DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE

P. I. No. 122890-, Clarke County

OFFICE Preconstruction

NH-003-3(53)

SR 10 Loop/Atlanta Highway Interchange

DATE March

March 13, 2007

FROM

Genetha Rice-Singleton, Assistant Director of Preconstruction

TO

SEE DISTRIBUTION

SUBJECT APPROVED REVISED PROJECT CONCEPT REPORT

Attached for your files is the approval for subject project.

GRS/cj

Attachment

DISTRIBUTION:

Brian Summers

Harvey Keepler

Ken Thompson

Jamie Simpson

Michael Henry

Keith Golden

Angela Alexander (file copy)

Babs Abubakar

Russell McMurry

BOARD MEMBER

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE

NH-003-3(53), CLARKE COUNTY

SR 10 Loop/Atlanta Highway Interchange.

P.I. No. 122890

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FROM

Mohamed (Babs) Abubakari P.E., State Consultant Design Engineer

то

Genetha Rice-Singleton., Assistant Director of Preconstruction

SUBJECT REVISED PROJECT CONCEPT REPORT

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

The original concept is revised to include the following:

- Updated Traffic
- A typical section that includes four foot wide bike lanes and sixteen foot wide shoulders along US 78/Atlanta Highway.
- Typical sections that include sixteen foot wide shoulders along Huntington Road and Jennings Mill Road.
- Revised project terminus on the west end of the project to begin construction at the Mall Access Road.
- Revised project terminus on the east end of the project to end construction at the intersection of Mitchell Bridge Road and Timothy Road.
- Revised to replace bridge structures in lieu of widening bridge structures.
- Revised design speeds to posted speed limits and revised the design speed on the loop entrance ramps and exit ramps
- Revised construction schedule for Jennings Mill Road.

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

DATE <u>3-2-07</u>

State Transportation Planning Administrator

Distribution:

Project Review Engineer

State Environmental/Location Engineer

State Traffic Safety & Design Engineer

State Transportation Planning Administrator

State Transportation Financial Management Administrator

District 1 Engineer

State Bridge Design Engineer

Consultant Design Office

RECEIVED
FEB 2 3 2007
BY:

February 21, 2007

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

REVISED PROJECT CONCEPT REPORT

Need & Purpose: This 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 SR 10 Loop, which is a perimeter route around the city of Athens from Atlanta Highway (SR 10/US 78), which 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.

Accident data for this location indicate a significant accident problem on Atlanta Highway within limits of the interchange. The new loop ramps and additional lanes provided by this project will facilitate the flow of traffic to and from SR 10 Loop to Atlanta Highway as well as the through traffic on Atlanta Highway by eliminating many conflicting turning movements. The relocated Jennings Mill Road provided by this project will 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 along Atlanta Highway.

The needs and desires of Athens-Clark County, businesses, residents and users within the project area and the Georgia Department of Transportation are very similar. The project shall provide improved capacity and mobility. An access plan is needed to ensure maintenance of access to existing property. Some elements of the proposed road system will be access controlled.

Project Location: This project is located in the city of Athens in southwest Clark County.

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

SR 10 Loop is a four lane facility with a forty-foot depressed median and a 55 mph posted speed limit. Atlanta Highway (SR 10/US 78) 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 Atlanta Highway (SR 10/US 78) is 45 mph.

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.

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 85,000 vehicles per day (VPD) by the year 2026, from year 2006 counts of 60,800 VPD. SR 10 Loop will see an increase of nearly 15,000 VPD to 48,400 VPD by year 2026.

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 a 7 to 8 lane urban facility, and 8' to 40' raised median, 5' sidewalks, 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, 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 and 5' sidewalks. 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 and 5' sidewalks.

DESIGN SPEEDS	
Atlanta Highway	45 mph
Jennings Mill Road	40 mph
Huntington Road	35 mph
SR 10 Loop	65 mph
SR 10 Loop - Entrance Loop Ramps	25 mph
SR 10 Loop - Exit Ramps	35 mph

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

Functional Classification: Urban Principal Arterial

U. S. Route Number(s): <u>78</u> State Route Number(s): <u>10</u>

Traffic (AADT) as shown in the approved concept:

Atlanta Hwy Current Year: (2006) - 60,800 Design Year: (2026) - 85,200 Design Year: (2026) - 48,400

Proposed features to be revised: Typical Sections, Project Termini, Bridge Replace in lieu of Bridge widening, Design Speeds, and Construction Schedule.

Describe the revised feature(s) to be approved:

Typical Sections: The typical section for Atlanta Highway is to be revised to include 4 ft bike lanes. This was a recommendation at the initial project kickoff meeting. The typical sections are also to be revised to include 16 ft urban shoulders with 5 ft sidewalks for Jennings Mill Road, Huntington Road and Atlanta Highway. This will match the current standard GDOT typical section for urban roadways.

Project Termini: The project terminus is to be extended along Atlanta Highway to include the west quadrants of the Mitchell Bridge Road/Timothy Road intersection. This has been done so that sidewalks and the pedestrian ramps may be added and upgraded at this intersection to meet current ADA requirements and to tie into existing sidewalks on Timothy Road.

