

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

PROJECT CONCEPT REPORT

Project Number: 0010160-CST
County: Coweta/Fulton
P. I. Number: 0010160
Federal Route Number: I-85
State Route Number: 403

I-85 from SR 34/Coweta to SR 74/Fulton

Submitted for approval:

DATE 11/24/2010
DATE 12/7/2010
DATE 12/3/2010

Russell R McMurtry
State Roadway Design Engineer
Bobby Hubbard
State Program Delivery Engineer
Adam Smith
Project Manager

Recommendation for approval:

DATE 1/7/2011
DATE 1/5/2011
DATE _____
DATE 12/8/2010
DATE 12/9/2010
DATE _____
DATE 1/26/2011
DATE _____

GENEVA RICE-SINGLETON*
Program Control Administrator
GLENN BOWMAN*
State Environmental Administrator

State Traffic Engineer
RON WISHON*
Project Review Engineer
LEE OPKINS FOR JEFF BAKER*
State Utilities Engineer

District Engineer / District Utilities Engineer
BEN KARUN*
State Bridge Design Engineer (if applicable)

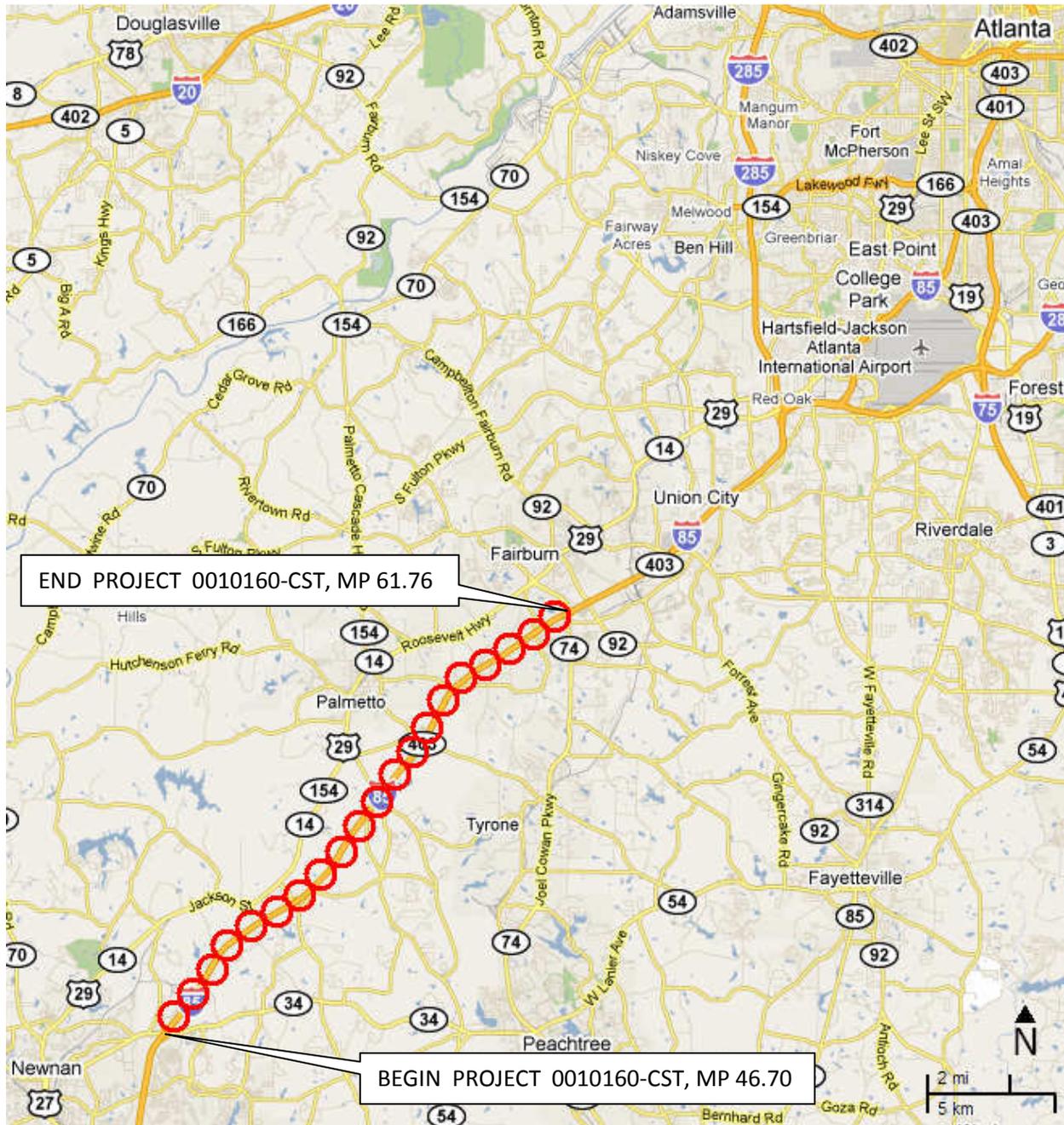
State Transportation Financial Management Administrator

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

DATE 12-16-10

Cynthia L. Newkirk
State Transportation Planning Administrator

* RECOMMENDATION ON FILE



Location Map

Project: 0010160-CST Coweta/Fulton Counties **PI No.:** 0010160
Description: I-85 from SR34/Coweta to SR74/Fulton

Need and Purpose: Without improvements, the design year level-of-service is calculated to be "F." The high traffic volumes at the SR 34 and SR 74 interchanges suggest that these are used by commuters traveling between Atlanta and the South Metro area. Improving capacity along the project corridor would provide better connectivity between the city of Fairburn and the city of Newnan. The added capacity is needed to accommodate future growth in traffic and support future land use in the vicinity of existing and proposed interchanges. See attachment for Need and Purpose document.

Description of the proposed project: The project is located in Coweta and Fulton Counties on I-85/SR 403. The southern terminus is just north of the bridge over SR 34/Bullsboro Drive (MP 46.70) in Coweta County, and the northern terminus is north of SR 74/Senoia Road interchange (MP 61.76) in Fulton County. The project will stripe I-85/SR 403 to four lanes in each direction to provide added capacity and stripe the ramps of the SR 74 interchange to accommodate the additional lane and an extended southbound auxiliary lane. The project will use 11'-0" of the existing 19'-3" inside shoulder to make the fourth lane.

Is the project located in a PM 2.5 Non-attainment area? Yes No
Is this project located in an Ozone Non-attainment area? Yes No

The Atlanta Region's transportation demand model shows four lanes in each direction on I-85 from SR 34 to SR 74 in the 2020 network year. The conforming model is consistent with the striping work proposed in PI 0010160. See attached Conforming Plan Model.

