,327.31
0115	511-1000	1992.000	LB	\$1.13974	BAR REINF STEEL	\$2,270.36
0117	610-9099	1.000	LS	\$2,500.00000	REM WINGWALLS/PARAPETS, STA - 168+95 LT, SR 10 LOOP	\$2,500.00
SUBTOTAL FOR CULVERT:						\$24,097.67

DETAILED COST ESTIMATE



Job: 122890

0080 - WALLS

Line Number	ITEM	QUANTITY	UNITS	PRICE	DESCRIPTION	AMOUNT
0560	500-2110	1329.000	LF	\$259.86000	CONCRETE PARAPET, SPCL DES	\$345,353.94
0570	515-2020	155.000	LF	\$49.23209	GALV STEEL PIPE HDRAIL,2",ROUD	\$7,630.97
0575	516-1100	1329.000	LF	\$71.37256	ALUM HANDRAIL, STD 3628	\$94,854.13
0580	621-3021	303.000	LF	\$184.00000	CONCRETE BARRIER, TYPE 21	\$55,752.00
0585	621-3022	255.000	LF	\$362.00000	CONCRETE BARRIER, TYPE 22	\$92,310.00
0587	621-3125	268.000	LF	\$354.22000	CONC BARRIER, TP 25S, MODIFIED	\$94,930.96
0590	621-4021	676.000	LF	\$373.41000	CONCRETE SIDE BARRIER, TY 2A	\$252,425.16
0595	621-4022	889.000	LF	\$562.73000	CONCRETE SIDE BARRIER, TY 2B	\$500,266.97
0600	621-4023	865.000	LF	\$700.22000	CONCRETE SIDE BARRIER, TY 2C	\$605,690.30
0605	621-4062	45.000	LF	\$425.50000	CONCRETE SIDE BARRIER, TY 6B	\$19,147.50
0610	621-4063	149.000	LF	\$631.50000	CONCRETE SIDE BARRIER, TY 6C	\$94,093.50
SUBTOTAL FOR WALLS:						\$2,162,466.43

0090 - SIGNING & MARKING

Line Number	ITEM	QUANTITY	UNITS	PRICE	DESCRIPTION	AMOUNT
0675	636-1020	1478.000	SF	\$12.35071	HWY SGN,TP1MAT,REFL SH TP3	\$18,254.35
0680	636-1033	230.000	SF	\$17.82404	HWY SIGNS, TP1MAT,REFL SH TP 9	\$4,099.53
0684	636-2070	1644.000	LF	\$5.98586	GALV STEEL POSTS, TP 7	\$9,840.75
0685	636-2080	144.000	LF	\$8.91000	GALV STEEL POSTS, TP 8	\$1,283.04
0689	638-1001	1.000	LS	\$61,100.00000	STR SUPPORT OVHD SIGN,TP I,STA 1	\$61,100.00
0690	638-1001	1.000	LS	\$61,100.00000	STR SUPPORT OVHD SIGN,TP I,STA 2	\$61,100.00
0694	638-1001	1.000	LS	\$61,100.00000	STR SUPPORT OVHD SIGN,TP I,STA 3	\$61,100.00
0695	638-1001	1.000	LS	\$61,100.00000	STR SUPPORT OVHD SIGN,TP I,STA 4	\$61,100.00
0700	653-0120	71.000	EA	\$73.12641	THERM PVMT MARK, ARROW, TP 2	\$5,191.98
0705	653-0130	9.000	EA	\$98.91695	THERM PVMT MARK, ARROW, TP 3	\$890.25
0710	653-1501	32815.000	LF	\$0.38086	THERMO SOLID TRAF ST 5 IN, WHI	\$12,497.92
0715	653-1502	35837.000	LF	\$0.40214	THERMO SOLID TRAF ST, 5 IN YEL	\$14,411.49
0720	653-1704	1005.000	LF	\$5.88193	THERM SOLID TRAF STRIPE,24",WH	\$5,911.34
0725	653-1804	9793.000	LF	\$1.92967	THERM SOLID TRAF STRIPE, 8",WH	\$18,897.26
0730	653-3501	24805.000	GLF	\$0.24241	THERMO SKIP TRAF ST, 5 IN, WHI	\$6,012.98
0735	653-6004	2057.000	SY	\$3.47012	THERM TRAF STRIPING, WHITE	\$7,138.04
0740	653-6006	226.000	SY	\$4.03920	THERM TRAF STRIPING, YELLOW	\$912.86
0745	654-1001	1921.000	EA	\$2.91325	RAISED PVMT MARKERS TP 1	\$5,596.35
0750	654-1003	70.000	EA	\$3.72044	RAISED PVMT MARKERS TP 3	\$260.43
SUBTOTAL FOR SIGNING & MARKING:						\$366,698.67

DETAILED COST ESTIMATE



Job: 122890

0100 - SIGNALS

Line Number	ITEM	QUANTITY	UNITS	PRICE	DESCRIPTION	AMOUNT
0615	615-1200	279.000	LF	\$14.08863	DIRECTIONAL BORE - 5 IN	\$3,930.73
0620	636-1041	124.000	SF	\$34.28957	HWY SIGNS,TP 2MAT,REFL SH TP 9	\$4,251.91
0625	639-4004	4.000	EA	\$7,246.37338	STRAIN POLE, TP IV	\$28,985.49
0630	639-4014	12.000	EA	\$8,329.17440	STR POLE,TP 4,INCL LUMIN. ARM	\$99,950.09
0635	647-1000	1.000	LS	\$100,000.00000	TRAF SIGNAL INSTALLATION NO - 1	\$100,000.00
0640	647-1000	1.000	LS	\$100,000.00000	TRAF SIGNAL INSTALLATION NO - 2	\$100,000.00
0645	647-1000	1.000	LS	\$100,000.00000	TRAF SIGNAL INSTALLATION NO - 3	\$100,000.00
0650	647-1000	1.000	LS	\$100,000.00000	TRAF SIGNAL INSTALLATION NO - 4	\$100,000.00
0655	682-6233	558.000	LF	\$4.09689	CONDUIT, NONMETL, TP 3, 2 IN	\$2,286.06
0660	937-6050	19.000	EA	\$5,801.00000	INT VIDEO DET SYS ASMBLY, TP A	\$110,219.00
0665	937-6100	3.000	EA	\$362.03000	OUTPUT EXPANSION MODULE, TP A	\$1,086.09
0670	937-6150	1.000	EA	\$482.05000	PROGRAMMING MONITOR, TP A	\$482.05
SUBTOTAL FOR SIGNALS:						\$651,191.42

TOTALS FOR JOB 122890

ITEMS COST:	\$18,994,667.35
COST GROUP COST:	\$0.00
ESTIMATED COST:	\$18,994,667.35
CONTINGENCY PERCENT:	0.00
ENGINEERING AND INSPECTION:	0.00
ESTIMATED COST WITH CONTINGENCY AND E&I:	\$18,994,667.35

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE NH000-003-3(053), Clarke **OFFICE** GAINESVILLE
 PI No. 122890-
 SR 10LP/Paul Brown Pkwy at R 10/Atlanta Hwy.

FROM *RO*
 Robby Oliver, Distr. Utilities Eng. **DATE** November 2, 2015

TO Albert Shelby, P.E., State Program Delivery Engineer
ATTEN Anthony Tate, Project Manager

SUBJECT PRELIMINARY UTILITY COST ESTIMATE

As requested by your office we are furnishing you with a Preliminary Utility Cost estimate for the subject project.

FACILITY OWNER		NON-REIMBURSABLE		REIMBURSABLE
Atlanta Gas Light		\$104,525		\$0
Georgia Power-Distribution		\$0		\$873,000
Georgia Power-Transmission		\$0		\$1,040,000
Walton EMC		\$110,000		\$0
Charter Communications		\$84,000		\$0
Parker Fibernet		\$90,000		\$0
Unified Gov't ACC - W & S	**	\$189,500		\$0
AT&T Telephone		\$268,000		\$250,000

TOTALS **\$846,025** **\$2,163,000**

Total Non-Reimbursable Cost **\$846,025**

Total Reimbursable Cost **\$2,163,000**

** If the local gov't is granted utility aid, \$189,500 will need to be added to the reimbursable cost.
 If you have any questions, please contact Robby Oliver at 770-531-5772.

RO:nak

C: Lee Upkins, State Utilities Engineer
 Shannon Giles, Area Engineer
 File

**GEORGIA DEPARTMENT OF TRANSPORTATION
PRELIMINARY ROW COST ESTIMATE SUMMARY**

Date: 11/2/2015 Project: NH-003-3(53) Clarke
 Revised: County: Clarke
 PI: 122890

Description: SR 10 Loop at Atlanta Highway Interchange
 Project Termini: sR 10 Loop at Atlanta Highway Interchange

Existing ROW: Varies
 Required ROW: Varies

Parcels: 50

Land and Improvements _____ \$6,943,515.00

Proximity Damage	\$0.00
Consequential Damage	\$300,000.00
Cost to Cures	\$475,000.00
Trade Fixtures	\$275,000.00
Improvements	\$1,525,000.00

Valuation Services _____ \$350,000.00

Legal Services _____ \$333,750.00

Relocation _____ \$130,000.00

Demolition _____ \$50,000.00

Administrative _____ \$427,500.00

TOTAL ESTIMATED COSTS _____ \$8,234,765.00

TOTAL ESTIMATED COSTS (ROUNDED) _____ \$8,235,000.00

Preparation Credits	Hours	Signature

Prepared By: Deshone Alexander CG#: 286999 01/14/2016 (DATE)
 Approved By: Deshone Alexander CG#: 286999 01/14/2016 (DATE)

NOTE: No Market Appreciation is included in this Preliminary Cost Estimate

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE: NH-003-3(53) Clarke
P. I. No.: 122890
U.S. 78/S.R. 10 Interchange

OFFICE: Engineering Services

DATE: December 5, 2007

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

TO: Babs Abubakari, P.E. State 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
A-2	Investigate a Developer Proposal to connect the Southbound Off Ramp to Huntington Court	\$115,000	No	Would result in ramp traffic being in conflict with traffic entering and exiting the developed property which would be a safety concern.
A-7	Change the Urban Shoulder width from 16 feet to 10 feet	\$204,000 (proposed) \$102,000 (revised)	Yes/Partial	The shoulder width will remain 16 feet on the mainline to better accommodate Utility Relocations and will be changed to 10 feet on the side roads.
A-7A	Eliminate the 2 ½ foot grassed area between the sidewalk and Retaining Wall	\$21,000	No	Since the 16 foot shoulder will be retained on the mainline this would not apply since this would cut the shoulder width to 13.5 feet on the mainline.
B-7	Shift the on-ramp location slightly to the West and use a 100 foot radius curve	\$33,000 (proposed) \$16,500 (revised)	Yes/Partial	The on-ramp location will stay the same but a 100 foot radius will be used.

ALT No.	Description	Savings PW & LCC	Implement	Comments
B-7A	Close existing driveway at the Logans Steakhouse and provide a wider common access at Sta. 60+00± Lt. for Logans as well as adjacent property owners.	-54,000 (Cost Increase)	Yes	This is recommended for safety reasons. Access agreements should be obtained from the property owners to allow this to occur.
B-10	Eliminate the 4 foot Bike Lanes	\$473,000 (proposed) \$687,100 (revised)	Yes	This should be done. The revised cost savings includes bridge savings which was not initially included.
B-11	Reduce the 12 foot travel lanes to 11 feet	\$497,000 (proposed) \$718,900	Yes	This should be done. The revised cost savings includes bridge savings which was not initially included.
B-12	Close the Median Opening at Sta. 68+75 and provide a Type B Median Opening at Timothy Road and Jennings Mill Road	-\$186,000 (proposed) \$20,000 (revised)	Yes/partial	The median opening should be closed but the Type B Median Opening at Timothy Road and Jennings Mill Road will not be done since it would involve additional Right of Way impacts.
F-1	Eliminate the Concrete Curb and Gutter from a section on Jennings Mill Road	\$177,000	No	A land use permit utilizing an urban section to minimize impacts on the cemetery has already been obtained from the court system. Since a cemetery is involved any changes would require another permit delaying the project schedule.
C-2	Use MSE Walls and two - 93 foot spans and delete Bike Lanes on the bridge over S.R. 10	\$1,845,000	No	A more detailed cost estimate done by the Design Consultant revealed that this VE Alternative is more expensive than what was proposed.
C-2A	Use MSE Walls and one - 165 foot span and delete Bike Lanes on the bridge over S.R. 10.	\$1,376,000	No	A more detailed cost estimate done by the Design Consultant revealed that this VE Alternative is more expensive than what was proposed.
C-2B	Use two - 57 foot spans and two - 93 foot spans and delete the Bike Lanes on the	\$1,231,000	No	A more detailed cost estimate done by the Design Consultant revealed that this VE Alternative is more expensive

ALT No.	Description	Savings PW & LCC	Implement	Comments
C-2C	Use two – 67.5 foot spans and one – 165 foot span and delete the Bike Lane on the bridge over S.R. 10	\$675,000	No	A more detailed cost estimate done by the Design Consultant revealed that this VE Alternative is more expensive than what was proposed.
A-1	Eliminate the short in-and-out steps in the Proposed Right of Way lines	Design Suggestion	Yes	This should be done.
B-2	Verify the superelevation match at the bridge	Design Suggestion	Yes	This should be done.
D-1	Review Drainage Structure locations and ensure they are within the Proposed Right of Way	Design Suggestion	Yes	This should be done.
E-1	Modify the Concrete Barrier End Treatments on the two Loop Ramps	Design Suggestion	Yes	This should be done.
L-1/2	Eliminate the Parapet and Pipe Handrail over the Retaining Walls	Design Suggestion	No	The Parapet and Pipe Handrail are required to provide pedestrian safety.

A meeting was held on November 29, 2007 to discuss the above recommendations. Allen Krivsky and Shawn Fleet with Heath and Lineback, Mike Haithcock with Consultant Design, and Brian Summers, Ron Wishon and Lisa Myers with Engineering Services were in attendance.

Additional information was provided on December 4, 2007.

The results above reflect the consensus of those in attendance and those who provided input.