The project terminus is to be extended along Atlanta Highway to include the intersection with the

Mall Access Road. Sidewalks and pedestrian ramps will be added and upgraded at this intersection to meet current ADA requirements.

Replace Bridges in lieu of Bridge Widenings: Recommendation of the State Maintenance Engineer, replace both bridges in lieu of widening.

SR 10 & US 78 (Eastbound) over SR 10 Loop

This structure should be replaced for the following reasons:

- 1. There is shear cracking in the three intermediate bents. These bents were repaired previously and must now be replaced.
- 2. The deck has cracking and deterioration throughout the structure. The metal stay in place forms under the widening section have severe rust, indicating problems within the deck near these rusted areas. The deck should be replaced as part of this construction project.
- 3. The edge beams are shallow and need to be replaced throughout the structure.

SR 10 & US 78 (Westbound) over SR 10 Loop

This structure should be replaced for the following reasons:

- 4. There is shear cracking in the three intermediate bents. These bents were repaired previously and must now be replaced.
- 5. The deck has cracking and deterioration throughout the structure and should be replaced.
- 6. The edge beams are shallow and need to be replaced throughout the structure.

For more detailed information on this, see the attached recommendation letter.

Design Speed: The design speeds for SR 10 Loop, Huntington Road and Jennings Mill Road are to be revised to the posted speed limit for each respective roadway. The posted speed limit and revised design speed for each roadway are listed below:

SR 10 Loop - 55 mph Huntington Road - 25 mph Jennings Mill Road - 35 mph

The design speed is to be revised for the southbound and northbound SR 10 Loop entrance loop ramps to 30 mph. This can be accomplished with minimal right of way and provides a more desirable design speed related to the Atlanta Highway design speed of 45 mph.

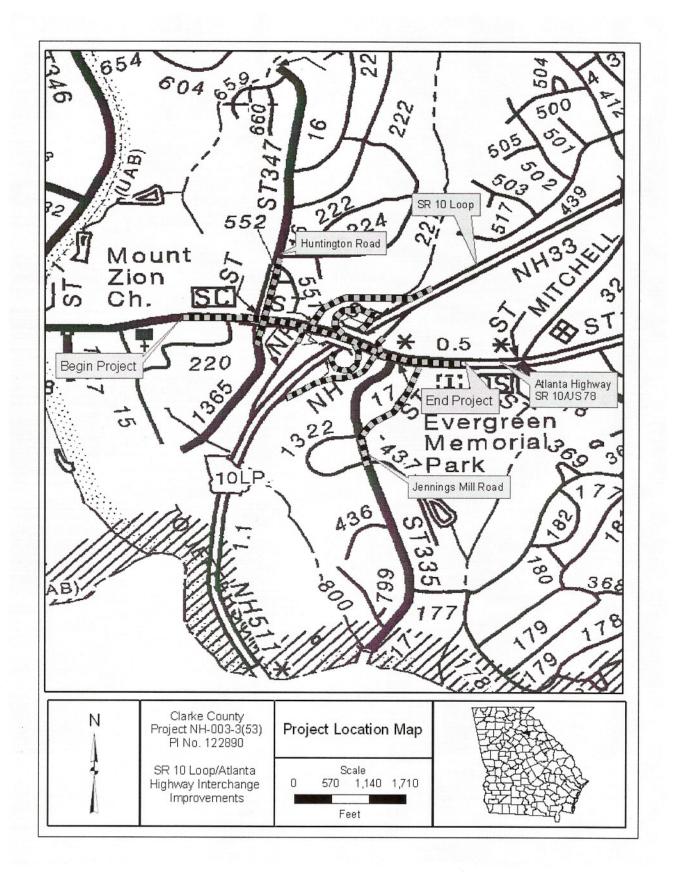
The design speed is to be revised to 45 mph for the southbound and northbound SR 10 Loop exit ramps. This can be accomplished with minimal right of way and provides a more desirable design speed related to the SR 10 Loop design speed of 55 mph.

Construction Schedule: It is recommended to construct Jennings Mill Road without an accelerated schedule. Jennings Mill Road will now be constructed within the time frame of the overall project.

Updated Traffic Data (AADT):

Atlanta Hwy Current Year: (2011) - 56,150 Design Year: (2031) - 78,250 Design Year: (2031) - 50,500

rrogr	P.E. <u>2000</u>	R/W _2007	Construction 2010				
Revise	ced cost estimates: 1. Construction cost inc. 2. Right-of-way, and 3. Utilities	cluding inflation and E&C,	\$28,400,000 \$ 5,150,000 \$ 5,420,000				
	approved concept is due to of walls to minimize the im	the added cost to replace both spacts to commercial propertie f current mean item unit price	npared to the December, 2000 bridge structures, the addition s, a more detailed construction s. Updated utility and right of				
Is the project located in a non-attainment area?YesX_No							
Recommendation: The Consultant Design Office recommends that the proposed revision to the concept be approved for implementation.							
Attach	ments:						
2. 3. 4.	Location Map Cost Estimate Revised Typical Sections Updated Traffic Data Recommendation Letters for	r Bridge Replacements					
	Concur:	tor of Precontinuition	_				