PDP Classification: Major Minor

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

Functional Classification: Rural Principal Arterial in Coweta, Urban Principal Arterial in Fulton

U. S. Route Number(s): I-85

State Route Number(s): 403

Traffic (AADT):

Base Year: 82,700 (2011)

Design Year: 126,100 (2031)

Existing design features:

- Typical Section: Two – 12' lanes, One – 11'-6" lane with 19'-3" paved inside shoulder, 12' paved outside shoulder, and concrete median barrier.
- Posted Speed: 65/70 mph (Fulton/Coweta) Minimum radius for curve: 5729.58'
- Maximum grade: 3.00% Mainline N/A Driveways
- Width of right-of-way: 150' typical
- Major structures: Bridges
 - Bridge on I-85 over SR 34 – Interchange (Structure ID 077-0047-0 NB, 077-0048-0 SB)
 - Bridge on I-85 over Transco Gas Lines (Structure ID 077-5136-0 SB, 077-0049-0 NB)
 - Bridge over I-85 at SR 154 – Interchange (Structure ID 077-5130-0)

- Bridge over I-85 at Palmetto/Tyrone Rd
(Structure ID 077-0069-0)
- Bridge over I-85 at Collingsworth Rd – Interchange
(Structure ID 077-5137-0)
- Bridge over I-85 at Johnson Rd
(Structure ID 121-0265-0)
- Bridge over I-85 at Gullatt Rd
(Structure ID 121-0266-0)
- Bridge over I-85 at Bohannon Rd
(Structure ID 121-0263-0)
- Bridge over I-85 at SR 74
(Structure ID 121-0645-0 EB, 121-0069-0 WB)
- Existing length of roadway segment: +/- 15.06

Beginning mile log: +/- 46.70
 Ending mile log: +/- 61.76

Proposed Design Features:

- Proposed typical section(s): Two – 12’ lanes, One – 11’-6” lane, One – 11’ lane with 8’-3” paved inside shoulder and 12’ paved outside shoulder. All work will be done within existing roadway.
- Transportation Management Plan Anticipated: Yes (X) No ()
- Design Exceptions to controlling criteria anticipated:

	<u>YES</u>	<u>NO</u>	<u>UNDETERMINED</u>
HORIZONTAL ALIGNMENT:	()	(X)	()
LANE WIDTH:	(X)	()	()
SHOULDER WIDTH:	(X)	()	()
VERTICAL GRADES:	()	(X)	()
CROSS SLOPES:	()	(X)	()
STOPPING SIGHT DISTANCE:	()	(X)	()
SUPERELEVATION RATES:	()	(X)	()
VERTICAL ALIGNMENT:	()	(X)	()
SPEED DESIGN:	()	(X)	()
VERTICAL CLEARANCE:	()	(X)	()
BRIDGE WIDTH:	()	(X)	()
BRIDGE STRUCTURAL CAPACITY:	()	(X)	()
LATERAL OFFSET TO OBSTRUCTION:	()	(X)	()

A design exception for lane width and shoulder width was approved for PI Numbers M002434 and M003480. See attachment.

- Design Variances: NONE
- Environmental concerns: Noise Study to be completed (noise walls to be constructed under future project)
- Anticipated Level of environmental analysis:
 - Are Time Savings Procedures appropriate? Yes () No (X)
 - Categorical exclusion anticipated (X).
 - Environmental Assessment/Finding of No Significant Impact anticipated (FONSI) ().
 - Environmental Impact Statement (EIS) ().

- Utility involvements: NONE
- VE Study Anticipated Yes () No (X)

Project Cost Estimate and Funding Responsibilities:

	PE	ROW	UTILITY	CST*	MITIGATION**
By Whom	GDOT	N/A	N/A	GDOT	GDOT
\$ Amount	\$250,000	N/A	N/A	\$1,030,995	\$8,908,120

*CST Cost includes: Construction, Engineering and Inspection, Fuel Cost Adjustment, and Asphalt Cement Cost Adjustment

**Noise Barrier Wall to be constructed and paid for under P.I. # 0006460.

Project Activities Responsibilities:

- Design: GDOT
- Right-of-Way Acquisition: N/A
- Right-of-Way funding (real property): N/A
- Relocation of Utilities: N/A
- Letting to contract: GDOT
- Supervision of construction: GDOT
- Providing material pits: N/A
- Providing detours: N/A
- Environmental Studies/Documents/Permits: GDOT
- Environmental Mitigation: GDOT

Coordination

- Concept Meeting: 11-4-10
- Public involvement: NONE
- Local government comments: NONE
- Other projects in the area: CSML-0006-00(460), Coweta/Fulton, PI 0006460,

Scheduling – Responsible Parties’ Estimate:

- Time to complete the environmental process: Begin: 9-1-10 End: 4-1-11
- Time to complete final construction plans: Begin: 12-2-10 End: 1-7-11
- Time to complete the Air and Noise Study: Begin: 9-1-10 End: 2-28-11

Other alternates considered:

The “No Build” option would maintain the three lanes in each direction on I-85 between SR 34 and SR 74. This option would not allow for additional capacity on the interstate.

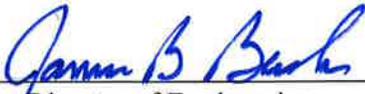
The “Build” option, detailed above in the Proposed Design Features, was selected because it will provide added capacity on the interstate.

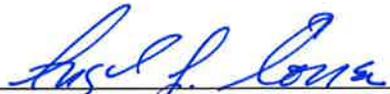
Comments:

See attached minutes from the Concept Team Meeting.

Attachments:

1. Detailed Cost Estimates.
2. Typical Sections.
3. Traffic Diagrams.
4. Minutes of Concept Team Meeting.
5. Conforming plan's network schematics showing thru lanes.
6. Design Exception (M002434, M003480) w/ Attachments
 - o Typical Sections
 - o Accident History Summaries
7. Need and Purpose
 - o Accident Summary
 - o Capacity Analysis Summary

Concur: 
Director of Engineering

Approve: 
for Division Administrator, FHWA

Approve: 
Chief Engineer

Date: 3/22/2011



DETAILED COST ESTIMATE

JOB NUMBER: 0010160

FED/STATE PROJECT NUMBER

SPEC YEAR: 01

ENGINEERING AND INSPECTION:

DESCRIPTION: I-85 FROM SR 34/COWETA TO SR 74/FULTON
STRIPING

ITEMS FOR JOB 0010160

0010 - TRAFFIC CONTROL ITEMS

LINE	ITEM	QUANTITY	UNITS	PRICE	DESCRIPTION	AMOUNT
0005	150-1000	1.000	LS	\$38,000.00	TRAFFIC CONTROL - CST0010160	\$38,000.00
<i>Total for TRAFFIC CONTROL ITEMS</i>						\$38,000.00

