

D.O.T. 66

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE P. I. No. 0008274, Henry County **OFFICE** Preconstruction
CSNHS-0008-00(274)
I-75 Auxiliary Lane from Eagles Landing Parkway
To I-675 **DATE** January 2, 2007

FROM  Genetha Rice-Singleton, Assistant Director of Preconstruction

TO  SEE DISTRIBUTION

SUBJECT APPROVED PROJECT CONCEPT REPORT

Attached for your files is the approval for subject project.

GRS/cj

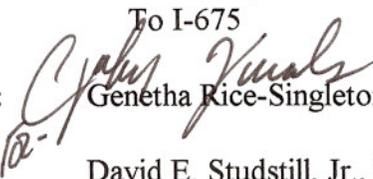
Attachment

DISTRIBUTION:

Brian Summers
Harvey Keepler
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Michael Henry
Keith Golden
Joe Palladi (file copy)
Paul Liles
Babs Abubakari
Thomas Howell
BOARD MEMBER
FHWA

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA****INTERDEPARTMENT CORRESPONDENCE**

FILE: P. I. No. 0008274, Henry County **OFFICE:** Preconstruction
CSNHS-0008-00(274)
I-75 Auxiliary Lane from Eagles Landing Parkway
To I-675 **DATE:** November 21, 2006

FROM:  Genetha Rice-Singleton, Assistant Director of Preconstruction

TO:  David E. Studstill, Jr., P.E., Chief Engineer

SUBJECT: PROJECT CONCEPT REPORT

This project is the addition of an auxiliary lane along southbound lanes of I-75 from the exit ramp to Eagles Landing Parkway in Henry County and ends at the beginning of the taper to the entrance ramp of the I-675 interchange, for a total of 1.42 miles. At the ending limits of the project, the southbound lanes of I-75 consist of 3 through lanes with 2 additional lanes converging with them from I-675. These 5 lanes taper back to 3 lanes within 4,600' from where the 2 interstates converge. The merging traffic in the southbound direction during the PM peak period has resulted in a severe backup from I-75 traffic southbound. Although there are several improvements proposed to relieve congestion in the corridor in the long term, these projects will take longer to develop and implement and there is a demand for a more immediate solution to address recurring congestion. Traffic volumes on I-75 have grown rapidly, more than doubling since the first developments opened in the Eagles Landing corridor in 1990. Traffic along this link of I-75 has increased from 61,000 AADT in 1990 to 155,000 AADT in 2004. In 2005, volumes continued to increase, reaching 162,000 AADT. I-75 between I-675 and Eagles Landing is currently operating at level of service (LOS) "F" during the PM peak period. Approximately 16% of the traffic is trucks. Traffic projections for I-75 show continued rapid growth, increasing to 182,000 VPD by 2010 and to 204,000 VPD by 2016.

This project will add an auxiliary lane from where southbound traffic tapers from 4 lanes to 3 lanes and travels to the next interchange at Eagles Landing parkway, approximately 1.42 miles away. The proposed alignment will be deflected through the Walt Stephens Road overpass due to the limited outside horizontal clearance at that location. The I-75 bridge over Flippen Road will be widened to accommodate the additional lane. All proposed pavement, including the shoulders, will be full depth asphalt, with the exception of areas where the existing travel lanes are to be overlaid. Guardrail, traffic cameras, and overhead signs along the project corridor will be moved or replaced on an as needed basis as well. All work will be done while maintaining 3 lanes of traffic at all times.

The proposed design requires an exception from current FHWA standards for inside shoulder widths on interstate highways with 6 or more lanes. The exception is required in the vicinity of the Walt Stephens Road overpass, from I-75 southbound Sta 990+86 to Sta 991+14 (a distance of

P.I. No. 0008274, Henry
November 21, 2006

28'). Current FHWA design criteria call for an inside shoulder width of 10' on interstate highways with 6 or more lanes (pg. 3 of the January, 2005 manual "A Policy on Design Standards Interstate System" by AASHTO). This shoulder width reduction is proposed due to insufficient horizontal clearance between the existing bridge piers at the CR 660 Walt Stephens Road overpass. Proposed shoulder widths along I-75 southbound are 13.00' for the outside shoulder (which exceeds the 12.00' minimum width) and 5.81' for the inside shoulder (where the exception is required).

Environmental concerns include requiring a COE 404 permit; a Categorical Exclusion is anticipated; a public information open house will be held; time saving procedures are appropriate.

The estimated costs for this project are:

	PROPOSED	APPROVED	FUNDING	PROG DATE
Construction (includes E&C and inflation:	\$8,835,000	\$8,835,000	L050	2007
Right-of-Way & Utilities	-0-	-0-		

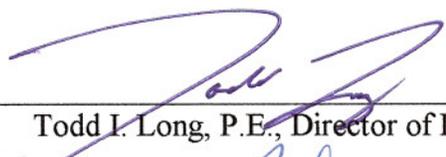
*Notification letter sent to Henry County and Stockbridge 8-11-06.

I recommend this project concept be approved.

GRS:JDQ/cj

Attachment

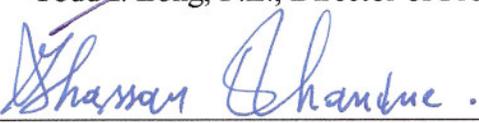
CONCUR



Todd I. Long, P.E., Director of Preconstruction

APPROVE

For



Robert M. Callan, Administrator, FHWA

APPROVE



David E. Studstill, Jr., P.E., Chief Engineer

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENTAL CORRESPONDENCE

FILE: CSNHS-0008-00(274) Henry **OFFICE:** Engineering Services
P.I. No. 0008274
I-75 Auxiliary Lanes from Eagle's Landing Pkwy. to I-675

DATE: November 17, 2006

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

TO: Genetha Rice-Singleton., Assistant Director of Preconstruction

SUBJECT: CONCEPT REPORT

We have reviewed the Concept Report dated October 30, 2006 by the letter from Ben Buchan, and have no comments.

The costs for this project are:

Construction	\$8,032,166
Inflation	\$0.00
E & C	\$803,217
Reimbursable Utilities	\$0.00
Right of Way	\$0.00

REW

c: Ben Buchan, Attn.: Albert Shelby

Project Concept Report page 1
Project Number: CSNHS-0008-00(274)
P.I. Number: 0008274
County: Henry

State of Georgia
Department of Transportation

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

PROJECT CONCEPT REPORT

Project Number: CSNHS-0008-00(274)

County: HENRY

P.I. Number: 0008274

Federal Route Number: I-75

State Route Number: 401

I-75 Auxiliary Lane from Eagles Landing Parkway to I-675

See Page 2 for Project Location Map

Recommendation for approval:

DATE 10-19-06

Albert Shelby
Project Manager

DATE 10-30-06

James B. Bush
State Urban Design Engineer

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

DATE _____

State Transportation Planning Administrator

DATE _____

State Transportation Financial Management Administrator

DATE _____

State Environmental / Location Engineer

DATE 11-6-06

Heath Seck
State Traffic Safety & Design Engineer

DATE _____

District Engineer

DATE _____

Project Review Engineer

DATE _____

State Bridge & Structural Engineer

Project Concept Report page 1
Project Number: CSNHS-0008-00(274)
P.I. Number: 0008274
County: Henry

State of Georgia
Department of Transportation

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

PROJECT CONCEPT REPORT

Project Number: CSNHS-0008-00(274)

County: HENRY

P.I. Number: 0008274

Federal Route Number: I-75

State Route Number: 401

I-75 Auxiliary Lane from Eagles Landing Parkway to I-675

See Page 2 for Project Location Map

Recommendation for approval:

DATE 10-19-06

Albert Shelby
Project Manager

DATE 10-30-06

James B. Bush
State/Urban Design Engineer

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

DATE _____

State Transportation Planning Administrator

DATE 11/7/06

James T. Simpson
State Transportation Financial Management Administrator

DATE _____

State Environmental / Location Engineer

DATE _____

State Traffic Safety & Design Engineer

DATE _____

District Engineer

DATE _____

Project Review Engineer

DATE _____

State Bridge & Structural Engineer

Project Concept Report page 1
Project Number: CSNHS-0008-00(274)
P.I. Number: 0008274
County: Henry

State of Georgia
Department of Transportation

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

PROJECT CONCEPT REPORT

Project Number: CSNHS-0008-00(274)
County: HENRY
P.I. Number: 0008274
Federal Route Number: I-75
State Route Number: 401
I-75 Auxiliary Lane from Eagles Landing Parkway to I-675
See Page 2 for Project Location Map

Recommendation for approval:

DATE 10-19-06

Albert Shelby
Project Manager

DATE 10-30-06

James B. Bush
State Urban Design Engineer

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

DATE _____

State Transportation Planning Administrator

DATE _____

State Transportation Financial Management Administrator

DATE _____

State Environmental / Location Engineer

DATE _____

State Traffic Safety & Design Engineer

DATE 11/13/06

J. B. Howell
District Engineer

DATE _____

Project Review Engineer

DATE _____

State Bridge & Structural Engineer



Department of Transportation

State of Georgia

#2 Capitol Square, S.W.

Atlanta, Georgia 30334-1002

HAROLD E. LINNENKOHL
COMMISSIONER
(404) 656-5206

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

BUDDY GRATTON, P.E.
DEPUTY COMMISSIONER
(404) 656-5212

EARL L. MAHFUZ
TREASURER
(404) 656-5224

FILE CSNHS-0008-00(274) Henry OFFICE Thomaston
P.I. No. 0008274
I-75 SB FM I-675 to Eagles
Landing Pkwy – Auxiliary Lane
DATE November 14, 2006

FROM David Millen

TO Johnny Quarles
W/Attachments

SUBJECT **Signed Concept Cover Sheet
W/Comments**

We have reviewed the concept report on the above project and concur with the recommendation for approval with the comments listed below:

Kerry Gore, District Three Utilities Engineer:

We do anticipate utility conflicts on this project especially at the bridges and with the noise barrier wall. Until we get more developed plans, we cannot determine the exact impacts.

Mike England, District Three Traffic Engineer:

Consider the use of static overhead signs or variable message signs (CMS) for advising drivers of congestion on I-675 southbound approaching the I-75 interchange. The signs would serve to begin traffic merges and weaves for those drivers seeking Hudson Bridge/Eagles Landing to keep in right lanes and I-75 south traffic in left lanes as the project will basically add two right lanes that will merge into the Hudson Bridge/Eagles Landing exit, to avoid the current merge problem with vehicles weaving and merging within the current physical lanes.

DBM: cg

Attachment

cc: Thomas Howell
David Millen
Tom Queen
Mike England
Kerry Gore

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE: **P.I. # 0008274**

OFFICE: Environment/Location

DATE: November 14, 2006

FROM:  Harvey D. Keeper, State Environmental/Location Engineer

TO: Genetha Rice-Singleton, Assistant Director of Preconstruction

SUBJECT: **PROJECT CONCEPT REPORT
CSNHS-0008-00(274)/Henry County
I-75 Auxiliary Lane from Eagles Landing Parkway to I-675**

The above subject concept report has been reviewed. According to the environmental analysis already conducted, noise walls are warranted and should be listed as environmental concern. Also, public involvement will be necessary to show noise wall locations and should be indicated on page 8.

If you have any questions please contact me at (404) 699-4401.

HDK/sdw

Attachment

cc: Brian Summers
James B. Buchan
Keith Golden
Angela Alexander
Jamie Simpson

Project Concept Report page 1
Project Number: CSNHS-0008-00(274)
P.I. Number: 0008274
County: Henry

State of Georgia
Department of Transportation

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

PROJECT CONCEPT REPORT

Project Number: CSNHS-0008-00(274)

County: HENRY

P.I. Number: 0008274

Federal Route Number: I-75

State Route Number: 401

I-75 Auxiliary Lane from Eagles Landing Parkway to I-675

See Page 2 for Project Location Map

Recommendation for approval:

DATE 10-19-06

Albert Shelby
Project Manager

DATE 10-30-06

James B. Burch
State Urban Design Engineer

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

DATE _____

State Transportation Planning Administrator

DATE _____

State Transportation Financial Management Administrator

DATE 11.09.06

Alvin D. Roper
State Environmental / Location Engineer

DATE _____

State Traffic Safety & Design Engineer

DATE _____

District Engineer

DATE _____

Project Review Engineer

DATE _____

State Bridge & Structural Engineer

Project Concept Report page 1
Project Number: CSNHS-0008-00(274)
P.I. Number: 0008274
County: Henry

State of Georgia
Department of Transportation

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

PROJECT CONCEPT REPORT

Project Number: CSNHS-0008-00(274)
County: HENRY
P.I. Number: 0008274
Federal Route Number: I-75
State Route Number: 401
I-75 Auxiliary Lane from Eagles Landing Parkway to I-675
See Page 2 for Project Location Map

Recommendation for approval:

DATE 10-19-06

Albert Shelby
Project Manager

DATE 10-30-06

James B. Burch
State Urban Design Engineer

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DATE _____

State Transportation Planning Administrator

DATE _____

State Transportation Financial Management Administrator

DATE _____

State Environmental / Location Engineer

DATE _____

State Traffic Safety & Design Engineer

DATE _____

District Engineer

DATE 11/17/06

Bruce K. Sumner
Project Review Engineer

DATE _____

State Bridge & Structural Engineer

Project Concept Report page 1
Project Number: CSNHS-0008-00(274)
P.I. Number: 0008274
County: Henry

State of Georgia
Department of Transportation

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

PROJECT CONCEPT REPORT

Project Number: CSNHS-0008-00(274)

County: HENRY

P.I. Number: 0008274

Federal Route Number: I-75

State Route Number: 401

I-75 Auxiliary Lane from Eagles Landing Parkway to I-675
See Page 2 for Project Location Map

Recommendation for approval:

DATE 10-19-06

Albert Shelby
Project Manager

DATE 10-30-06

James B. Burch
State/Urban Design Engineer

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

12-6-2006
DATE

Angela J. Alexander
State Transportation Planning Administrator

DATE

State Transportation Financial Management Administrator

DATE

State Environmental / Location Engineer

DATE

State Traffic Safety & Design Engineer

DATE

District Engineer

DATE

Project Review Engineer

DATE

State Bridge & Structural Engineer

Project Concept Report page 1
Project Number: CSNHS-0008-00(274)
P.I. Number: 0008274
County: Henry

State of Georgia
Department of Transportation

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

PROJECT CONCEPT REPORT

Project Number: CSNHS-0008-00(274)

County: HENRY

P.I. Number: 0008274

Federal Route Number: I-75

State Route Number: 401

I-75 Auxiliary Lane from Eagles Landing Parkway to I-675

See Page 2 for Project Location Map

Recommendation for approval:

DATE 10-19-06

Albert Shelby
Project Manager

DATE 10-30-06

James B. Burke
State Urban Design Engineer

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

DATE _____

State Transportation Planning Administrator

DATE _____

State Transportation Financial Management Administrator

DATE _____

State Environmental / Location Engineer

DATE _____

State Traffic Safety & Design Engineer

DATE _____

District Engineer

DATE _____

Project Review Engineer

11-19-06
DATE _____

Paul V. Tilton Jr.
State Bridge & Structural Engineer

SCORING RESULTS AS PER MOG 2440-2

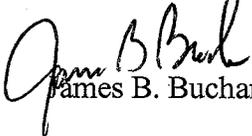
Project Number: CSNHS-0008-00(274)		County: Henry		PI No.: 0008274	
Report Date: October 30, 2006		Concept By: DOT Office: Urban Design			
<input checked="" type="checkbox"/> Concept Stage		Consultant: J.B. Trimble, Inc.			
Project Type: Choose One From Each Column		<input type="checkbox"/> Major <input checked="" type="checkbox"/> Minor	<input type="checkbox"/> Urban <input checked="" type="checkbox"/> Rural	<input type="checkbox"/> ATMS <input type="checkbox"/> Bridge Replacement <input type="checkbox"/> Building <input type="checkbox"/> Interchange Reconstruction <input type="checkbox"/> Intersection Improvement <input type="checkbox"/> Interstate <input type="checkbox"/> New Location <input checked="" type="checkbox"/> Widening & Reconstruction <input type="checkbox"/> Miscellaneous	
FOCUS AREAS	SCORE	RESULTS			
Presentation	100				
Judgement	100				
Environmental	100				
Right of Way	100				
Utility	100				
Constructability	100				
Schedule	100				

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE: CSNHS-0008-00(274), Henry County **OFFICE:** Urban Design
I-75 Auxiliary Lane from Eagles Landing Parkway to I-675
P.I. No. 0008274

DATE: October 19, 2006

FROM:  James B. Buchan, P.E., State Urban Design Engineer

TO Meg Pirkle, P.E., Assistant Director of Preconstruction

SUBJECT **Project Concept Report**

Submitted via PDF format to conceptreport@dot.state.ga.us is the original copy of the Concept Report for your further handling for approval in accordance with the Plan Development Process (PDP). Please distribute to the appropriate offices for approval.

JBB:AVS 
Attachment

C: Johnny Quarles

Project Concept Report page 1
Project Number: CSNHS-0008-00(274)
P.I. Number: 0008274
County: Henry

State of Georgia
Department of Transportation

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

PROJECT CONCEPT REPORT

Project Number: CSNHS-0008-00(274)

County: HENRY

P.I. Number: 0008274

Federal Route Number: I-75

State Route Number: 401

I-75 Auxiliary Lane from Eagles Landing Parkway to I-675

See Page 2 for Project Location Map

Recommendation for approval:

DATE 10-19-06

Albert Shelby
Project Manager

DATE 10-30-06

James B. Burch
State Urban Design Engineer

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State Transportation Planning Administrator

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State Traffic Safety & Design Engineer

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District Engineer

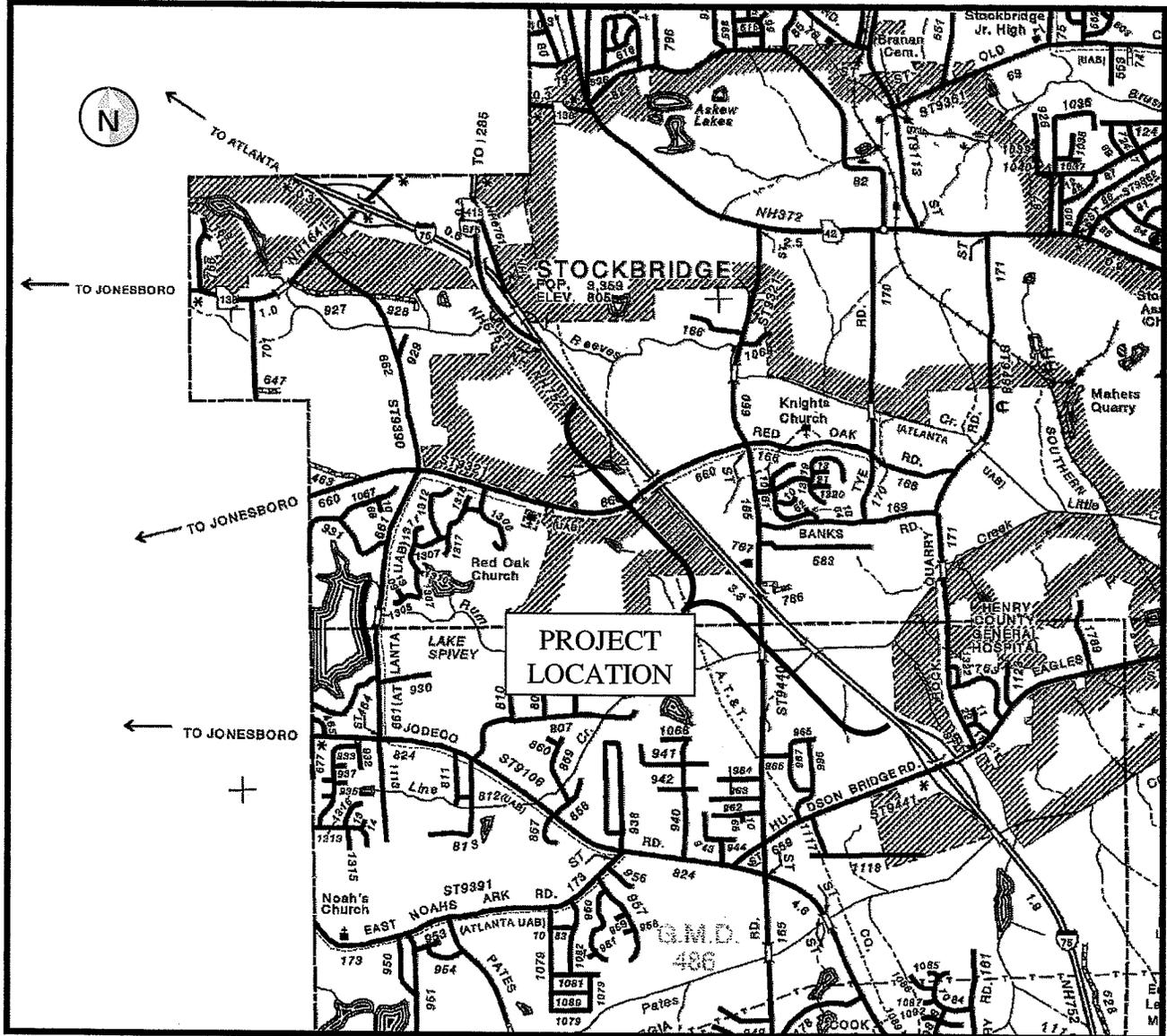
DATE

Project Review Engineer

DATE

State Bridge & Structural Engineer

CSNHS-0008-00(274) Henry County, GA PI# 0008274



Need and Purpose Statement

Background: The section of I-75 from I-675 to Eagles Landing has become increasingly congested due to the rapid growth of traffic and development in both of these interstate corridors. The merging traffic in the southbound direction during the PM peak period has resulted in a severe backup for I-75 traffic southbound. Although there are several improvements proposed to relieve congestion in the corridor in the long term, these projects will take longer to develop and implement and there is a demand for a more immediate solution to address the recurring congestion. The proposed southbound auxiliary lane has the potential to reduce congestion in the short term and is scheduled for construction in FY 2007.

The project is proposed to be designed as part of the HOV lanes from I-285 to Eagles Landing. However, a project will be added to the Atlanta Regional Commission's (ARC) Regional Transportation Plan and Transportation Improvements Program for construction as part of an update to be approved in March of 2006. The ARC number will be HE-AR-232.

Roadway Characteristics: Interstate 75 currently has 3 lanes in each direction between the I-675 interchange and Eagles Landing, located three miles south of the I-675 interchange which is the first interchange on I-75 south of I-675. The I-675 ramp to southbound I-75 merges with the I-75 south bound lanes approximately one half mile south of the I-675 bridge over I-75. I-75 is the major north-south interstate, providing for through traffic along a corridor from Detroit Michigan in the north to Miami/ Fort Lauderdale in Florida. It also provides the primary connection between the employment centers in the Atlanta Metro area to the fast growing residential areas in Henry County, one of the fastest growing counties in the United States.