Approved: Gerald M. Ross Date: 1/8/07
Gerald M. Ross, P. E., Chief Engineer

BKS/REW

Attachments

c: Gus Shanine
Todd Long
James Magnus
Randy Davis
Robert Simpson
Kevin DeWitt
Mike Haithcock
Doug Franks
Amber Perkins
Ken Werho
Lisa Myers

Memorandum

To: Michael Haithcock, GDOT-OEL

From: Shawn Fleet, HLE

CC: Allen Krivsky, Lisa Myers, Brian Summers, Ron Wishon

Date: 12/3/2007

Re: NH-003-3(53) – Clarke, P.I. No. 122890
Atlanta Hwy / S.R. 10 Loop Interchange Improvement
VE Implementation Meeting on 12/1/2007

Items Discussed:

- Alt A-2, Not implementing, Comments on VE Response are adequate.
- Alt A-7, Implementing only on side streets, savings \$102,000
- Alt A-7A, Not implementing, Reducing shoulder width on side streets.
- Alt B-7, Implementing reducing radius only, savings \$16,500
- Alt B-7A, Recommending/Implementing, closing this driveway but will be up to the right of way office to negotiate ultimately.
- Alt B-10, Implementing, Revised savings \$687,100 (Including reduced bridge width)
- Alt B-11, Implementing, A revised Traffic Study is not required for this change since the current design will function at a capacity greater than a Level of Service "E" for the design year. Revised savings \$718,900 (Including reduced bridge width)
- Alt B-12, Implementing median closing only, Revised cost increase -\$20,000
- Alt C-2 through C-2C, Not implementing, VE Bridge cost calculations less detailed. More detailed cost calculations provided in VE response show that each alternate is more expensive then the proposed bridge.
- Alt F-1, Not implementing, Additional comments - The typical section of Jennings Mill Road has been approved by Athens County Court system for land use permit change. Urban drainage system is better suited to convey stormwater along the cemetery.
- A-1, Implementing design suggestion
- B-2, Implementing design suggestion
- D-1, Implementing design suggestion
- E-1, Implementing design suggestion
- L-1/2, Not implementing design suggestion, Parapet and hand rails are required.

Action Items:

- A Project Cover Sheet needs to be provided with for the VE team's submittal. HLE will provide.
- Upon the approval of the Implementation of VE Study Alternatives document, HLE will submit a supplemental agreement to incorporate approved alternatives.

Attendees:

Shawn Fleet, HLE
Allen Krivsky, HLE
Michael Haithcock, GDOT-OCD
Lisa Myers, GDOT-ES
Brian Summers, GDOT-ES
Ron Wishon, GDOT-ES

Attachments: Reduced bridge width savings calculations

COMP. BY SF DATE 1-3-07



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SHEET _____ OF _____

CHKD. BY _____ DATE _____

JOB NO. _____

PROJECT ATLANTA HWY OVER SR 10 LOOP STRUCTURE _____

COST SAVINGS ELIMINATING BIKE LANES/11 FT LANES ON BRIDGE

DETAILED COST IN VE RESPONSE

PROPOSED BRIDGE W/BIKE LANES \$3,460,240.00

PER SQ FT $= \$3,460,240 \div 46325.00 \text{ SF} = \$74.70/\text{SF}$

PROPOSED BRIDGE W/O BIKE LANES \$3,246,190 (-8FT)

PER SQ FT $= \$3,246,190 \div 43925 \text{ SF} = \73.90

SAVINGS = \$214,050

PROPOSE BRIDGE W 11' LANES (-10FT) 73.90/SF

$\$73.90/\text{SF} \times 40925 \text{ SF} = \$3,024,357$

SAVINGS = \$221,833

SAVINGS

B-10 \$473,000 + \$214,050 = \$687,050

B-11 \$497,000 + \$221,833 = \$718,833

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA



INTERDEPARTMENT CORRESPONDENCE

FILE NH-003-3(53) **OFFICE** Atlanta
Clarke County
PI No. 122890
US 78/SR10 (Atlanta Hwy over SR 10 Loop) **DATE** October 25, 2007

FROM *M. Babs Abubakari* (signature)
Mohammed (Babs) Abubakari, P.E.,
State Consultant Design & Program Delivery Engineer

TO Brian Summers, P.E., Project Review Engineer
Attention: Lisa Myers

SUBJECT VALUE ENGINEERING STUDY – FINAL REPORT RESPONSE

Below are the responses to the Value Engineering Study report dated August 10, 2007 for the above referenced project. Each comment was studied and addressed by both the Department's Project Manager and the Consultant's Project Manager:

Value Engineering Alternative A-2 – To investigate a Developer proposal to connect the southbound SR 10 loop off ramp to Huntington Court in lieu-of the current Huntington Road slip ramp connector.

- **Ingress/egress access points on the SR 10 Loop exit ramp are unsafe and are not recommended.** Egress access points on an exit ramp are susceptible to wrong way drivers on the exit ramp and SR 10 Loop.
- The expectation of drivers exiting the SR 10 Loop southbound exit ramp is to emerge at the intersection of Atlanta Highway. This proposed configuration by the Diversified Development plans will not meet the driver expectation.
- The Diversified Development Property currently has an existing access point along Huntington Court. The interchange improvement project will not impact this access point.
- The current interchange design requires approximately 110 ft of right of way along the east side of the property to construct the realigned SR 10 Loop southbound exit ramp. These impacts conflict with the proposed development plans as submitted.
- The Diversified Development plans propose extending a portion of the southbound exit ramp to Huntington Court. This would require extensive design and construction on Huntington Court and Biscayne Court to carry the increased traffic. Traffic volumes on the slip ramp are projected at 2750 vehicles per day for year 2031.
- Right of Way along SR 10 loop and the interchange ramp is limited access and is full access control.
- Topps 4A-3 directive requires access control be acquired on major arterials that are being reconstructed so that driveway connections are not permitted in the functional area of an intersection. Access connections too close to intersections can cause serious traffic conflicts that impair the function of the affected facility.
- Topps 4A-4 directive recommends only breaking access control for supporting street systems. It does not recommend breaking access control for individual driveway access points.

- An early land acquisition process is recommended to prevent this development that could ultimately jeopardize the design and construction of this interchange improvement project. **(We do not recommend the approval or the implementation of the Diversified Development plans).**

Value Engineering Alternative No. A-7 - To change the project's 16-foot urban shoulder to a 10-foot urban shoulder.

- The 16 ft shoulders are the GDOT desirable width for urban shoulders. This additional shoulder width is necessary for relocating impacted existing utilities and for the installation of future utilities.
- There are many existing utilities throughout the project. These include an aerial electric transmission line, multiple aerial electric lines, multiple underground electric lines, multiple underground telephone lines, multiple gas lines, multiple waterlines and a sanitary sewer.
- A clear zone width of 20 ft is warranted along Atlanta Hwy. A right of way line set beyond the 16 ft shoulder will ensure that most of this area will be clear of obstructions.
- A clear zone width of 16 ft is warranted along Huntington Road. A right of way line set beyond the 16 ft shoulders will ensure that all of this area will be clear of obstructions.
- Right of way has been set just beyond the shoulder along Atlanta Highway and Huntington Road, easements have been used to construct slopes and minimize right of way in these areas.
- The clear zone along Jennings Mill Road is 13 ft. for slopes 6:1 or flatter. A right of way line set beyond the shoulders will ensure that all of this area will be clear of obstructions.
- Reducing the shoulder width to 10 ft in areas along Jennings Mill Road would require guardrail at 2:1 slopes. Adding guardrail requires an additional 5.5 ft of shoulder width.

(We do not recommend reducing the shoulder width to 10 ft).

Value Engineering Alternative No. A-7A – To eliminate the 2.5-foot grass area between the outside edge of the sidewalk and the inside edge of the retaining walls for a total shoulder width of 13.5 feet.

- The 16 ft shoulders are the GDOT desirable width for urban shoulders. This additional shoulder width will provide space to relocate impacted existing utilities and for the installation of future utilities.
- There are many existing utilities throughout the project. These include an aerial electric transmission line, multiple aerial electric lines, multiple underground electric lines, multiple underground telephone lines, multiple gas lines, multiple waterlines and a sanitary sewer.
- At the Burger King restaurant property near the beginning of the project, the 2.5 ft grass area was removed at the wall location to reduce right of way impacts to the property by preserving the business's drive through lane.

(We do not recommend reducing the shoulder width at all wall locations as a typical detail).

Value Engineering Alternative No. B-7 – To reduce the radius of the curve for the westbound right-turn movement from Atlanta Highway to the SR 10 northbound on ramp and shifting the ramp to the west.

- The radius of the curve for the westbound right-turn movement from Atlanta Highway to the SR 10 northbound entrance ramp can be reduced to 100 ft.

(We recommend reducing the radius for the curve on the northbound entrance ramp).

- Shifting the alignment to the west will cause 250 ft of additional ramp reconstruction. This cost is \$43,400. This cost exceeds the cost of right of way of \$33,000. (Detail cost calculations are included with this response).

(We do not recommend shifting the alignment of the northbound entrance ramp).

Value Engineering Alternative No. B-7A – To close the existing access driveway at the Logans Roadhouse parcel.

- The driveway at the Logans Roadhouse Parcel should be closed. Access changes for the Logans Roadhouse will likely need to be provided through the Athens Bypass LLC parcel for direct access to the proposed Jennings Mill Road signalized intersection.
- Access agreements between property owners may be difficult to obtain.

(We recommend closing the existing access driveway at the Logan's Roadhouse parcel).

Value Engineering Alternative No. B-10 – To eliminate the proposed 4-foot bike lane on both sides of Atlanta Highway.

- Adding 4 ft bike lanes to Atlanta Highway was a GDOT recommendation at the project concept kick off meeting. Bike lanes were added to the project concept at this time. Further research has proven that the Statewide Bicycle Route Network and the Athens-Clarke County Bicycle Master Plan do not identify this route for proposed bike lanes. (Clarke County Master Plan has been attached)

(We recommend removing the 4 foot bike lanes from the Atlanta Highway typical section).

Value Engineering Alternative No. B-11 – To reduce the width of the 12-foot travel lanes on Atlanta Highway.

- The design speed and posted speed of Atlanta Hwy is 45 MPH. Future traffic on Atlanta Hwy is 78,300 vehicles per day. Reducing the lane width of Atlanta Hwy to 11 ft would reduce the functionality and the capacity of the interchange. A revised traffic study would be required to determine the possible reduction in level of service. Since this project is based on increasing capacity and mobility through the interchange area, this design suggestion is not recommended.
- The reduced lane width reduces driver comfort, reduces safety, and increases traffic accidents.

(We do not recommend reducing the lane widths to 11 ft).

Value Engineering Alternative No. B-12 – To close the Atlanta Highway median opening at Station 68+75 and provide Type B median crossovers at Timothy Road and Jennings Mill Road.

- Access to the shopping center can be provided at the proposed Jennings Mill Road signalized intersection and on Mitchell Bridge Road. Access improvements will likely be required through the shopping center to provide better access to the proposed Jennings Mill Road signalized intersection.

(We recommend closing the median opening on Atlanta Highway station 68+75 at the Publix Shopping Center/Academic Sporting Goods Shopping Center).

- Adding a type "B" median crossover intersection on Atlanta Hwy at the Mitchell Bridge Road/Timothy Road intersection will extend the project through this intersection. Adding this improvement would require the realignment of Mitchell Bridge Road/Timothy Road to improve the substandard skew of these roads at the intersection.
- Adding a type "B" median crossover intersection on Atlanta Hwy at the Mitchell Bridge Road/Timothy Road intersection will extend the project and does not conform to the logical termini points for this project.

(We do not recommend adding a type "B" median crossover intersection on Atlanta Hwy at the Mitchell Bridge Road/Timothy Road intersection).

Value Engineering Alternative No. C-2- To construct a 186'x146'-5" two span bridge with 2-93' spans and "U" shaped MSE walls at the abutment ends.

- A more detailed cost calculation reveals that alternative C-2 is approximately \$134,000 more expensive than the proposed 300'x146'-5" bridge (2 spans at 150'). (Detailed cost calculations are attached).
- Alternative C-2 will restrict the cross section of the SR 10 loop for future widening to the outside.
- MSE walls complicate and lengthen staged construction time with the addition of waiting periods inherently required with MSE wall construction.
- Alternative C-2 layout does not allow for longitudinal drainage ditch along SR 10. There will be additional cost and maintenance associated with this alternate to be considered.

(We do not recommend a 186'x146'-5" two span bridge with 2-93' spans and "U" shaped MSE walls at the abutment ends for this project).

Value Engineering Alternative No. C-2A- To construct a 165'x146'-5" single span bridge with "U" shaped MSE walls at the abutment ends.

- A more detailed cost calculation reveals that Alternative C-2A is approximately \$88,500 more expensive than the proposed 300'x146'-5" bridge (2 spans at 150'). (Detailed cost calculations are attached).
- Alternative C-2A will reduce the shoulder width to 2 feet less than the desirable shoulder width.
- Alternative C-2A will restrict the cross section of the SR 10 loop for future widening to the outside.
- MSE walls complicate and lengthen staged construction time with the addition of waiting periods inherently required with MSE wall construction.
- Alternative C-2A layout does not allow for longitudinal drainage ditch along SR 10. There will be additional cost and maintenance associated with this alternate to be considered.

(We do not recommend a 165'x146'-5" single span bridge with "U" shaped MSE walls at the abutment ends for this project).

Value Engineering Alternative No. C-2B- To construct a four span 300'x146'-5" bridge with 2-57' spans and 2-93' spans across SR 10.

- A more detailed cost calculation reveals that Alternative C-2B is \$456,000 more expensive than the proposed 300'x146'-5" bridge (2 spans at 150'). (Detailed cost calculations are attached).
- Alternative C-2B will restrict the cross section of the SR 10 loop for future widening to the outside.
- Alternative C-2B will lengthen construction time to build 2 additional intermediate bents.

(We do not recommend a four span 300'x146'-5" bridge with 2-57' spans and 2-93' spans for this project).

Value Engineering Alternative No. C-2C- To construct a three span 279'x146'-5"bridge with 2-57' spans and 1-165' span across SR 10.

- A more detailed cost calculation reveals that Alternative C-2C is approximately \$500,000 more expensive than the proposed 300'x146'-5" bridge (2 spans at 150'). (Detailed cost calculations are attached).
- Alternative C-2C will restrict the cross section of the SR 10 loop for future widening to the outside.
- Alternative C-2C will lengthen construction time to build 2 additional intermediate bents.

(We do not recommend a three span 279'x146'-5"bridge with 2-57' spans and 1-165' span for this project).

Value Engineering Alternative No. F-1 – To minimize the amount of urban curb and gutter shoulder on Jennings Mill Road.

- Neighborhoods, apartments, businesses and a church are located along Jennings Mill Road. Eliminating the sidewalks along a portion of Jennings Mill Road would not provide connectivity from these areas to the many shopping, eating and retail businesses located along Atlanta Hwy. Retaining the sidewalk potentially reduces traffic and improves the community.
- Eliminating the sidewalks along a portion of Jennings Mill Road would reduce safety for pedestrian traffic along this portion of Jennings Mill Road.

(We do not recommend eliminating sidewalk along a portion of Jennings Mill Road).