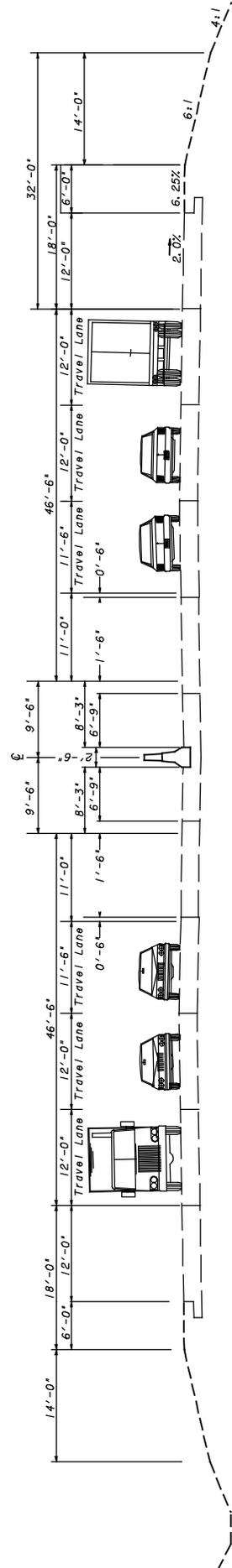
0020 - SIGNING AND MARKING ITEMS

LINE	ITEM	QUANTITY	UNITS	PRICE	DESCRIPTION	AMOUNT
0010	654-1003	2000.000	EA	\$3.75	RAISED PVMT MARKERS TP 3	\$7,500.00
0025	656-2005	30.000	LM	\$2,200.00	REM EX SLD TRF STRIPE, 5", PT	\$66,000.00
0035	656-3005	1.000	GLM	\$1,600.00	REM EX SKP TRF STRIPE, 5", PT	\$1,600.00
0030	656-3600	3800.000	SY	\$7.00	REM EX TRAF STRIPE,ALL KND/TYP	\$26,600.00
0040	657-1054	1600.000	LF	\$4.00	PRF PL SD PVMT MKG,5",WH,TP PB	\$6,400.00
0015	657-4085	30.000	GLM	\$9,500.00	PRF PL SK PVMT MKG,8",B/W,TPPB	\$285,000.00
0045	657-5001	6300.000	SY	\$16.00	PREFORMED PLASTIC PVMT MKG, WHITE, TP PB	\$100,800.00
0020	657-7054	30.000	LM	\$15,000.00	PRF PL SD PVMT MKG,5",YE,TP PB	\$450,000.00
<i>Total for SIGNING AND MARKING ITEMS</i>						\$943,900.00

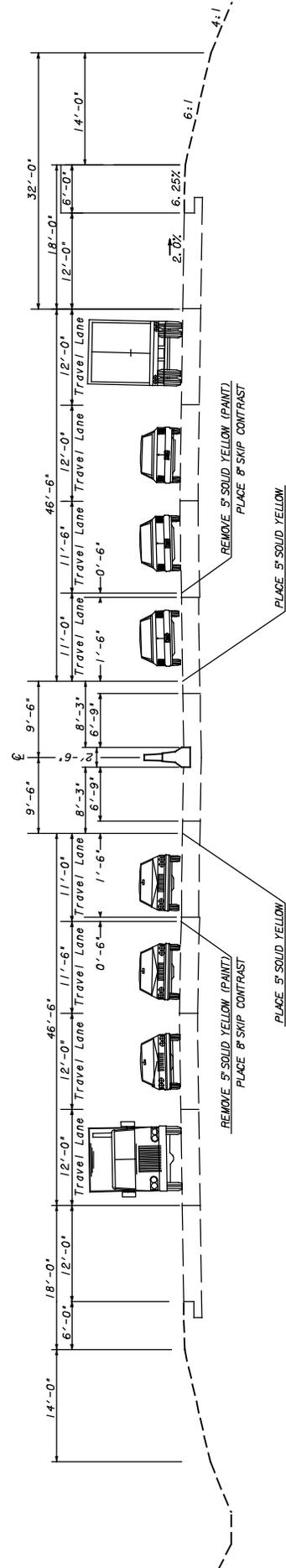
GRAND TOTAL FOR JOB 0010160 **\$981,900.00**

TOTALS FOR JOB 0010160

ESTIMATED COST:	\$981,900.00
FUEL/ASPHALT ADJUSTMENT COST:	0.00
ENGINEERING AND INSPECTION (5.0	\$49,095.00
ESTIMATED TOTAL:	\$1,030,995.00

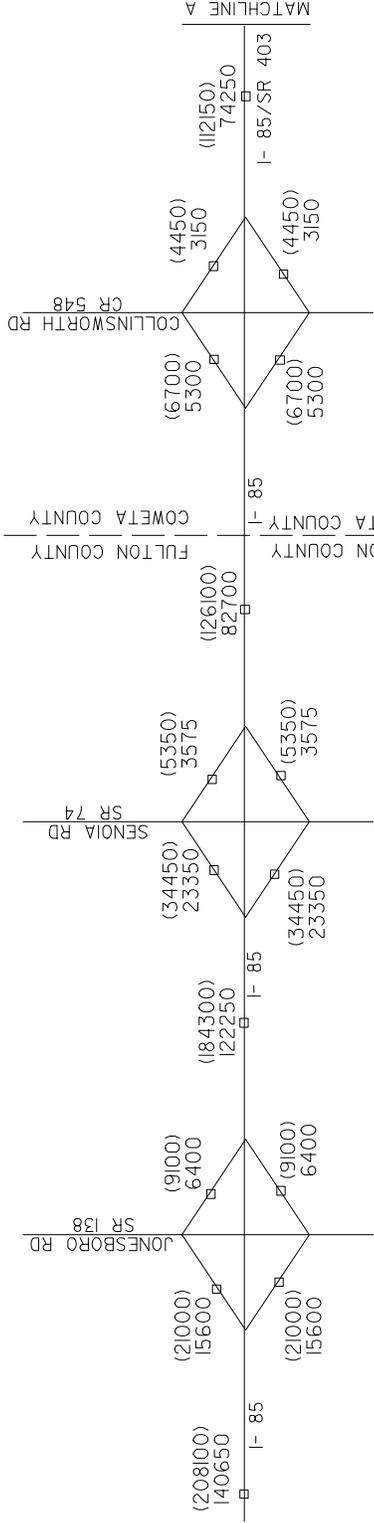


EXISTING
TYPICAL SECTION
TS01



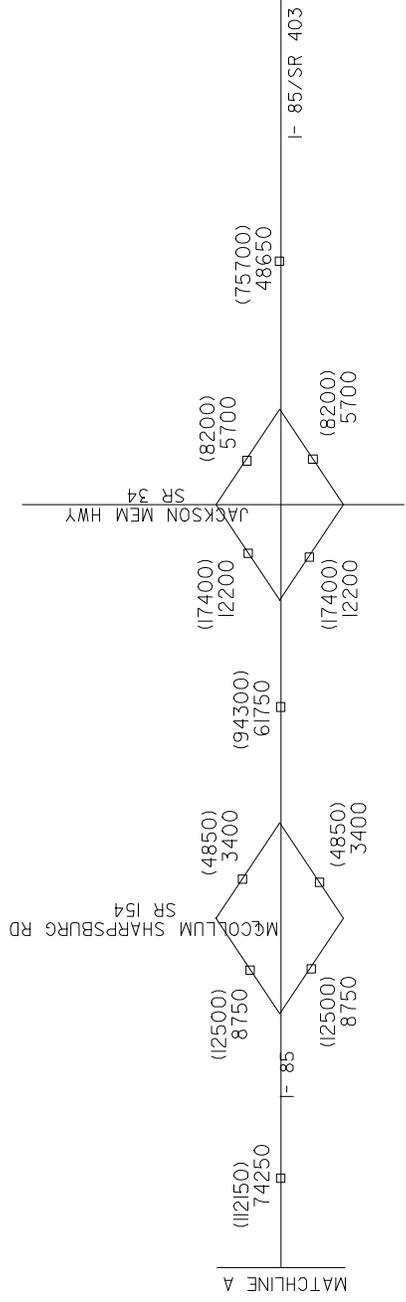
PROPOSED
TYPICAL SECTION
TS02

STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION OFFICE: ROADWAY DESIGN	REVISION DATES	NOT TO SCALE	DRAWING NO. 5-01
	1-85 FROM SR 34 TO SR 74 COMETA/FULTON		