I-675 is a four lane facility connecting I-285 east of its interchange with I-75 to I-75 south. I-675 serves a number of major trucking terminals and carries a high percentage of trucks as well as general traffic destined to I-285 and the east side of Atlanta. The merging traffic from this facility has contributed to the traffic delays on I-75 south bound.

The project extends to Eagles Landing, a major development node in Henry County. The Eagles Landing interchange has been reconstructed to handle the commercial and residential development along that east west corridor and to service the Henry County Hospital Complex located at this interchange. The newly reconstructed interchange will improve flow on I-75 by reducing backup on the mainlines due to congestion on Eagles Landing.

Travel Demand and Operations: Traffic volumes on I-75 have grown rapidly, more than doubling since the first developments opened in the Eagles Landing corridor in 1990. Traffic along this link of I-75 has increased from 61,000 average annual daily traffic (AADT) in 1990 to 155,000 AADT in 2004. In 2005, volumes continued to increase, reaching 162, 000 AADT. I-75 between I-675 and Eagles Landing is currently operating at Level of Service F during the PM peak period. Approximately 16% of the traffic is trucks. Traffic projections for I-75 show continued rapid growth, increasing to 182,000 vehicles per day (VPD) by 2010 and to 204,000 VPD by 2016.

Traffic volumes are significantly lower on I-675 but these volumes have also more than doubled during the past 15 years. Volumes have increased from 21,000 AADT in 1990 to 43,000 AADT in 2004. Assuming that travel on I-675 continues to grow at a growth rate of 4%, traffic would increase to 53,000

VPD by 2010 and 67,000 VPD by 2016.

Safety: The crash rates for this section of I-75 are significantly lower than the state average. In 2001, the crash rate was 37.4 per 100 million vehicles miles traveled (MVMT) as compared to the statewide average of 197 per MVMT. The table below shows crash rates for three years for this section of I-75, compared to the statewide crash rates.

	2001	2002	2003
Number of Accidents			
I-75 Crash Rate (MVMT)	37.4	50.7	55.1
Statewide Crash Rate (MVMT)	197	204	196

Other Projects in the Vicinity: There are a number of projects that serve this portion of the I-75 South corridor.

P.I. 0003167; MSL-0003-00(167) - HOV lanes from SR 54 in Clayton County to Eagles Landing in Henry County. The construction of HOV lanes is a part of the Governor's Fast Forward Program to advance major projects that will relieve congestion throughout the state.

P.I. 0006401; CSNHS0006-00(401) - ATMS/ Ramp Meters/ HAR From Hudson Bridge Road in Henry County to Cleveland Avenue in the City Atlanta: This project is part of an region wide program to reduce congestion using traffic management strategies such as the Georgia Department of Transportations Navigator System and ramp metering to meter the flow of traffic accessing the interstate.

P.I. 0007858; CSNHS-0007-00(858) - Widening of I-75 from I-675 to SR 920, Jonesboro Road: As part of Mobility 2030, ARC identified the need for additional capacity on I-75. This project will add an additional 4 lanes, increasing the number of through lanes from 6 to 10.

Community Issues: Relief from the congestion and associated travel delays has become a major issue for Henry County residents. Representatives for the County have requested that the Department advance improvements to this section of I-75 on numerous occasions. Right of way impacts are anticipated to be minimal and there is no known controversy regarding the implementation of this project.

The demographic profile for Henry County is significantly different from the state average. Henry County is one of the fastest growing counties in the nation. Population increased from 119,341 in 2000 to 159,506 in 2004, an increase of 33%. This is significantly higher than the state average of 7.8%. Henry County is 81.4% white and 14.7% African American as compared to a state average of 65.1% white and 28.7% African American.

Income levels in Henry County are significantly higher than the state average. The median household income in Henry County in 1999 was \$57,309 as compare to the state average of \$42,433.

Need and Purpose Statement

A clear need has been identified to improve I-75 at the I-675 interchange due to the severe congestion that occurs during the PM Peak. Rapid increases in traffic are the result of continuing growth in population and commercial development in Henry County during the past five years, a trend which shows no sign of slowing.

The Atlanta Regional Transportation Plan includes a number of projects to improve I-75 in the long term. However, the proposed auxiliary lane will provide more immediate relief to I-75 southbound where the merging of traffic from I-675 to I-75 has resulted in significant delays.

Description of Project: The proposed project involves the addition of an auxiliary lane along southbound lanes of Interstate 75. The project begins at the end of the taper to the exit ramp to Eagles Landing Parkway in Henry County and ends at the beginning of the taper to the entrance ramp of the I-675 interchange, for a total length of 1.42 miles. At the ending limits of the project, the southbound lanes of Interstate 75 consist of 3 through-lanes with 2 additional lanes converging with them from I-675. These 5 lanes taper back to 3 lanes within 4600 feet from where the two interstates converge. Southbound I-75 remains as 3 lanes to the project's beginning. This project will add an auxiliary lane from where southbound traffic tapers from 4 lanes to 3 lanes and travels to the next interchange at Eagles Landing Parkway, approximately 1.42 miles away. The proposed alignment will be deflected through the Walt Stephens Rd. overpass due to the limited outside horizontal clearance at that location. The I-75 bridge over Flippen Rd. will be widened to accommodate the additional lane. All proposed pavement, including the shoulders, will be full depth asphalt, with the exception of areas where the existing travel lanes are to be overlaid. Guardrail, traffic cameras, and overhead signs along the project corridor will be moved or replaced on as-needed basis as well. All work will be done while maintaining 3 lanes of traffic at all times.

Is the project located in a Non-attainment area? Yes No

PDP Classification: Major Minor

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

Functional Classification: Rural Interstate Principal Arterial

US Route Number(s): I-75 State Route Number(s): 401

Traffic (AADT):
Current Year: (2006) 162,000 Design Year: (2010) 182,000

Existing design features:

- Typical Section: Three – 12-foot travel lanes with 12-foot (10-foot paved) inside shoulder and 12-foot (10-foot paved) outside shoulder.
- Posted Speed: 65 mph

- Maximum Degree of Curvature: 2° 00'00"
- Maximum Grade: Mainline: 3.00 % Driveways: N/A
- Width of Right of Way: 300 feet typical

● Major Structures:

Bridges

- Bridge on Walt Stephens Rd. (CR 660) over I-75
(Structure ID 151-0042-0) Length = 208 feet, Width = 34.8 feet, Suff. Rating = 61.47
- Bridge on I-75 over Flippen Rd. (CR 165)
(Structure ID 151-0063-0) Length = 192 feet, Width = 135.10 feet, Suff. Rating = 85.68

● Major Interchanges or intersections along the project: I-75 at I-675, I-75 at Hudson Bridge Rd./Eagles Landing Parkway

- Existing length of roadway segment: 1.42 miles

Proposed design features:

- Proposed Typical Section: Four 12-foot travel lanes with variable width inside and outside shoulders (see Typical Sections for details). All shoulders are to be full-depth pavement.

- Proposed Design Speed Mainline: 65 mph
- Proposed Maximum grade Mainline: 2 % Maximum grade allowable: 4 %
- Proposed Maximum grade Side Street: N/A % Maximum grade allowable: N/A %
- Proposed Maximum grade driveway: N/A %
- Proposed Minimum Radius: 2865 ft Minimum radius allowable: 730 ft
- Proposed Maximum Superelevation: 4 %

● Right of Way:

- Width Remain within existing R/W
- Easements: Temporary (), Permanent (), Utility (), Other ().
- Type of access control: Full (X), Partial (), By Permit (), Other ().
- Number of parcels: 0 Number of displacements:
 - Business: 0
 - Residences: 0
 - Mobile homes: 0
 - Other: 0

● Structures:

- Bridges: Widen Flippen Road over I-75 Bridge
- Retaining Walls: None proposed

- Major Interchanges or intersections along the project: None impacted
- Traffic control during construction: Minimum of three lanes of traffic will be maintained at all times.
- Design exceptions to controlling criteria anticipated:

	UNDETERMINED	YES	NO
HORIZONTAL ALIGNMENT:	()	()	(X)
ROADWAY WIDTH:	()	()	(X)
SHOULDER WIDTH:	()	(X)	()
VERTICAL GRADES:	()	()	(X)
CROSS SLOPES:	()	()	(X)
STOPPING SIGHT DISTANCE:	()	()	(X)
SUPERELEVATION RATES:	()	()	(X)
HORIZONTAL CLEARANCE:	()	()	(X)
SPEED DESIGN:	()	()	(X)
VERTICAL CLEARANCE:	()	()	(X)
BRIDGE WIDTH:	()	()	(X)
BRIDGE STRUCTURAL CAPACITY:	()	()	(X)

A substandard inside shoulder is to be utilized in the proximity of the Walt Stephens Road overpass, due to insufficient horizontal clearance at that location (see Typical Sections for details).

- Design Variances: None anticipated
- Environmental Concerns: ~~None anticipated~~ *Noise Walls* *del. 11/15/06*
- Level of Environmental Analysis: CE 23 with PCN anticipated
 - Are Time Saving Procedures Appropriate? Yes (X), No ()
 - Categorical Exclusion Anticipated? Yes (X), No ()
 - Environmental Assessment / Finding of No Significant Impact Yes (), No (X)
 - Environmental Impact Statement (EIS): Yes (), No (X)
- Utility involvements:
 - None anticipated
- Utility Owners on Corridor:
 - Power: N/A
 - Gas: N/A
 - Water and Sewer: N/A

Project responsibilities:

Project Concept Report page 8
Project Number: CSNHS-0008-00(274)
P.I. Number: 0008274
County: Henry

State of Georgia
Department of Transportation

- Design: Concept: J.B. Trimble, Inc., Final: Design/Build Contractor's Engineer
- Right-of-Way Acquisition: None
- Relocation of Utilities: None
- Letting of Contract: Georgia Department of Transportation as a Design-Build contract
- Supervision of Construction: Georgia Department of Transportation
- Providing material pits: Contractor
- Providing detours: N/A

Coordination:

- Concept Meeting date: June 7, 2006
- PAR meetings, dates and results: None
- FEMA, USCG, and/or TVA: None
- Public Involvement: ~~None~~ *PIOH [signature]*
- Local government comments: None
- Other projects in area.
 - Interchange improvements to I-75 at Eagles Landing Parkway are currently being constructed
 - Project MSL-0003-00(167) Phase II; P.I. No. 0003167 Phase II; I-75 from SR 54 to Eagles Landing Parkway is currently being designed.
- Other coordination to date: none.

Scheduling – Responsible Parties' Estimate

- Time to complete the environmental process: 6 Months.
- Time to complete preliminary construction plans: N/A (Design/Build)
- Time to complete right-of-way plans: N/A
- Time to complete the Section 404 Permit: 3 Months.
- Time to complete final construction plans: N/A (Design/Build)
- Time to purchase right-of-way: N/A.
- List other major items that will affect the project schedule: None

Alternates Considered:

Alternate 2 – No-Build. The existing lane configuration does not have the volume capacity for the high volume vehicle traffic it experiences. Providing an auxiliary lane will temporarily improve the congestion and traffic movements so the no-build was not a practical option.

Comments: None

Attachments:

1. Cost Estimates:

Project Concept Report page 9
Project Number: CSNHS-0008-00(274)
P.I. Number: 0008274
County: Henry

State of Georgia
Department of Transportation

- a. Construction including E & C
- b. Right-of-Way, and
- c. Utilities
2. Typical Sections
3. Concept Layouts
4. Bridge Inventory Data
5. Traffic Operations Analysis
6. Concept Team Meeting Notes
7. Design Exception Request Memo

Prepared by: J.B. Trimble, Inc.

Attachment 1

Cost Estimates

Estimate Report for file "CSNHS-0008-00(274)"

Section Pavement					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
310-5120	28208	SY	13.19	GR AGGR BASE CRS, 12 INCH, INCL MATL	372063.52
400-3604	1831	TN	75.00	ASPH CONC 12.5 MM SMA, GP 2 ONLY, INCL POLYMER-MODIFIED BITUM MATL & H LIME	137325.00
400-3624	1647	TN	75.00	ASPH CONC 12.5 MM PEM, GP 2 ONLY, INCL POLYMER-MODIFIED BITUM MATL & H LIME	123525.00
402-1811	538	TN	75.00	RECYCLED ASPH CONC LEVELING, INCL BITUM MATL	40350.00
402-3121	20169	TN	75.00	RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME	1512675.00
402-3130	1610	TN	75.00	RECYCLED ASPH CONC 12.5 MM SUPERPAVE, GP 2 ONLY, INCL BITUM MATL & H LIME	120750.00
402-3190	3161	TN	75.00	RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME	237075.00
413-1000	3731	GL	1.13	BITUM TACK COAT	4216.03
432-0208	5200	SY	0.97	MILL ASPH CONC PVMT, 2 IN DEPTH	5044.00
433-1100	182	SY	110.68	REINF CONC APPROACH SLAB, INCL CURB	20143.76
441-0301	1	EA	1664.13	CONC SPILLWAY, TP 1	1664.13
446-3000	10405	LF	3.81	PVMT REINF FABRIC STRIPS, SELF ADHESIVE	39643.05
456-2015	3	GLM	821.45	INDENTATION RUMBLE STRIPS - GROUND-IN-PLACE (SKIP)	2464.35
Section Sub Total:					\$2,616,938.84

Section Traffic Control					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
150-1000	1	LS	1125000.00	TRAFFIC CONTROL -	1125000.00
Section Sub Total:					\$1,125,000.00

Section Drainage					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
436-1000	5520	LF	8.06	ASPHALTIC CONCRETE CURB -	44491.20
500-3101	60	CY	464.02	CLASS A CONCRETE	27994.33
511-1000	3712	LB	0.73	BAR REINF STEEL	2710.20
550-1150	10	LF	23.87	STORM DRAIN PIPE, 15 IN, H 1-10	238.70
550-1180	1200	LF	32.52	STORM DRAIN PIPE, 18 IN, H 1-10	39024.00
550-1240	1600	LF	39.57	STORM DRAIN PIPE, 24 IN, H 1-10	63312.00
550-3318	4	EA	688.89	SAFETY END SECTION 18 IN, STORM DRAIN, 4:1 SLOPE	2755.56
550-3324	8	EA	933.84	SAFETY END SECTION 24 IN, STORM DRAIN, 4:1 SLOPE	7470.72
550-4115	1	EA	257.94	FLARED END SECTION 15 IN, SIDE DRAIN	257.94
576-1010	400	LF	10.77	SLOPE DRAIN PIPE, 10 IN	4308.00
577-1100	16	EA	1210.33	METAL DRAIN INLET - COMPLETE ASSEMBLY	19365.28
668-2231	12	EA	10000.00	DROP INLET, GP 1, MODIFIED TP M-1	120000.00
Section Sub Total:					\$331,927.92

Section Clearing and Grubbing					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
201-1500	1	LS	13500.00	CLEARING & GRUBBING -	13500.00
210-0100	1	LS	85125.00	GRADING COMPLETE -	85125.00
Section Sub Total:					\$98,625.00

Section Erosion Control					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
163-0232	2	AC	478.69	TEMPORARY GRASSING	1096.20
163-0240	102	TN	198.11	MULCH	20207.22
163-0300	1	EA	1233.34	CONSTRUCTION EXIT	1233.34
163-0503	1	EA	485.19	CONSTRUCT AND REMOVE SILT CONTROL GATE, TP 3	485.19
163-0521	92	EA	165.11	CONSTRUCT AND REMOVE TEMPORARY DITCH	15190.12

				CHECKS	
163-0530	100	LF	2.64	CONSTRUCT AND REMOVE BALED STRAW EROSION CHECK	264.00
163-0550	11	EA	234.65	CONSTRUCT AND REMOVE INLET SEDIMENT TRAP	2581.15
165-0010	4817	LF	1.07	MAINTENANCE OF TEMPORARY SILT FENCE, TP A	5154.19
165-0020	2800	LF	1.08	MAINTENANCE OF TEMPORARY SILT FENCE, TP B	3024.00
165-0030	250	LF	1.16	MAINTENANCE OF TEMPORARY SILT FENCE, TP C	290.00
165-0040	92	EA	69.18	MAINTENANCE OF EROSION CONTROL CHECKDAMS/DITCH CHECKS	6364.56
165-0070	100	LF	1.44	MAINTENANCE OF BALED STRAW EROSION CHECK	144.00
165-0087	1	EA	174.36	MAINTENANCE OF SILT CONTROL GATE, TP 3	174.36
165-0101	1	EA	406.22	MAINTENANCE OF CONSTRUCTION EXIT	406.22
165-0105	11	EA	84.22	MAINTENANCE OF INLET SEDIMENT TRAP	926.42
171-0010	4817	LF	1.84	TEMPORARY SILT FENCE, TYPE A	8863.28
171-0020	2800	LF	1.81	TEMPORARY SILT FENCE, TYPE B	5068.00
171-0030	250	LF	3.20	TEMPORARY SILT FENCE, TYPE C	800.00
603-2180	152	SY	32.35	STN DUMPED RIP RAP, TP 3, 12 IN	4917.20
603-7000	152	SY	4.00	PLASTIC FILTER FABRIC	608.00
700-6910	4	AC	782.60	PERMANENT GRASSING	3584.31
700-7000	4	TN	57.78	AGRICULTURAL LIME	264.63
700-7010	11	GL	18.81	LIQUID LIME	215.37
700-8000	0	TN	263.78	FERTILIZER MIXED GRADE	131.89
700-8100	229	LB	1.52	FERTILIZER NITROGEN CONTENT	348.08
716-2000	8289	SY	1.06	EROSION CONTROL MATS, SLOPES	8786.34
Section Sub Total:					\$91,128.08

Section Guardrail

Item Number	Quantity	Units	Unit Price	Item Description	Cost
610-1055	5200	LF	1.38	REM GUARDRAIL	7176.00
610-1075	15	EA	106.52	REM GUARDRAIL ANCH, ALL TYPES	1597.80
621-4085	30	LF	56.42	CONCRETE SIDE BARRIER, TYPE 7W	1692.60
621-6002	2800	LF	70.23	CONCRETE BARRIER, TP S-2	196644.00
641-1100	83	LF	31.10	GUARDRAIL, TP T	2581.30
641-1200	5437	LF	13.60	GUARDRAIL, TP W	73943.20
641-2200	200	LF	15.14	DBL FACED GUARDRAIL, TP W	3028.00
641-5001	3	EA	476.70	GUARDRAIL ANCHORAGE, TP 1	1430.10
641-5012	6	EA	1548.97	GUARDRAIL ANCHORAGE, TP 12	9293.82
Section Sub Total:					\$297,386.82

Section Signing and Marking

Item Number	Quantity	Units	Unit Price	Item Description	Cost
150-0009	1	EA	9000.00	REMOVE AND RESET EXIST SPCL GUIDE SIGNS, OVERHEAD, COMPLETE-IN-PLACE	9000.00
636-1014	545	SF	12.19	HIGHWAY SIGNS, TP 1 MATL, REFL SHEETING, TP 1	6643.55
636-2070	130	LF	6.97	GALV STEEL POSTS, TP 7	906.10
653-1501	7325	LF	0.27	THERMOPLASTIC SOLID TRAF STRIPE, 5 IN, WHITE	1977.75
653-1502	10125	LF	0.27	THERMOPLASTIC SOLID TRAF STRIPE, 5 IN, YELLOW	2733.75
653-3501	21975	GLF	0.17	THERMOPLASTIC SKIP TRAF STRIPE, 5 IN, WHITE	3735.75
654-1001	281	EA	3.48	RAISED PVMT MARKERS TP 1	977.88
657-1054	193	LF	3.43	PREFORMED PLASTIC SOLID PVMT MKG, 5 IN, WHITE, TP PB	661.99
657-3054	193	GLF	2.53	PREFORMED PLASTIC SKIP PVMT MKG, 5 IN, WHITE, TP PB	488.29
Section Sub Total:					\$27,125.06

Section Miscellaneous

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Item Number	Quantity	Units	Unit Price	Item Description	Cost
153-1300	1	EA	55864.42	FIELD ENGINEERS OFFICE TP 3	55864.42
999-8888	1	lump	1805143.00	NOISE BARRIER	1805143.00
Section Sub Total:					\$1,861,007.42

Section Bridge					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
505-1100	3454	SF	190.00	BRIDGE NO. 1 - WIDENING	656260.00
Section Sub Total:					\$656,260.00

Section ITS Reconstruction					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
615-1200	120	LF	10.80	DIRECTIONAL BORE - 9 IN.	1296.00
631-2463	1	EA	98548.75	LED PIXEL CMS, WALK-IN, 3 X 21, 18 IN, TYPE B	98548.75
638-1001	1	LS	70943.32	STR SUPPORT FOR OVERHEAD SIGN, TP I , STA -	70943.32
639-4004	6	EA	4349.50	STRAIN POLE, TP IV	26097.00
647-2150	9	EA	1510.91	PULL BOX, PB-5	13598.19
682-6222	220	LF	8.00	CONDUIT, NONMETL, TP 2, 2 IN	1760.00
682-6231	880	LF	1.51	CONDUIT, NONMETL, TP 3, 1 1/4 IN	1328.80
682-6233	550	LF	3.97	CONDUIT, NONMETL, TP 3, 2 IN	2183.50
682-6520	250	LF	22.71	CONDUIT, FIBERGLASS, 2 IN	5677.50
682-7043	750	LF	38.36	MULTI-CELL CONDUIT SYS, 4-WAY, FIBERGLASS	28770.00
682-7061	10450	LF	28.84	CONDUIT DUCT BANK, TYPE 2	301378.00
682-9028	13	EA	4108.81	ELECTRICAL COMMUNICATION BOX, TP 5	53414.53
935-1113	11485	LF	1.73	OUTSIDE PLANT FIBER OPTIC CABLE, LOOSE TUBE, SINGLE MODE, 24 FIBER (SO95)	19869.05
935-1113	11485	LF	1.73	OUTSIDE PLANT FIBER OPTIC CABLE, LOOSE TUBE, SINGLE MODE, 24 FIBER (SO97)	19869.05
935-1511	305	LF	3.73	OUTSIDE PLANT FIBER OPTIC CABLE, DROP, SINGLE MODE, 6 FIBER	1137.65
935-3101	6	EA	574.54	FIBER OPTIC CLOSURE, UNDERGROUND, 6 FIBER	3447.24
935-3102	1	EA	672.08	FIBER OPTIC CLOSURE, UNDERGROUND, 12 FIBER	672.08
935-3401	7	EA	657.11	FIBER OPTIC CLOSURE, FDC (RACK MOUNTED), 6 FIBER	4599.77
935-3408	3	EA	1590.00	FIBER OPTIC CLOSURE, FDC (RACK MOUNTED), 144 FIBER	4770.00
935-4010	323	EA	33.24	FIBER OPTIC SPLICE, FUSION	10736.52
935-6562	2	EA	1578.27	EXTERNAL TRANSCEIVER, DROP AND REPEAT, 1310 SINGLE MODE, (SIGNAL JOBS)	3156.54
936-1000	2	EA	8706.34	CCTV SYSTEM	17412.68
937-1000	7	EA	3922.31	VIDEO CAMERA SENSOR ASSEMBLY	27456.17
938-8000	1	LS	500.00	35 FT TUBULAR EXTENSION ON STR	500.00
938-8500	1	LS	80000.00	REMOVAL AND SALVAGE OF EXISTING ITS COMPONENTS	80000.00
939-1127	8	EA	1407.52	FIBER OPTIC VIDEO/DATA RECEIVER, SINGLE MODE	11260.16
939-4010	6	EA	3750.80	TYPE A CABINET, POLE MOUNTED	22504.80
939-4030	1	EA	5162.00	CABINET, BASE MOUNTED	5162.00
939-5010	6	EA	1869.66	ELECTRICAL POWER SERVICE ASSEMBLY, AERIAL SERVICE POINT	11217.96
999-9999	1	lump	78000.00	MODIFICATION OF VARIABLE MESSAGE SIGN	78000.00
Section Sub Total:					\$926,767.26