Additional Design Suggestions:

- Right of Way Steps – Right of way is typically stepped to remain parallel with roadway centerlines. In some areas, the right of way lines will be tapered to reduce steps and reduce the total right of way area required.
- Superelevation on the bridge - The superelevation transition will be corrected to remove transition from the bridge.
- Concrete Barrier Modification – The design of the concrete barrier will be revised so the end treatments will end outside of the clear zone for on coming traffic. The end treatments will begin parallel to the exit ramps and end parallel to the loop entrance ramps.
- Eliminate Parapet and Pipe Hand Rail - The parapets must be retained on walls within the clearzone. The pipe hand rails will be utilized where they are required to protect pedestrians from falls. GA STD 3626 aluminum hand railing will be utilized on top of parapets for aesthetics and to reduce future maintenance cost.

COMP. BY GTP DATE 9-17-07



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SHEET _____ OF _____

CHKD. BY _____ DATE _____

JOB NO. 4009

PROJECT US 78 OVER SR 10 STRUCTURE _____

NOTE: STRUCTURE ELEMENTS COMMON BETWEEN THE PROPOSED STRUCTURE AND ALTERNATIVES ARE NOT LISTED.

PROPOSED BRIDGE WITH BIKE LANES BRIDGE WIDTH = 154'-5"

2-SPANS @ 150'

$$\text{DECK} = 154'-5" \times 7\frac{1}{2}" \times 300' = 1072 \text{ cy} \times \$1200 = \$1,286,400$$

$$\text{BEAMS} = 300' \times 22 \text{ BEAMS} = 6,600 \text{ LF} \times \$200 = \$1,320,000$$

$$\text{BENTS} = 5' \times 5' \times 75' + 3 \times 5' \times 5' \times 20' + 3 \times 12' \times 12' \times 3 = 173 \text{ cu} \times 2 \text{ BENTS} \times 340 \text{ cu} \times \$600 = \$207,600$$

$$\text{SUPER REINF.} = 230 \text{ cu/cy} \times 1072 \text{ cy} = 246,560 \text{ lbs} \times \$1.00 = \$246,560$$

$$\text{SUB. REINF.} = 180 \text{ cu/cy} \times 346 \text{ cu} = 62,280 \text{ lbs} \times \$1.00 = \$62,280$$

$$\text{PILES} = \text{END BENTS} = 22 \text{ PILES} \times 55 \text{ LF} = 1,210 \text{ LF} \times 2 \text{ BENTS} = 2,420 \text{ LF}$$

$$\text{INTERMEDIATE BENT} = 10 \text{ PILES} \times 6 \text{ FOOTINGS} = 60 \text{ PILES} \times 40 \text{ LF} = 2,400 \text{ LF}$$

$$2420 \text{ LF} + 2400 \text{ LF} = 4,820 \text{ LF} \times \$70 = \$337,400$$

TOTAL: \$3,460,240

PROPOSED BRIDGE WITHOUT BIKE LANES BRIDGE WIDTH = 146'-5"

2-SPANS @ 150'

$$\text{DECK} = 146'-5" \times 7\frac{1}{2}" \times 300' = 1,017 \text{ cy} \times \$1200 = \$1,220,400$$

$$\text{BEAMS} = 300' \times 20 \text{ BEAMS} = 6,000 \text{ LF} \times \$200 = \$1,200,000$$

$$\text{BENTS} = \$207,600$$

$$\text{SUPER REINF.} = 230 \text{ cu/cy} \times 1017 \text{ cy} = 233,910 \text{ lbs} \times \$1.00 = \$233,910$$

$$\text{SUB. REINF.} = 180 \text{ cu/cy} \times 346 \text{ cu} = 62,280 \text{ lbs} \times \$1.00 = \$62,280$$

$$\text{PILES} = \text{END BENTS} = 20 \text{ PILES} \times 55 \text{ LF} = 1,100 \text{ LF} \times 2 \text{ BENTS} = 2,200 \text{ LF}$$

$$\text{INTERMEDIATE BENT} = 10 \text{ PILES} \times 6 \text{ FOOTINGS} = 60 \text{ PILES} \times 40 \text{ LF} = 2,400 \text{ LF}$$

$$2,200 \text{ LF} + 2,400 \text{ LF} = 4,600 \text{ LF} \times \$70 = \$322,000$$

TOTAL: \$3,246,190

COMP. BY GTP DATE 8.31.07



Heath & Lineback Engineers
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SHEET _____ OF _____

CHKD. BY _____ DATE _____

JOB NO. 4009

PROJECT _____ STRUCTURE _____

WITHOUT BIKE LANES

ALT C-2 - 2 SPAN (2 @ 93 FT) WITH 'U' MSE WALL BRIDGE WIDTH = 146.417

DECK = (2 x 93)(146.417) x 7 1/2" : 630' x \$1200 = \$756,000

BEAMS = 186' x 26 BEAMS = 4,836 LF x \$137 = \$662,532

MSE WALL = H UNDER BRIDGE = 21.42 FT, L UNDER BRIDGE 171 FT

AREA UNDER BRIDGE = 2(21.42 x 171 FT) = 7,320 FT²

7,320 FT² x \$55.55 = \$406,959

COPING A = 2 x 171 FT = 342 LF x \$70 = \$23,940

H FOR MSE SIDES = 28 FT, L = 60 FT

AREA OF MSE SIDES = 1680 FT² x 4 SIDES = 6720 FT² x \$59 = \$396,480

COPING V: H x 60 FT = 240 LF x \$250 = \$60,000

ADDITIONAL BACKFILL MATERIAL = 1465 FT² x 5.75 FT = 8424 FT³ = 312' x 27' x 10' x 10'

312' x 27' x 10' x 10' = 624' x \$200 = \$124,800

RENTS = \$207,600

ADDITIONAL ROADWAY = 300 FT - (2 x 93) = 114 FT x \$1530 = \$174,420

SUPER RENT = 230' x 620' = 144,900 lbs x \$1.00 = \$144,900

SUB RENT = 180' x 346' = 62,280 lbs x \$1.00 = \$62,280

PILES: END BENTS: 24 PILES x 55 LF = 1,320 LF x 2 BENTS = 2,640 LF

INTER-MEDIATE BENTS = 10 PILES x 6 FOOTINGS = 60 PILES x 40 LF = 2,400 LF

2,640 LF + 2,400 LF = 5,040 LF x \$70 = \$352,800

TOTAL = \$3,380,111

COMP. BY HTP DATE 9.5-07



Heath & Lineback Engineers
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SHEET _____ OF _____

CHKD. BY _____ DATE _____

JOB NO. 4009

PROJECT _____ STRUCTURE _____

WITHOUT BIKE LANES

ALT C-2A - 1 SPAN (165 FT) WITH "U" MSE WALL BRIDGE WIDTH = 146.47

DECK = 165' x 146.47' x 7 1/2" = 559.64 yd x \$1200 = \$670,800

BEAMS = 165' x 30 BEAMS = 4950 LF x \$200 = \$990,000

MSE WALL: H UNDER BRIDGE = 19 FT, L UNDER BRIDGE = 171

AREA UNDER BRIDGE = 2 (19 x 171 FT) = 6498 FT²

6498 FT² x \$55.55 = \$360,964

COPING A = 2 x 171 FT = 342 LF x \$70 = \$23,940

H FOR MSE SIDES = 28 FT, L = 60 FT

AREA OF MSE SIDES = 1,680 FT² x 4 SIDES = 16,720 FT² x \$59 = \$986,480

COPING V = 4 x 83.5 FT = 334 LF x \$250 = \$83,500

ADDITIONAL BACKFILL MATERIAL = 1465 FT² x 8.145 FT = 11,965 FT³ = 443 yd

443 yd x 2 = 886 yd x \$200 = \$177,200

ADDITIONAL ROADWAY = 300 FT - 165 FT = 135 FT x \$1530 = \$206,550

SUPER RETN. 230 3/4" x 559.64 = 128,570 LF x \$100 = \$12,857,000

PILES = 30 PILES x 55 LF = 1,650 LF x 2 BEAMS = 3,200 LF x \$97 = \$310,400

TOTAL = \$2,334,604

COMP. BY GTA DATE 9-5-07



Heath & Lineback Engineers
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SHEET _____ OF _____

CHKD. BY _____ DATE _____

JOB NO. 4009

PROJECT _____ STRUCTURE _____

WITHOUT BIKE LANES

ALT L-2B - 4 SPAW 2 @ 57' & 2 @ 93' BRIDGE WIDTH = 146.417

DECK = 300 FT x 146.417 FT x 7 1/2" = 1017' x \$1,200 = \$1,220,400

BEAMS:	TYPE II	: 2 x 57 FT = 114 FT	x 20 BEAMS =	2,280 LF	x \$175 = \$399,000	400,140
	TYPE III	: 2 x 93 FT = 186 FT	x 20 BEAMS =	3,720 LF	x \$137 = \$509,640	662,532
				4836		

BEAMS: \$ 207,600 x 3 BEAMS = \$622,800

SUPER REINF. 220' x 1017' = 223,910 lb x \$1.0 = \$223,910

SUB REINF. 180' x 1038' = \$186,840

PILES: END BEAMS = 26 PILES x 95 LF = 1,470 LF x 2 BEAMS = 2,940 LF

INTERMEDIATE = 10 PILES x 6 FOOTINGS x 3 BEAMS = 180 PILES x 40 LF = 7,200 LF

2,940 LF + 7,200 LF = 10,140 LF x \$70 = \$709,800

TOTAL = 3,702,412

ADJUSTMENT FOR INTERMEDIATE BEAMS

-25% (\$622,800 + \$186,840 + 7200 x \$70) = \$328,410

COMP. BY GTP DATE 8-3-07



SHEET _____ OF _____

CHKD. BY _____ DATE _____

Heath & Lineback Engineers
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JOB NO. 4009

PROJECT _____ STRUCTURE _____

WITHOUT RICE LANDS
ALT C-24 3 SPAN 2 @ 67'-0" + 1 @ 165'

DECK: 300 FT X 146.417 FT X 7 1/2" = 10.17 CY X \$1200 = \$1,220,400

BEAMS: 105' X 30 BEAMS = 4950 LF X \$200 = \$990,000
135' X 18 1/2" BEAMS = 3,240 LF X \$127 = \$413,580 333,000

FASCIA: 135' X 4 BEAMS = 540 LF X \$200 = \$108,000

BEAMS = \$207,600 X 2 = \$415,200

SUPER REINF = 230 % X 10.17 CY = 233,910 LBS X \$1.00 = \$233,910

SUB REINF: 180 PLY X 692 CY = 124,560 LBS X \$1.00 = \$124,560

PILES = END BEAMS = 20 PILES X 55 LF = 1,100 LF X 2 BEAMS = 2,200 LF

INTERMEDIATE 10 PILES X 6 FOOTING X 2 BEAMS = 120 LF X 40 LF = 4800 LF

2,200 LF + 4,800 LF = 7,000 LF X \$70 = \$490,000

TOTAL \$3,742,330

Adjust for int. ends

- 25% (415,200 + 124,560 + 4800 X 70) = 218,940

Σ = \$3,742,330

RAMP 6

A RECYCLED ASPH. CONC. 12.5mm SUPERPAVE, GP. 2 ONLY, INCL. BITUM MATL & H LIME									
A	Location	Area	unit	unit weight	unit	total	unit	Unit Price	Price per LF
	Mainline		2.9 SY	0.0825 Tons/SY			0.2 Tons		
						Total	0.2 Tons	70	14

B RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME									
B	Location	Area	unit	unit weight	unit	total	unit	Unit Price	Price per LF
	Mainline		2.9 SY	0.2200 Tons/SY			0.6 Tons		
						Total	1 Tons	90	54

C RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME									
C	Location	Area	unit	unit weight	unit	total	unit	Unit Price	Price per LF
	Mainline		2.9 SY	0.3300 Tons/SY			1 Tons		
						Total	1 Tons	80	80

D GR AGGR BASE CRS, INCL MATL										
D	Location	Area	unit	unit	total	unit	Total	Unit	Unit price	Price per LF
	Mainline(10 in)		1.8 SY	Tons/SY		2 SY		1 Tons		
						Total	2 SY	1 Tons	25	25

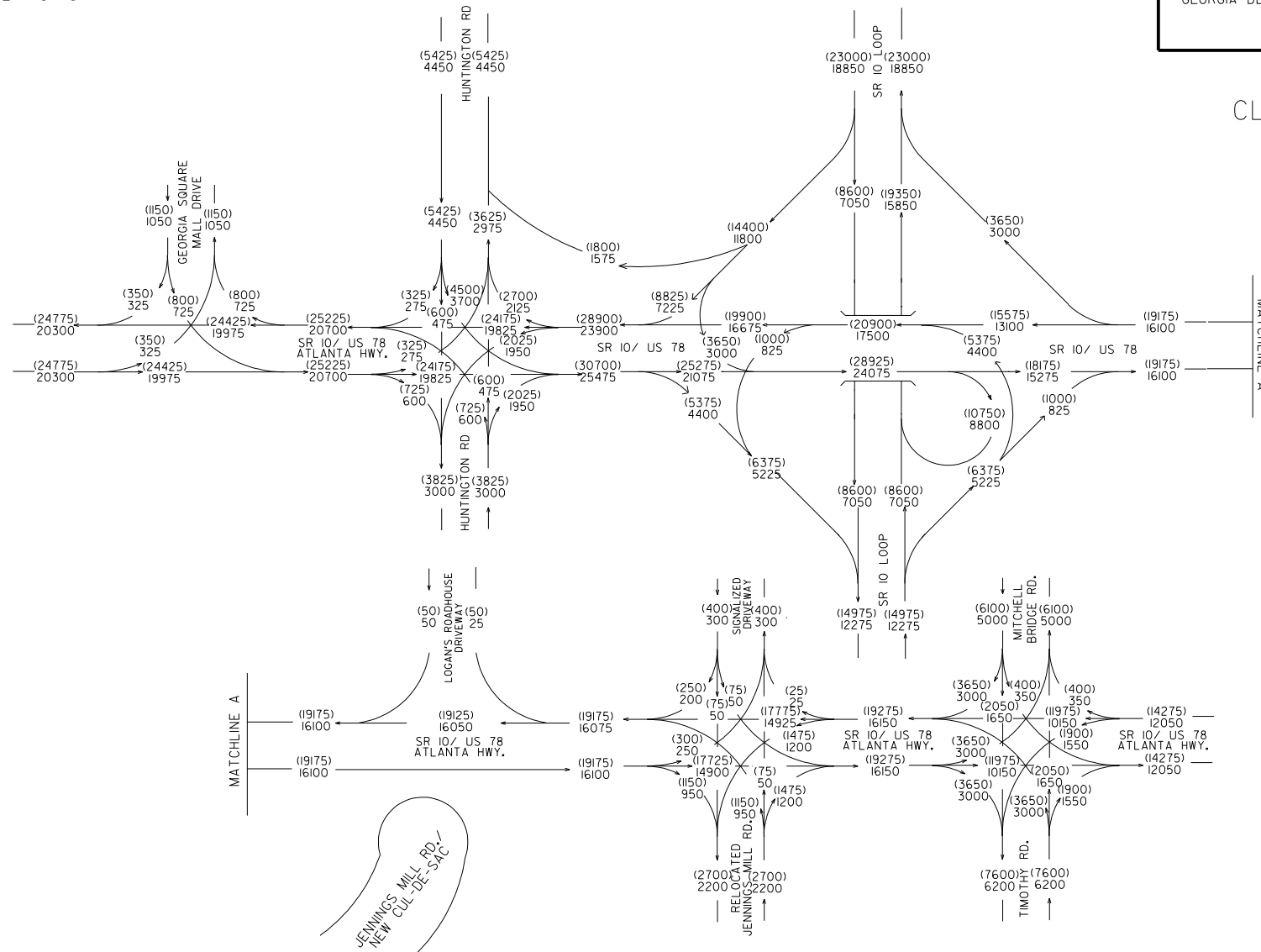
BITUM TACK COAT										
	Location	Area	unit	unit weight	unit	layers	total	unit	Unit Price	Price per LF
	Mainline		2.9 SY	0.035 GL/SY			3	0.3 GL		
							Total	0.3 GL	2	0.6