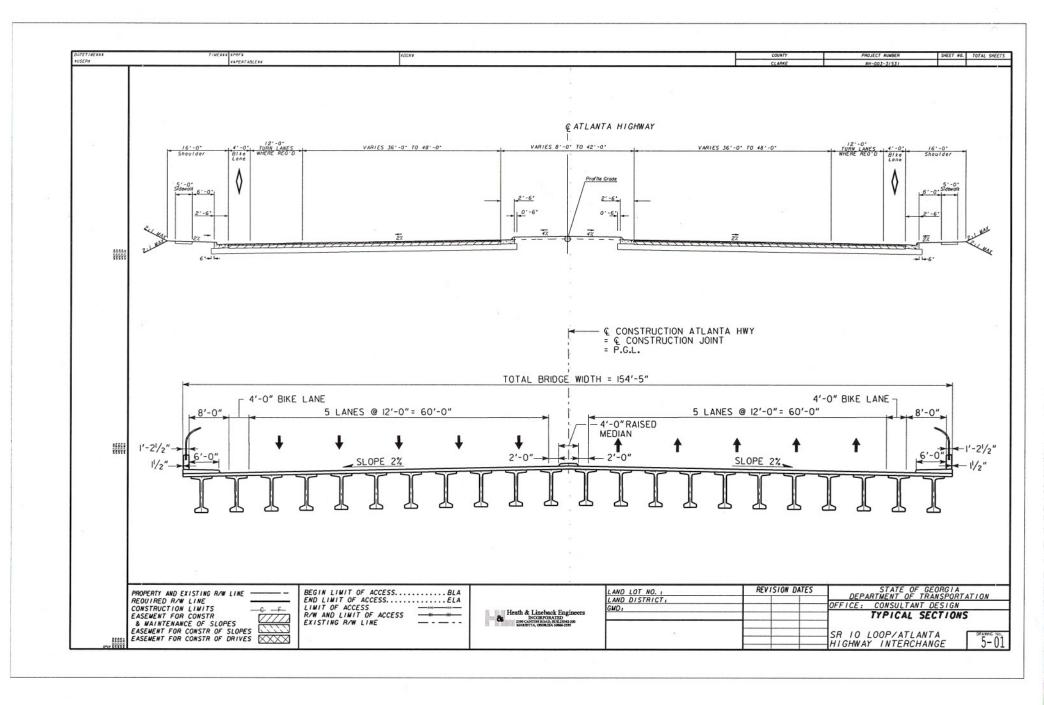


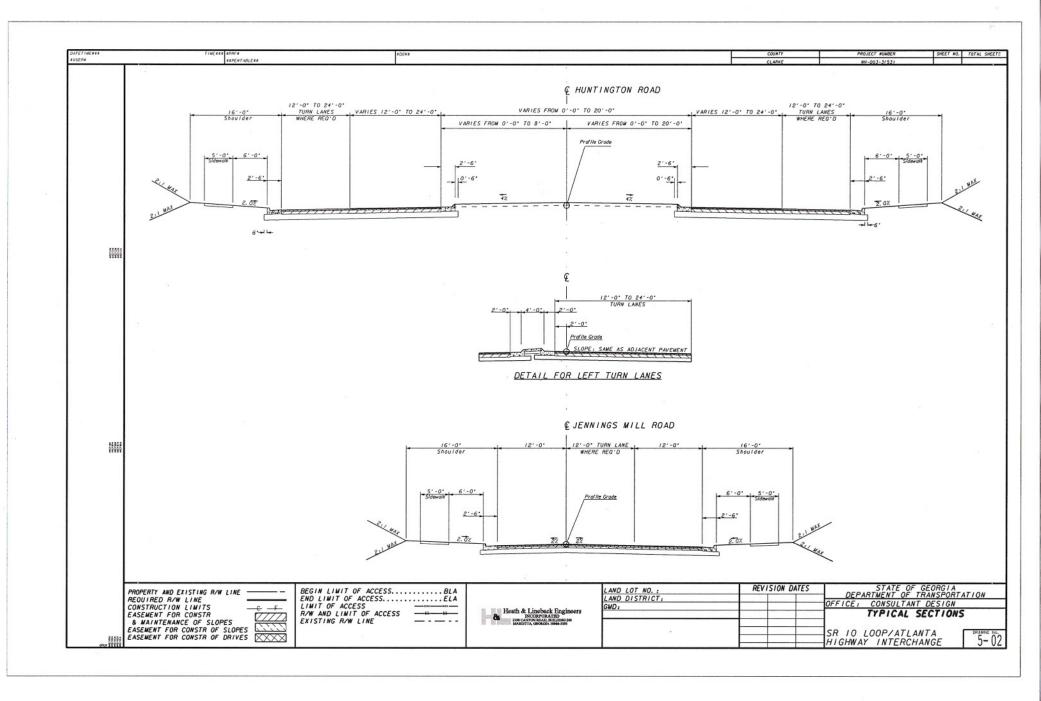
PRELIMINARY CONSTRUCTION AND RIGHT OF WAY COST ESTIMATE