Total Estimated Cost: \$8,032,166.40

Subtotal Construction Cost \$8,032,166.40

E&C Rate 10.0 % \$803,216.64

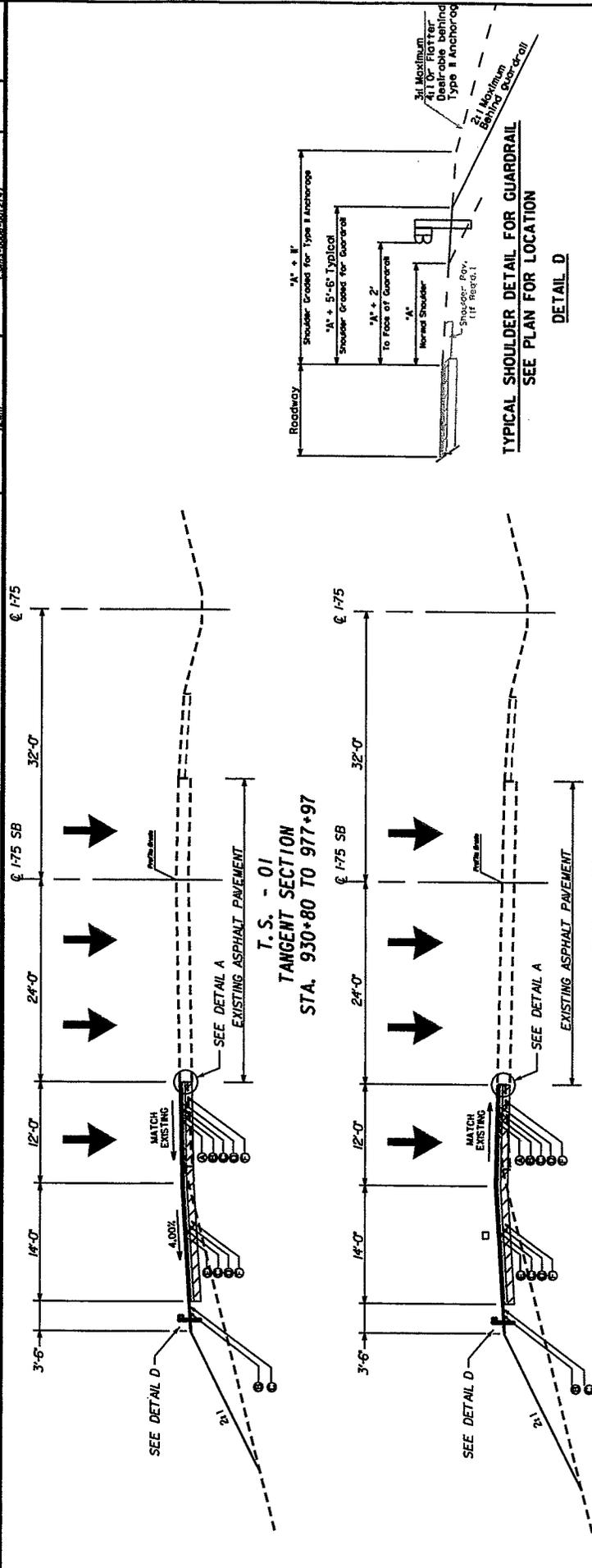
Inflation Rate 0.0 % @ 0.0 Years \$0.00

Total Construction Cost	\$8,835,383.04
Right Of Way	\$0.00
ReImb. Utilities	\$0.00

Grand Total Project Cost	\$8,835,383.04
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Attachment 2

Typical Sections

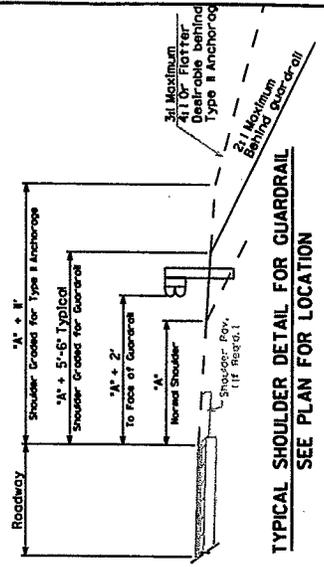


T.S. - 01
TANGENT SECTION
STA. 930+80 TO 977+97

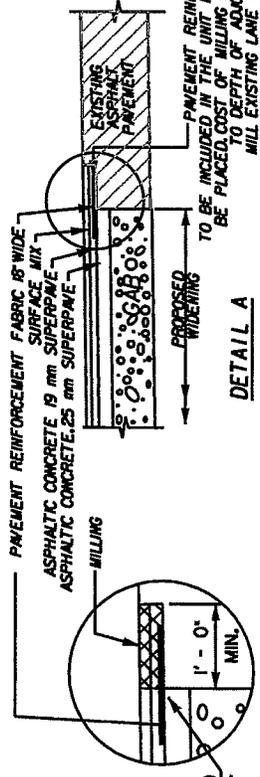
T.S. - 01
SUPERELEVATED SECTION
STA. 930+80 TO 977+97

- ALGEBRAIC DIFFERENCE IN PAVING AND SHOULDERS NOT TO EXCEED 8.0%

- REQUIRED PAVEMENT**
- ① 125 LBS/SY RECYCLED ASPH CONC 12.5 MM PMA, GP 1 OR 2, INCL BITUM & H LIME
 - ② 165 LBS/SY RECYCLED ASPH CONC 12.5 MM SMA, GP 1 OR 2, INCL BITUM & H LIME
 - ③ 220 LBS/SY RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2, INCL BITUM & H LIME
 - ④ 1430 LBS/SY RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM & H LIME
 - ⑤ 165 LBS/SY RECYCLED ASPH CONC 12.5 MM SUPERPAVE, GP 1 OR 2, INCL BITUM & H LIME
 - ⑥ GRADED AGGREGATE BASE, 12"
 - ⑦ HILL ING, 2" DEPTH
 - ⑧ LEVEL ING AS NEEDED



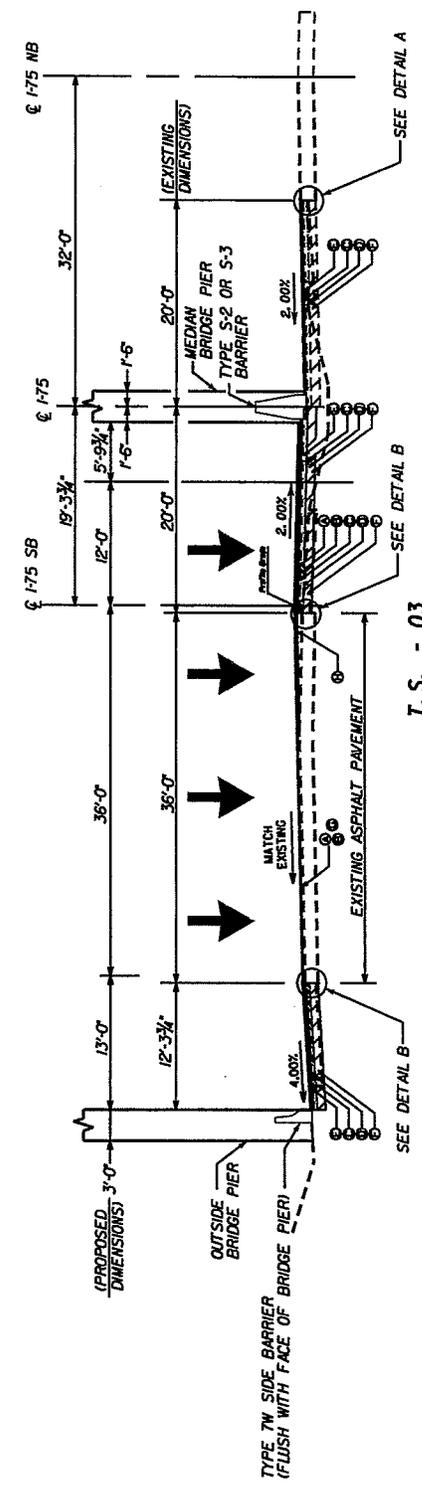
TYPICAL SHOULDER DETAIL FOR GUARDRAIL
SEE PLAN FOR LOCATION
DETAIL D



DETAIL A

THIS DETAIL TO BE USED WHEN EXISTING ASPHALT PAVEMENT IS NOT TO BE RESURFACED

STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION OFFICE: URBAN DESIGN	REVISION DATES	STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION OFFICE: TYPICAL SECTIONS	JBT J.B. TRIMBLE, INC. 6445 Powers Ferry Road Suite 100 Atlanta, GA 30339
REVISION DATES		REVISION DATES	

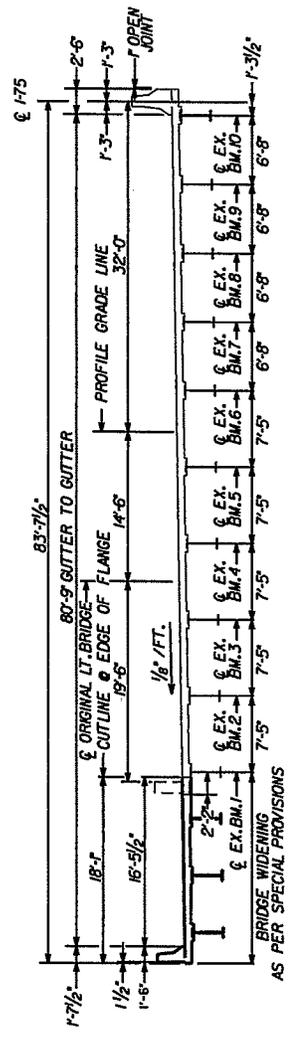


T. S. - 03
WALT STEPHENS ROAD OVERPASS
STA. 990+86 TO 991+14

- REQUIRED PAVEMENT**
- ⓐ 135 LBS/SY RECYCLED ASPH CONC 12.5 MM PEA, GP 1 OR 2, INCL BITUM & H LIME
 - ⓑ 165 LBS/SY RECYCLED ASPH CONC 12.5 MM SMA, GP 1 OR 2, INCL BITUM & H LIME
 - ⓒ 220 LBS/SY RECYCLED ASPH CONC 19 MM SUPERRAVE, GP 1 OR 2, INCL BITUM & H LIME
 - ⓓ 1430 LBS/SY RECYCLED ASPH CONC 25 MM SUPERRAVE, GP 1 OR 2, INCL BITUM & H LIME
 - ⓔ 165 LBS/SY RECYCLED ASPH CONC 12.5 MM SUPERRAVE, GP 1 OR 2, INCL BITUM & H LIME
 - ⓕ CRUSHED AGGREGATE BASE, 12"
 - ⓖ MILL ING, 2" DEPTH
 - ⓗ LEVEL ING AS NEEDED

STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION OFFICE: TYPICAL SECTIONS	
REVISION DATES	DRAWING NO.
JBT J.B. TRIMBLE, INC. 6445 Powers Ferry Road, Suite 100 Atlanta, GA 30339	

(EXISTING DIMENSIONS)



FLIPPEN ROAD UNDERPASS WIDENING

STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION OFFICE: TYPICAL SECTIONS	
REVISION DATES	DRAWING NO.
JBT J.B. TRIMBLE, INC. 6445 Powers Ferry Road, Suite 100 Atlanta, GA 30339	

Attachment 3

Concept Layouts

BEGIN PROJECT
MSL-0003-001(167) HENRY COUNTY
STA. 930+79.93

BEGIN GUARDRAIL
STA. 930+79.93

TO EAGLES LANDING PKWY

RUM CREEK

RELOCATE CAMERA

EXIST. R/W

CR 165 FLIPPEN ROAD

STA. 947+79.93 (SB LANES)
BEGIN BRIDGE

STA. 949+69.37 (SB LANES)
END BRIDGE

N 47°04'50" W

N 47°04'50" W

PC 931+20.18

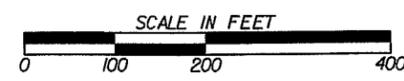
PC 936+45.58

PT 945+66.60

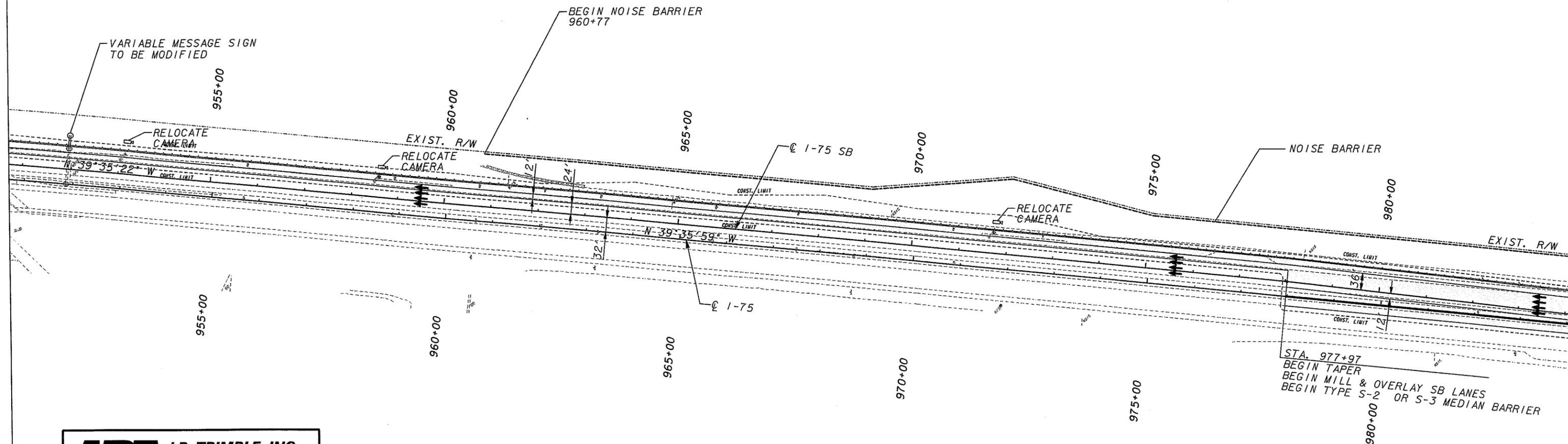
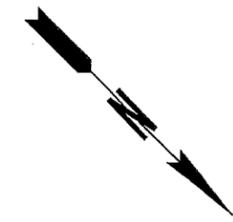
PT 946+43.02

JBT J.B. TRIMBLE, INC.
2550 Heritage Ct, SE
Suite 250
Atlanta, GA 30339
www.jbtrimble.com

LEGEND	
	PROPOSED PAVEMENT
	PROPOSED BRIDGE
	EXISTING R/W
	STREAM
	NOISE BARRIER



I-75 SOUTHBOUND AUXILIARY LANE
EAGLES LANDING PARKWAY TO I-675
CSNHS-0008-00(274) HENRY COUNTY
CONCEPT LAYOUT
SCALE: 1" = 200' DATE: SEPTEMBER 2006
SHEET 1 OF 3



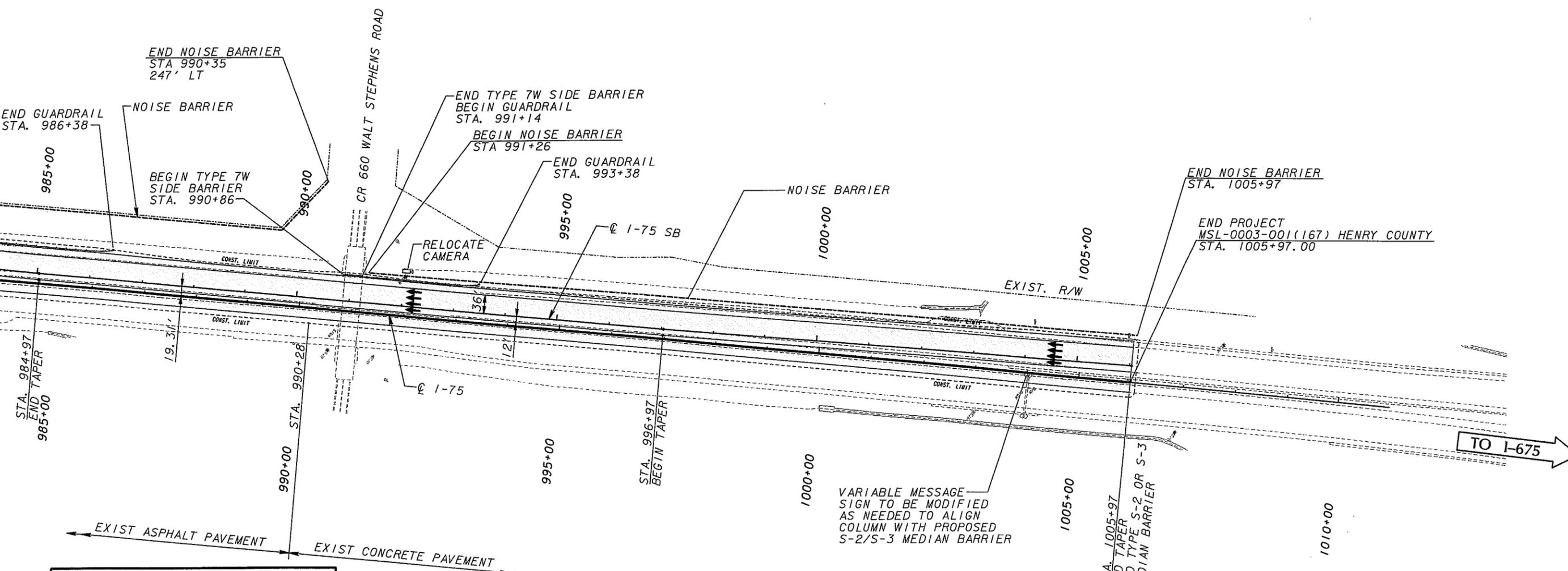
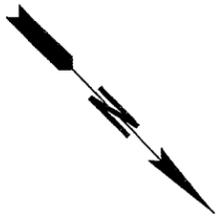
JBT J.B. TRIMBLE, INC.
2550 Heritage Ct, SE
Suite 250
Atlanta, GA 30339
www.jbtrimble.com

LEGEND	
	PROPOSED PAVEMENT
	PROPOSED BRIDGE
	EXISTING R/W
	STREAM
	NOISE BARRIER



I-75 SOUTHBOUND AUXILIARY LANE
EAGLES LANDING PARKWAY TO I-675
CSNHS-0008-00(274) HENRY COUNTY
CONCEPT LAYOUT
SCALE: 1" = 200' DATE: SEPTEMBER 2006
SHEET 2 OF 3

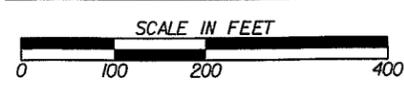
STA. 977+97
BEGIN TAPER
BEGIN MILL & OVERLAY SB LANES
BEGIN TYPE S-2 OR S-3 MEDIAN BARRIER



VARIABLE MESSAGE SIGN TO BE MODIFIED AS NEEDED TO ALIGN COLUMN WITH PROPOSED S-2/S-3 MEDIAN BARRIER

JBT J.B. TRIMBLE, INC.
 2550 Heritage Ct, SE
 Suite 250
 Atlanta, GA 30339
 www.jbtrimble.com

LEGEND	
	PROPOSED PAVEMENT
	PROPOSED BRIDGE
	EXISTING R/W
	STREAM
	NOISE BARRIER



I-75 SOUTHBOUND AUXILIARY LANE
 EAGLES LANDING PARKWAY TO I-675
 CSNHS-0008-00(274) HENRY COUNTY
 CONCEPT LAYOUT
 SCALE: 1" = 200' DATE: SEPTEMBER 2006
 SHEET 3 OF 3

Attachment 4

Bridge Inventory Data

BRIDGE INVENTORY DATA LISTING GEORGIA DEPARTMENT OF TRANSPORTATION

Structure ID: 151-0042-0

Henry

SUFF. RATING

85.68

Programming Data

201 Project No.: IR-75-2 (138)
 202 Plans Available: 4
 249 Prop. Proj. No. 0000000000000000
 250 Approval Status: 0000
 251 P.L. No.: 00000000
 252 Contract Date: 02/01/1901
 260 Seismic No.: 00000
 75 Type Work: 00 0
 94 Bridge Imp. Cost: \$ 0
 95 Roadway Imp. Cost: \$ 0
 96 Total Imp Cost: \$ 0
 76 Imp. Length: 000000
 97 Imp. Year: 0000
 114 Future ADT: 201555 Year: 2024