Total Price per LF
 \$174

Ramp 6 = 250 ft

Total Cost \$43,400

ATHENS
CLARKE COUNTY



24-HR. T. = 6%
S.U.T. = 4%
COMB. T. = 2%

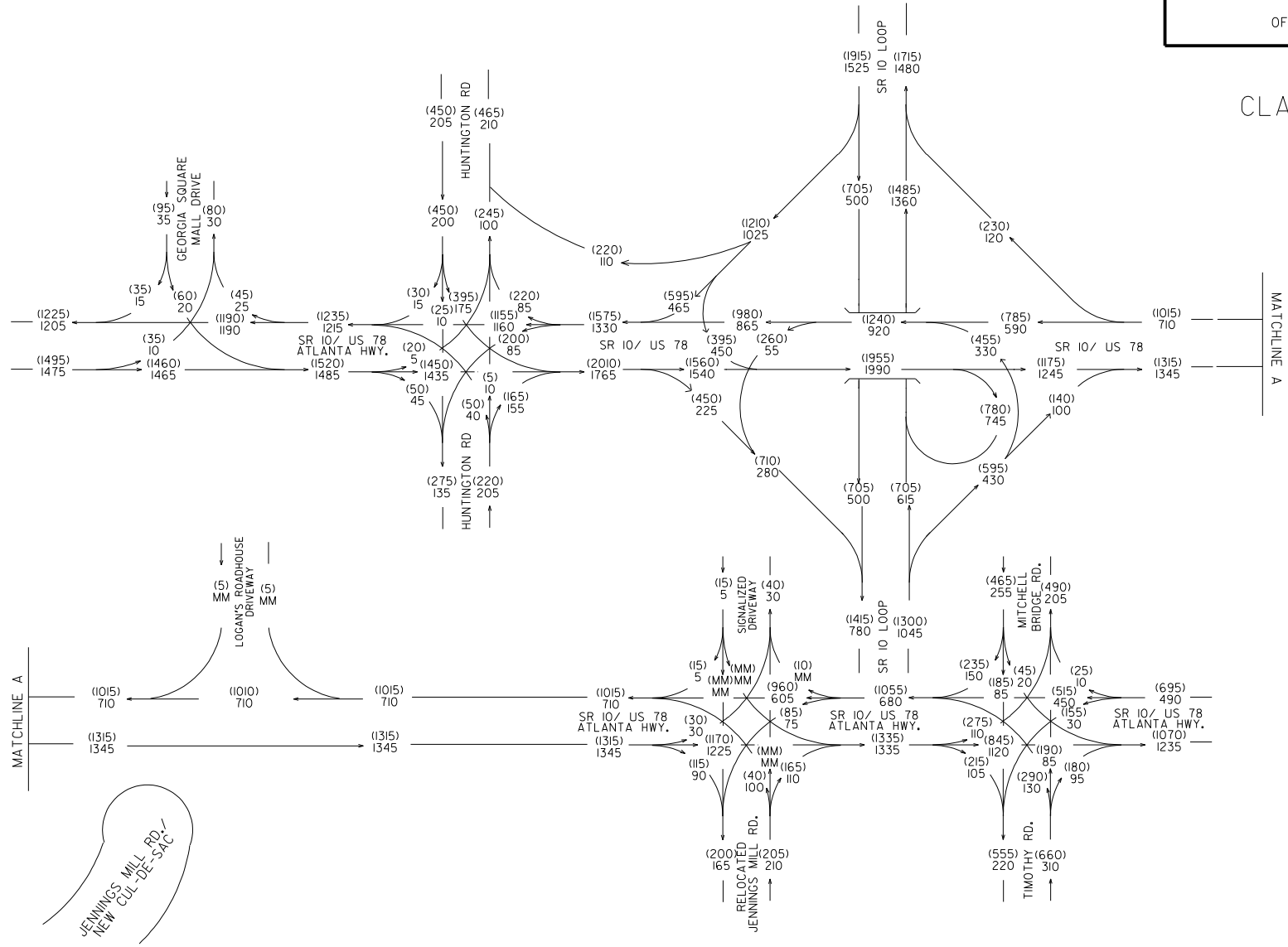
NH00-0003-03(053)
PI # 122890
CLARKE COUNTY

SR 10 @ SR 10 LOOP

BUILD
DESIGN TRAFFIC ADT
2041 = (000)
2021 = 000

LRW
10/14

ATHENS
CLARKE COUNTY

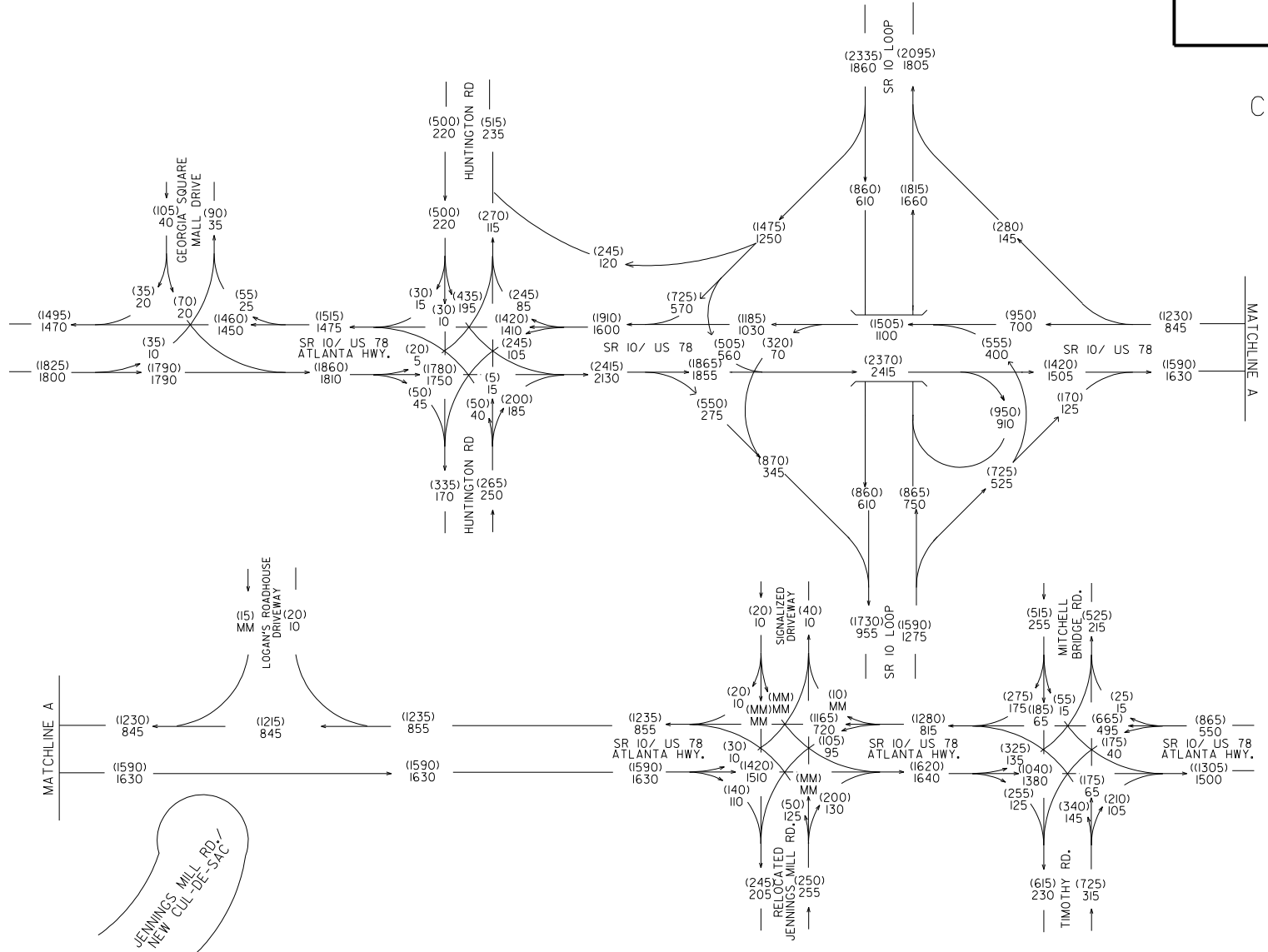


T. = 8%
S.U.T. = 4.5%
COMB. T. = 3.5%

NH00-0003-03(053)
PI # 122890
CLARKE COUNTY
SR 10 @ SR 10 LOOP
BUILD
BASE YEAR
2021DHV
PM = (000)
AM = 000

LRW
10/14

ATHENS
CLARKE COUNTY

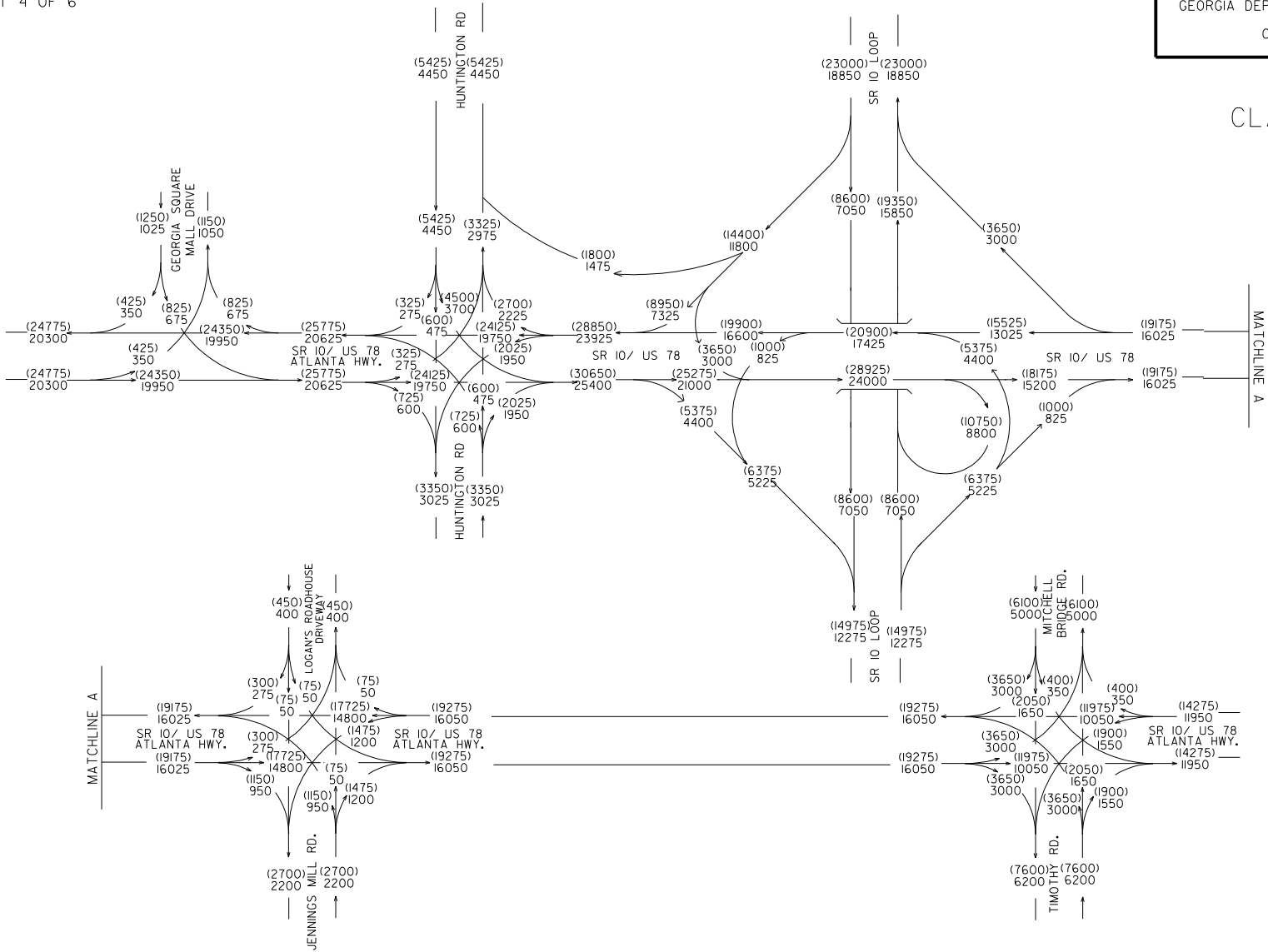
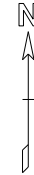