2031 ADT = [0000]
2011 ADT = (0000)

COWETA/FULTON
COUNTIES



K = 10%
D = 55%
T = 17%
24 T = 22%
S.U. = 4%
COMB. = 18%

<p>GEORGIA DEPARTMENT OF TRANSPORTATION</p>	<p>STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION OFFICE: ROADWAY DESIGN</p>
	<p>TRAFFIC DIAGRAM</p>
<p>REVISION DATES</p>	<p>DRAWING NO. 10-01</p>

Meeting Minutes

Concept Team Meeting

Project No.: 0010160-CST

PI: 0010160

November 4, 2010

In Attendance:

Christy Poon-Atkins	FHWA
Chetna Dixon	FHWA
Andy Casey	GDOT - Roadway Design
Chris Rudd	GDOT - Roadway Design
Frank Flanders	GDOT - Roadway Design
Michael Hill	GDOT - District 7 Area 3
Neal O'Brien	GDOT - Roadway Design
Willie Webb	GDOT - Maintenance
E Reid Matthews	GDOT - Maintenance
Kaycee Mertz	GDOT - Planning
Adam Smith	GDOT - Program Delivery
David Millen	GDOT - District 3 (via video conference)
Bill Rountree	GDOT - District 3 Preconstruction (via video conference)

Meeting was called to order at 10:35 AM

Adam: Began introductions, provided a brief overview of project, called on Chris to provide a more detailed description of the project.

Chris: Presented a project area map showing the project corridor and the existing, staging, and proposed typical sections; discussed the existing roadway features, the proposed lane and shoulder widths, and the design exception for PI M003243 and M003480.

Christie: Asked Chris if the design exception that was written for M002434/M003480 referenced this project and/or work.

Chris: Explained that the design exception was written for the other projects so that the milled rumble strip would be included under those projects.

David: Discussed the project schedule, asked if anything could be done to advance the schedule.

Adam: Stated that the schedule was tight and that it may be possible to hold a field plan review in advance of an approved CE on a waiver.

Chris: Turned the meeting back over to Adam.

Adam: Started the review of the draft concept report, read the first page noting that the federal and state route numbers (I-85 and 403, respectively) need to be added, continued on to the Need and Purpose, skipped to the Need and Purpose attachment, resumed reading the draft concept report after the Need and Purpose statement, stopped reading at Scheduling to allow for input from other offices.

Laura: Provided December 2010 as the anticipated date for the environmental process.

Meeting Minutes

Concept Team Meeting

Project No.: 0010160-CST

PI: 0010160

November 4, 2010

- Adam: Stated that the project schedule provided by design showed March 2011 for the scheduled completion date.
- Laura: Said no Section 404 Permit was required for the project, gave December 2010 as the anticipated completion date for the Air and Noise Study.
- Adam: Continued reading the last of the draft report, noted under Attachments that a Location and Design Notice was not needed, opened the floor for comments from and questions to the different offices.

Planning

- Kaycee: Stated that the project was added to the TIP for 2011 and that PI 0006460 was in the TIP for 2013.
- David: Questioned PI 0006460 being in the 2013 TIP since its purpose is to mitigate this project.
- Adam: Said June 2012 was the date he had seen scheduled and did not know where the 2013 schedule came from, stated that a TIP amendment may be required to move the project from 2013 TIP.

Environmental

- Laura: Stated that no permits were anticipated, no coordination was required with FEMA, USCG, or TVA, but there would need to be coordination with the property owners about the noise walls.
- Chetna: Said some documentation of the coordination would need to be included in the environmental document.

Utilities

- Adam: Stated that there would not be any utility involvement but that coordination would still be required.
- David/Bill: Agreed.

Right of Way

- Adam: Stated that no right of way is anticipated and that the L&D should be removed.
- David/Bill: Agreed.

Traffic Operations

- David/Bill: Asked if Mike England had submitted comments regarding the draft.
- Adam: Said that Design Policy and Support was the only office from which he had received comments.
- David/Bill: Said Mike England may have reviewed and had no comment.

Meeting Minutes

Concept Team Meeting

Project No.: 0010160-CST

PI: 0010160

November 4, 2010

Construction

Adam: Asked about a time frame for construction.

Michael: Recommended accounting for 60-90 days noting that the project could be finished in as little as 30 days if given good weather.

Maintenance

Willie: Said to be sure to include Office of Maintenance in the on the request for Field Plan Review.

Adam: Asked if Design would be submitting letter-size plans.

Andy: Said the plans would be letter-size.

District Engineer

David: Asked if a VE Study would be needed because the preliminary engineering and construction estimates together with the mitigation estimate total up to nearly \$10 million.

Adam: Said the noise wall cost was being closely watched and that a VE Study would be done on that project, 0006460, if the cost approached \$10M.

Neal: Stated that the PE cost for the noise wall was over \$1M and that would trigger a need or a VE Study for PI 0006460.

Bill: Asked if a waiver could be obtained to hold a field plan review without an approved environmental document.

Andy: Discussed the matter of the VE Study with Neal, asked for final clarification if a VE Study was needed for the project (0010160, not 0006460).

All: Decided that a VE Study would not be needed and would confirm with Lisa Myers

Christie: Discussed the implications of adding capacity to I-85 when there were known queuing problems at SR 74 (to be addressed by PI 0007841).

Andy: Stated that the issue had been looked at with David Painter and that analyses showing the queuing would be included in the final report.

Christie: Mentioned that PI 0007481 was in Long Range.

Adam: Said a meeting with David Painter, Andy, et al could be scheduled to discuss the matter.

District Preconstruction Engineer

Bill: Noted that the traffic numbers were for 2010 but that the project would be built in 2011, asked if the project could be hastened for an earlier letting.

Adam: Stated that the existing schedule was tight.