Measurements

* 29 ADT: 134370 Year: 2004
 109 % Trucks: 11
 * 28 Lanes On: 06 Under: 02
 210 No. Tracks On: 00 Under: 00
 * 48 Max. Span Length: 0072
 * 49 Structure Length: 192
 51 Br. Rwdy. Width: 132.10
 52 Deck Width: 135.10
 * 47 Tot. Horz. Cl: 64.70
 50 Curb/Sdewlk Width: 0.00/0.00
 32 Approach Rdwy Width: 116
 * 229 Shoulder Width:
 Rear Lt: 10.00 Type: 2 Rt: 12.00
 Fwd Lt: 10.00 Type: 2 RE: 12.00
 Pavement Width:
 Rear: 36.00 Type: 2
 Fwd: 36.00 Type: 2
 Intersection Rear: 0 Fwd: 0
 36 Safety Features Br. Rail:
 Transition: 1
 App. G. Rail: 1
 App. Rail End: 1
 53 Minimum Cl. Over:
 Under: H 99 ' 99 "
 228 Min. Vertical Cl: 16 ' 04 "
 Act. Odm Dir: 99 ' 99 "
 Oppo. Dir: 99 ' 99 "
 Posted Odm. Dir: 00 ' 00 "
 Oppo. Dir: 00 ' 00 "
 55 Lateral Undercl. Rt: H 6.40
 56 Lateral Undercl. Lt: 0.00
 * 10 Max Min Vert Cl: 99 ' 99 " Dir: 0
 39 Nav Vert Cl: 000 Horz: 0000
 116 Nav Vert Cl Closed: 000
 245 Deck Thickness Main: 7.50
 Deck Thick Approach: 0.00
 246 Overlay Thickness: 0.00
 212 Year Last Painted: Sup: 1999 Sub: 0000

Ratings

65 Inventory Rating Method: 1
 63 Inventory Rating Method: 1
 66 Inventory Type: 2 Rating: 39
 64 Operating Type: 2 Rating: 65
 231 Calculated Loads
 H-Modified: 20 0
 HS-Modified: 25 0
 Type 3: 28 0
 Type 3s2: 40 0
 Timber: 36 0
 Piggyback: 40 0
 261 H Inventory Rating: 20
 262 H Operating Rating: 33
 67 Structural Evaluation: 7
 58 Deck Condition: 6
 59 Superstructure Condition: 7
 * 227 Collision Damage: 0
 60A Substructure Condition: 7
 60B Scour Condition: N
 60C Underwater Condition: N
 71 Waterway Adequacy: N
 61 Channel Protection Cond: N
 68 Deck Geometry: 9
 69 Under Clr. Horz/Vert: 4
 72 Appr. Alignment: 8
 62 Culvert: N

Hydraulic Data

215 Waterway Data
 Highway Elev.: 0000.0 Year: 1900
 Avg. Streambed Elev.: 0000.0 Freq.: 00
 Drainage Area: 00000
 Area Of Opening: 000000
 113 Scour Critical: N
 216 Water Depth: 00.0 Br. Height: 00.0
 222 Slope Protection: 4
 221 Spur Dikes Rear: 0 Fwd: 0
 219 Fender System: 0
 220 Dolphin: 0
 223 Culvert Cover: 000
 Type: 0
 No. Barrels: 0
 Width: 0.00 Height: 0.00
 Length: 0 Apron: 0
 * 265 U/W Insp. Area: 0 Diver: ZZZZ
 * Location I.D. No.: 151-0040ID-225.22N

Posting Data

70 Bridge Posting Required: 5
 41 Struct Open, Posted, Cl: A
 * 103 Temporary Structure: 0
 232 Posted Loads H-Modified: 00
 HS-Modified: 00
 Type 3: 00
 Type3s2: 00
 Timber: 00
 Piggyback: 00
 253 Notification Date: 02/01/1901
 253 Fed Notify Date: 02/01/1901 0

BRIDGE INVENTORY DATA LISTING GEORGIA DEPARTMENT OF TRANSPORTATION

Structure ID: 151-0042-0
 Location & Geography

Henry

SUFF. RATING 85.68

* Structure I.D. No: 151-0042-0
 * 6A Feature Int: I-75
 * 6B Critical Bridge: 0
 * 7A Route Number Carried: CR00165
 * 7B Facility Carried: FLIPPEN ROAD
 * 9 Location: 2 M I S OF STOCKBRIDGE
 * 91 Inspection Frequency: 00 Date: 02/01/1901
 * 4 Place Code: 00000
 * 5 Inventory Route (O/D): 2
 Type: 4
 Designation: 1
 Number: 01794
 Direction: 0
 * 16 Latitude: 33-31.1
 * 17 Longitude: 084-14.7
 * 100 STRAHNET: 0
 * 12 Base Highway Network:
 * 13A LRS Inventory Route: 1512016500
 * 13B Sub Inventory Route: 0
 * 101 Parallel Structure: N
 * 102 Direction of Traffic: 2
 * 104 Highway System: 0
 * 26 Functional Classification: 16
 * 204 Federal Route Type: S No.: 01794
 * 105 Federal Lands Highway: 0
 * 110 Truck Route: 0
 * 19 Bypass Length: 06
 * 20 Toll: 3
 * 21 Maintenance: 01
 * 22 Owner: 01
 * 27 Year Constructed: 1969
 * 42 Type of Service on: 1 Under: 1
 * 43 Structure Type Main: 3 02
 * 208 Inspection Area: 03 Initials: WBP
 * Location I.D. No: 151-01794F-001.37N
 * XReference I.D. No 151-00401D-225.22N

Signs & Attachments

* 240 Median Barrier Rail: 0
 * 230 Guardrail Loc Dir Rear: 6
 Fwrd: 6
 Oppo Dir Rear: 0
 Fwrd: 0

Ratings

* 227 Collision Damage: 0

Measurements

* 29 ADT: 007200 Year: 1999
 * 28 Lanes On: 06 Under: 02
 * 48 Max. Span Length: 0072
 * 49 Structure Length: 192
 * 47 Tot. Horz. Cl: 40.50
 * 229 Shoulder Width: MP:

Posting Data

* 103 Temporary Structure: 0
 * 248 County Continuity No.: 00

Hydraulic Data

* 265 U/W Insp. Are 0 Diver: ZZZ

GEORGIA DEPARTMENT OF TRANSPORTATION

Bridge Component Report

District: 3
 Bridge Inspector: Bryon Patterson
 Location ID: 151-0040 ID-225.22N
 Structure ID: 151-0042-0
 Inspection Date: 12/28/2004
 Over: EAS 1794 FLIPPEN ROAD
 County: Henry
 Road Name: I-75
 Inspection Area: 03

SubStructure Data

Beam#	Type	Foundation	Col	#Cols	Piling	#Piles	Sway	CAP	Remarks
1	A			0		0		C	Good
2	B	SF	C	10		0		C	Good
3	B	SF	C	10		0		C	Good
4	A			0		0		C	Good

SuperStructure Data

Span#	Beam Type	Spacing	Length	#Beams	Remarks
1	Steel	7.40	60.00	20	W36X160 and 150
2	Steel	7.40	72.00	20	W36X160 and 150
3	Steel	7.40	60.00	20	W36X160 and 150

Bearing Data

Span#	Rear Type Bearing	FWD Type Bearing	Remarks
1	02 - Fixed Plate	01 - Sliding Plate	
2	02 - Fixed Plate	01 - Sliding Plate	
3	01 - Sliding Plate	02 - Fixed Plate	

BRIDGE INVENTORY DATA LISTING GEORGIA DEPARTMENT OF TRANSPORTATION

Structure ID: 151-0063-0

Henry

SUFF. RATING
61.47

Programming Data

201 Project No.: I-75-2 (37) 218 CT.2
 202 Plans Available: 1
 249 Prop. Proj. No. 000000000000000000
 250 Approval Status: 0000
 251 P.I. No.: 00000000
 252 Contract Date: 02/01/1901
 260 Seismic No.: 00000
 75 Type Work: 00 0
 94 Bridge Imp. Cost: \$ 0
 95 Roadway Imp. Cost: \$ 0
 96 Total Imp Cost: \$ 0
 76 Imp. Length: 000000
 97 Imp. Year: 0000
 114 Future ADT: 020655 Year: 2024

Measurements

* 29 ADT: 013770 Year: 2004
 109 % Trucks: 2
 * 28 Lanes On: 02 Under: 06
 210 No. Tracks On: 00 Under: 00
 * 48 Max. Span Length: 208
 * 49 Structure Length: 30.50
 51 Br. Rwdy. Width: 34.80
 52 Deck Width: 30.50
 * 47 Tot. Horz. Cl: 0.80/0.80
 50 Curb/Sdewlk Width: 024
 * 32 Approach Rdwy Width:
 * 229 Shoulder Width:
 Rear Lt: 8.00 Type: 8 Rt: 8.00
 Fwrd Lt: 8.00 Type: 8 Rt: 8.00

8.00
8.00

2
2

0
2

99 ' 99 "
16 ' 10 "

99 ' 99 "
99 ' 99 "
00 ' 00 "
00 ' 00 "

H
11.20
18.40

99 ' 99 " Dir: 0
Horz: 0000

000'
000'

8.50
8.50
0.00

Sup: 1997 Sub: 0000

000
000

000
000

000
000

Hydraulic Data

215 Waterway Data
 Highwater Elev.: 0000.0 Year: 1900
 Ave. Streambed Elev.: 0000.0 Freq.: 00
 Drainage Area: 00000
 Area Of Opening: 000000
 113 Scour Critical: N
 216 Water Depth: 00.0 Br. Height: 00.0
 222 Slope Protection: 4
 221 Spur Dikes Rear: 0 Fwrd: 0
 219 Fender System: 0
 220 Dolphin: 0
 223 Culvert Cover: 000
 Type: 0
 No. Barrels: 0
 Width: 0.00 Height: 0.00
 Length: 0 Apron: 0 Diver: ZZZ
 * 265 U/W Insp. Area: 0

* Location I.D. No.: 151-09321M-001.81E

Ratings

65 Inventory Rating Method: 2
 63 Inventory Rating Method: 2
 66 Inventory Type: 2 Rating: 36
 64 Operating Type: 2 Rating: 59
 231 Calculated Loads

H-Modified: 20 0
 HS-Modified: 25 0
 Type 3: 28 0
 Type 3s2: 40 0
 Timber: 36 0
 Piggyback: 00 0

261 H Inventory Rating: 23

262 H Operating Rating: 39

67 Structural Evaluation: 5

58 Deck Condition: 7

59 Superstructure Condition: 7

* 227 Collision Damage: 0

60A Substructure Condition: 5

60B Scour Condition: N

60C Underwater Condition: N

71 Waterway Adequacy: N

61 Channel Protection Cond: N

68 Deck Geometry: 4

69 UnderClr. Horz/Vert: 7

72 Appr. Alignment: 5

62 Culvert: N

Posting Data

70 Bridge Posting Required: 5
 41 Struct Open, Posted, Cl: A
 * 103 Temporary Structure: 0
 232 Posted Loads H-Modified: 00
 HS-Modified: 00
 Type 3: 00
 Type3s2: 00
 Timber: 00
 Piggyback: 00

253 Notification Date 02/01/1901
 253 Fed Notify Date: 02/01/1901 0

BRIDGE INVENTORY DATA LISTING GEORGIA DEPARTMENT OF TRANSPORTATION

Structure ID: 151-0063-0

Location & Geography

* Structure I.D.No: 151-0063-0
 * 6A Feature Int: M-9321 RED OAK ROAD
 * 6B Critical Bridge: 0
 * 7A Route Number Carried: SR00401
 * 7B Facility Carried: I-75
 * 9 Location: 2 MI SW OF STOCKBRIDGE
 * 91 Inspection Frequency: 00 Date: 02/01/1901
 * 4 Place Code: 00000
 * 5 Inventory Route (O/U): 2

Type: 1
 Designation: 1
 Number: 00075
 Direction: 0
 * 16 Latitude: 33-31.6
 * 17 Longitude: 084-15.3
 * 100 STRAHNET: 1

12 Base Highway Network:
 13A LRS Inventory Route: 1511040100
 13B Sub Inventory Route: 0
 * 101 Parallel Structure: N
 * 102 Direction of Traffic: 2
 * 104 Highway System: 1

* 26 Functional Classification: 11
 * 204 Federal Route Type: 1 No.: 00752
 105 Federal Lands Highway: 0
 * 110 Truck Route: 1
 * 19 Bypass Length: 06
 * 20 Toll: 3
 * 21 Maintenance: 01
 * 22 Owner: 01
 27 Year Constructed: 1968

* 42 Type of Service on: 1 Under: 1
 * 43 Structure Type Main: 3 02
 * 208 Inspection Area: 03 Initials: WBP
 * Location I.D. No.: 151-0040ID-226.15N
 * XReference I.D. No: 151-0932IM-001.81E

Heavy

Signs & Attachments

* 240 Median Barrier Rail: 0
 * 230 Guardrail Loc Dir Rear: 6
 Fwrd: 7
 Oppo Dir Rear: 6
 Fwrd: 7

Measurements

* 29 ADT: 125300 Year: 1999
 * 28 Lanes On: 02 Under: 06
 * 48 Max. Span Length: 208
 * 49 Structure Length: 58.00
 * 47 Tot. Horz. Cl: MP:
 * 229 Shoulder Width:

Rear Lt: 10.00 Type: 2 Rt: 12.00
 Fwrd Lt: 10.00 Type: 2 Rt: 12.00
 Pavement Width:
 Rear: 36.00 Type: 2
 Fwrd: 36.00 Type: 2
 Intersection Rear: 0 Fwrd: 0

* 228 Min. Vertical Cl: 16' 10"
 Act. Odm Dir: 17' 07"
 Oppo. Dir: 00' 00"
 Posted Odm. Dir: 00' 00"
 Oppo. Dir: 00' 00"
 * 10 Max Min Vert Cl: 17' 07" Dir: 2

Ratings

* 227 Collision Damage: 0

Posting Data

* 103 Temporary Structure: 0
 * 248 County Continuity No.: 00

Hydraulic Data

* 265 U/W Insp. Are 0 Diver: ZZZ

SUFF. RATING 61.47

GEORGIA DEPARTMENT OF TRANSPORTATION

Bridge Component Report

District: 3
 Bridge Inspector: Byron Patterson
 Location ID: 151-09321M-001.81E
 Structure ID: 151-0063-0

Inspection Date: 12/31/2004

Inspection Area: 03

Over: I-75

County: Henry

Road Name: RED OAK ROAD

SubStructure Data

Beam#	Type	Foundation	Col	#Cols	Piling	#Piles	Sway	CAP	Remarks
1	A			0		0		C	Good
2	B		C	2		0		C	Good
3	B		C	2		0		C	Good
4	B		C	2		0		C	Good
5	A			0		0		C	Good

SuperStructure Data

Span#	Beam Type	Spacing	Length	#Beams	Remarks
1	Steel	7.00	32.00	5	W36X160
2	Steel	7.00	70.00	5	W36X182
3	Steel	7.00	70.00	5	W36X182
4	Steel	7.00	36.00	5	W36X160

Bearing Data

Span#	Rear Type Bearing	FWD Type Bearing	Remarks
1	02 - Fixed Plate	01 - Sliding Plate	
2	01 - Sliding Plate	02 - Fixed Plate	
3	01 - Sliding Plate	02 - Fixed Plate	
4	01 - Sliding Plate	02 - Fixed Plate	

Report Date: 12/29/2005

TECHNICAL MEMORANDUM

**Traffic Operations Analysis
I-75 Auxiliary Lane Project
I-675 to Eagles Landing/Hudson Bridge Road
Project #: CSNHS-0008-00(274)
Henry County
PI#: 0008274**

Prepared for:



J. B. Trimble, Inc.

Prepared by:



Day Wilburn Associates, Inc.

**1718 Peachtree Street NW, Suite 461
Atlanta, Georgia 30309
Phone: (404) 249-7550
Fax: (404) 249-7705
www.daywilburn.com**

May 2006

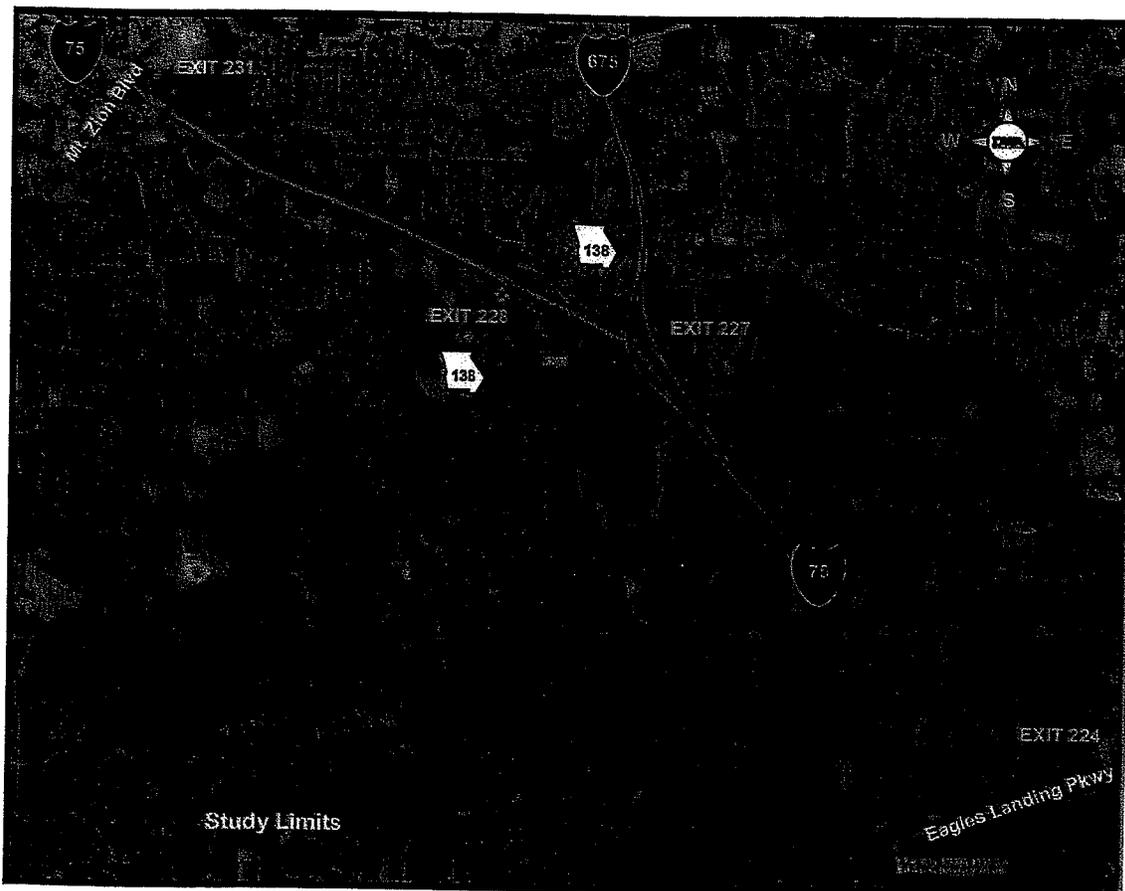
Traffic Operations Analysis I-75 Auxiliary Lane Project

INTRODUCTION

DWA has conducted a traffic analysis of the I-75 southbound travel lanes between I-675 and the Eagles Landing Parkway/Hudson Bridge Road interchange. The purpose of the analysis is to evaluate existing traffic conditions and determine the impact of constructing a southbound auxiliary lane between the two interchanges. The I-75 southbound travel lanes frequently experience heavy congestion during the evening peak hours due to the southbound merge at I-675. Southbound traffic will frequently backup from the I-675 merge to north of the SR-138 interchange (Exit 228). In order to improve traffic conditions along this segment of I-75 the Georgia Department of Transportation (GDOT) has programmed a project to extend the existing I-675 southbound auxiliary lane from its current terminus to the Eagles Landing Parkway/Hudson Bridge Road interchange (Exit 224).

The study limits include I-75 from just south of the Mount Zion Boulevard interchange (Exit 231) to the interchange (Exit 224) at Eagles Landing Parkway/Hudson Bridge Road. Figure 1 shows the study limits of the analysis.

**Figure 1
I-75 Study Area**



Traffic Operations Analysis I-75 Auxiliary Lane Project

EXISTING CONDITIONS

Existing traffic conditions along the study corridor were analyzed in order to identify existing deficiencies and aid in evaluating potential improvements. The results of the analysis will serve as a base for evaluating future conditions and determining the effectiveness of recommended improvements.

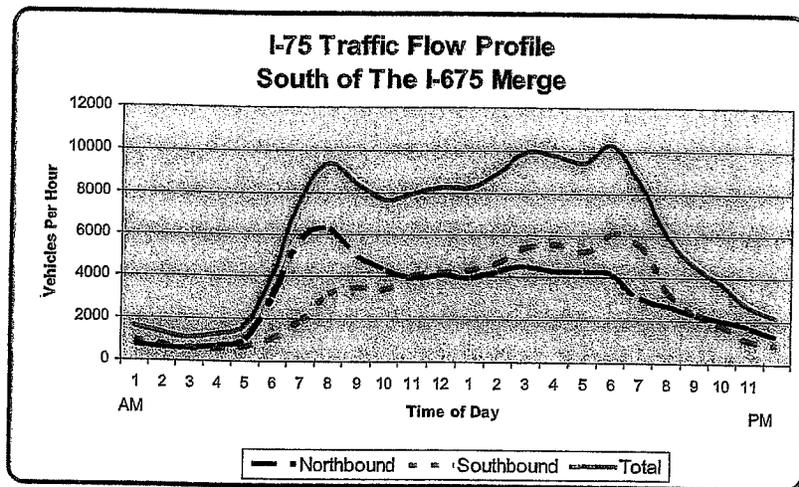
Existing Lane Geometry

I-75 has four through lanes in each direction north of SR-138 transitioning down to three lanes in each direction at the SR-138 interchange. Between SR-138 and Eagles Landing Parkway, I-75 has three lanes in each direction. The posted speed along this segment of I-75 is 65 mph. I-675 has two southbound lanes merging with the three I-75 through lanes. The outer lane on I-675 terminates approximately 1,850 feet south of the I-75/I-675 gore area. The inside I-675 lane terminates approximately 3,660 feet south of the gore area (just north of the Walt Stephens Road overpass). Figure 2 show the existing lane geometry along the corridor.