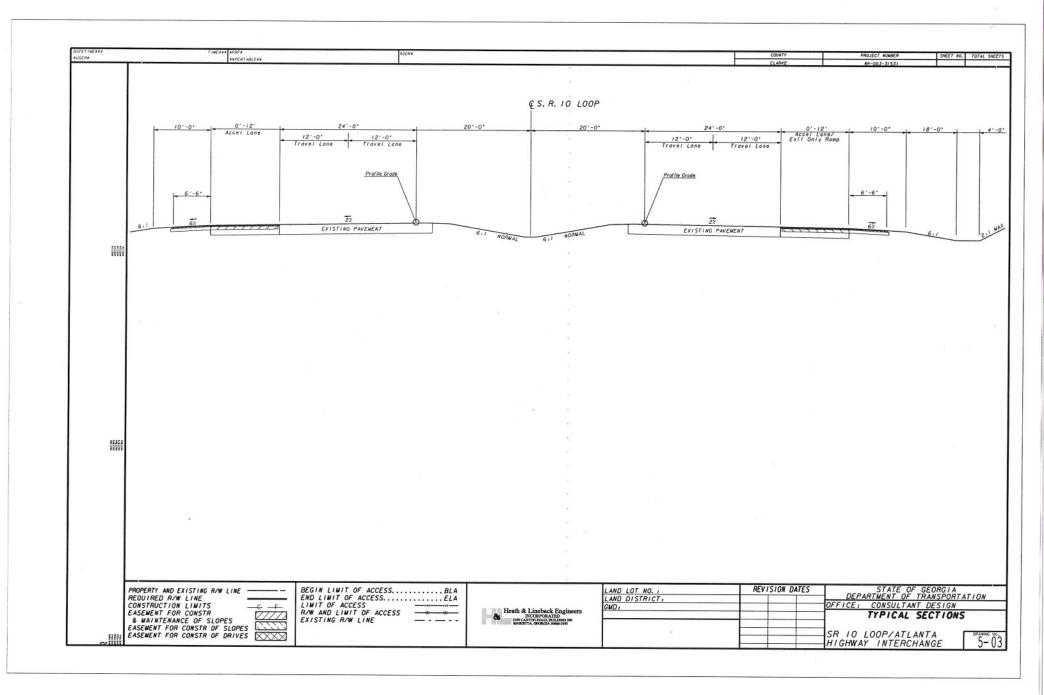
PROJECT NUMBER: NH-003-3(53) COUNTY: CLARKE

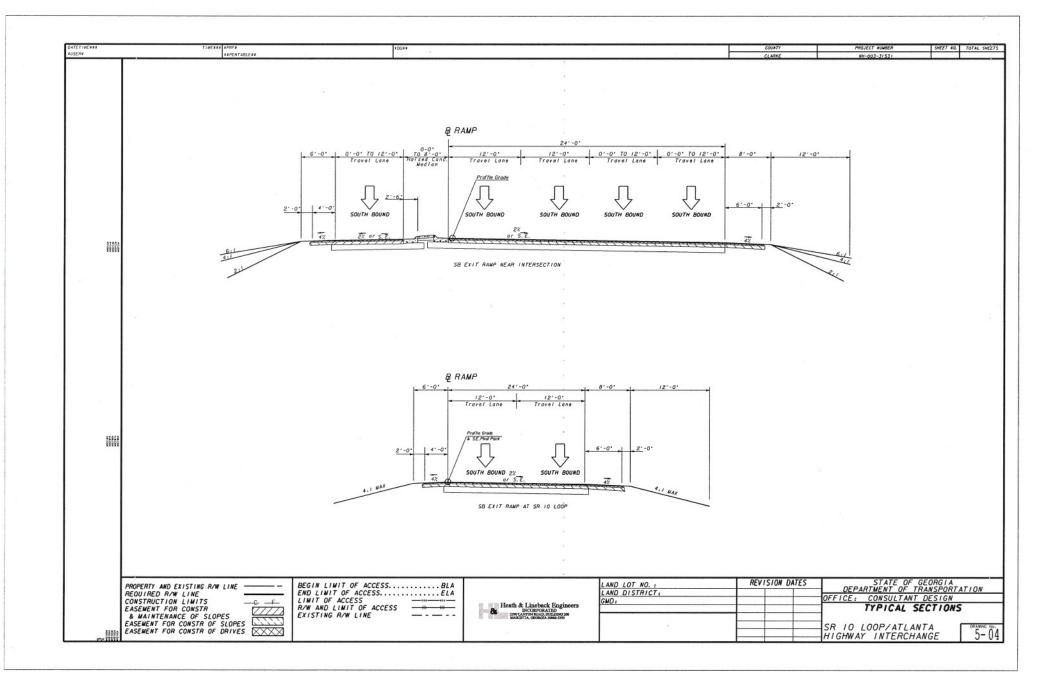
DATE: 2/12/2007 LETTING DATE: MARCH 2009
PREPARED BY: H&L Inc.
(x) PROGRAMMING PROCESS () CONCEPT DEVELOPMENT