Meeting Minutes

Concept Team Meeting Field Survey

Project No.: 0010160-CST

PI: 0010160

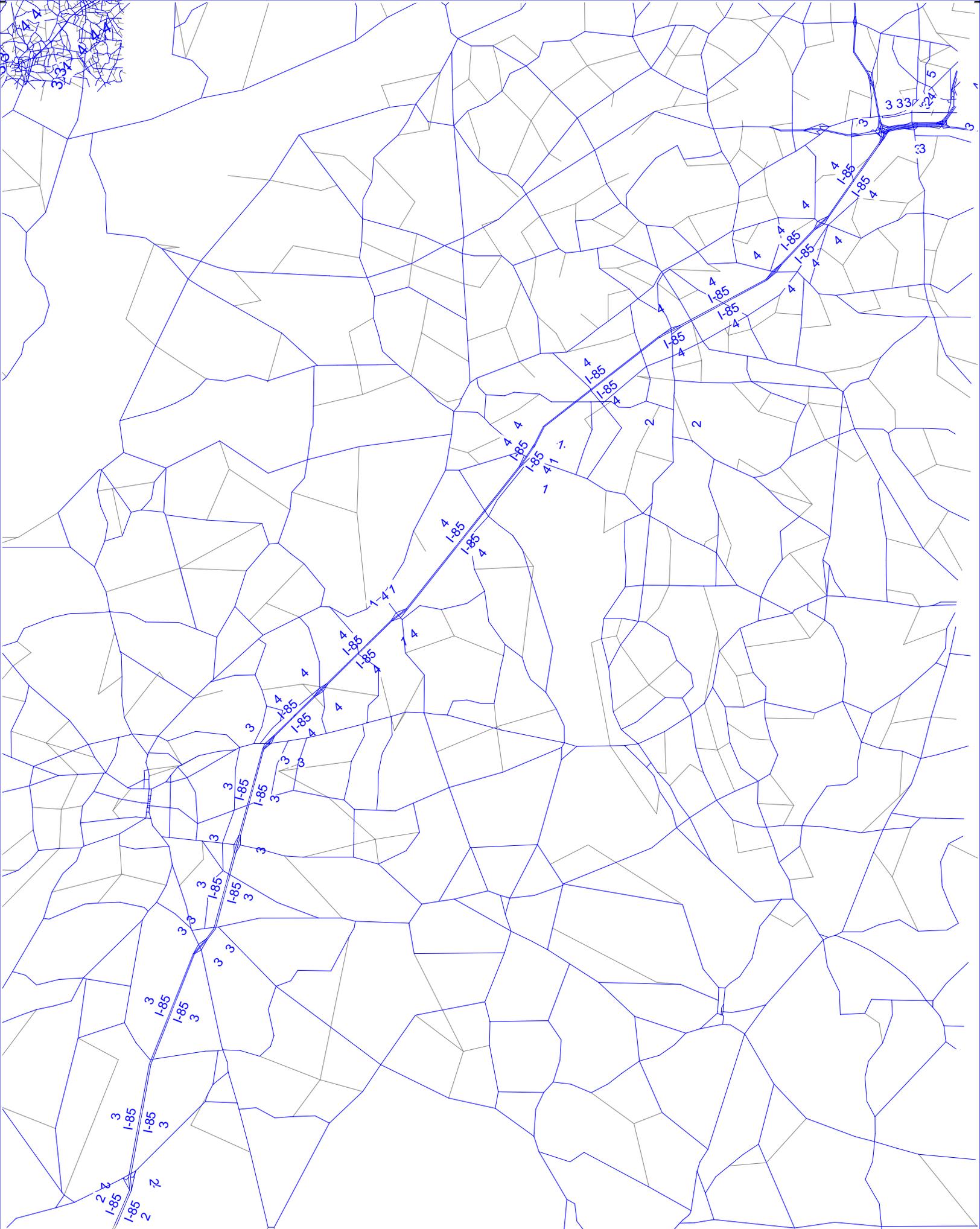
November 19, 2010

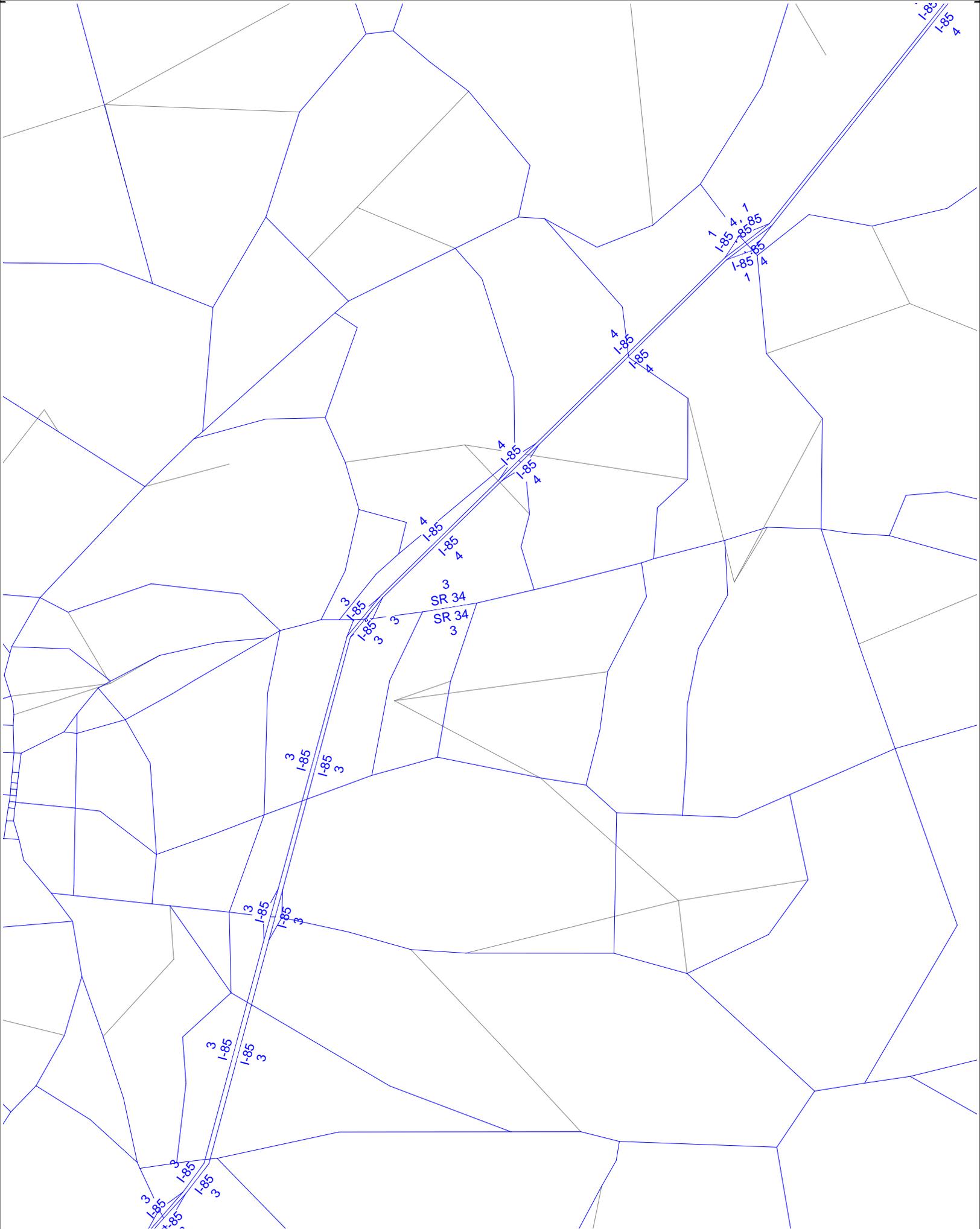
In Attendance:

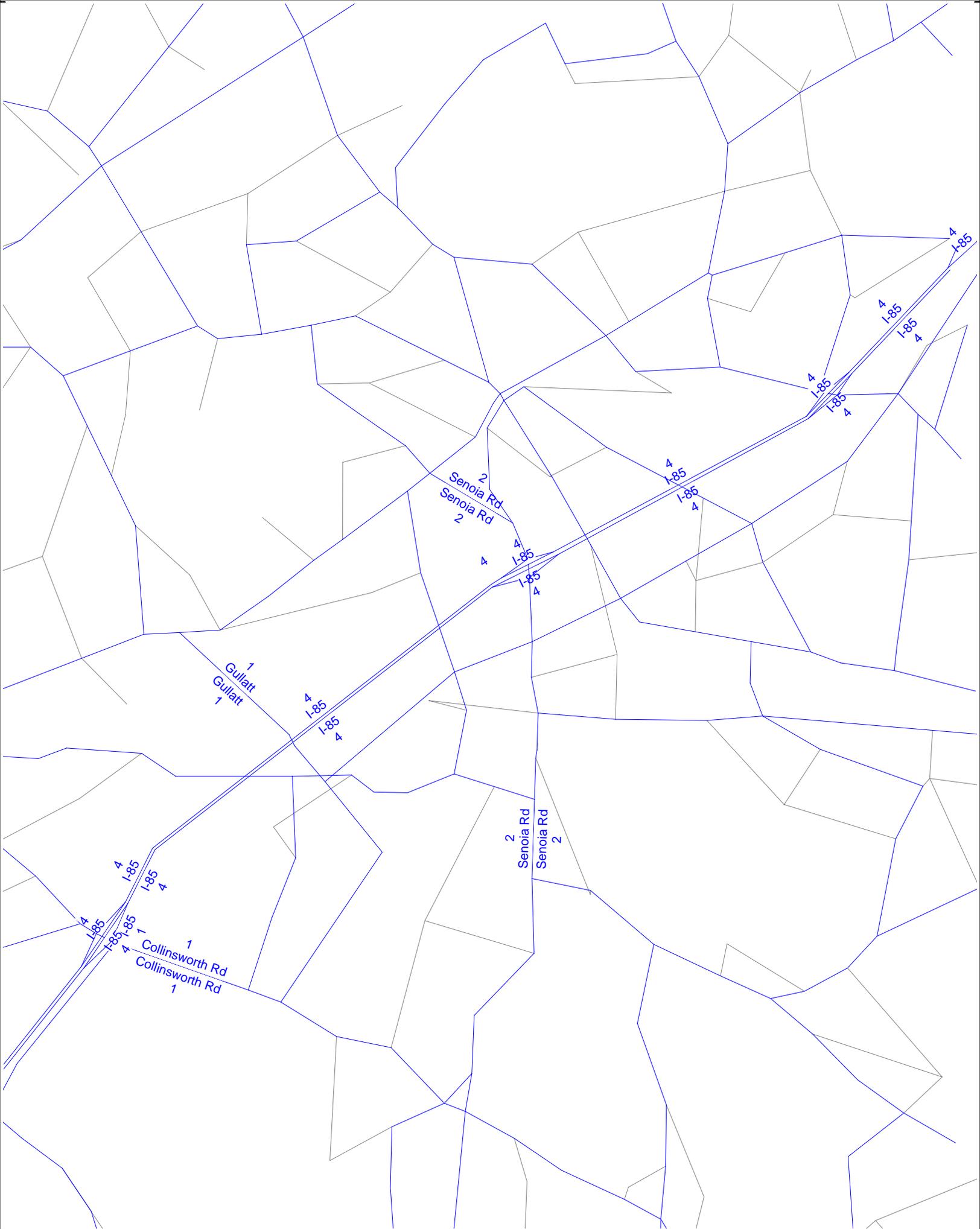
David Painter	FHWA
Andy Casey	GDOT - Roadway Design
Chris Rudd	GDOT - Roadway Design
Frank Flanders	GDOT - Roadway Design

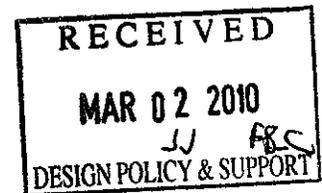
A field survey was conducted on November 19, 2010 to finalize the scope of the project.

1. Several alternatives were considered for the off ramp of I-85 Southbound to SR 74.
 - Alternate A.
Description: Make lane 3 a decision lane and allow an exit movement from this lane.
Remarks: It was noted that in the capacity analysis of this scenario, the weaving associated with the exiting traffic began to affect additional lanes. As a result of this further blockage, this alternate was discounted.
 - Alternate B.
Description: Extend the ramp right turn paving past the gore area to allow additional capacity for the right turn movement.
Remarks: It was noticed that the queue length associated with the left turn movement at SR 74 was sufficiently longer than the right turn lane could be extended, essentially nullifying any additional capacity added by the increased lane length. However, due to rutting of the shoulder from traffic, the Department will look at pursuing a separate maintenance or operations project to extend the right turn lane on the shoulder past the gore to allow the right turn movements additional paving.
 - Alternate C.
Description: Extend the Exit Only Lane along the mainline of I-85 approximately 500 feet to allow for additional storage capacity along for the exiting movement.
Remarks: This extension could be accomplished with striping activities and including part of the existing shoulder as the exit ramp. This alternate was proposed to be included with the scope of the project.
2. The capacity studies that had been performed were reviewed. It was requested that these be submitted to FHWA for further review.
3. The type of pavement markings was discussed. Because the previous widening project specified paint for the solid line that will be removed, the waste of the removal of this striping should be minimized.
4. The lane delineation for the entrance ramp from SR 74 to I-85 Southbound was discussed. It was agreed that the entrance ramp would add the fourth lane instead of being a standard tapered entrance ramp.









**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE CSNHS-M002-00(434) **OFFICE** Roadway Design
CSNHS-M003-00(480) Atlanta, Georgia
Coweta/Fulton Counties
PI No. M002434 & M003480
I-85 Pavement Rehabilitation/Reconstruction

DATE March 1, 2010

FROM Russell R. McMurry, P.E., State Roadway Design Engineer 

TO Brent A. Story, P.E., State Design Policy Engineer
Attention: Jim Simpson, Assistant State Design Policy Engineer

SUBJECT Request for Design Exception

As described in the approved Concept, the two projects mentioned above are the concrete reconstruction of the existing pavement (lanes 2 & 3) and shoulders along I-85 from SR 34 (MP 47) in Coweta County to SR 74 (MP 61) in Fulton County for a total project length of approximately 14 miles. The existing I-85 typical section, within the project limits, consists of three, 12' lanes in each direction with 12' inside shoulder and 12' outside shoulders (10' paved) and an approximately 16' depressed grass median (40' total median width). The construction proposes to replace one center lane (lane 2) and one outside lane (lane 3) in each direction along the existing roadway. The inside lane (lane 1) was added in the early 1990's and is in good condition. The median will be paved and a permanent concrete median barrier will be added that will accommodate a future fourth lane in each direction without any additional widening. The pavement design includes a 12" continuously reinforced concrete (CRC) pavement structure and full depth shoulders. The Design Speed is 70 mph. These projects are currently in the final stages of construction.