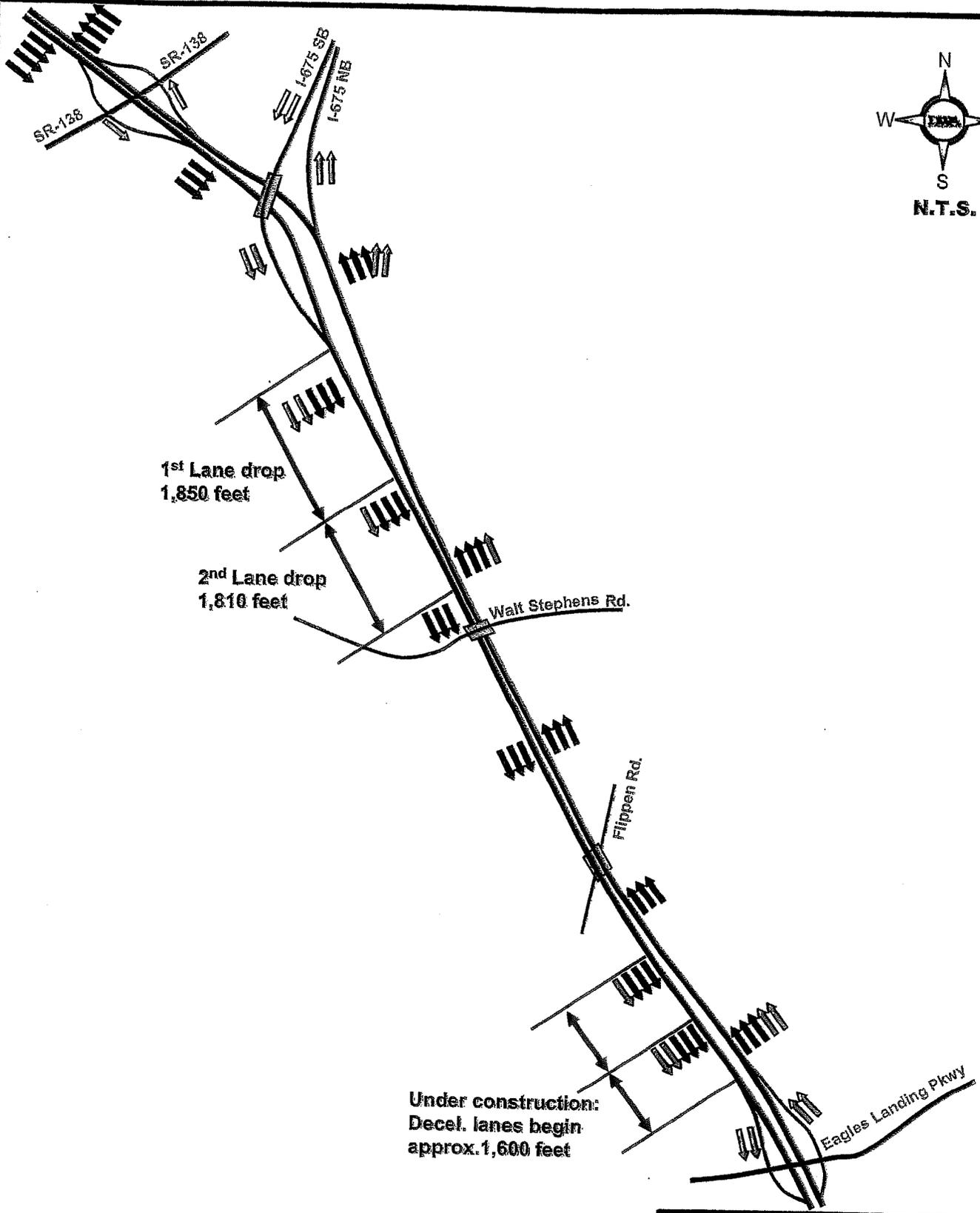
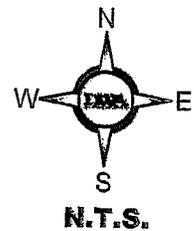
The interchange at Eagles Landing Parkway is currently under construction to widen the bridge and reconstruct the ramps to include a two lane southbound off-ramp and a two lane northbound on ramp. As of February 2006, the construction is nearly completed and the two-lane off-ramp will soon be open to traffic. Therefore, the southbound two-lane off-ramp was included in the analysis of existing conditions.

Existing Traffic Data

Existing traffic data was obtained from the Georgia Department of Transportation. The traffic data used in the analysis consisted of twenty-four hour traffic counts, peak hour counts, lane occupancies, travel-time runs, and speed data. 2005 Average daily traffic projections were provided by GDOT's Office of Environment and Location for I-75, I-675, and the interchange ramps at SR 138 (Exit 228) and Eagles Landing Parkway (Exit 224). In addition, hourly traffic data was

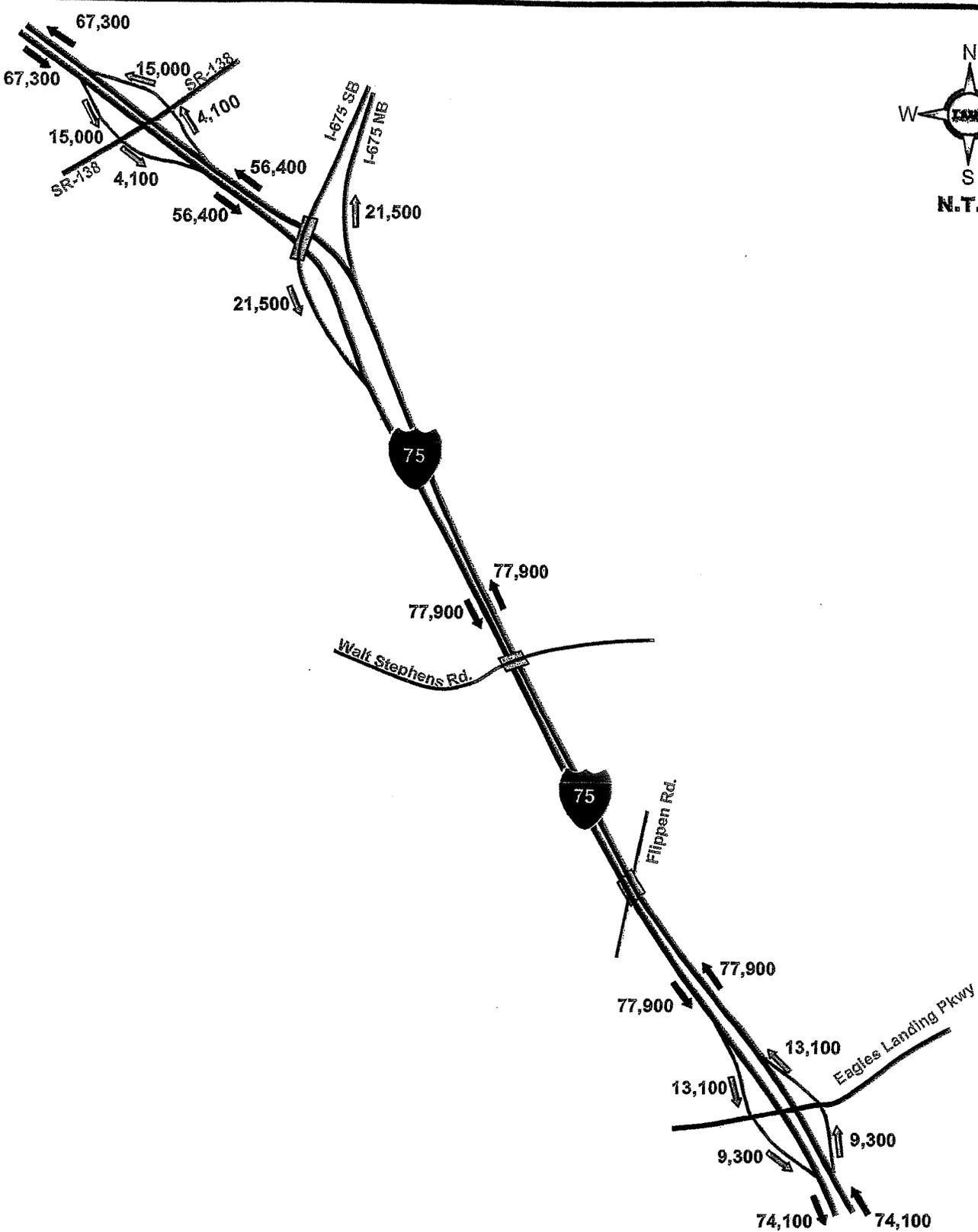
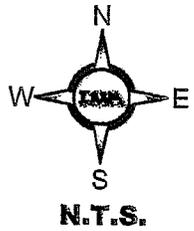


obtained from the Georgia Navigator system on I-75 at several locations along the corridor. The Georgia Navigator system does not currently cover I-675. Therefore, hourly traffic counts were collected on I-675 just north of I-75. In addition, twenty-four hour counts were collected on each of the ramps to the SR-138 and Eagles Landing Parkway interchanges. The traffic counts were collected for a typical weekday in the fall of 2005 with school in session. Figure 3 shows existing daily traffic volumes along the corridor for a typical weekday. I-75 currently carries 112,800 vehicles per day (vpd) north of I-675 during a typical weekday. I-675 carries 43,000 vpd just northeast of I-75 merge based on 2005 daily traffic counts provided by GDOT.



**I-75 Auxiliary Lane
Traffic Analysis**

Figure 2	I-75 Existing Lane Geometry
Project No. MSL-0003-00(167) Henry Co.	
Latest revision date: May 2006	



I-75 Auxillary Lane Traffic Analysis	
Figure 3	Existing 2005 Average Daily Traffic
Project No. MSL-0003-00(167) Henry Co.	
Latest revision date: May 2006	

Traffic Operations Analysis I-75 Auxiliary Lane Project

The highest peak hour volumes were obtained from the twenty-four hour counts and are summarized in Figure 4 for the AM and PM peak periods. During the AM peak period, the primary direction of travel is northbound heading into Atlanta with 4,183 vehicles per hour (vph) on I-75 north of I-675. The southbound direction carries 2,180 vph during the AM peak period. In the evening peak period, the direction of travel is reversed with 4,495 vph traveling southbound and 2,923 vph traveling northbound. I-675 carries 2,152 vph northbound and 1,146 vph southbound during the AM peak period along the segment north of I-75. During the evening peak period, I-675 carries 1,225 vph northbound and 2,762 vph southbound. Just south of the merge area with I-675, I-75 carries 7,250 vph in the southbound direction during the evening peak period.

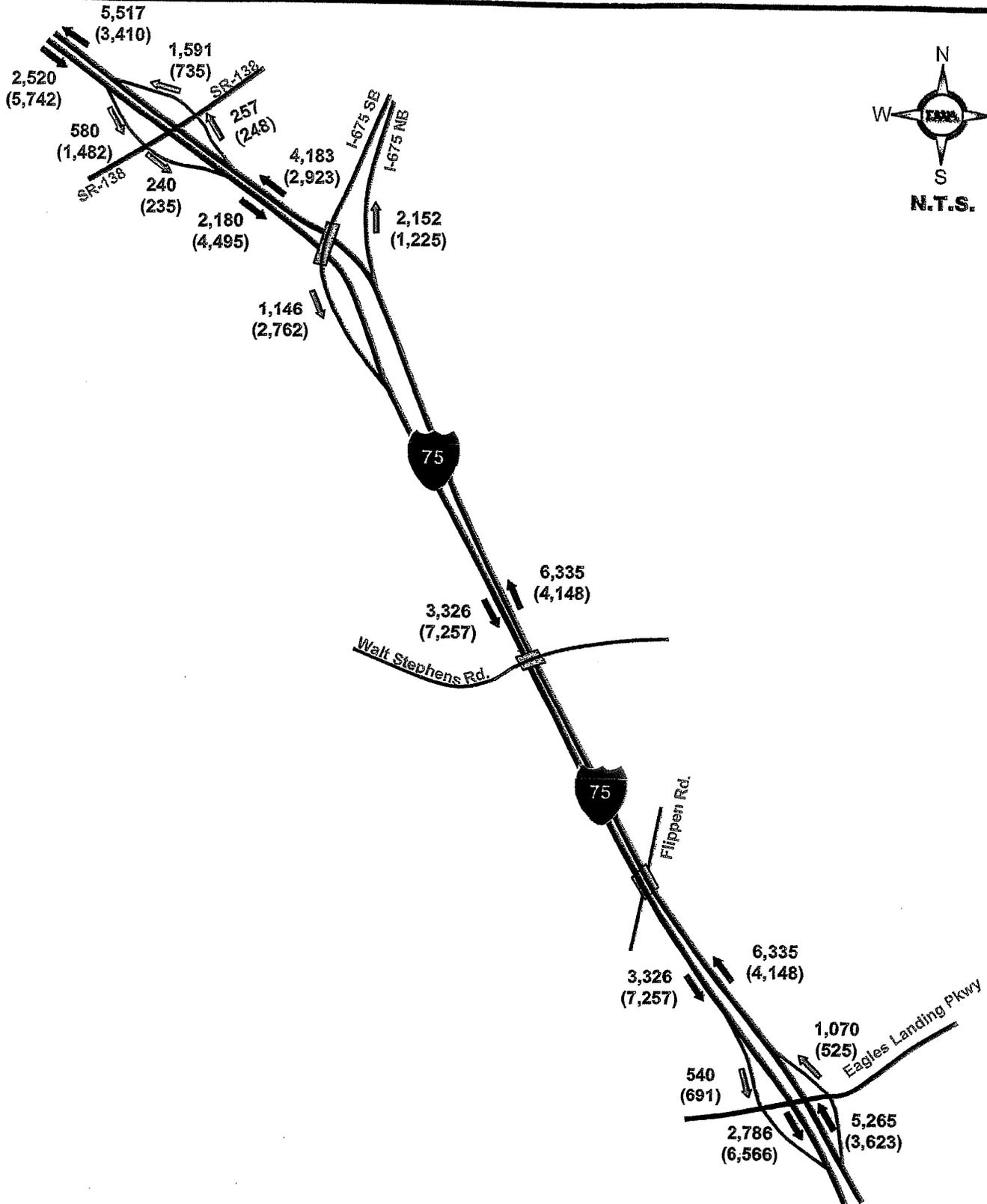
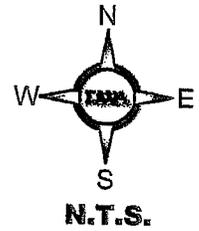
Speed and lane occupancy data were obtained at several locations on I-75 and I-675 within the study area. Figure 5 shows the average speeds and lane occupancies along the corridor during the AM and PM peak periods. As shown, the average speed along the corridor ranges between 70 and 83 mph during the morning peak period in the southbound direction. During the PM peak period the southbound speeds are dramatically reduced with average speeds of 21 miles per hour (mph) just north of the I-675 merge, 25 mph at the merge, and 57 mph after the merge. The PM peak hour speeds shown in Figure 5 indicate that heavy volumes on I-675 merging with the heavy traffic on I-75 causes congestion from the merge point to north of SR-138. Speeds begin to increase as vehicles travel beyond the I-675/I-75 interchange towards Eagles Landing Parkway.

Travel time studies were also performed during the PM peak period from SR-138 to Eagles Landing Parkway. The results of the travel-time study are shown in Table 1.

Table 1
Average Southbound Travel Time Runs (PM Peak)

Link	Distance (feet)	Travel Time (seconds)	Number of Stops	Average Speed (mph)	Total Delay (seconds)
SR-138 to I-75/675 merge	6,290	301	3	14.3	223
I-75/675 merge to Eagles Landing Parkway	14,792	309	1	32.6	127
Total	21,082	610	4	23.6	350

As noted in Table 1, vehicle speeds frequently drop from average speeds of 70 mph and greater (Figure 5) to speeds as low as 14 mph in the PM peak period. The travel time runs indicated that vehicles stopped on the interstate several times during the PM peak north of the I-675 merge. The travel time runs also reflect that the majority of the congestion is occurring upstream of the merge area. (Approximately half the time required to travel between SR-138 and Eagles Landing Parkway/Hudson Bridge Road was spent between SR-138 and the I-675 merge.) Nearly 64 percent of the delay occurred between SR-138 and the I-675 merge (approximately 6,290 feet).



Legend

- 000 AM Peak Hour
- (000) PM Peak Hour

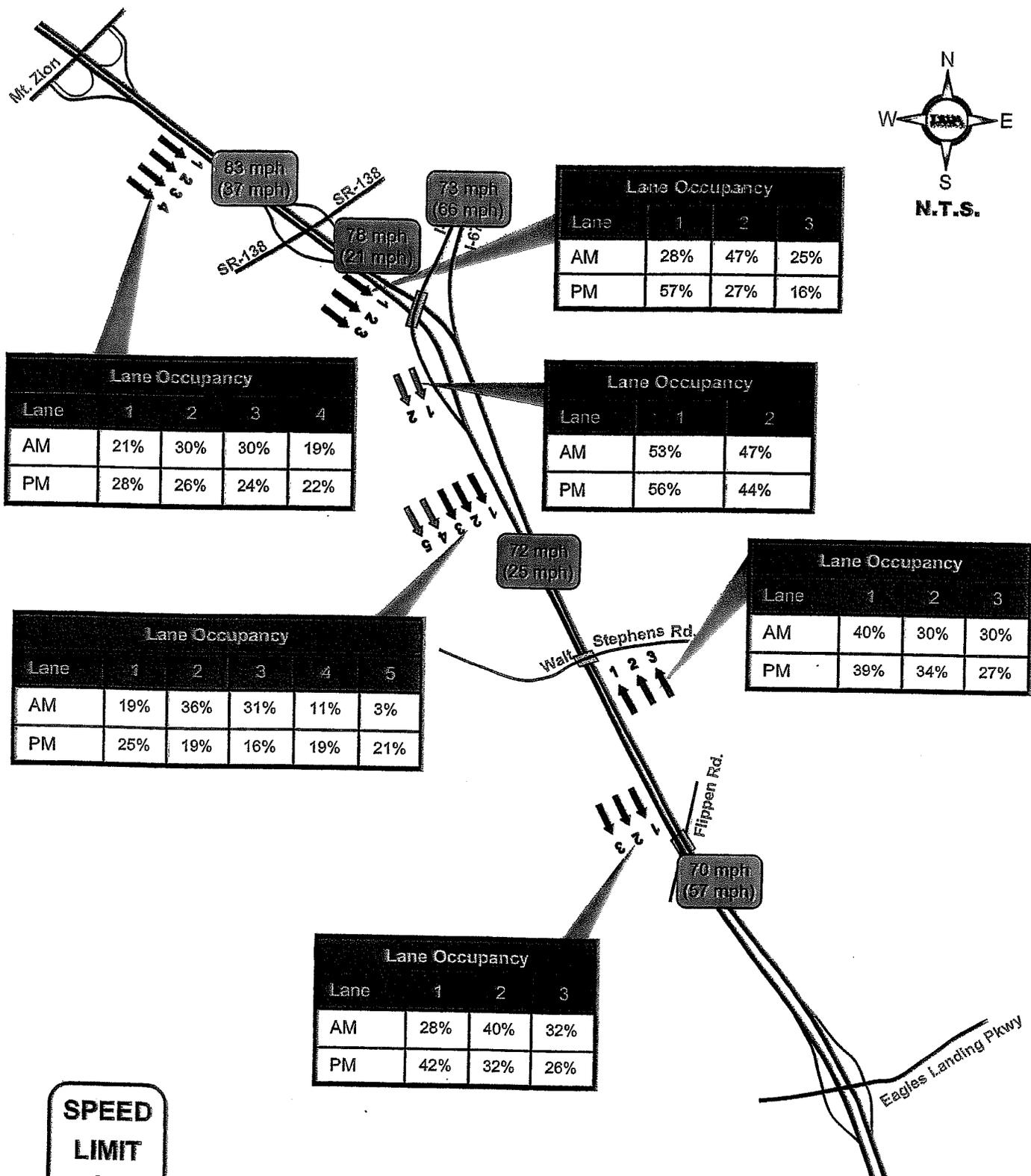
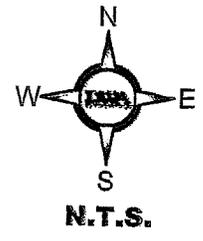
I-75 Auxiliary Lane Traffic Analysis

Figure 4 Existing 2005 Peak Hour Traffic Volumes

Project No. MSL-0003-00(167) Henry Co.

Latest revision date: May 2006





Lane Occupancy

Lane	1	2	3	4
AM	21%	30%	30%	19%
PM	28%	26%	24%	22%

Lane Occupancy

Lane	1	2
AM	53%	47%
PM	56%	44%

Lane Occupancy

Lane	1	2	3	4	5
AM	19%	36%	31%	11%	3%
PM	25%	19%	16%	19%	21%

Lane Occupancy

Lane	1	2	3
AM	40%	30%	30%
PM	39%	34%	27%

Lane Occupancy

Lane	1	2	3
AM	28%	40%	32%
PM	42%	32%	26%

**SPEED
LIMIT
65**

Legend

AM mph
PM mph Average Speed

I-75 Auxiliary Lane Traffic Analysis

Figure 5 Existing Speed and Occupancy Data

Project No. MSI-0003-00(167) Henry Co.

Latest revision date: May 2006

DWA
Day Wilburn Associates, Inc.

Traffic Operations Analysis I-75 Auxiliary Lane Project

Crash Analysis

Crash data was obtained for the I-75 southbound travel lanes at the I-75/I-675 merge area for the latest four year period. The crash data was obtained for a quarter mile segment on the I-75 southbound travel lanes in the vicinity of the I-675 merge. The results of the analysis indicate that a high number of rear end and sideswipe collisions occurred in 2003 and 2004 on I-75 in the vicinity of the I-675 merge. This is most likely due to congestion occurring during the peak southbound travel periods upstream of the merge area.

There were a total of six injuries over the four year period and no recorded fatalities. Average crash rates ranged from 37.4 in 2001 to over 55 in 2004. The statewide average crash rates for an urban interstate are listed below:

- 2001 - 197 per million vehicle miles
- 2002 - 204 per million vehicle miles
- 2003 - 200 per million vehicle miles
- 2004 - 190 per million vehicle miles

**Table 2
I-75 Crash Summary**

YEAR	CRASH TYPE	NUMBER OF CRASHES	INJURIES	FATALITIES	CRASH RATE (Per 100 Million VMT)
2001	ANGLE	1	0	0	37.44
	REAR END	6	0	0	
	SIDESWIPE-SAME DIRECTION	4	0	0	
	NOT A COLLISION WITH A MOTOR VEHICLE	7	0	0	
	TOTAL	18	0	0	
2002	ANGLE	2	0	0	37.4
	REAR END	8	0	0	
	SIDESWIPE-SAME DIRECTION	4	0	0	
	NOT A COLLISION WITH A MOTOR VEHICLE	5	1	0	
	TOTAL	19	1	0	
2003	ANGLE	1	0	0	50.7
	REAR END	14	3	0	
	SIDESWIPE-SAME DIRECTION	6	0	0	
	NOT A COLLISION WITH A MOTOR VEHICLE	6	0	0	
	TOTAL	27	3	0	
2004	ANGLE	2	0	0	55.05
	REAR END	7	0	0	
	SIDESWIPE-SAME DIRECTION	14	1	0	
	NOT A COLLISION WITH A MOTOR VEHICLE	4	1	0	
	TOTAL	27	2	0	

RECOMMENDED IMPROVEMENT ALTERNATIVE

The existing capacity along I-75 is insufficient to accommodate the amount of southbound demand on I-75 and I-675 during the evening peak periods. There are five lanes entering the merge point and only three lanes exiting. Ultimately, major widening and interchange improvements on I-75 will be required to satisfy the traffic demand. GDOT has programmed HOV lanes and a CD system along this portion of I-75 as part of their long range plan.