T. = 8%
S.U.T. = 4.5%
COMB. T. = 3.5%

NH00-0003-03(053)
PI # 122890
CLARKE COUNTY
SR 10 @ SR 10 LOOP
BUILD
DESIGN YEAR
2041 DHV
PM = (000)
AM = 000

LRW
10/14

ATHENS
CLARKE COUNTY

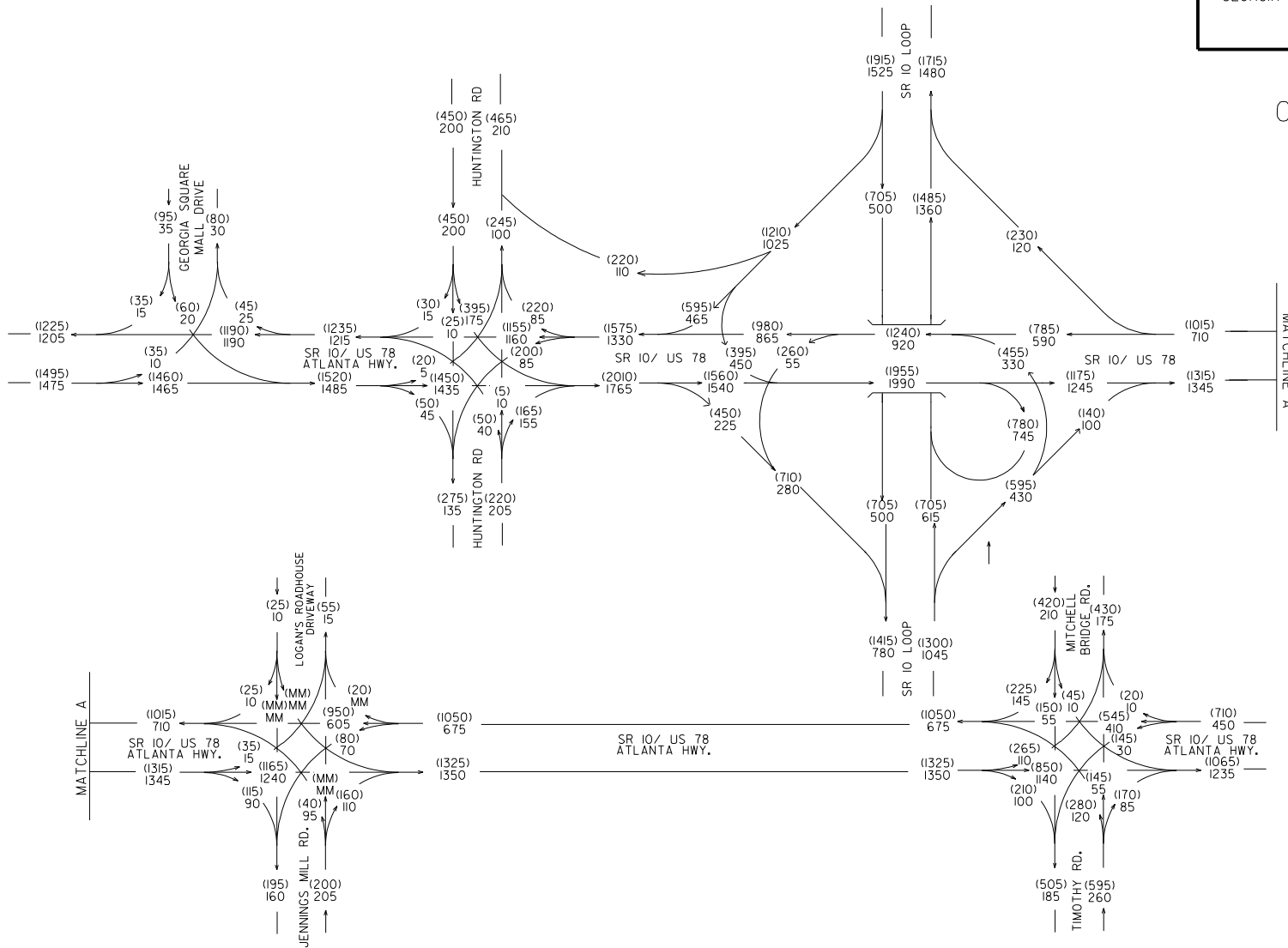


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S.U.T. = 4%
COMB. T. = 2%

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PI # 122890
CLARKE COUNTY
SR 10 @ SR 10 LOOP
NO-BUILD
DESIGN TRAFFIC ADT
2041 = 000
2021 = 000

LRW
10/14

ATHENS
CLARKE COUNTY

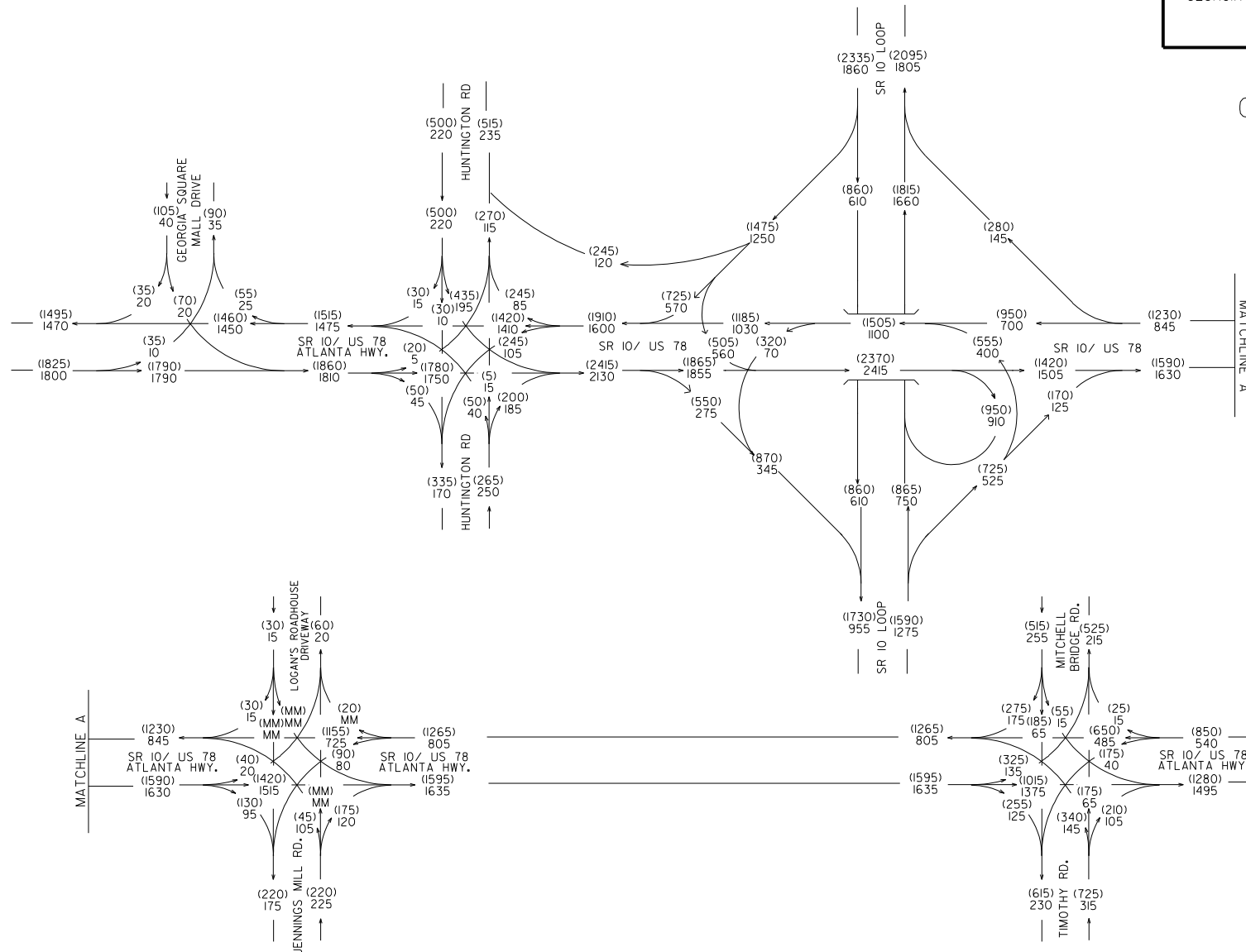


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PI # 122890
CLARKE COUNTY
SR 10 @ SR 10 LOOP
NO-BUILD
BASE YEAR 2021
DHV PM = (000)
AM = 000

LRW
10/14

ATHENS
CLARKE COUNTY

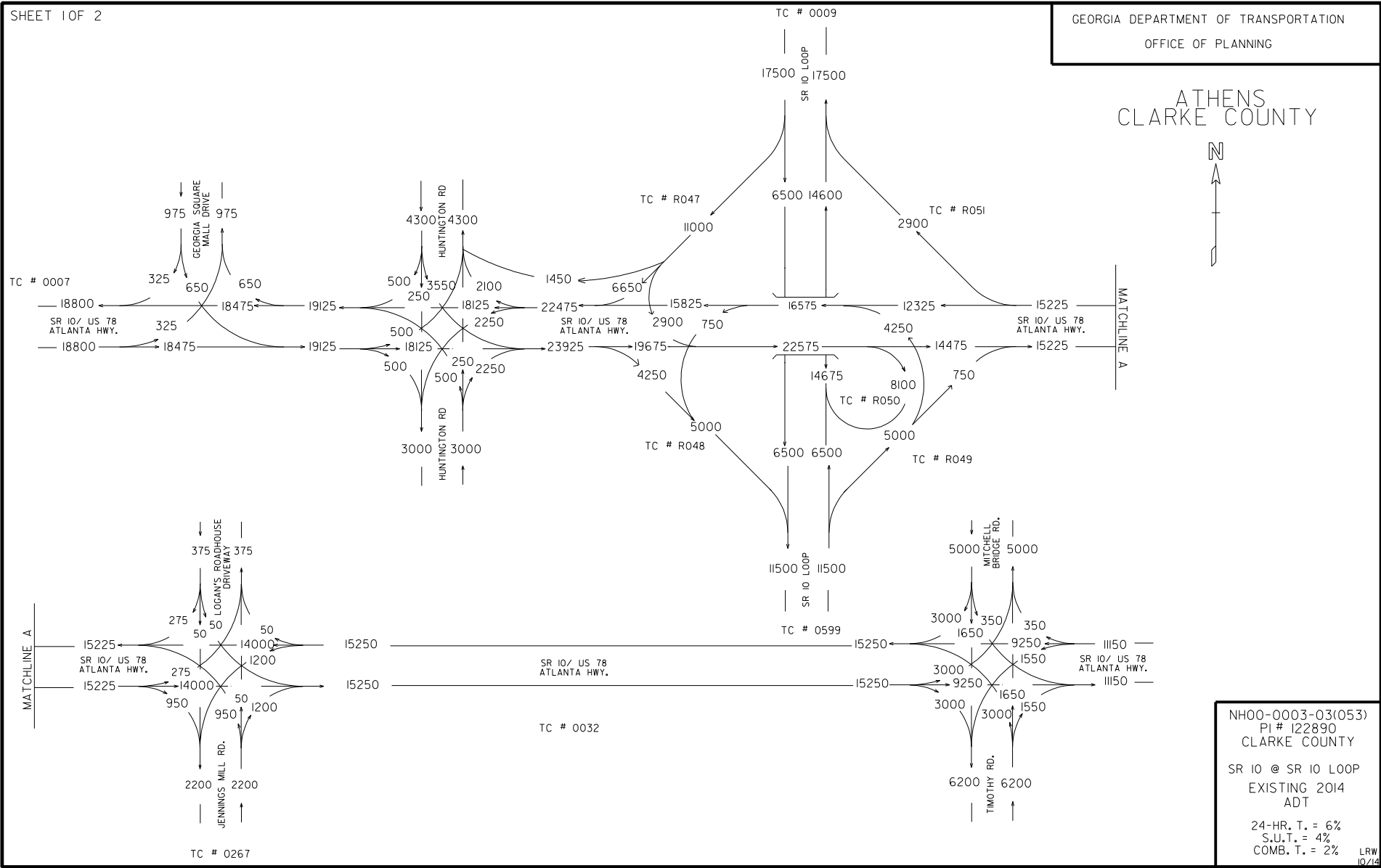


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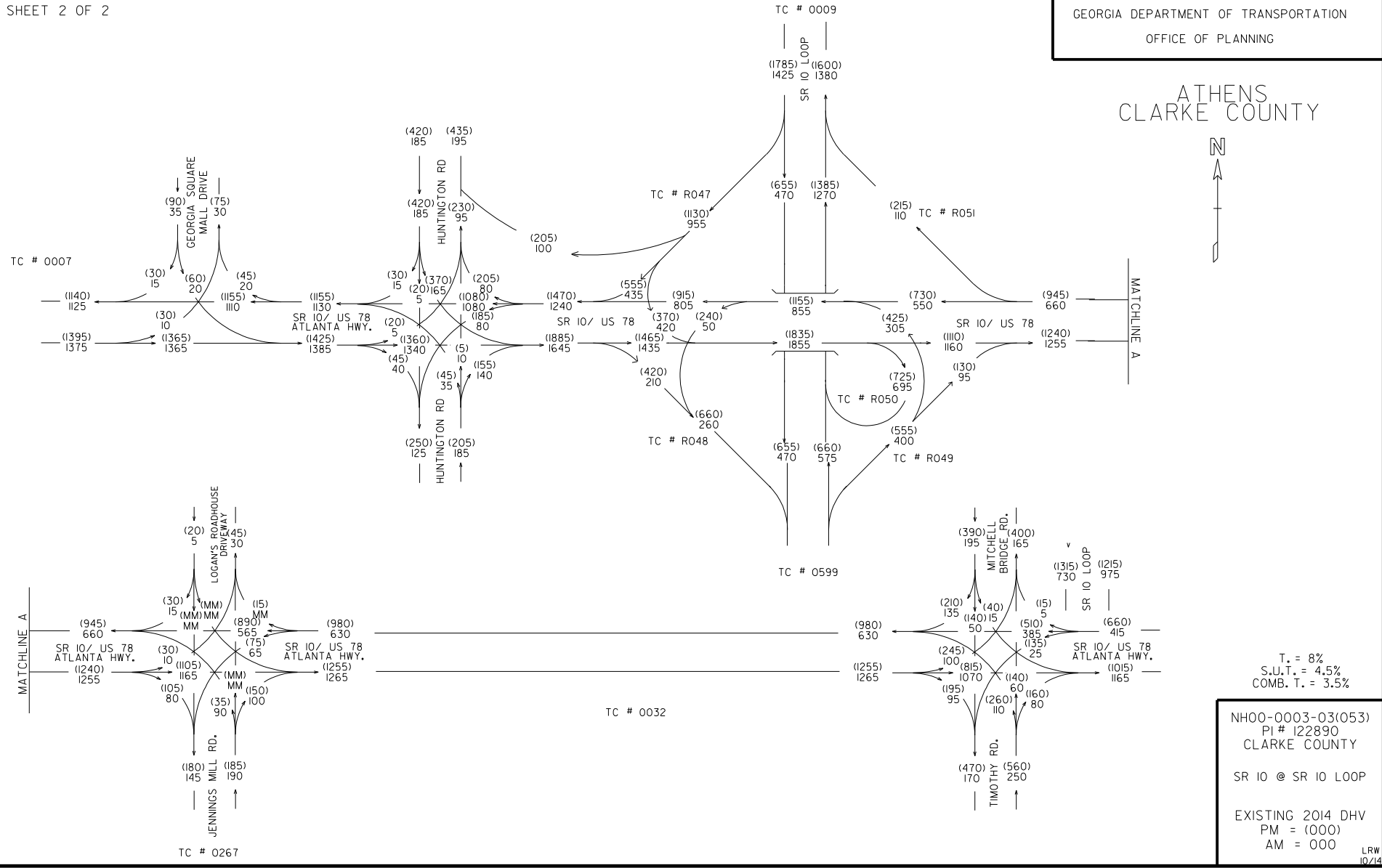
NH00-0003-03(053)
PI # 122890
CLARKE COUNTY
SR 10 @ SR 10 LOOP
NO-BUILD
DESIGN YEAR
2041 DHV
PM = (000)
AM = 000