In order to open the future fourth lane (added as part of paving the median) when these projects are completed, a design exception is needed for substandard inside paved shoulder width of 6'- 9". The limits of the substandard shoulder would be located from SR 34 (MP 47) to SR 74 (MP 61).

Controlling Criteria/Policy Statement

According to the Policy on Design Standards for Interstate System, AASHTO, 2005, "On sections with six or more lanes, a 10 foot paved width for the left shoulder should be provided. Where truck traffic exceeds 250 DDHV, a paved width of 12 foot should be considered."

The Average Daily Traffic (ADT)

Current Year-2008	Design Year-2028	Truck DDHV-2008	Truck DDHV-2028
2008 – 95,400 vpd	2028 – 156,000 vpd	788 dhv	1287 dhv

Accident History

Year	No. of Accidents	No. of Injuries	No. of Fatalities
2006	373	150	4
2007	477	196	4
2008	684	264	1

Possible Adverse Effects

Operational efficiency is a concern when a reduced inside shoulder width is proposed. Although a 6'-9" inside paved shoulder width does not meet the recommended AASHTO value of 12', according to the Highway Capacity Manual (HCM), Transportation Research Board, 2000, the reduced shoulder width will have no effect on the Level of Service (LOS) of the interstate. The HCM considers a shoulder width of 6' a base condition and requires no adjustment to the Free Flow Speed (FFS); therefore, the LOS will not be affected.

Safety is another concern that must be considered when using a reduced inside shoulder width. Although reducing the shoulder width to provide for an additional lane is not ideal, according to the Highway Safety Design and Operations Guide, AASHTO, 1997 *"Generally, experience indicates that, where shoulders are converted to a travel lane, removing the left-side shoulder is preferable to removing the right side shoulder."* In order to provide motorist, law enforcement and maintenance personnel a safe location to stop, a 12' paved outside shoulder is provided.

Mitigation Measures

As a way to mitigate for the substandard inside shoulder width, continuous milled rumble strips will be placed at a 1' offset from the edge of the inside travel lane. The rumble strips will alert any errant vehicles that they have exited the travel lane and a correction is needed.

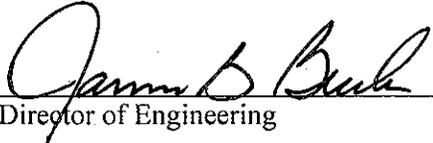
In addition, it is proposed to reduce lane 1 from a 12' lane to an 11' lane and to reduce lane 2 from a 12' lane to an 11'-6" lane in both directions. This would be accomplished with striping and will increase the usable inside shoulder width to 8'-3"; thus, allowing a passenger car adequate space to seek refuge in an emergency situation. This reduction in lane width below 12' would also require a Design Exception and is hereby requested for approval. Since trucks will be restricted from the inside travel lane, the reduction in lane width is not expected to have significant impact to safety or level of service.

No mitigation is proposed for Horizontal Sightline Offset (HSO). In support of this, the HSO was calculated for this section of I-85 to ensure Stopping Sight Distance (SSD) is achieved for the inside travel lane. Utilizing equation 3-38 from page 227 of 2004 edition of the Policy on Geometric Design of Highways and Streets, the required HSO is 11'-8". This value represents the "worst case" scenario on the project because it utilizes the minimum curve radius of 5729.58' that currently exists on the project. The actual design HSO is 13'-3"; therefore, SSD is achieved for the inside travel lane.

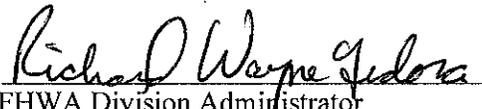
Conclusion

It is the opinion of this Office that a design exception should be granted for the use of a 8' -3" inside paved shoulder width, 11' lane 1 width and a 11'-6" lane 2 width along I-85 from SR 34(MP 47) to SR 74(MP 61) in Coweta/Fulton Counties.

If you have any questions, please contact Andy Casey at 404-631-1604.

Recommended By:  3-16-2010
Director of Engineering Date

Recommended By:  3-26-2010
Chief Engineer Date

Approved:  3/23/2010
for FHWA Division Administrator Date

RRM:CAC:

Attachments:

Typical Sections
Accident History Summaries

ACCIDENT RATE CALCULATION for year(s) 2006

Year	County	Rt Type	Route Num	Low Milelog	High Milelog	ADT	Distance	Vehicle Miles
2006	Coweta	1	040300	12.75	17.34	72,640	4.59	333,418
2006	Coweta	1	040300	17.34	22.43	88,040	5.09	448,124
2006	Coweta	1	040300	22.43	23.30	90,740	0.87	78,944
2006	Fulton	1	040300	0.00	0.77	40,750	0.77	31,378
2006	Fulton	1	040300	0.77	4.01	90,740	3.24	293,998
2006	Fulton	1	040300	4.01	4.01	124,500	0.00	0

Total Vehicle Miles: 1,185,860	Total Accidents: 373	Accident Rate: 86
Average ADT: 81,446	Total Injuries: 150	Injury Rate: 35
Length in Miles: 14.56	Total Fatalities: 4	Fatality Rate: 0.92

NOTE: Rates are per 100 Million Vehicle Miles

ACCIDENT RATE CALCULATION for year(s) 2007

Year	County	Rt Type	Route Num	Low Milelog	High Milelog	ADT	Distance	Vehicle Miles
2007	Coweta	1	040300	12.75	17.34	66,130	4.59	303,537
2007	Coweta	1	040300	17.34	22.43	78,060	5.09	397,325
2007	Coweta	1	040300	22.43	23.30	82,080	0.87	71,410
2007	Fulton	1	040300	0.00	0.77	33,360	0.77	25,687
2007	Fulton	1	040300	0.77	4.01	82,080	3.24	265,939
2007	Fulton	1	040300	4.01	4.01	114,020	0.00	0

Total Vehicle Miles: 1,063,898	Total Accidents: 477	Accident Rate: 123
Average ADT: 73,070	Total Injuries: 196	Injury Rate: 50
Length in Miles: 14.56	Total Fatalities: 4	Fatality Rate: 1.03

NOTE: Rates are per 100 Million Vehicle Miles

ACCIDENT RATE CALCULATION for year(s) 2008

Year	County	Rt Type	Route Num	Low Milelog	High Milelog	ADT	Distance	Vehicle Miles
2008	Coweta	1	040300	12.75	17.34	66,130	4.59	303,537
2008	Coweta	1	040300	17.34	22.43	78,060	5.09	397,325
2008	Coweta	1	040300	22.43	23.30	82,080	0.87	71,410
2008	Fulton	1	040300	0.00	0.77	33,360	0.77	25,687
2008	Fulton	1	040300	0.77	4.01	82,080	3.24	265,939
2008	Fulton	1	040300	4.01	4.01	114,020	0.00	0

Total Vehicle Miles: 1,063,898	Total Accidents: 684	Accident Rate: 176
Average ADT: 73,070	Total Injuries: 264	Injury Rate: 68
Length in Miles: 14.56	Total Fatalities: 1	Fatality Rate: 0.26

NOTE: Rates are per 100 Million Vehicle Miles

and Collinsworth Road are designated as “interstate gateway” and “commercial corridor”. The location of the proposed Amlajack Blvd interchange is designated “industrial employment center”. The City of Fairburn’s Character Area Map², outlines the City’s plans for future land use and development. The map designates land around the SR 74 interchange as “regional commercial” and “industrial”.