Traffic Operations Analysis I-75 Auxiliary Lane Project

However, these major infrastructure improvements are still several years away from implementation. In order to mitigate some of the existing capacity deficiency at the I-75/I-675 merge, GDOT has programmed a project for extending the inside auxiliary lane from the I-675 southbound on-ramp to Eagles Landing Parkway/Hudson Bridge Road (Exit 224). The proposed improvement consists of extending the inside lane of the I-675 southbound on-ramp to the southbound off-ramp at Eagles Landing Parkway/Hudson Bridge Road. The I-675 outside lane will still terminate at its current location. Figure 6 shows the proposed lane geometry associated with extending the southbound auxiliary lane. The purpose of this project is to provide immediate relief to some of the congestion already occurring southbound on I-75 until more infrastructure intensive projects can be implemented.

EXISTING TRAFFIC OPERATIONS ANALYSIS

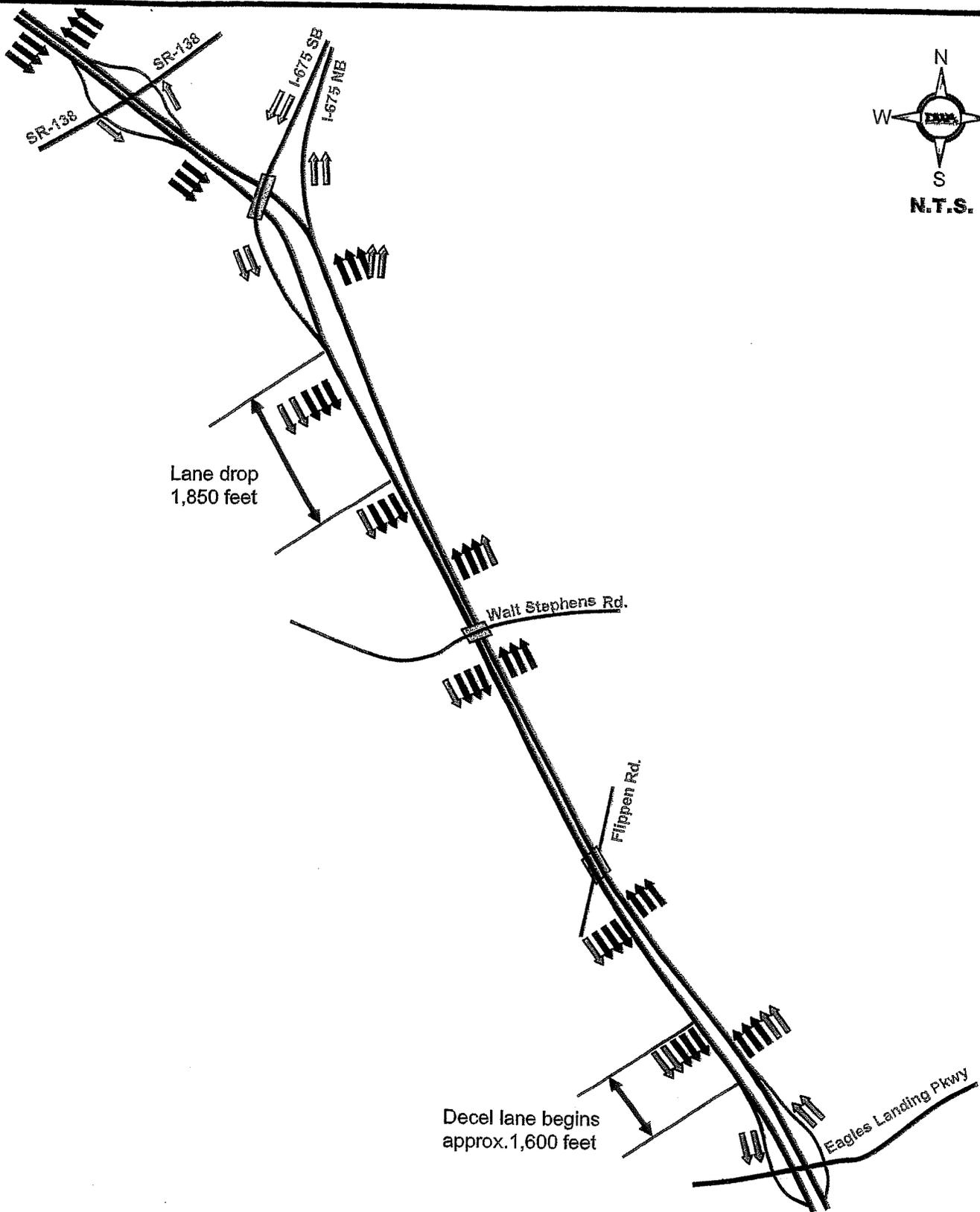
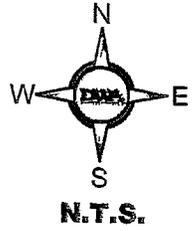
Traffic conditions along the corridor were analyzed during the PM peak period to evaluate existing congestion occurring in the southbound direction along this segment of I-75. The AM peak period was also analyzed to evaluate the southbound conditions when northbound is the predominant direction. The analysis was performed based on existing 2005 traffic conditions along the corridor with and without the proposed southbound auxiliary lane improvement.

The analyses were performed using FREESIM simulation software. FREESIM is a micro-simulation model used to simulate traffic conditions on freeway systems. The simulation model uses Measures of Effectiveness (MOE) to evaluate traffic conditions on freeways. Several of the MOEs used in the analysis include the following:

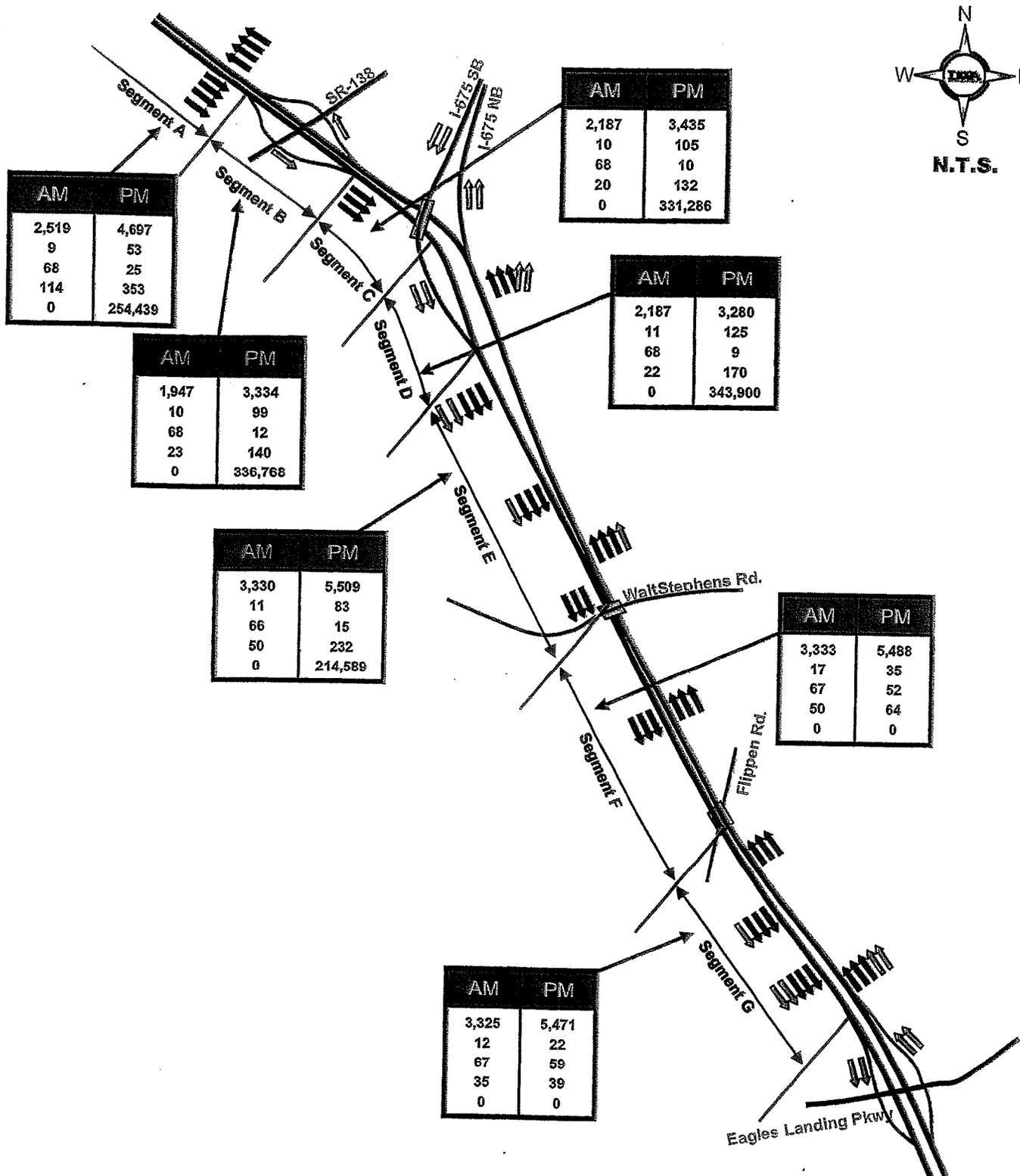
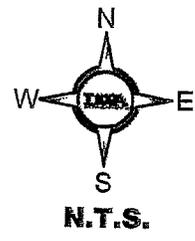
- Discharge volume
- Density
- Average Speed
- Average Travel Time
- Average Vehicle Delay

Analysis of Existing Conditions

The I-75 southbound corridor was analyzed for the AM and PM peak hours based on 2005 traffic volumes and the existing lane geometry using the FREESIM simulation model. Figure 7 summarizes the results of the analysis for the AM and PM peak periods. Figure 7 divides the I-75 southbound corridor into Segments A-G in order to assess the locations where traffic conditions deteriorate between SR-138 and Eagles Landing Parkway. As expected, the PM conditions reflect lesser speeds, longer delay, and higher volumes than experienced during the morning peak period. From a speed standpoint, vehicles north of SR-138 (Segment A) traveling southbound travel at approximately 25 mph during the PM peak period. As vehicles continue southbound, the average speed decreases to 12 mph at Segment B and 9 mph at Segment C (merge with I-675). Vehicle speeds remain slow (15 mph) along Segment E before rising to above 50 mph for Segments F and G (just south of Eagles Landing Parkway).



I-75 Auxiliary Lane Traffic Analysis	
Figure 6	I-75 Proposed Auxiliary Lane
Project No. MSL-0003-00(167) Henry Co.	
DWA Day Wilburn Associates, Inc.	
Latest revision date: May 2006	



AM	PM
2,519	4,697
9	53
68	25
114	353
0	254,439

AM	PM
2,187	3,435
10	105
68	10
20	132
0	331,286

AM	PM
1,947	3,334
10	99
68	12
23	140
0	336,768

AM	PM
2,187	3,280
11	125
68	9
22	170
0	343,900

AM	PM
3,330	5,509
11	83
66	15
50	232
0	214,589

AM	PM
3,333	5,488
17	35
67	52
50	64
0	0

AM	PM
3,325	5,471
12	22
67	59
35	39
0	0

	AM	PM
Discharge	234	888
Density	45	78
Ave. Speed	65	25
Ave. Travel Time	234	777
Ave. Delay	0	0

**I-75 Auxillary Lane
Traffic Analysis**

Figure 7	No-Build 2005 Traffic Operations
Project No. MSL-0003-00(167) Henry Co.	
Latest revision date: May 2006	
DWA Day Wilburn Associates, Inc.	

Traffic Operations Analysis I-75 Auxiliary Lane Project

Analysis of Existing Conditions with Proposed Auxiliary Lane

The study corridor was reanalyzed for the AM and PM peak periods assuming a southbound auxiliary lane from I-675 to Eagles Landing/Hudson Bridge Road using the existing 2005 traffic volumes. Figure 8 summarizes the results with the proposed auxiliary lane on I-75.

Tables 3A and 3B below provide a comparison of the existing (no-build) configuration to the proposed auxiliary lane option (build). As shown, the build and no-build have similar, favorable traffic conditions during the AM peak period due to less heavy southbound volumes. The average speeds along the corridor are between 67-68 mph for both the build and no-build conditions.

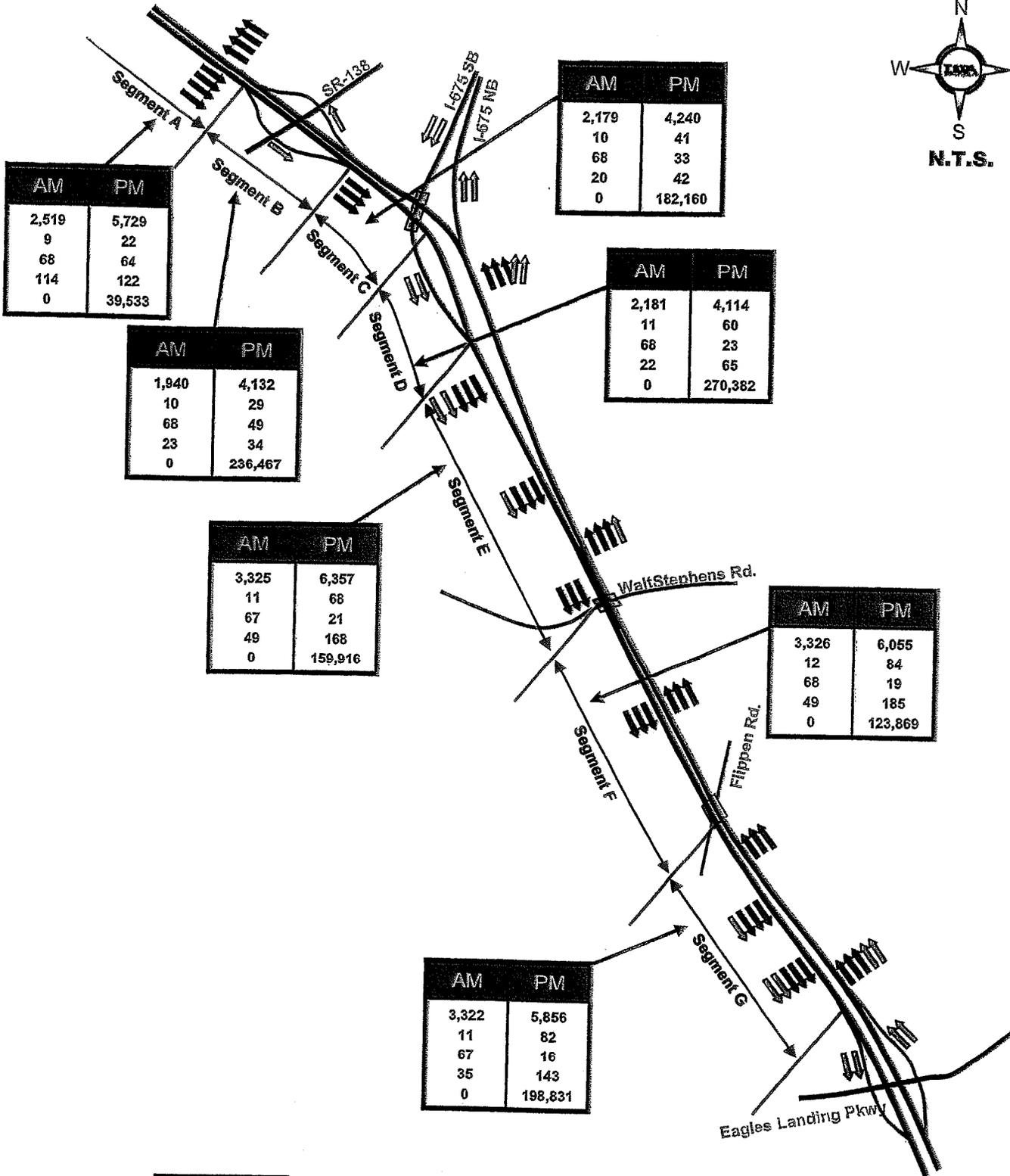
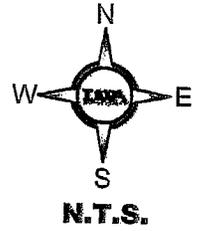
Table 3A: 2005 AM Peak Period Traffic Operations

Segment	Discharge (vehicles)		Average Travel Time (seconds)		Average Speed (mph)		Average Daily Delay (seconds)		Density	
	No-Build	Build	No-Build	Build	No-Build	Build	No-Build	Build	No-Build	Build
Segment A	2,519	2,519	114.48	114.28	68.05	68.17	0	0	9.28	9.23
Segment B	1,947	1,940	23.18	23.16	67.93	67.97	0	0	9.56	9.52
Segment C	2,187	2,179	19.57	19.58	67.62	67.63	0	0	9.93	9.89
Segment D	2,187	2,181	21.89	21.86	67.83	67.84	0	0	10.74	10.70
Segment E	3,330	3,325	50.12	49.42	66.43	67.38	0	0	10.88	10.52
Segment F	3,333	3,326	50.15	49.41	66.56	67.58	0	0	16.69	12.28
Segment G	3,325	3,322	34.67	34.64	66.79	66.81	0	0	12.02	11.27
Corridor-Wide	18,827	18,791	314.07	312.36	67.49	67.77	0	0	11.15	10.32

Table 3B: 2005 PM Peak Period Traffic Operations

Segment	Discharge (vehicles)		Average Travel Time (seconds)		Average Speed (mph)		Average Daily Delay (seconds)		Density	
	No-Build	Build	No-Build	Build	No-Build	Build	No-Build	Build	No-Build	Build
Segment A	4,697	5,729	352.62	122.20	24.59	63.82	254,439	39,533	53.18	22.48
Segment B	3,334	4,132	139.87	33.56	11.53	49.06	336,768	236,467	98.76	29.32
Segment C	3,435	4,240	132.20	41.81	10.20	32.55	331,286	182,160	105.29	41.06
Segment D	3,280	4,114	170.09	64.80	8.93	23.48	343,900	270,382	125.199	59.80
Segment E	5,509	6,357	231.75	167.62	14.70	20.51	214,589	159,916	83.18	68.25
Segment F	5,488	6,055	64.13	185.33	52.30	18.52	0	123,869	35.14	83.98
Segment G	5,471	5,856	39.07	142.85	59.33	16.47	0	198,831	22.27	81.87
Corridor-Wide	31,213	36,488	1,129.73	768.17	28.24	38.79	1,480,982	1,211,158	63.38	50.16

During the PM peak period, a more profound difference exists between the build and no-build alternatives. The build alternative generally has more favorable traffic conditions – offering a greater discharge of vehicles, a faster travel time, a higher average travel speed, less total delay and a smaller vehicle density for the duration of the corridor. The MOE's indicate that the no-build alternative is constrained around the I-675/I-75 interchange and lacks sufficient capacity to allow vehicles to move freely through the area. This would cause I-75 traffic to spill back north of the SR-138 interchange from the merge with I-675. Therefore, vehicle speeds are low and



AM	PM
2,519	5,729
9	22
68	64
114	122
0	39,533

AM	PM
2,179	4,240
10	41
68	33
20	42
0	182,160

AM	PM
1,940	4,132
10	29
68	49
23	34
0	236,467

AM	PM
2,181	4,114
11	60
68	23
22	65
0	270,382

AM	PM
3,325	6,357
11	68
67	21
49	168
0	159,916

AM	PM
3,326	6,055
12	84
68	19
49	185
0	123,869

AM	PM
3,322	5,856
11	82
67	16
35	143
0	198,831

	AM	PM
Discharge	234	888
Density	45	78
Ave. Speed	65	25
Ave. Travel Time	234	777
Ave. Delay	0	0

**I-75 Auxiliary Lane
Traffic Analysis**

Figure 8	Build 2005 Traffic Operations
Project No. MSL-0003-00(167) Henry Co.	
Latest revision date:	May 2006

DWA
Day Wilburn Associates, Inc.

Traffic Operations Analysis I-75 Auxiliary Lane Project

densities are high from the merge area to the north as reflected by Segments A through E (with a maximum density of 125 vehicles per lane per mile and minimum speed of 9 mph). The FREESIM model indicated significantly lower densities and higher speeds for Segments F and G since the upstream merge meters the number of vehicles making it to these segments. The additional merge length provided by the build alternative reduced the metering effect caused by the existing configuration and discharged more vehicles. The average travel speed drops from 49 mph at Segment B, to 23 mph at Segment D, to 16 mph at Segment G (exit at Eagles Landing Parkway). The average vehicle density rises along the corridor as the density ranges from 29 vehicles per lane per mile at Segment B, to 60 vehicles per lane per mile at Segment D, to 82 vehicles per lane per mile at Segment G. Although Segments F and G offer better MOE's in the no-build condition, the build condition can accommodate more vehicles and provides better conditions overall throughout the corridor.