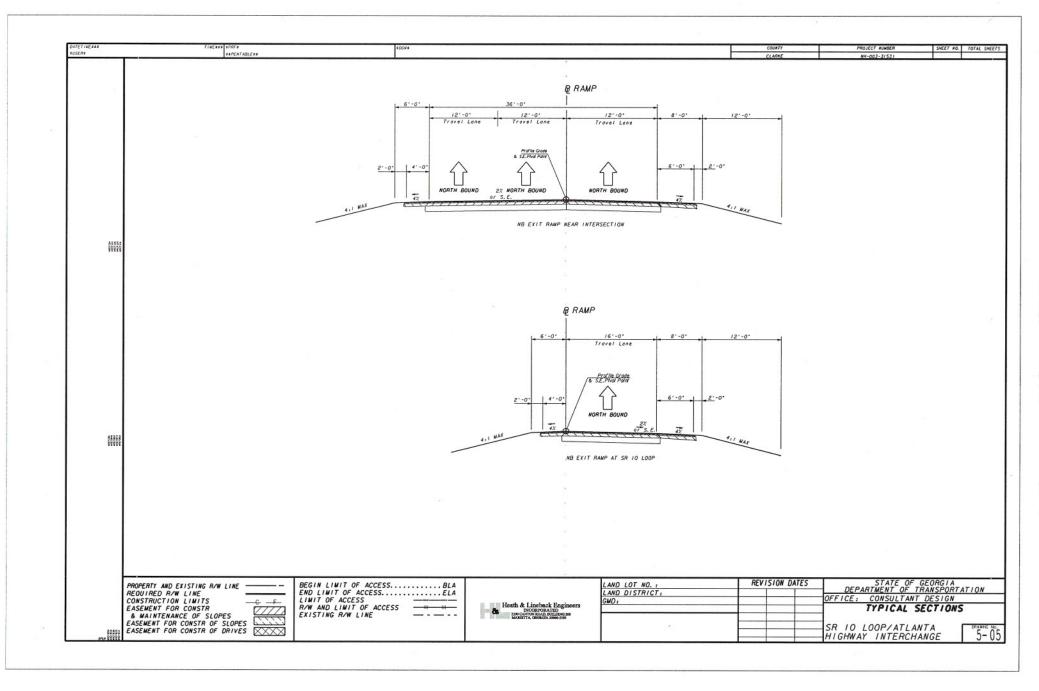
	,					
1. MAJOR STRUCTURES						
a. BRIDGE OVER SR 10 (Bridge Replacement)	46325	SF	\$	80.00		\$3,706,000
b. CULVERT ON JENNINGS MILL RD 6x6	100	LF	\$	820.00		\$82,000
c. WALL 1	1350	SF	\$	65.00		\$87,750
d. WALL 2	3000	SF	\$	65.00		\$195,000
e. WALL 3	350	SF	\$	65.00		\$22,750
f. WALL 4	2850	SF	\$	65.00		\$185,250
g. WALL 5	1050	SF	\$	65.00		\$68,250
h. WALL 6	1700	SF	\$	65.00		\$110,500
i. WALL 7	1150	SF	\$	65.00		\$74,750
j. WALL 8	700	SF	\$	65.00		\$45,500
k. WALL 9	2000	SF	\$	65.00		\$130,000
1. COPING	1920	LF	\$	73.70 SUBTO	TAL 1:	\$141,504 \$4,849,254
						, , , , , , , , , , , , , , , , , , , ,
2. BASE AND PAVING						
a. GRADED AGGREGATE BASE	33295		\$	24.32		\$809,734
b. 12.5mm SUPERPAVE	9145		\$	85.00		\$777,325
c. 19.0mm SUPERPAVE	5488		\$	90.00		\$493,920
d. 25.0mm SUPERPAVE	13590		\$	80.00		\$1,087,200
e. LEVELING	13160		\$	90.00		\$1,184,400
f. BITUM TACK COAT	8860		\$	2.05		\$18,163
g. PVMT REINF FABRIC STRIPS	9500		\$	4.23		\$40,185
h. RAISED CONCRETE MEDIAN, 7.5 IN	7130		\$	29.78		\$212,331
h. CONC SIDEWALK, 4 IN	9805		\$	29.86		\$292,777
i. CONC CURB & GUTTER, 8 IN X 30 IN, TP 2	17650	SF	\$	31.60		\$557,740
3. LUMP ITEMS			-	SUBTO	TAL 2:	\$5,473,776
a. TRAFFIC CONTROL	1	LS	ė,	250,000		¢250 000
b. CLEARING AND GRUBBING		LS	_	300,000		\$250,000
c. EROSION CONTROL		LS				\$300,000
d. SIGNING AND MARKING		LS		400,000		\$400,000
e. SIGNALS & INTERCONNECT FIBER CABLE		LS		400,000		\$400,000
e. SIGNADS & INTERCONNECT FIBER CABLE	4	ГЭ	9.	130,000	TAL 3:	\$520,000 \$1,870,000
4. MISCELLANEOUS				30810	IAL 3.	\$1,870,000
a. GUARD RAIL TP T	320	I P	\$	36.09		¢11 F40
b. GUARD RAIL TP W	4600		\$	17.11		\$11,549
c. TP1 ANCHORS	10		ş	613.61		\$78,706
d. TP12 ANCHORS	10		\$	1,713.38		\$6,136
e. RIGHT OF WAY MARKERS	100		S			\$17,134
f. PRECAST CONCRETE MEDIAN BARRIER, METHOD 3	3000		\$	94.15		\$9,415
g. REINF CONC APPROACH SLAB			_			\$85,560
h. AGGR SURF CRS	916 100		\$	146.16		\$133,883
i. Field Office		EA	_	17.53		\$1,753
f. PRECAST CONCRETE MEDIAN BARRIER, METHOD 3	3000		\$	75,300.00		\$75,300
g. REINF CONC APPROACH SLAB	916		\$	146.16		\$85,050
h. AGGR SURF CRS	100		\$			\$133,883
	100	411	1	17.53 SUBTO	TAL 4:	\$1,753 \$640,121
5. GRADING AND DRAINAGE				50510		7040,121
a. EARTHWORK - IN PLACE EMBANKMENT (TOTAL FILL	60000 CV	a sa a	4/CV)			\$600.000
b. DRAINAGE	50000 CI	e 45.5	1/01/			\$600,000
					-	\$700,000 \$1,300,000
EST	IMATE SUI	MMARY				¥1,300,000
TAL CONSTRUCTION COST						\$14,133,151
C. (10%)						\$1,413,315
TION						\$2,227,738
CONSTRUCTION COST						\$17,774,204
I OF WAY						
						\$5,150,000
OF WAY URSABLE UTILITIES					,	\$5,420,000