LRW
10/14

ATHENS
CLARKE COUNTY



ATHENS
CLARKE COUNTY



Traffic Study & Concept Synopsis:

8-21-2015

- 10-24-2014 - Revised GDOT traffic volumes completed.
 - 12-12-14 - Stantec prepared revised traffic study - Scenario 3 with Improvements recommended.
 - 12-12-14 Traffic Analysis Summary Chart was completed and is included following the Synopsis.
 - Scenario 2 – Is a reduced scope layout proposed by Athens Clarke County (ACC).
 - Scenario 3 – Is the approved GDOT Concept with reductions requested by ACC.
 - Reduced impacts to the commercial properties west of Huntington Road.
 - Added a left turn ingress access point to the Publix Shopping Center on the east end of the project.
 - Scenario 2 & 3 “With Improvements” includes recommended improvements at the Timothy Rd/Mitchell Bridge Rd (TR/MBR) Intersection.
 - 2-19-2015 – The Traffic Study and Layouts were presented to District 1. The Scenario 3 with improvements produced acceptable LOS at all intersections. The project layout was then revised to include the TR/MBR Intersection improvements.
 - 4-16-2015 - The Scenario 3 layout with improvements was presented to FHWA. FHWA concluded that the TR/MBR Intersection improvements needed to be included in concept and environmental document to meet Logical Termini requirements.
 - 7-1-2015 - The Scenario 3 layout with improvements was presented to ACC for concurrence. ACC requested that GDOT reduce traffic and reduced lanes through the interchange.
 - 7-22-2015 - GDOT reevaluated and reduced traffic volumes were completed.
 - 8-11-2015 - Stantec analyzed reduced traffic volumes.
 - Scenario 2 & 3
 - Scenario 2 & 3 **without** improvements to TR/MBR Intersection were selected to analyzed and determine if improvements at TR/MBR the intersection were needed due to the reduced traffic.
 - Created Scenario 4 **with** improvements to TR/MBR Intersection.
 - Scenario 4 is Scenario 3 with a reduced lane in each direction through the interchange generally from Huntington Road to Jennings Mill Road.
 - 8-11-2015 Traffic Analysis Summary Chart was completed and is included following the Synopsis.
 - Results show that Scenario 2 produces LOS Es and Fs for certain movements in the Huntington Road, Southbound Ramp and TR/MBR Intersections.
 - Results show that Scenario 3 produced acceptable LOS at all intersections and did not require improvements to TR/MBR.
 - Results show that Scenario 4 produced acceptable LOS at all intersections.
 - Improvements to TR/MBR are not proposed since Scenario 3 produced acceptable LOS and improvements are not required with the reduced traffic.
- Scenario 4 **without** improvements to TR/MBR Intersection is selected as the preferred Alternate.

Conclusion: Since Scenario 3 produced acceptable LOS at TR/MBR in the final analysis, and Scenario 3 and Scenario 4 includes the same added lanes between Jennings Mill Rd to TR/MBR, Scenario 4 will provide acceptable LOS at TR/MBR intersection.

* See Meeting Notes and E-mails for additional information.

* See Traffic Analysis Summary Charts for additional information.

Reference: Atlanta Highway at SR 10 Loop Traffic Analysis Summary

LOS / Delay Summary Table		2014 Existing		2021 No-Build		2021 Build				2041 No-Build		2041 Build				2041 Build with Improvements			
Intersection						Scenario 2		Scenario 3				Scenario 2		Scenario 3		Scenario 2		Scenario 3	
		AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Atlanta Hwy. @ GA Square Mall Dr.	Overall	A (3.1)	A (4.2)	A (3.3)	A (4.7)	A (4.0)	A (6.5)	A (4.2)	A (5.2)	A (4.3)	A (6.3)	A (4.5)	A (8.4)	A (4.9)	A (6.6)	A (4.5)	A (8.1)	A (4.9)	A (8.7)
	EB	A (2.9)	A (3.5)	A (3.2)	A (4.4)	A (3.3)	A (5.0)	A (3.0)	A (5.0)	A (4.4)	A (5.6)	A (4.7)	A (6.8)	A (4.5)	A (6.7)	A (4.7)	A (6.7)	A (4.7)	A (6.7)
	WB	A (1.3)	A (0.8)	A (1.2)	A (1.0)	A (2.5)	A (4.1)	A (3.9)	A (1.4)	A (2.1)	A (1.8)	A (2.1)	A (5.6)	A (3.4)	A (2.0)	A (2.3)	A (5.5)	A (3.1)	A (6.7)
	SB	D (42.5)	D (43.7)	D (41.7)	D (43.7)	D (44.1)	D (43.2)	D (39.9)	D (43.2)	D (40.8)	E (55.7)	D (39.2)	D (49.6)	D (43.0)	D (46.8)	D (39.2)	D (46.8)	D (39.2)	D (46.8)
Atlanta Hwy. @ Huntington Rd.	Overall	B (17.5)	D (39.9)	B (18.3)	D (45.6)	B (16.6)	D (41.6)	B (14.8)	C (31.5)	C (22.3)	F (104.0)	C (21.2)	E (66.3)	B (16.7)	D (41.4)	B (19.3)	D (37.5)	B (16.8)	C (33.0)
	EB	B (14.8)	C (32.7)	B (16.6)	C (33.9)	B (14.8)	D (40.2)	A (9.7)	C (27.5)	C (21.7)	F (88.7)	C (26.8)	D (43.1)	B (12.1)	C (31.3)	B (13.5)	E (57.3)	B (11.8)	C (32.5)
	WB	A (9.0)	C (31.8)	A (8.7)	C (32.8)	A (6.5)	C (21.2)	A (9.9)	C (24.8)	B (11.5)	F (103.5)	A (5.9)	E (59.8)	B (10.5)	C (28.8)	A (4.8)	C (20.7)	B (12.6)	C (25.1)
	NB	D (53.7)	D (44.5)	D (53.4)	E (56.6)	E (56.8)	D (42.1)	D (51.2)	D (42.4)	D (52.7)	F (88.8)	D (49.4)	D (53.4)	E (55.0)	D (41.0)	F (140.5)	D (51.3)	D (49.6)	D (35.3)
SB	E (57.2)	E (74.3)	E (58.3)	F (99.4)	E (55.0)	F (103.1)	D (47.7)	D (53.6)	E (63.7)	F (138.9)	D (50.4)	F (132.0)	D (51.6)	F (96.1)	D (46.5)	D (45.1)	D (46.7)	E (55.7)	
Atlanta Hwy. @ SR 10 Loop SB Ramps	Overall	C (23.6)	D (40.0)	C (27.1)	E (60.7)	C (23.4)	C (27.6)	A (9.7)	B (10.6)	D (36.8)	F (123.3)	C (29.0)	E (58.0)	B (11.5)	B (13.5)	C (31.4)	D (51.3)	B (11.0)	B (13.7)
	EB	B (16.3)	D (35.4)	B (19.0)	E (69.2)	B (18.5)	B (19.6)	A (6.8)	A (6.7)	C (31.2)	F (132.3)	C (23.9)	E (66.3)	A (8.7)	A (8.8)	C (28.3)	D (49.7)	A (8.4)	B (10.6)
	WB	B (15.1)	C (34.1)	C (22.4)	D (42.6)	A (9.9)	C (20.9)	A (5.1)	B (10.9)	B (19.5)	F (103.9)	B (17.3)	C (33.2)	A (7.0)	B (15.2)	B (18.4)	C (31.7)	A (6.2)	B (13.4)
	SB	D (44.9)	E (60.3)	D (46.3)	E (75.3)	D (44.5)	E (56.5)	B (19.1)	B (18.5)	E (62.3)	F (139.4)	D (48.8)	F (85.0)	C (20.6)	C (20.9)	D (48.8)	F (90.2)	B (19.7)	C (20.9)
Atlanta Hwy. @ SR 10 Loop NB Ramps	Overall	A (7.6)	A (8.7)	A (8.3)	B (11.1)	B (12.5)	A (9.7)	A (7.0)	A (8.0)	B (11.3)	B (18.2)	B (12.8)	B (15.0)	A (7.2)	A (7.2)	B (12.8)	B (14.7)	A (7.4)	A (9.2)
	EB	A (5.5)	A (5.4)	A (6.7)	A (3.8)	A (4.7)	A (3.8)	A (4.7)	B (11.0)	B (11.7)	A (9.0)	A (5.5)	A (4.7)	A (4.1)	A (4.0)	A (5.6)	A (6.0)	A (4.2)	A (9.2)
	WB	A (3.0)	A (6.9)	A (3.1)	A (4.3)	A (2.1)	A (1.2)	A (2.3)	A (1.6)	A (4.2)	A (9.9)	A (2.3)	A (9.9)	A (2.5)	A (5.2)	A (2.0)	A (9.4)	A (4.8)	A (5.5)
	NB	C (20.4)	C (20.7)	C (20.5)	D (45.6)	D (49.4)	D (45.6)	C (20.4)	B (19.5)	C (20.7)	E (60.4)	D (48.0)	D (51.2)	C (22.3)	B (19.6)	D (48.0)	D (47.6)	C (20.0)	B (19.6)
Atlanta Hwy. @ Logan's Roadhouse Driveway / Jennings Mill Rd.	Overall	B (14.8)	B (14.7)	C (31.0)	F (117.9)	-	-	-	-	F (##)	F (120.8)	-	-	-	-	-	-	-	-
	EB	A (0.1)	A (0.3)	A (0.1)	A (0.4)	-	-	-	-	A (0.1)	A (0.6)	-	-	-	-	-	-	-	-
	WB	A (1.4)	A (0.6)	A (1.4)	A (0.7)	-	-	-	-	A (2.1)	A (1.0)	-	-	-	-	-	-	-	-
	NB	F (148.9)	F (235.6)	F (##)	F (##)	-	-	-	-	F (##)	F (##)	-	-	-	-	-	-	-	-
SB	B (10.0)	B (17.1)	B (10.3)	B (19.3)	-	-	-	-	B (10.8)	C (25.8)	-	-	-	-	-	-	-	-	
Atlanta Hwy. @ Logan's Roadhouse Driveway	Overall	-	-	-	-	A (0.0)	A (0.0)	# (#)	# (#)	-	-	A (0.0)	A (0.1)	# (#)	# (#)	A (0.0)	A (0.1)	# (#)	# (#)
	EB	-	-	-	-	A (0.0)	A (0.0)	# (#)	# (#)	-	-	A (0.0)	A (0.0)	# (#)	# (#)	A (0.0)	A (0.0)	# (#)	# (#)
	WB	-	-	-	-	A (0.0)	A (0.0)	# (#)	# (#)	-	-	A (0.0)	A (0.0)	# (#)	# (#)	A (0.0)	A (0.0)	# (#)	# (#)
	SB	-	-	-	-	A (9.4)	B (11.9)	# (#)	# (#)	-	-	A (9.6)	B (13.2)	# (#)	# (#)	A (9.6)	B (13.2)	# (#)	# (#)
Atlanta Hwy. @ Jennings Mill Rd.	Overall	-	-	-	-	A (5.8)	A (4.5)	A (6.1)	A (4.6)	-	-	A (6.3)	A (7.3)	A (7.3)	A (6.5)	A (6.5)	A (7.9)	B (12.1)	A (7.3)
	EB	-	-	-	-	A (3.5)	A (2.7)	A (5.3)	A (3.2)	-	-	A (2.1)	A (4.1)	A (7.1)	A (5.7)	A (2.5)	A (4.7)	B (10.8)	A (4.6)
	WB	-	-	-	-	A (1.7)	A (3.3)	A (5.8)	A (5.6)	-	-	A (4.7)	A (5.4)	A (4.9)	A (4.9)	A (4.4)	A (6.9)	A (6.1)	A (7.3)
	NB	-	-	-	-	C (32.2)	C (28.2)	B (12.7)	A (6.0)	-	-	D (37.3)	D (46.1)	B (15.2)	C (26.1)	D (37.3)	D (39.4)	D (37.5)	C (26.1)
SB	-	-	-	-	A (0.0)	A (0.5)	A (0.0)	A (0.1)	-	-	A (0.0)	A (0.3)	# (#)	A (0.3)	# (#)	A (0.2)	# (#)	A (0.3)	
Atlanta Hwy. @ Mitchell Bridge Rd. / Timothy Rd.	Overall	B (19.7)	D (46.7)	C (20.6)	E (59.1)	B (15.3)	D (49.7)	C (20.9)	D (51.7)	C (26.3)	F (99.3)	B (19.5)	F (85.5)	C (25.2)	F (92.1)	B (17.0)	D (53.4)	B (18.0)	D (54.7)
	EB	B (12.2)	C (33.4)	B (12.7)	C (32.2)	A (4.3)	C (26.2)	B (15.2)	C (32.2)	B (19.9)	E (56.1)	B (11.3)	D (46.0)	B (19.4)	D (49.6)	A (9.1)	C (29.8)	B (10.6)	D (37.4)
	WB	C (22.5)	D (49.7)	C (22.7)	E (74.8)	B (15.2)	E (59.2)	B (15.4)	E (59.6)	C (26.6)	F (133.0)	B (17.7)	F (107.1)	B (17.7)	F (124.2)	B (17.1)	E (72.6)	B (17.4)	E (68.1)
	NB	D (42.5)	E (69.4)	D (44.0)	F (87.4)	D (48.9)	E (75.2)	D (45.3)	E (74.9)	D (47.5)	F (125.4)	D (48.4)	F (117.0)	D (52.8)	F (120.5)	D (40.7)	E (59.0)	D (40.6)	E (58.6)
SB	C (27.6)	D (47.1)	C (30.1)	E (56.4)	C (32.1)	F (95.1)	C (29.5)	E (56.7)	C (32.8)	F (96.5)	C (29.5)	F (99.8)	C (32.9)	F (88.5)	C (29.5)	E (64.6)	C (29.5)	E (62.7)	