FUTURE TRAFFIC OPERATIONS ANALYSIS

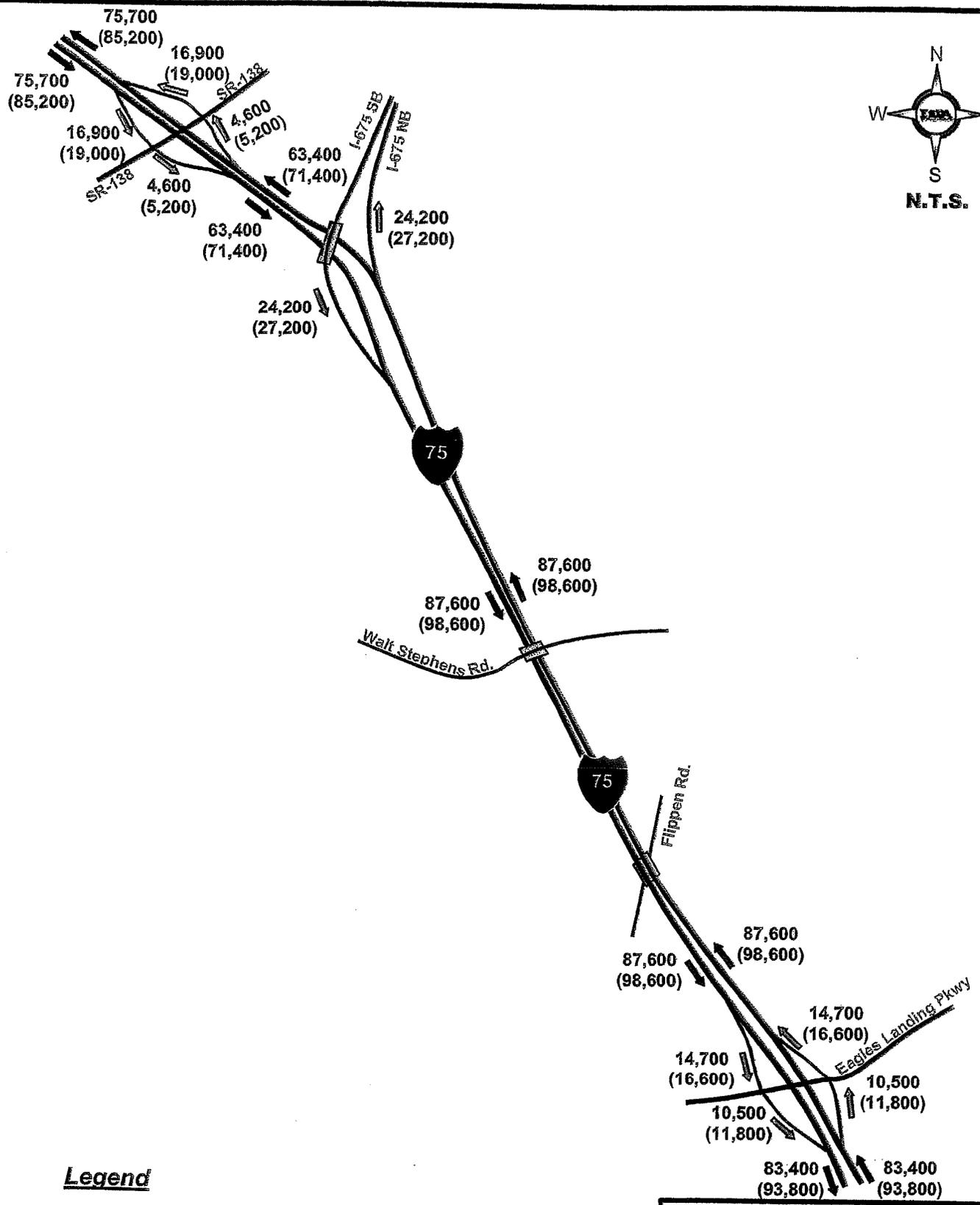
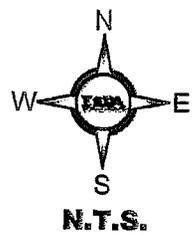
The study corridor was analyzed based on future traffic demand estimated along the corridor. Traffic projections were developed for the years 2010 and 2015. The traffic projections were developed by applying an annual growth factor to the existing 2005 traffic volumes. The growth factor was obtained from the Atlanta Regional Commission's (ARC) regional travel demand model. The growth rate was calculated by comparing existing 2005 daily traffic counts to 2010 daily volumes from the ARC model. Table 4 summarizes the average annual growth rate estimated along the corridor.

Table 4
Average Annual Growth Rate

Location	Existing 2005 ADT	ARC 2010 ADT	Annual Growth Rate
<i>I-75 Southbound</i>			
751528 I-75 SB south of SR 138	48551	50120	0.638%
751531 I-75 SB at I-675 SB merge	69879	79300	2.562%
<i>I-75 Northbound</i>	73721	80240	1.709%
<i>I-675 Southbound NE of I-75</i>	24059	29180	3.935%
<i>I-675 Northbound NE of I-75</i>	22967	26690	3.050%
<i>Average Annual Growth Rate</i>			2.380%

Figure 9 shows the estimated daily traffic projections for 2010 and 2015. AM and PM peak hour volumes are shown in Figures 10 (2010) and Figure 11 (2015).

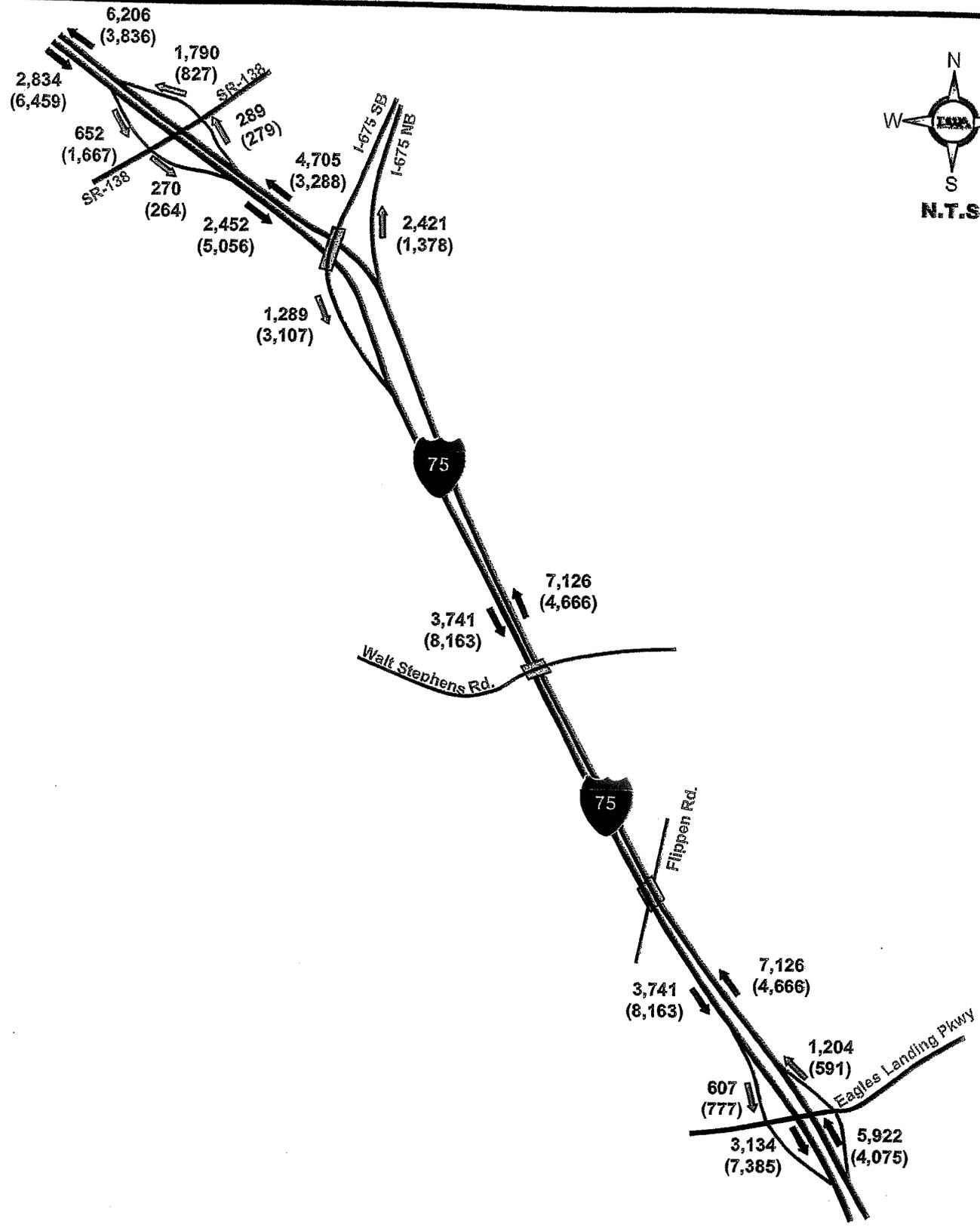
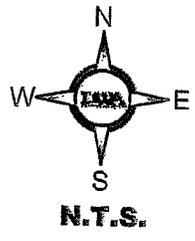
The peak hour traffic projections for 2010 and 2015 were entered into the FREESIM model. The model was rerun for both the existing geometry (no-build) and the proposed improvement (build).



Legend

- 000 2010 ADT
- (000) 2015 ADT

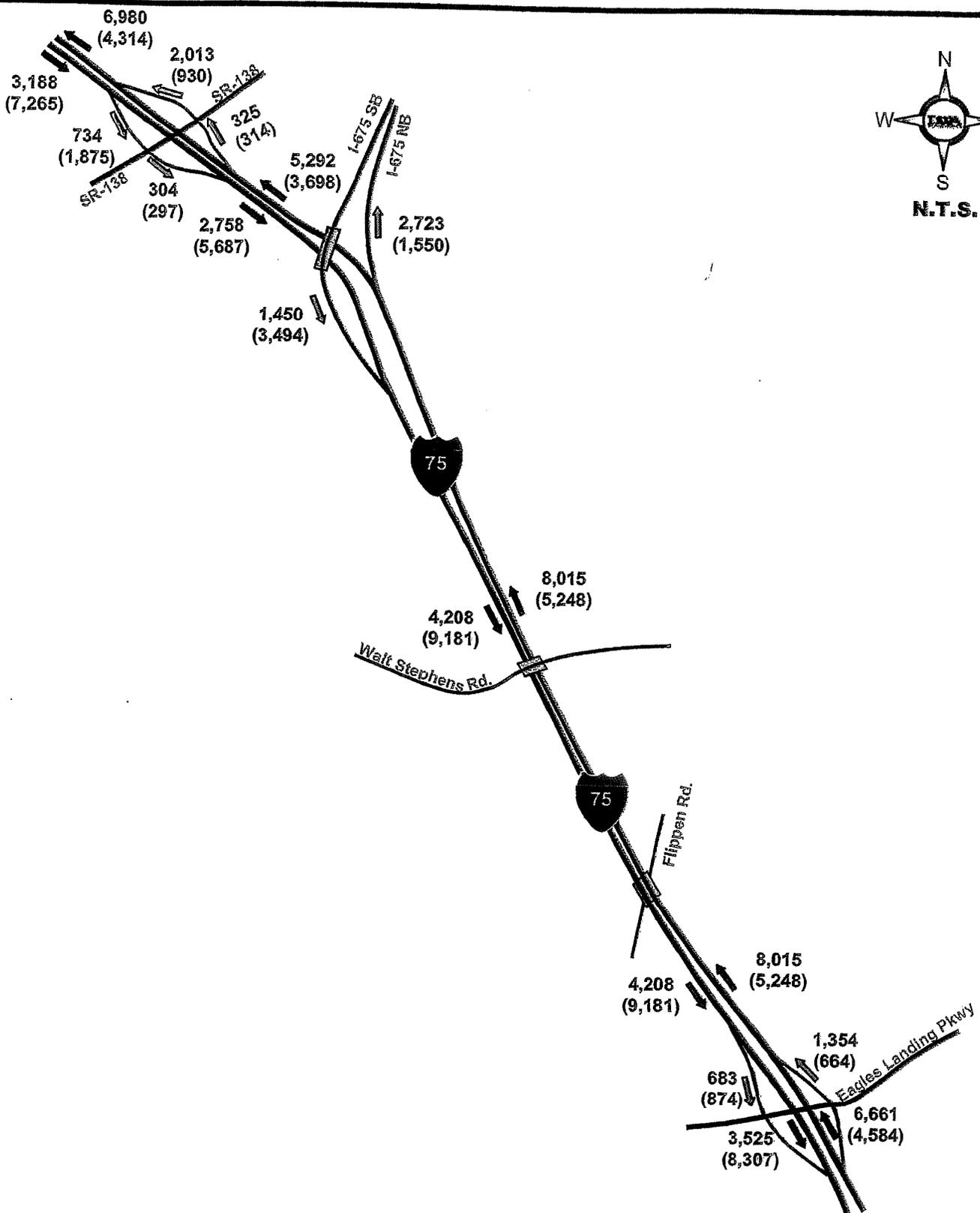
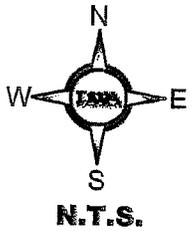
I-75 Auxiliary Lane Traffic Analysis	
Figure 9	2010 and 2015 Average Daily Traffic
Project No. MSL-0003-00(167) Henry Co.	
Latest revision date: May 2006	
Day Wilburn Associates, Inc.	



Legend

- 000 AM Peak Hour
- (000) PM Peak Hour

I-75 Auxiliary Lane Traffic Analysis	
Figure 10	2010 Peak Hour Traffic Volumes
Project No. MSL-0003-00(167) Henry Co.	
Latest revision date: May 2006	



Legend

- 000 AM Peak Hour
- (000) PM Peak Hour

I-75 Auxiliary Lane Traffic Analysis	
Figure 11	2015 Peak Hour Traffic Volumes
Project No. MSL-0003-00(167) Henry Co.	
Latest revision date: May 2006	

Traffic Operations Analysis I-75 Auxiliary Lane Project

2010 Analysis without Southbound Auxiliary Lane

The study corridor was analyzed using the 2010 traffic projections for the AM and PM peak periods with the lane geometry that exists today. Figure 12 summarizes the results of the analysis. As shown, operating conditions are expected to remain acceptable during the AM peak period with vehicles speeds ranging between 66 to 68 miles per hour along the corridor. Conditions during the PM peak hour are expected to worsen with more congestion and poorer MOE's. The average speed during the PM peak hour is expected to range between 8 and 14 mph in the vicinity of the I-75/I-675 interchange (Segments A to E). This is due to the metering effect of the existing I-675 merge. The travel speed rises to 53 mph on Segment F and 60 mph on Segment G once traffic has passed the constricting point at the merge area.

2010 Analysis with Southbound Auxiliary Lane

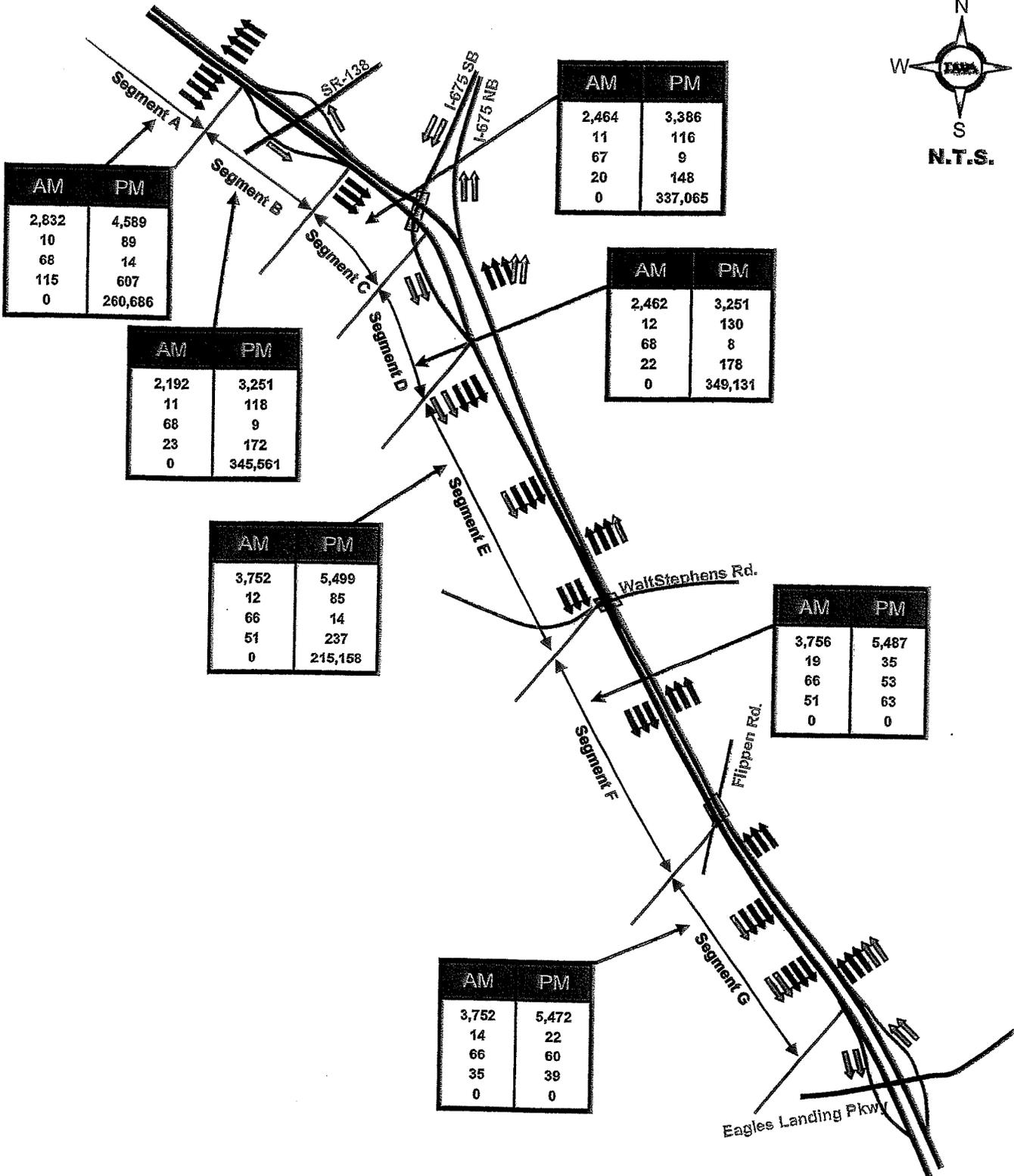
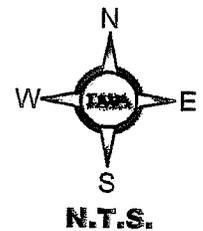
The study corridor was analyzed using the 2010 traffic projections for the AM and PM peak periods with the addition of the southbound auxiliary lane. Figure 13 summarizes the results of the analysis.

Tables 5A and 5B below provide a comparison of the existing (no-build) configuration to the proposed auxiliary lane option (build). The build and no-build have similar favorable traffic conditions during the AM peak period due to the lower southbound volumes. The average speeds along the corridor are between 66-67 mph for both the build and no-build conditions.

Table 5A: 2010 AM Peak Period Traffic Operations

Segment	Discharge (vehicles)		Average Travel Time (seconds)		Average Speed (mph)		Average Delay (seconds)		Density	
	No-Build	Build	No-Build	Build	No-Build	Build	No-Build	Build	No-Build	Build
Segment A	2,832	2,834	114.91	114.69	67.81	67.88	0	0	10.46	10.41
Segment B	2,192	2,183	23.24	23.24	67.72	67.68	0	0	10.79	10.74
Segment C	2,464	2,455	19.65	19.67	67.31	67.26	0	0	11.25	11.19
Segment D	2,462	2,455	21.98	22.00	67.55	67.47	0	0	12.15	12.12
Segment E	3,752	3,744	50.61	49.64	65.77	67.02	0	0	12.38	11.91
Segment F	3,756	3,742	50.59	49.71	65.99	67.18	0	0	18.95	13.93
Segment G	3,752	3,736	34.89	34.93	66.29	66.31	0	0	13.63	12.80
Corridor-Wide	21,209	21,148	315.87	313.88	66.98	67.38	0	0	12.64	11.68

During the PM peak period, the FREESIM analysis indicates that the build alternative offers a greater discharge of vehicles, a faster travel time, lower average delay, and a lower average vehicle density along the corridor than the no-build alternative. The average travel speed is slightly greater for the no-build alternative than the build alternative (24 mph to 23 mph). This is due to the metering effect caused by the heavy volumes merging onto I-75 from I-675 without a dedicated auxiliary lane. Since fewer vehicles get through this area, they are able to travel at greater speeds once they get past the I-675 merge point. This is reflected in the lower vehicle densities shown for Segments F and G for the no-build than the build condition.



AM	PM
2,832	4,589
10	89
68	14
115	607
0	260,686

AM	PM
2,464	3,386
11	116
67	9
20	148
0	337,065

AM	PM
2,192	3,251
11	118
68	9
23	172
0	345,561

AM	PM
2,462	3,251
12	130
68	8
22	178
0	349,131

AM	PM
3,752	5,499
12	85
66	14
51	237
0	215,158

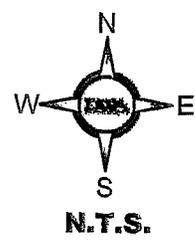
AM	PM
3,756	5,487
19	35
66	53
51	63
0	0

AM	PM
3,752	5,472
14	22
66	60
35	39
0	0

	AM	PM
Discharge	234	888
Density	45	78
Ave. Speed	65	25
Ave. Travel Time	234	777
Ave. Delay	0	0

**I-75 Auxiliary Lane
Traffic Analysis**

Figure 12	No-Build 2010 Traffic Operations
Project No. MSL-0003-00(167) Henry Co.	
Latest revision date: May 2006	
DWA Day Wilburn Associates, Inc.	



AM	PM
2,834	5,660
10	45
68	35
115	246
0	208,718

AM	PM
2,183	4,063
11	77
68	18
23	90
0	273,739

AM	PM
3,744	6,400
12	85
67	17
50	206
0	178,474

AM	PM
3,736	5,888
13	83
66	16
35	144
0	197,560

AM	PM
2,455	4,200
11	83
67	16
20	85
0	265,317

AM	PM
2,455	4,071
12	99
67	14
22	108
0	275,778

AM	PM
3,742	6,094
14	89
67	17
50	196
0	70,782

Discharge
Density
Ave. Speed
Ave. Travel Time
Ave. Delay

AM	PM
234	888
45	78
65	25
234	777
0	0

I-75 Auxiliary Lane Traffic Analysis

Figure 13 Build 2010 Traffic Operations

Project No. MSL-0003-00(167) Henry Co.

Latest revision date: May 2006

DWA
Day Wilburn Associates, Inc.

Traffic Operations Analysis I-75 Auxiliary Lane Project

Table 5B: 2010 PM Peak Period Traffic Operations

Segment	Discharge (vehicles)		Average Travel Time (seconds)		Average Speed (mph)		Average Delay (seconds)		Queue	
	No Build	Build	No Build	Build	No Build	Build	No Build	Build	No Build	Build
Segment A	4,589	5,660	606.86	245.52	14.22	34.69	260,686	208,718	89.35	44.51
Segment B	3,251	4,063	171.76	89.57	9.40	18.05	345,561	273,739	118.27	76.99
Segment C	3,386	4,200	147.69	85.45	9.13	15.84	337,065	265,317	115.95	83.16
Segment D	3,251	4,071	178.48	108.42	8.49	13.95	349,131	275,778	130.29	99.05
Segment E	5,499	6,400	237.22	206.30	14.36	16.61	215,158	178,474	84.97	84.55
Segment F	5,487	6,094	62.99	196.27	53.11	17.48	0	70,782	34.50	89.48
Segment G	5,472	5,888	38.60	143.65	60.02	16.37	0	197,560	22.01	82.83
Corridor-Wide	30,985	36,375	1,443,600	1,075,190	24.31	28.25	1,507,600	1,470,368	79.35	70.77

2015 Analysis without Southbound Auxiliary Lane

The study corridor was analyzed using the 2015 traffic projections for the AM and PM peak periods with the lane geometry that exists today. Figure 14 summarizes the results of the analysis. The AM conditions are expected to remain favorable with an average speed ranging between 65 and 67 mph along the corridor. The PM conditions will continue to degrade along the I-75 corridor. Average speeds along the corridor for Segments A to E are expected to range between 8 and 14 mph. Due to the metering effect of the I-675/I-75 interchange, the average speeds increase along Segments F and G (52 and 59 mph, respectively).