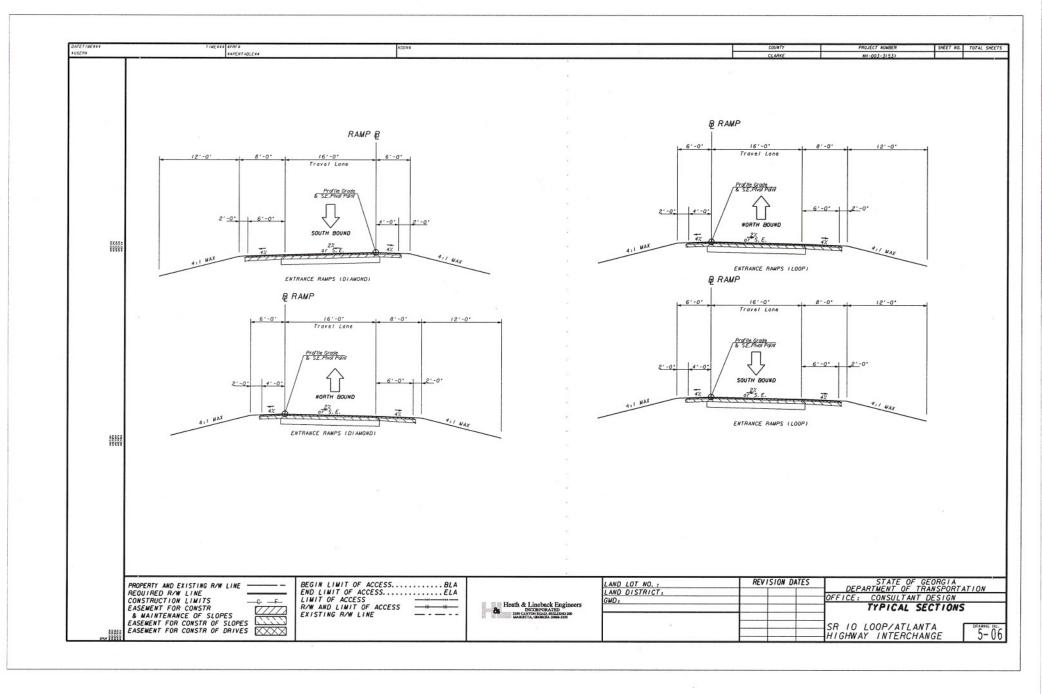


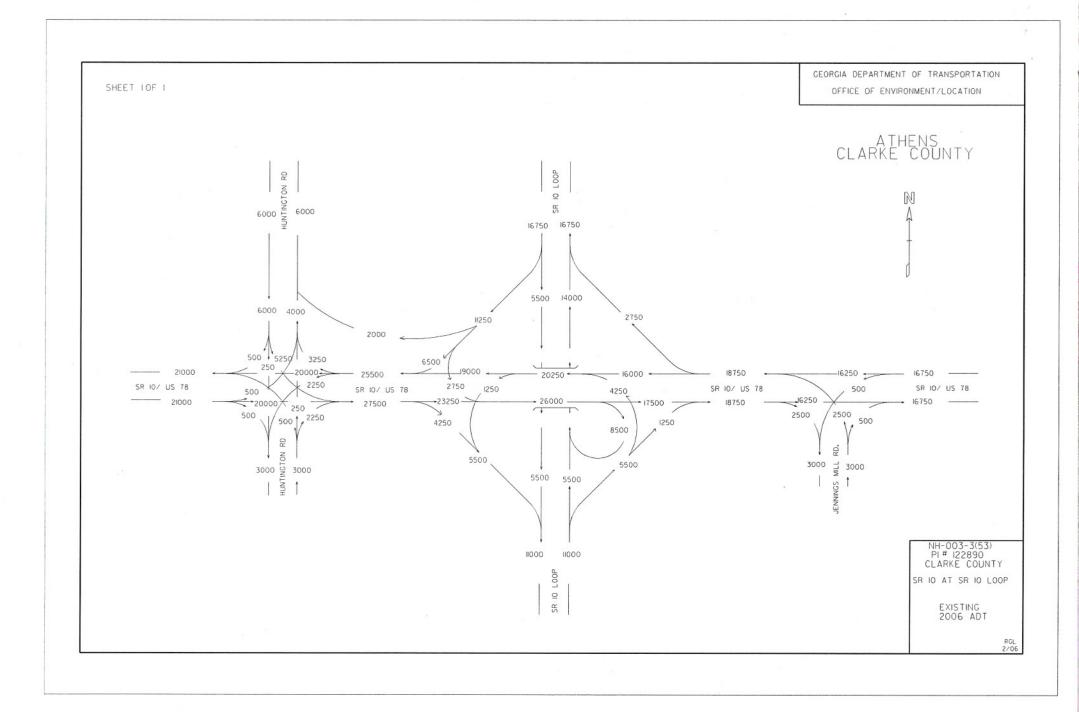


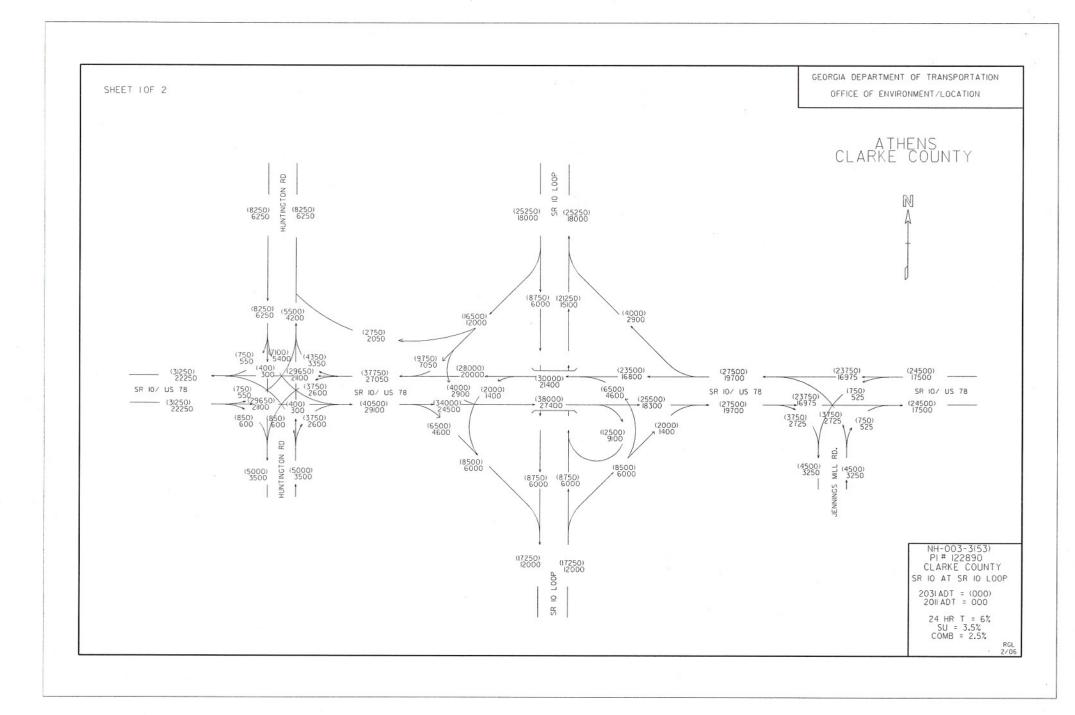


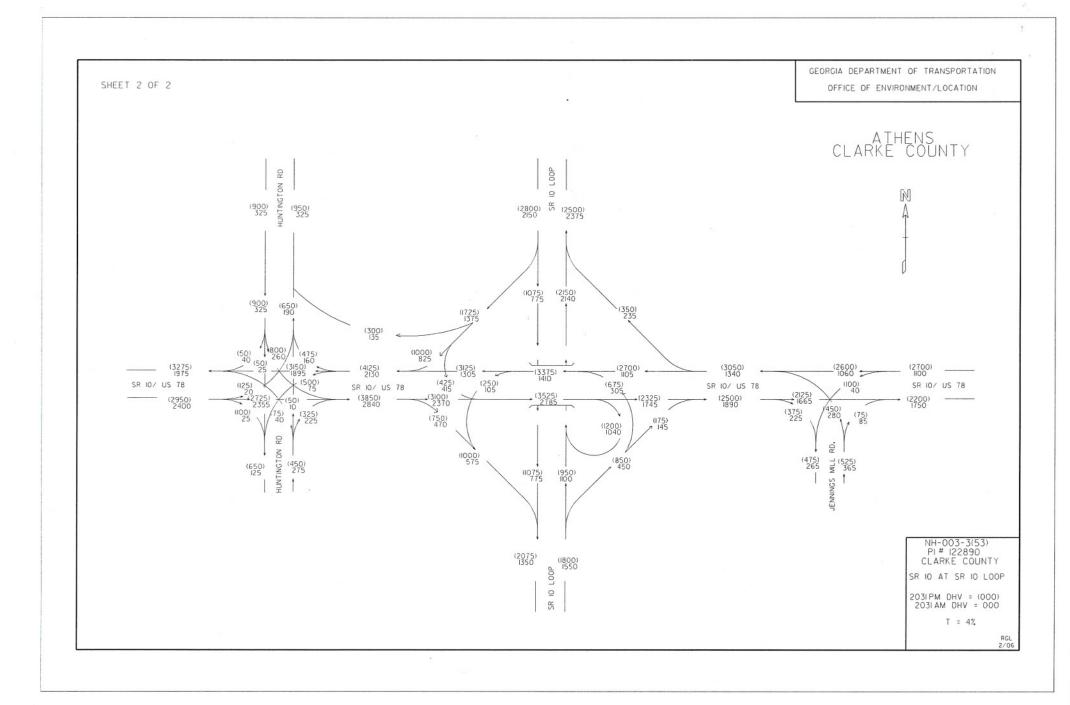










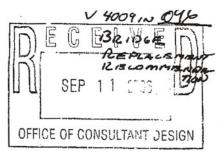


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SEP 2 2 2006

HEATH & LINEBACK ENGINEERS, INC.





HAROLD E. LINNENKOHL COMMISSIONER (404) 656-5206

DAVID E. STUDSTILL, JR, P.E. CHIEF ENGINEER (404) 656-5277

Department of Transportation State of Georgia

BUDDY GRATTON, P.E.
DEPUTY COMMISSIONER 57(404) 656-6212

EARL L. MAHFUZ TREASURER (404) 656-5224

INTERDEPARTMENT CORRESPONDENCE

September 8, 2006

FROM:

Ben Rabun, P.E., State Bridge Maintenance Engineer

TO:

Mohammed Abubakari, P.E.,

State Program Delivery and Consultant Design Engineer

Attn: Mike Haithcock

SUBJECT: Bridge Condition Survey and Replacement Recommendation

NH-003-3(53) / Clarke County P.I. No. 122890 SR 10 Loop @ SR 10 / Atlanta Highway

As requested, a condition survey has been performed on the following bridge structures.

Structure ID 059-0020-0 Location ID 059-00010D-003.13E SR 10 & US 78 (Eastbound) over SR 10 Loop

This bridge was built in 1964 and widened in 1987 and consists of concrete bents, a steel continuous superstructure, and a concrete deck. The load capacity is less than HS-15. This structure should be replaced for the following reasons:

- 1) There is shear cracking in the three intermediate bents. These bents were repaired previously and must now be replaced.
- 2) The deck has cracking and deterioration throughout the structure. The metal stay in place forms under the widening section have severe rust, indicating problems within the deck near these rusted areas. The deck should be replaced as part of this construction project.
- 3) The edge beams are shallow and need to be replaced throughout the structure.

Due to the reasons above and the age of the structure, the bridge should be replaced as part of the construction project. The structural steel beams shall be salvaged from the existing bridge as a part of this construction project. The beams are continuous and shall

be cut at the bents. The resulting beam lengths for span #1 will be approximately 55 feet. The resulting beam lengths for span #2 and #3 will be approximately 69 feet. The resulting beam length for span #4 will be approximately 59 feet. The handrail and posts shall not be salvaged.

Structure ID 059-0021-0 Location ID 059-00010D-003.14E SR 10 & US 78 (Westbound) over SR 10 Loop

This bridge was built in 1964 and consists of concrete bents, a steel continuous superstructure, and a concrete deck. The load capacity is less than HS-15. This structure should be replaced for the following reasons:

- There is shear cracking in the three intermediate bents. These bents were repaired previously and must now be replaced.
- The deck has cracking and deterioration throughout the structure and should be replaced.
- 3) The edge beams are shallow and need to be replaced throughout the structure.

Due to the reasons above and the age of the structure, the bridge should be replaced as part of the construction project. The structural steel beams shall be salvaged from the existing bridge as a part of this construction project. The beams are continuous and shall be cut at the bents. The resulting beam lengths for span #1 will be approximately 55 feet. The resulting beam lengths for span #2 and #3 will be approximately 69 feet. The resulting beam length for span #4 will be approximately 59 feet. The handrail and posts shall not be salvaged.

The salvaged materials from these structures shall be delivered to the District 1 storage area located in Jackson, Georgia. The District Maintenance Engineer shall be contacted 2 weeks prior to delivery. The contractor shall be responsible for loading, transporting, and unloading materials from both structures at the storage area.

If further information is required for this project, please contact me at (404) 635-8179.

BFR/JAD

cc: Paul Liles, State Bridge Engineer
Myron Banks, Materials Research Branch Chief
Larry Gregory, District Maintenance Engineer
Shawn Fleet, Heath & Lineback (via fax)
File