(#) – No value calculated by Synchro

F (##) – Delay calculated by Synchro greater than 300 second



August 11, 2015
 Shawn Fleet
 Page 1

Reference: Atlanta Highway at SR 10 Loop Traffic Analysis Summary

LOS / Delay Summary Table		2041 Build					
Intersection		Scenario 2		Scenario 3		Scenario 4 (with Improvements)	
		AM	PM	AM	PM	AM	PM
Atlanta Hwy. @ GA Square Mall Dr.	Overall	A (3.7)	A (6.5)	A (4.2)	A (6.9)	A (3.9)	A (6.8)
	EB	A (3.4)	A (6.4)	A (3.6)	A (6.4)	A (3.4)	A (5.7)
	WB	A (3.0)	A (4.0)	A (4.2)	A (4.8)	A (3.6)	A (5.6)
	SB	D (38.7)	D (44.9)	C (34.6)	D (44.9)	C (34.0)	D (43.3)
Atlanta Hwy. @ Huntington Rd.	Overall	C (28.2)	D (48.0)	B (17.7)	C (24.0)	B (19.4)	C (24.5)
	EB	D (39.6)	E (76.2)	B (16.3)	C (22.1)	B (18.2)	C (23.4)
	WB	A (6.8)	B (10.7)	A (9.9)	B (15.6)	B (11.9)	B (15.3)
	NB	E (58.3)	D (53.3)	D (50.2)	D (49.6)	D (49.8)	D (49.9)
Atlanta Hwy. @ SR 10 Loop SB Ramps	Overall	C (27.5)	D (44.8)	B (11.5)	B (13.6)	B (13.0)	B (18.3)
	EB	C (21.1)	D (35.3)	A (9.8)	B (12.1)	B (12.0)	B (11.1)
	WB	B (18.0)	D (38.6)	A (6.4)	B (12.1)	A (6.8)	B (12.0)
	SB	D (48.9)	E (70.9)	B (19.5)	B (18.1)	C (20.5)	D (38.4)
Atlanta Hwy. @ SR 10 Loop NB Ramps	Overall	B (13.2)	B (12.6)	A (7.5)	A (7.6)	A (7.4)	A (8.5)
	EB	A (5.6)	A (3.7)	A (4.3)	A (4.6)	A (4.4)	A (7.6)
	WB	A (2.7)	A (3.4)	A (5.2)	A (4.5)	A (4.5)	A (2.8)
	NB	D (52.0)	D (45.7)	C (20.3)	B (19.0)	C (20.4)	B (19.9)
Atlanta Hwy. @ Logan's Roadhouse Driveway / Jennings Mill Rd.	Overall	-	-	-	-	-	-
	EB	-	-	-	-	-	-
	WB	-	-	-	-	-	-
	NB	-	-	-	-	-	-
Atlanta Hwy. @ Logan's Roadhouse Driveway	Overall	A (0.0)	A (0.1)	# (#)	# (#)	A (0.0)	A (0.0)
	EB	A (0.0)	A (0.0)	# (#)	# (#)	A (0.0)	A (0.0)
	WB	A (0.0)	A (0.0)	# (#)	# (#)	A (0.0)	A (0.0)
	SB	A (0.0)	B (10.7)	# (#)	# (#)	A (0.0)	A (9.0)
Atlanta Hwy. @ Jennings Mill Rd.	Overall	A (7.0)	A (6.9)	A (9.9)	A (6.0)	B (10.8)	A (6.1)
	EB	A (4.1)	A (5.0)	A (7.2)	A (5.4)	B (10.6)	A (3.8)
	WB	A (3.3)	A (4.0)	A (8.8)	A (3.5)	A (4.7)	A (5.9)
	NB	D (37.4)	C (34.0)	C (31.6)	C (22.3)	C (32.4)	C (22.3)
Atlanta Hwy. @ Mitchell Bridge Rd. / Timothy Rd.	Overall	B (13.9)	D (37.4)	B (15.2)	D (40.8)	B (13.1)	C (31.0)
	EB	A (4.8)	C (21.5)	A (7.6)	C (31.2)	A (6.2)	C (22.2)
	WB	B (15.8)	D (46.1)	B (19.3)	D (51.8)	B (13.9)	C (32.6)
	NB	D (48.4)	E (56.2)	D (41.5)	D (51.0)	D (39.5)	D (44.0)
Atlanta Hwy. @ SR 10 Loop SB Ramps	Overall	C (26.0)	D (46.1)	C (22.5)	D (38.1)	C (23.5)	D (37.7)
	EB	C (21.1)	D (35.3)	A (9.8)	B (12.1)	B (12.0)	B (11.1)
	WB	B (18.0)	D (38.6)	A (6.4)	B (12.1)	A (6.8)	B (12.0)
	SB	D (48.9)	E (70.9)	B (19.5)	B (18.1)	C (20.5)	D (38.4)

Meeting Minutes



Project: NH000-0003-03-(053) - Clarke County
PI No. 122890
Atlanta Hwy at SR 10 loop

Date: 2-27-2015

Attendees: Anthony Tate, GDOT – PM
Derrick Brown, GDOT D1 – Program Manager
David Olson, GDOT D1 – Traffic
Bobby Dollar, GDOT D1 – Traffic
Brandon Kirby, GDOT OES
Allen Krivsky, Heath and Lineback Engineers
Shawn Fleet, Heath and Lineback Engineers

Minutes By: Shawn Fleet

A meeting was held February 19, 2015 to discuss the findings of the revised traffic study and to discuss the steps moving forward.

Meeting Minutes

- Shawn started the meeting with a brief description of differences between the two project layout Scenarios.
 - H&L – Scenario 3 –
 - Provides 5 WB and 4 EB lanes through the interchange.
 - Project limits from the Mall Entrance Road to Timothy Road/ Mitchel Bridge Road.
 - Provides a southbound loop entrance ramp to SR 10 Loop from the east.
 - Provides a 2000 ft auxiliary lane on the southbound exit ramp.
 - Athens Clarke County (ACC) - Scenario 2 –
 - Provides 3 WB and 2 EB lanes through the interchange.
 - Project limits generally run from Huntington Road to Jennings Mill Road.
 - Provides a left turn movement to Southbound SR 10 Loop from the east.
- Derrick Brown then provided information on the history of the projects.
 - H&L Scenario 3 project had progress into right of way acquisition and final design.
 - During Right of Way acquisition ACC proposed reduced traffic (Based on 2011/2031) and a reduced layout to minimize Right of Way impacts and to provide additional access to properties.
 - Right of Way acquisition was stopped to study the proposal presented by ACC.
 - GDOT then updated traffic to 2021/2041 and revised the traffic study to re-analyze the no build, the ACC Reduced Scenario 2 and the H&L current design Scenario 3.
- Discussion of the Traffic Study
 - The revised traffic study shows that the ACC Reduced Scenario 2 provides LOS E at both the Huntington Road and the Southbound Entrance Ramp.

- The revised traffic study shows that the H&L Scenario 3 provides LOS D & B for the Huntington Road and the Southbound Entrance Ramp respectively.
- The Loop Ramp provides a significant benefit to the operation of the South Bound Ramp signal. Eliminating the left turn and providing the loop ramp improves the signal operation from a LOS E to LOS B. It was agreed that the South Bound Loop Ramp should be retained.
- Generally it was agreed that the H&L Scenario 3 should be pursued. If GDOT pursues H&L Scenario 3, it will likely be met with resistance from the locals.
- A discussion was then initiated to brainstorm options to adjust the H&L Scenario 3 design to accommodate some of the local concerns to provide additional access and reduce Right of Way impacts while still meeting the Need & Purpose/Project Justification and Logical Termini.

The Brainstorm ideas:

- Reduce one through lane in each direction on SR 10 (Atlanta Hwy) on Scenario 3 layout.
- Reduce right turn lanes at west end of project on Scenario 3 layout to reduce property impacts.
- Provide left-in and right- in/right-out only at Publix shopping center drive. Revise full access median opening as shown currently in Scenario 3 (Just east of On the Border restaurant) to right-in/right-out to match the existing configuration at this location.
- H&L will determine reductions to Right of Way impacts. Additional reductions can be made by reducing the shoulder from 16 ft to 10 ft in some areas.

Other Items Discussed:

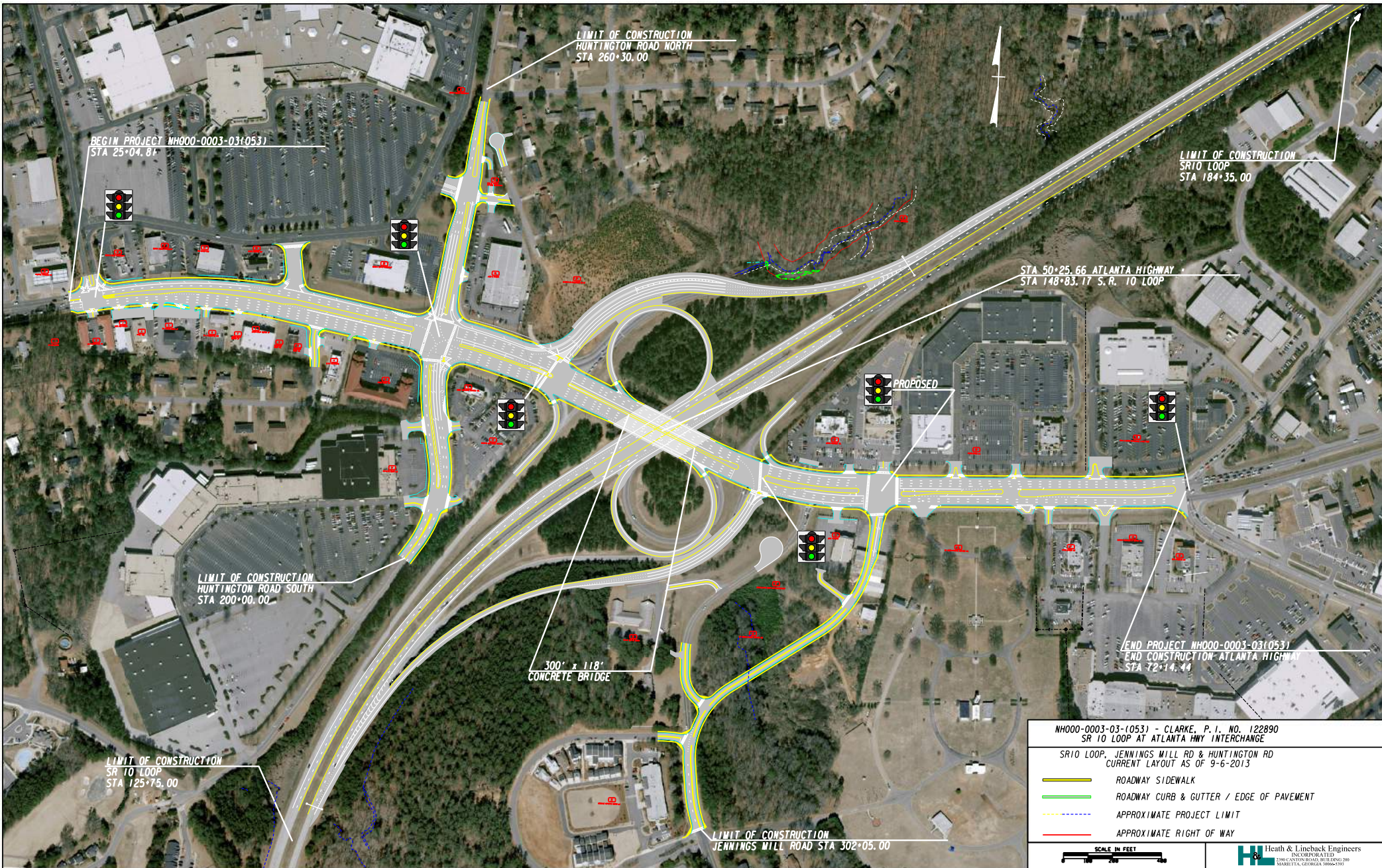
- Present layout to FHWA meeting on March 4/5th to get their input.
- The signal at the Timothy Road/Mitchell Bridge Road fails (LOS F) under both scenarios unless improvements are made to the intersection. This may be an issue in determining the correct Logical Termini. The project description is an interchange improvement project. Project limits have been held at its location to avoid scope creep.

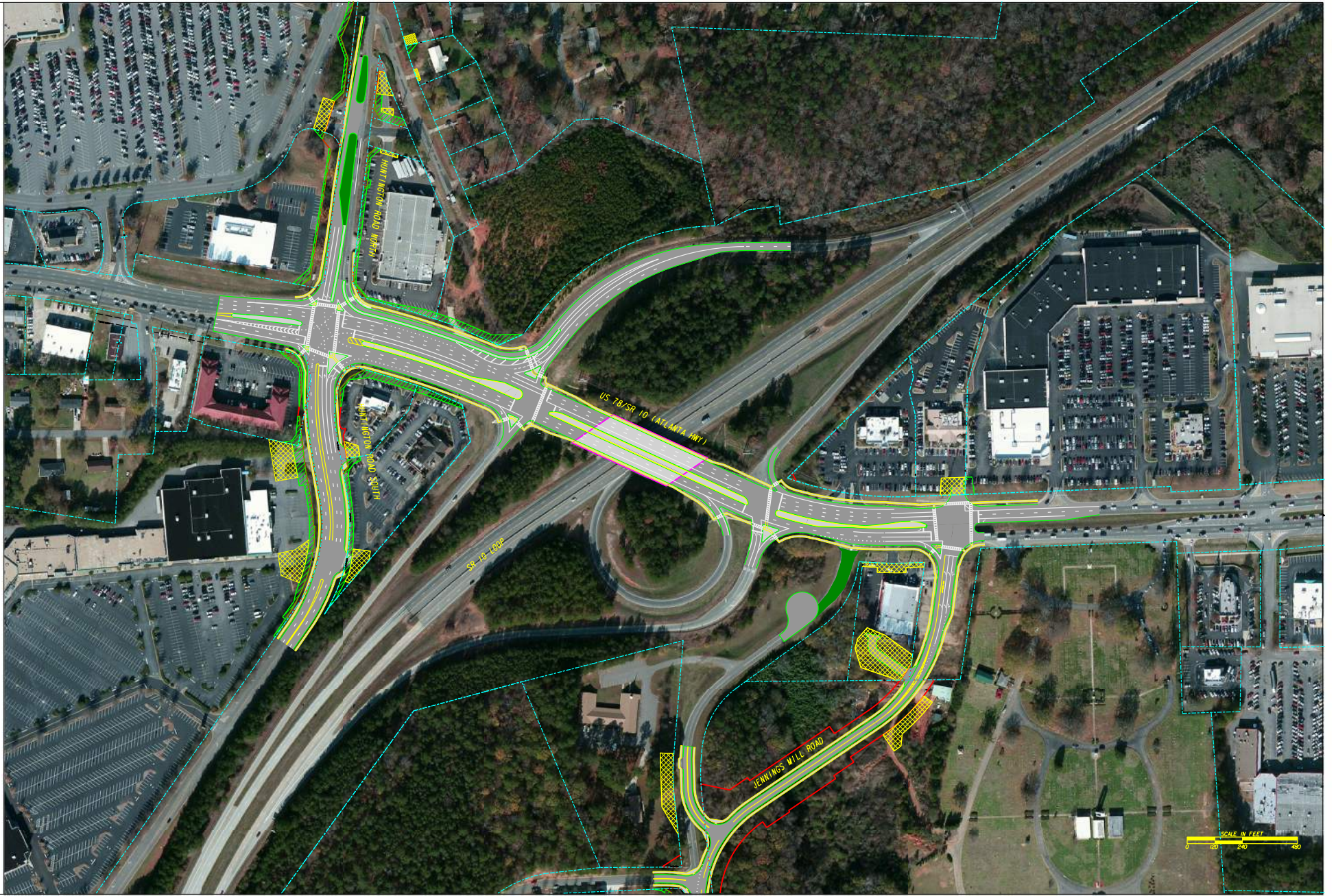
Moving Forward:

- H&L is studying the above items to determine what items provide the best LOS while providing a reduced right of way benefit.