ENVIRONMENTAL JUSTICE

The project area covers four Census Tracts, 1703.02, 1704.01, and 17.02 in Coweta and 105.14 in Fulton. Census data shown below compares the area to Coweta and Fulton Counties and the State in terms of population, poverty and minorities. Poverty and minority status along the corridor is similar to that of Coweta County, yet significantly lower than Fulton County and the State.

TABLE 1. PROJECT AREA POPULATION CHARACTERISTICS			
	Population	% Below Poverty	% Minority Population
Project Area	37,172	5.1	20.5
Fulton County	816,006	15.7	51.8
Coweta County	89,215	7.8	21.2
Georgia	8,816,453	13.0	34.9

Source: U.S. Census Bureau, 2000

EXISTING AND FUTURE TRAFFIC CONDITIONS

Current (2010) daily traffic volumes along the project corridor range from 61,750 to 77,650 and are projected to reach between 94,300 and 117,000 by the design year (2030). The corridor currently operates at level-of-service “C” and is projected to decline to “D” and “F” by 2030 without improvements.

TABLE 2. I-85 MAINLINE TRAFFIC CONDITIONS (ADT)				
	2010 ADT	2010 LOS	2030 ADT	2030 LOS
FROM SR 34 TO SR 154 (6 LANES)	61,750	C	94,300	D
FROM SR 154 TO COLLINSWORTH RD (6 LANES)	74,250	C	112,150	F
FROM COLLINSWORTH RD TO SR 74 (6 LANES)	77,650	C	117,000	F

EXISTING AND FUTURE TRAFFIC CONDITIONS AT INTERCHANGES

Table 3 shows ramp volumes at each interchange in the corridor. Volumes on the southbound off-ramps and northbound on-ramps for SR 74 and SR 34 are about 20% of the mainline volume upstream from each ramp. All other ramp volumes in the project area range between 4% and 14% of the upstream mainline volume. This suggests that SR 74 and SR 34 are popular destinations for both northbound and southbound travelers.

² City Comprehensive Plan, adopted August 31, 2006; <http://www.fairburn.com/forms/97.pdf>

Interchange	2010				2030			
	SB Off	SB On	NB Off	NB On	SB Off	SB On	NB Off	NB On
SR 34	13,300*	6,700	5,700	12,200*	19,000*	9,600	8,200	17,400*
SR 154	10,350	3,200	3,400	8,750	14,800	4,600	4,850	12,500
Collinsworth Rd	4,700	2,850	3,150	4,700	6,700	4,100	4,450	6,700
SR 74	20,300*	3,150	3,150	21,000*	29,000*	4,450	4,450	30,000*

*Ramp volume represents about 20% of the upstream mainline volume

CRASH HISTORY

The total number of crashes and injury crashes have increased between 2006 and 2008, however crash rates are comparable to the statewide average rates for interstates in Georgia. The Office of Planning conducted a detailed analysis of crash records which found the most common accident types occurring on the mainline were “not with a motor vehicle”, “rear end”, and “side swipe” type accidents. “Not with a motor vehicle” type crashes could be caused by objects on the roadway, deer crossing the roadway, or by vehicles attempting to change lanes quickly. Rear-end and sideswipe crashes could be caused by localized congestion and weaving, respectively.

	Year 2006	Year 2007	Year 2008
TOTAL CRASHES	416	521	717
TOTAL CRASH RATE (PER 100 MVMPT)	97	134	184
STATEWIDE AVG. CRASH RATE (ON INTERSTATES)	153	143	146
INJURIES	164	206	282
INJURY RATE (PER 100 MVMPT)	38	53	72
STATEWIDE AVG. INJURY RATE (ON INTERSTATES)	37	34	35
FATALITIES	4	3	3
FATALITY RATE (PER 100 MVMPT)	0.92	0.77	0.77
STATEWIDE AVG. FATALITY RATE (ON INTERSTATES)	0.72	0.75	0.72
CAUSES OF MAINLINE CRASHES			
MANNER OF COLLISION	YEAR 2006	YEAR 2007	YEAR 2008
Angle	6%	4%	5%
Head On	0%	1%	1%
Not a Collision with a Motor Vehicle	47%	35%	42%
Rear End	29%	39%	31%
Side Swipe	18%	21%	22%

PROPOSED PROJECT

A previously completed project on I-85 in this corridor (PI M002434) reconstructed two of the three existing lanes as well as paved the median between SR 34 in Coweta and SR 74 in Fulton to create an additional through lane. This additional through lane is currently striped out and intended for future use as an additional lane. GDOT is proposing a new project (PI 0010160) to restripe this section of I-85 to open the currently striped-out lane providing a fourth through lane in each direction.

The project area lies within the planning boundaries of Atlanta Regional Commission (ARC), the MPO for the Atlanta area. This project is programmed with state transportation funds and is listed in the Transportation Improvement Program (TIP). The project is included in the Atlanta Region's air quality analysis.

LOGICAL TERMINI

Beyond the southern terminus (SR 34), traffic volumes drop by 21% in 2010 (48,650 ADT) and by 20% in 2030 (75,700 ADT). In addition, year 2030 level-of-service south of SR 34 is projected to be level "C", which represents acceptable traffic conditions. At its northern terminus (SR 74) the project ties in to an existing section of four through-lanes in each direction, resulting in a continuous 8 lane freeway from I-285 south to Newnan in the future.

Furthermore, ramp volumes at SR 74 and SR 34 suggest that these two interchanges are destinations for both northbound and southbound traffic in the area. Between 18% and 22% of the mainline traffic uses the southbound off-ramps and north-bound on-ramps at SR 74 and SR 34.

OTHER PROJECTS IN THE AREA

PI 0007841 proposes to modify the interchange at I-85 and SR 74 in order to accommodate projected future traffic volumes and reduce queuing at this interchange; a scoping phase is currently underway and the remaining phases are currently in long range. PI 0006878 proposes to extend Amlajack Blvd and construct a new interchange with I-85 at mile marker 49 (between SR 154 and SR 34); this project is currently in long range and an Interchange Justification Report (IJR) is currently under development. PI 0009323 proposes a new interchange at Poplar Road and I-85, approximately 2.5 miles south of SR 34; an IJR has been approved by FHWA yet construction is currently unfunded. PI 0006460 proposes to construct noise walls on I-85 at SR 154 and Collinsworth Road; this project is currently in long range. At the same location, PI 0008544 proposes new lighting on the interstate; this project is a stimulus funded project authorized in 2010.

NEED AND PURPOSE STATEMENT

Without improvements, level-of-service is projected to decline in the future to "D" and "F", which represents unacceptable traffic conditions. The high traffic volumes at the SR 34 and SR 74 interchanges suggest that these are used by commuters traveling between Atlanta and the south metro area. Improving capacity along the project corridor would provide better connectivity between City of Fairburn and the City of Newnan. The added capacity is needed to accommodate future growth in traffic and support future land use in the vicinity of existing and proposed interchanges.