Attachments:

- H&L Project Layout & Athens-Clark County Project Layout





Meeting Minutes

Project: NH000-0003-03-(053) - Clarke County

PI No. 122890

Atlanta Hwy at SR 10 loop

Date: 4-20-2015



H & L Project Number: 2008.030.023

Attendees: Derrick Brown, GDOT D1 – Program Manager
Anthony Tate, GDOT PM
Bobby Dollar, GDOT OES
Jennifer Giersch, FHWA; Via Conference Call
Larry Overn, Stantec
Allen Krivsky, Heath and Lineback Engineers
Shawn Fleet, Heath and Lineback Engineers

Minutes By: Shawn Fleet

Meeting was held at GDOT on April 16, 2015.

Project history was presented as well as a description of the current approved project concept and the reductions to the project that Athens Clark County (ACC) had proposed to reduce impacts to businesses.

The main differences of the project concepts are:

- The ACC Layout project concept reduces lanes on SR 10 and Huntington Road.
- The ACC Layout project limits are just east of Jennings Mill Road and just west of Huntington Road and the H&L layout project limits are from West Mall Access to Timothy Road Mitchell Bridge Road.
- The ACC Layout eliminates the south bound loop Ramp and SR 10 Loop auxiliary lane and eliminates the need to realign the south bound Exit Ramps.
- The ACC Layout eliminates the need to realign the north bound Ramps.

The traffic study results were discussed.

- It was noted that LOS E & Fs were unacceptable.
- The ACC layout shows LOS E at Huntington Road, the SB Ramp and Timothy Road/Mitchell Bridge Road.
- The H&L Layout show LOS E at Timothy Road/Mitchell Bridge Road
- The H&L Layout with improvements to Timothy Road/Mitchell Bridge Road can improve the intersection to LOS D.
- Assume ACC will accept LOS D.

Logical Termini Discussion

- Since Timothy Road/Mitchell Bridge Road intersection requires improvement to operate at an acceptable LOS, the H&L project concept as it stands, which does not propose improvements to the intersection, does not meet Logical Termini.
- ACC Layout does not meet Logical Termini since it excludes improvement to Timothy Road/Mitchell Bridge Road.
- There is an existing project programmed as PI 010100, CR 32 Mitchell Bridge Rd from SR 10/Atlanta Highway to CR 684/Athens West Parkway. Anthony Tate will investigate if this project includes improvements to the Timothy Road/Mitchell Bridge Road Intersection.
- If project PI 010100 does not include improvements to the Timothy Road/Mitchell Bridge Road Intersection, a new project will need to be programmed.

Environmental Document

- A project that includes improvements to the Timothy Road/Mitchell Bridge Road Intersection will need to be added to the environmental document so that Logical Termini requirements can be met. The project does not need to be constructed with the current project.
- GDOT OES will prepare and complete the Project Need, Effectiveness and Logical Termini Form.
- A CE reeval could be completed and approved in 2016.
- Traffic should be good for 2 to 3 years.

Minimization to Commercial Property Impacts

- H&L has proposed to provide a left turn in access to the Publix Shopping Center. See Detail Attached.
- H&L has proposed to reduce impacts to the commercial properties along the western edge of the project.
- A meeting with GDOT District 1 and ACC to discuss impacts, reductions, and the additional project is needed to get ACC's concurrence.

Action Items:

- Anthony Tate to investigate details of project PI 010100.
- H&L to study possible improvements to Timothy Road/Mitchell Bridge Road Intersection and provide a concept layout as a separate project.

Meeting Minutes



Project: NH000-0003-03-(053) - Clarke County
PI No. 122890
Atlanta Hwy at SR 10 loop

Date: 6-3-2015

Attendees: Anthony Tate, GDOT – PM
David Olson, GDOT D1 – District Traffic Engineer
Justin Lot, GDOT D1 Design
Warren Dimsdale, Heath and Lineback Engineers
Shawn Fleet, Heath and Lineback Engineers

Attendees Via Conference Call:

Derrick Brown, GDOT D1 – Program Manager
Brandon Kirby, GDOT D1 Assistant District Engineer

Minutes By: Shawn Fleet

A meeting was held May 20, 2015 to discuss and review the project layout that has been revised per prior meetings with District 1 and with FHWA.

Meeting Minutes

- Shawn started the meeting with a brief history of the project to date.
- The recent changes to the layout were then discussed.
 - West end reduction to reduce property impacts to business properties. This was done primarily by reducing lane addition lengths, but also included reducing the shoulder widths on both sides of the Atlanta Highway.
 - Left turn access into Publix. This was done by providing a median break large enough only to allow for left in access. The break location and access driveway location was relocated to the western edge of the property to maximize storage and deceleration lengths for the Atlanta Highway E.B. left turn lanes to Mitchell Bridge Road N.B.
 - Improvements to Timothy Road and Mitchell Bridge Road and Intersection.
 - The improvements are required and added to meet Logical Termini Per FHWA.
 - Improvements to the Mitchell Bridge Road side extend out to hold the lane addition 800 ft beyond the intersection then 495 ft to taper the lane drop for a total length of 1295 ft. Improvements were set up to tie into the current improvement project that will be constructed by Athens-Clark County along Mitchell Bridge Road.
 - Two alternates of improvements to the Timothy Road side were presented. The first showed improvement with desirable taper rates (15:1) and decel/storage (400ft/150ft) lengths per GDOT Standard. The second showed minimum taper rates (8.33:1) and decel/storage (250ft/150ft) lengths per GDOT Standard. The group decided the alternate that met the minimum design requirements along Timothy Road should be implemented to reduce impacts and improve property access.

- The additional work on Timothy Road / Mitchell Bridge Road would increase the construction cost of the project approximately \$2 million.
- The speed limit on Timothy Road / Mitchell Bridge Road is 45 MPH. The improvement proposed for the intersection are to meet 35 MPH to minimize impacts to properties. The layout also illustrated the additional impacts for 45 MPH. It was agreed that 35 MPH should be used and that a design exception should be submitted for the reduction in speed for approval.
- Derrick noted the GDOT SMEs should review and approve the layout limits along Timothy Road / Mitchell Bridge Road.

Additional General Layout and Project Comments

- Brandon Kirby noted that if the Interchange Ramp's pavement are to be concrete that the shoulder slopes should match the travel lane cross slope to allow for future widening if needed.
- Investigate reducing the dual right turn lanes to a single right lane on Huntington Road to east bound Atlanta Highway.
- David Olson noted overhead signs will be required on Timothy Road north bound due to the existing thru travel lane becoming the inside left turn lane for the proposed intersection.
- The Publix access driveway along Mitchel Bridge Road will need to be converted to right in right out. It was also requested to investigate adding a small raised median to discourage left turns into and out of the Publix entrance along Mitchel Bridge Road. However, it was determined no median could be added there due to the fire station driveway across the street.
- David Olson likes that the left lane progresses all the way through the project on Atlanta Highway.
- David Olson requested the striping to be revised to provide left turn access to Coile Drive.
- It was requested to increase the concrete island sizes at the Timothy Road / Mitchell Bridge Road intersection.
- It was requested to correct the marking on the south bound exit ramp where the two lanes expand to the right and left turn lanes.
- Revise the marking for the Olive Garden access driveway across from Jennings Mill Road to provide a left turn out and a thru/right out and a single inbound lane.
- David Olson requested us to review the possible weaving problems that could occur due to the north bound exit ramp right turn lane crossing the right turn lane for Jennings Mill Road.
- David Olson requested us to review the possible weaving problems at the lane additions near Arrowhead Road.

Right of Way

- It was requested to remove the driveway just west of JMR into the Logans Road House restaurant. This driveway access was provided per Right of Way request since it would require an agreement between property owners for access to the property.

The next step is present the revised project layout to Athens Clarke County.

Attachments:

- H&L Project Layout & Athens-Clark County Project Layout

Shawn Fleet

From: Shawn Fleet
Sent: Tuesday, July 21, 2015 1:49 PM
To: William A. Krivsky
Cc: sfleet@heath-lineback.com
Subject: FW: PI# 122890 Clarke - Today's Meeting Synopsis

Abby Ebodaghe and David Clarke's response to the meeting on the traffic projections.

Shawn C. Fleet, P.E., Heath & Lineback Engineers, Inc.
sfleet@heath-lineback.com
www.heath-lineback.com

From: David.Clark@athensclarkecounty.com [mailto:David.Clark@athensclarkecounty.com]
Sent: Thursday, July 02, 2015 4:14 PM
To: Tate, Anthony
Cc: Ebodaghe, Abby; Brown, Derrick M.; Woods, Leslie; Shawn Fleet
Subject: Re: PI# 122890 Clarke - Today's Meeting Synopsis

Anthony:

Thank you again for arranging the meeting yesterday and your continued efforts in moving this project forward.

One point that I hope that I left with GDOT staff yesterday is that ACC is very appreciative of the work completed to date - especially the proposed improvements identified for the Mitchell Bridge/Timothy Road intersection. In general, ACC remains supportive for improving the interchange to better accommodate today's and the future traffic. Everyone would agree that the current traffic volumes through the interchange has long exceeded the existing capacity of the interchange's configuration and that improvements are needed.

We just want to be sure that we build a project that is the "right size" for the future conditions. I understand that we probably differ in what we believe the future will have in store for the corridor.

I appreciate the additional investigation and review that Abby & Leslie (and the rest of the GDOT Planning staff) has offered to undertake. If there is any additional local information that they might need, please have them contact me directly.

Hope you have a happy and safe July 4th weekend.

-David

From: Tate, Anthony [mailto:atate@dot.ga.gov]
Sent: Thursday, July 02, 2015 1:25 PM
To: Ebodaghe, Abby; Shawn Fleet; Woods, Leslie; Clark, David
Cc: Brown, Derrick M.
Subject: RE: PI# 122890 Clarke - Today's Meeting Synopsis

Thanks for the update.

Anthony Tate

Project Manager
Office of Program Delivery
600 West Peachtree Street, 25th Floor
Atlanta, Georgia 30308
Phone: (404) 631-1769
Cell: (404) 807-7692
Email: atate@dot.ga.gov

From: Ebodaghe, Abby
Sent: Thursday, July 02, 2015 12:39 PM
To: Tate, Anthony; Shawn Fleet; Woods, Leslie; Clark, David
Cc: Brown, Derrick M.
Subject: RE: PI# 122890 Clarke - Today's Meeting Synopsis

Anthony,

Update for Design Traffic: We are reviewing the Existing volumes & projections on Huntington Road. We will send updated numbers as soon as it is completed.

THANK YOU!

*CHEERS,
ABBY F. EBODAGHE
OFFICE OF PLANNING
5TH FLOOR, ONE GEORGIA CENTER
(404) 631-1923 OFFICE
(404) 631-1957 FAX
JOH 14:13-14
JOH 15:5-9*

From: Tate, Anthony
Sent: Wednesday, July 01, 2015 3:06 PM
To: Shawn Fleet; Ebodaghe, Abby; Woods, Leslie; Clark, David
Cc: Brown, Derrick M.
Subject: PI# 122890 Clarke - Today's Meeting Synopsis

Quick synopsis of today's meeting:

- David Clark (ACC) discussed his concerns with the previously provided traffic projections based upon the current economic trends in the area.
- Mr. Clark also expressed concerns about the proposed 10-lane bridge and the possible ROW impacts along the south side of the outer-loop portion of the project, and the negative impact the larger scale transportation project could have on existing businesses in that vicinity.
- Abby & Leslie (GDOT Planning) reviewed the traffic data in the area, drove around the corridor yesterday to investigate, and feel that the previously determined traffic projections are valid.
- After some debate, Derrick stated that we will have to move forward based upon the GDOT projections.
 - Abby indicated that she would review her data this afternoon, but was certain that it wouldn't warrant ACC's proposed 0.5% growth.

Action Item:

- Heath & Lineback: Review your latest concept sketch and look to minimize ROW impacts along the southern portion of that outer loop corridor as much as possible.

Feel free to respond with any questions or concerns.

Thanks,

Anthony Tate

Project Manager

Office of Program Delivery

600 West Peachtree Street, 25th Floor

Atlanta, Georgia 30308

Phone: (404) 631-1769

Cell: (404) 807-7692

Email: atate@dot.ga.gov

Traffic fatalities are on the rise since the beginning of 2015 and Georgia could see the first increase in nine years! Many of these fatalities are the result of distracted driving. DriveAlert ArriveAlive implores motorists to drive responsibly. 1—buckle up; 2—stay off the phone/no texting; and 3—drive alert. Visit www.dot.ga.gov/DS/SafetyOperation/DAAA. #ArriveAliveGA

Shawn Fleet

From: Olson, David W <DOlson@dot.ga.gov>
Sent: Tuesday, August 18, 2015 11:53 AM
To: Shawn Fleet; Tate, Anthony; Brown, Derrick M.
Cc: Lott, Justin; Kirby, Brandon; William A. Krivsky
Subject: RE: NH000-0003-03(053), P. I. No. 122890, Clarke County

I support Scenario 4. It includes the refinements from discussions in several meetings to improve operations while reducing right-of-way impacts. Scenario 2 does not provide adequate LOS for certain movements and does not meet logical termini. Scenario 3 had more lanes than necessary, creating weaving situations and other potential operational impacts that would have detracted from theoretical LOS improvements.

David W. Olson, PE
District Traffic Engineer

Georgia Department of Transportation
District 1, Gainesville, GA
(770) 531-5806 *office*
(678) 677-6078 *mobile*
dolson@dot.ga.gov

From: Shawn Fleet [mailto:sfleet@heath-lineback.com]
Sent: Wednesday, August 12, 2015 3:12 PM
To: Tate, Anthony; Brown, Derrick M.
Cc: Olson, David W; Lott, Justin; Kirby, Brandon; William A. Krivsky
Subject: FW: NH000-0003-03(053), P. I. No. 122890, Clarke County

Anthony, Gentlemen,

Please see the revised expanded traffic analysis summary table showing all legs of the intersections per the reduced traffic data. The chart does show that the ACC layout produces LOS Es and Fs for certain movements in the Huntington Road, Southbound Ramp and Mitchell Bridge/Timothy Road Intersections. Please review the results and let us know your thoughts on if these values are acceptable?

Scenario 2 is the original ACC Layout
Scenario 3 is the original H&L/GDOT Layout
Scenario 4 is a new layout that was developed to reduce a lane across but does includes the Timothy/Mitchell Bridge Road Improvement.

Scenario 2 & 3 shown do not include Timothy/Mitchell Bridge Road Improvements.

Thanks,

Shawn C. Fleet, P.E., Heath & Lineback Engineers, Inc.
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www.heath-lineback.com