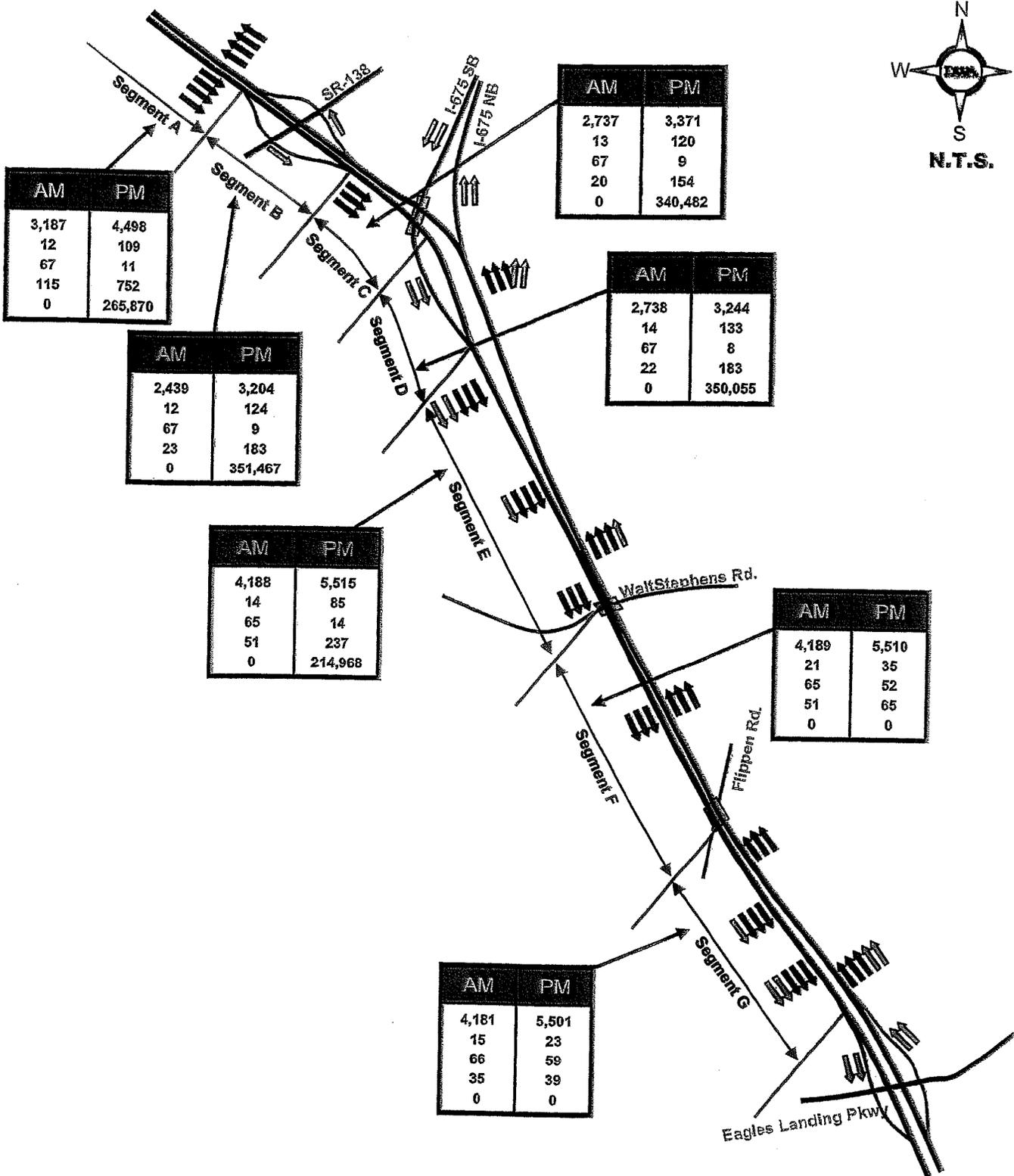
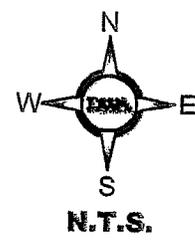
2015 Analysis with Southbound Auxiliary Lane

The study corridor was analyzed using the 2015 traffic projections for the AM and PM peak periods with the southbound auxiliary lane. Figure 15 summarizes the results of the analysis.

Tables 6A and 6B below provide a comparison of the existing (no-build) configuration to the proposed auxiliary lane option (build). As shown, the build and no-build have similar, favorable traffic conditions during the AM peak period due to the lower southbound volumes.

Table 6A: 2015 AM Peak Period Traffic Operations

Segment	Discharge (vehicles)		Average Travel Time (seconds)		Average Speed (mph)		Average Delay (seconds)		Queue	
	No Build	Build	No Build	Build	No Build	Build	No Build	Build	No Build	Build
Segment A	3,187	3,184	115	115	67	67	0	0	11.80	11.80
Segment B	2,439	2,453	23	23	67	67	0	0	12.05	12.14
Segment C	2,737	2,756	20	20	67	67	0	0	12.56	12.66
Segment D	2,738	2,754	22	22	67	67	0	0	13.59	13.68
Segment E	4,188	4,205	51	50	65	67	0	0	14.00	13.46
Segment F	4,189	4,203	51	50	65	67	0	0	21.38	15.76
Segment G	4,181	4,196	35	35	66	66	0	0	15.35	14.51
Corridor-Wide	23,659	23,751	318,331	316,065	66.46	66.94	0	0	14.24	13.19



AM	PM
3,187	4,498
12	109
67	11
115	752
0	265,870

AM	PM
2,737	3,371
13	120
67	9
20	154
0	340,482

AM	PM
2,439	3,204
12	124
67	9
23	183
0	351,467

AM	PM
2,738	3,244
14	133
67	8
22	183
0	350,055

AM	PM
4,188	5,515
14	85
65	14
51	237
0	214,968

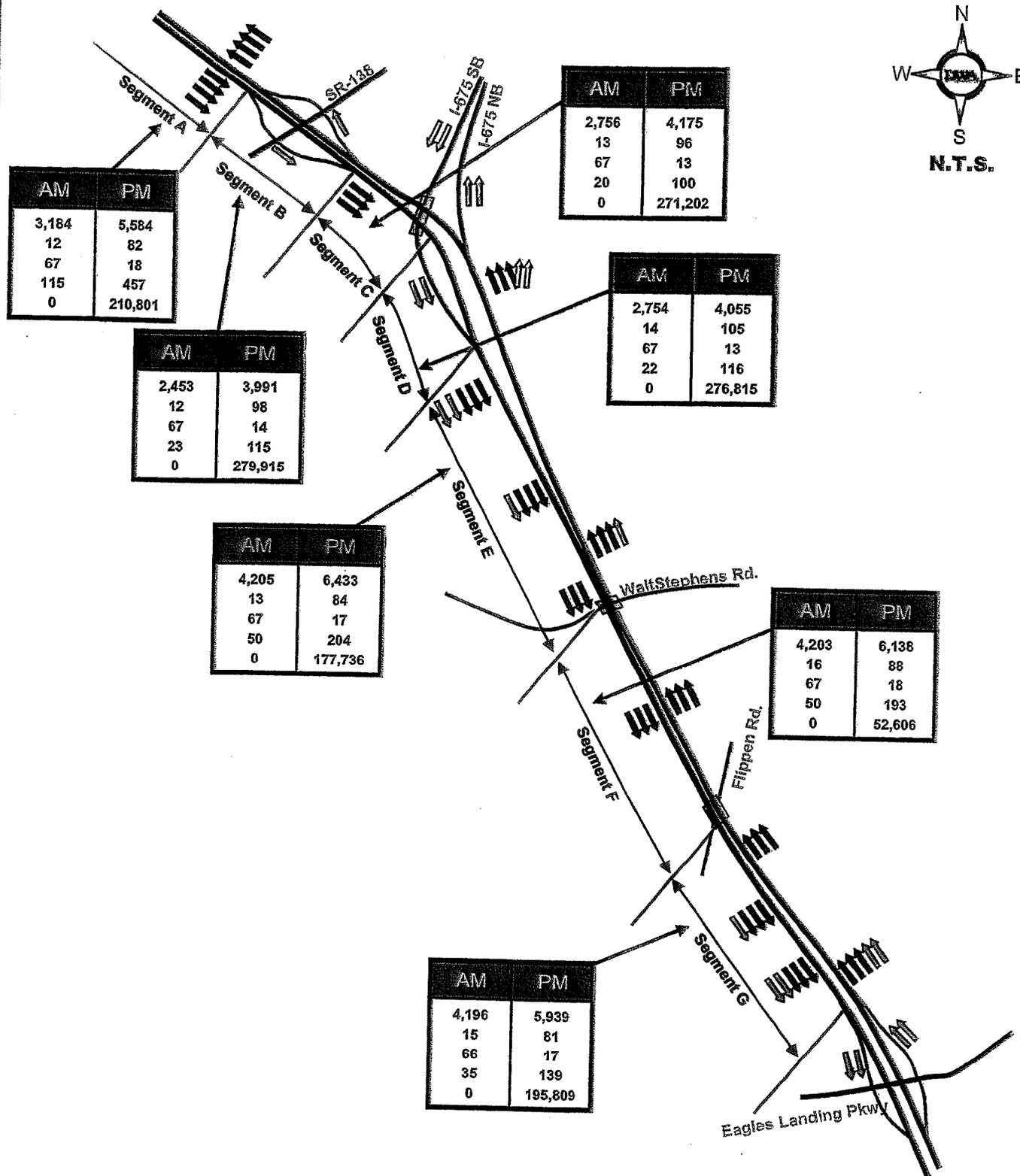
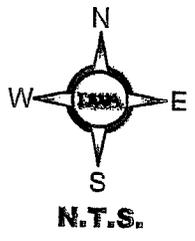
AM	PM
4,189	5,510
21	35
65	52
51	65
0	0

AM	PM
4,181	5,501
15	23
66	59
35	39
0	0

	AM	PM
Discharge	234	888
Density	45	78
Ave. Speed	65	25
Ave. Travel Time	234	777
Ave. Delay	0	0

**I-75 Auxilliary Lane
Traffic Analysis**

Figure 14	No-Build 2015 Traffic Operations
Project No. MSL-0003-00(167) Henry Co.	
Latest revision date:	May 2006



AM	PM
3,184	5,584
12	82
67	18
115	457
0	210,801

AM	PM
2,453	3,991
12	98
67	14
23	115
0	279,915

AM	PM
4,205	6,433
13	84
67	17
50	204
0	177,736

AM	PM
2,756	4,175
13	96
67	13
20	100
0	271,202

AM	PM
2,754	4,055
14	105
67	13
22	116
0	276,815

AM	PM
4,203	6,138
16	88
67	18
50	193
0	52,606

AM	PM
4,196	5,939
15	81
66	17
35	139
0	195,809

	AM	PM
Discharge	234	888
Density	45	78
Ave. Speed	65	25
Ave. Travel Time	234	777
Ave. Delay	0	0

I-75 Auxiliary Lane Traffic Analysis

Figure 15 Build 2015 Traffic Operations

Project No. MSL-0003-00(167) Henry Co.

Latest revision date: May 2006

DWA
Day Wilburn Associates, Inc.

Traffic Operations Analysis I-75 Auxiliary Lane Project

Table 6B: 2015 PM Peak Period Traffic Operations

Segment	Discharge Vehicles		Average Travel Time (seconds)		Average Speed (mph)		Average Delay (seconds)		Density	
	No-Build	Build	No-Build	Build	No-Build	Build	No-Build	Build	No-Build	Build
Segment A	4,498	5,584	752	457	11	18	265,870	210,801	108.60	81.93
Segment B	3,204	3,991	183	115	9	14	351,467	279,915	124.41	97.52
Segment C	3,371	4,175	154	100	9	13	340,482	271,202	120.18	96.36
Segment D	3,244	4,055	183	116	8	13	350,055	276,815	133.44	105.25
Segment E	5,515	6,433	237	204	14	17	214,968	177,736	84.99	84.02
Segment F	5,510	6,138	65	193	52	18	0	52,606	35.48	88.48
Segment G	5,501	5,939	39	139	59	17	0	195,809	22.60	80.86
Corridor-Wide	30,843	36,914	1,612.86	1,322.92	22.87	16.86	1,522,842	1,464,884	87.56	86.88

Comparing the no-build and build alternatives during the PM peak period for year 2015, the build alternative provides a greater discharge of vehicles, faster average travel times, and a lower average delay than the no-build alternative over the entire corridor. The corridor-wide density is very similar for either alternative and the average speed along the corridor is greater for the no-build alternative due to the higher speeds of Segment F and G. Though both options have high levels of congestion, the build alternative serves more vehicles and minimizes the current bottleneck at the I-675/I-75 interchange by spreading traffic out along a greater distance. This is evident by the consistent density values shown for the build condition (ranging from 81 to 105). The no-build condition has vehicle densities ranging from 23 vehicles per lane per mile to 133 vehicles per lane per mile.

SUMMARY

The comparison between existing conditions (year 2005) with and without the proposed auxiliary lane indicates that the amount of congestion along this segment of I-75 will be reduced with the construction of a southbound auxiliary lane from I-675 to Eagles Landing Parkway/Hudson Bridge Road. During the heavily traveled PM peak period, the average travel time southbound along the corridor is reduced by 33% and the average vehicle delay is reduced by 18%. The average corridor speed increases by 27% under the build condition in year 2005 and the average density is reduced by 21%.

In year 2010, the build alternative provides corridor-wide reductions in travel time (26%), density (11%), and delay (3%). The average vehicle speed along the corridor is slightly higher for the no-build condition, but fewer vehicles are being discharged causing longer spill backs north of the I-675 merge.

In year 2015, the build alternative offers corridor-wide reductions in travel time of 18% and a 4% reduction in delay. The vehicle density along the corridor will be similar for both options. The build condition has a more consistent density throughout the corridor and the no-build condition concentrates the congestion in proximity of the I-75/I-675 southbound merge.

Traffic Operations Analysis I-75 Auxiliary Lane Project

Based on the 2010 and 2015 analyses of the no-build alternative, I-75 southbound is constrained at the I-675 merge. Discharge rates along the segment of I-75 at the I-675 merge is approximately the same for 2010 and 2015 meaning the facility has reached its maximum capacity and cannot discharge any more vehicles. The build alternative can discharge approximately 800 to 1000 more vehicles per hour on the same segment of I-75 with the addition of the southbound auxiliary lane. In summary, the proposed auxiliary lane will offer the ability for the corridor to handle more vehicles during the congested PM peak hour, decrease travel times, and reduce vehicle delay.

Attachment 6

Initial Concept Team Meeting Notes

Initial Concept Team Meeting Notes

I-75 Auxiliary Lane: Eagles Landing Parkway to I-675

MSL-0003-00(167), Phase I, Henry County

P.I. No. 0003167, Phase I (PE Funding)

HNS-0008-00(274), Henry County

P.I. No. 0008274 (CST Funding)

June 7, 2006

Attendees: See attached list

- Albert Shelby opened the meeting, and made introductions
- David Kasbo described the traffic analysis, stating that the project would produce a 33% reduction in delay (from SR 138 to Eagles Landing Parkway)
- Larry Cook described the project concept, including:
 - Need and Purpose
 - Project Description:
 - 1.42 miles of single lane widening
 - Outside widening except in vicinity of Walt Stephens Road overpass
 - Construction by Design / Build contract
 - Existing Design Features
 - Proposed Design Features:
 - Full depth asphalt pavement
 - Guardrail / 2:1 outside for 1.05 miles
 - S-2 / S-3 median barrier for 0.53 miles
 - All improvements in Existing R/W
 - 4 cameras, 2 variable message signs to be relocated
 - Noise barrier for 0.86 miles
 - Structures:
 - 1 lane widening of I-75 over Flippen Road bridge
 - Right of Way
 - Description of Alternates:
 - Alternate A (preferred)
 - Alternate B (no build)
 - Cost Estimate:
 - \$8,835,000
- Susan Thomas and Josh Earhart described the status of the environmental document:
 - History and ecology have cleared, noise study recommended barriers for 0.86 miles
 - Interagency meeting must be held to discuss how new air quality regulations pertain to this project

- Schedule for the categorical exclusion (and the entire project) is uncertain until the air quality issue is resolved
- Jeff Van Dyke described the status of the Special Provision 999 work:
 - The draft specification was prepared using the specification from a previous design / build project and modifying it based on interviews with contractors and designers with prior involvement on GDOT design / build projects.
 - At this point, Jeff would welcome comments on the draft specification.
- Albert Shelby opened the meeting to questions:
 - Ben Buchan questioned the location of the noise barriers as they relate to future projects in the I-75 corridor. It was noted that both the upcoming HOV and SOV projects are in Long Range. After much discussion, it was decided to leave the noise barriers in the project, primarily due to the fact that future planned improvement will likely not be in place for about 10 years.
 - Thomas Howell questioned noise impacts along I-75 NB resulting from “bounce-back” from the proposed noise barriers along I-75 SB. Josh Earhart said he would model this and report back.
 - Ben Buchan noted that the proposed SOV project needs to be added to the list of “Other Projects in Area” in the Concept Report
 - Mike England questioned the weave movement at the I-675 merge, and suggested that reducing I-675 to one lane just before the merge be investigated.
 - Thomas Howell asked that the vertical clearance at the Walt Stephens Road overpass be checked, to see if the bridge need to be jacked. It was decided that a 5” overlay depth (existing concrete pavement in this area) be assumed for this calculation. It was also noted that a pavement design need to be requested from OMR. Larry Cook said that J.B. Trimble would check into the clearance issue and report back.
 - Kerry Gore noted that there are utilities at both bridge locations. He would like to make a 1st submission of utility plans with the owners. He asked for 10 copies of the Initial Concept Team Meeting layout, which Larry Cook said that J.B. Trimble would provide.
 - It was noted that any new signage must be include in Special Provision 999.
 - Sylvester Alexander noted that there are upcoming ITS projects in the area, including cameras south of Eagles Landing Parkway and ramp meters. He also said that 999 needs to minimize down time for the existing cameras to be relocated. It was suggested that the contractor be made to propose a schedule for these relocations.
 - Representative Davis asked about the anticipated construction start date. Ben Buchan noted that GDOT is putting a new design / build procurement policy in place, and work cannot move forward until this policy receives Board approval. He also mentioned the air quality issue as it related to the

- project schedule. All that being said, Ben thought a start date on January or February, 2007 was possible.
- Susan Thomas noted that a PIOH is required for projects with noise barriers, but said that it could be held after environmental clearance is received.
 - David Painter commented by email: GDOT is using PE dollars from the MSL-0003-00(167) HOV project to design the (274) project. They both are in the same general area although (167) will extend both north and south of the limits of (274). The construction cost estimate for (274) is currently around \$9M and construction will occur only on the southbound side of I-75.
 - David Painter commented by email: While this segment is posted for 65 MPH, I would recommend keeping the Design Speed higher than that given that the average ambient speed ranges from 70 – 85 MPH.
 - David Painter commented by email: It is very likely that this project will have to incorporate PM 2.5 air quality clauses.
 - David Painter commented by email: In my judgment this project will not require an IMR, but this call will be made by Gus Shanine.
 - David Painter commented by email: A Design Exception request will be required for the 5'9.75" wide substandard inside shoulder under the Walt Stephens Rd. bridge. The DE should include language specifying that this will be corrected under the (167) project, which replaces the bridges. I recommend adding some mitigation for this DE in the form of an additional camera focused on the north side of the bridge collocated on the same pole with the camera that observes the I-675/I-75 Merge area. This 675/75 Merge camera is already being relocated by the (274) project and it should be able to be moved far enough north to allow this second camera to focus on the bridge. A dedicated camera should give the department quicker warning of any accidents under or near the Walt Stephens bridge.
 - David Painter commented by email: If the new outside lane is going next to an existing PCC lane that has been overlaid with HMA consider using a consistent structure in which the PCC will be extended and overlaid rather than using a full depth HMA section. If necessary the PCC could actually be RCC to help keep costs down.
 - David Painter commented by email: Will any of this new pavement have to be removed for the (167) project?

Attachment 7

Design Exception Request Memo

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE: CSNHS-0008-00(274), Henry County **OFFICE:** Urban Design
I-75 Auxiliary Lane from Eagles Landing Parkway to I-675
P.I. No. 0008274

DATE: October 19, 2006

FROM: James B. Buchan, P.E., State Urban Design Engineer

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

SUBJECT: **Request for Design Exception for Inside Shoulder Width**

Approval of a Design Exception is requested for this project.

PROJECT DESCRIPTION

The proposed project involves the addition of an auxiliary lane along southbound lanes of Interstate 75. The project begins at the end of the taper to the exit ramp to Eagles Landing Parkway in Henry County and ends at the beginning of the taper to the entrance ramp of the I-675 interchange, for a total length of 1.42 miles. At the ending limits of the project, the southbound lanes of Interstate 75 consist of 3 through-lanes with 2 additional lanes converging with them from I-675. These 5 lanes taper back to 3 lanes within 4600 feet from where the two interstates converge. Southbound I-75 remains as 3 lanes to the project's beginning. This project will add an auxiliary lane from where southbound traffic tapers from 4 lanes to 3 lanes and travels to the next interchange at Eagles Landing Parkway, approximately 1.42 miles away. The proposed alignment will be deflected through the Walt Stephens Rd. overpass due to the limited outside horizontal clearance at that location. The I-75 bridge over Flippen Rd. will be widened to accommodate the additional lane. All proposed pavement, including the shoulders, will be full depth asphalt, with the exception of areas where the existing travel lanes are to be overlaid. Guardrail, traffic cameras, and overhead signs along the project corridor will be moved or replaced on as-needed basis as well. All work will be done while maintaining 3 lanes of traffic at all times.

FEATURES REQUIRING DESIGN EXCEPTION

The proposed design requires an exception from current FHWA standards for inside shoulder widths on interstate highways with six or more lanes. The exception is required in the vicinity of the Walt Stephens Road overpass, from I-75 SB Station 990+86 to Station 991+14 (a distance of 28').

DISCUSSION OF THE SHOULDER WIDTH DESIGN EXCEPTION

Current FHWA design criteria call for an inside shoulder width of 10' on interstate highways with six or more lanes (pg.3 of the January 2005 manual "A Policy on Design Standards Interstate System" by AASHTO). This shoulder width reduction is proposed due to insufficient horizontal clearance between the existing bridge piers at the CR 660 Walt Stephens Road overpass. Proposed shoulder widths along I-75 SB are 13.00' for the outside shoulder (which exceeds the 12.00' minimum width) and 5.81' for the inside shoulder (where the exception is required).

Reconstruction of the CR 660 Walt Stephens Road overpass would be necessary to attain standard shoulder widths. This reconstruction is considered to be infeasible for this project for several reasons:

- This is an interim project with a short planning horizon.
- The time required for bridge reconstruction would not fit within this planning horizon.
- It is anticipated that this bridge will be reconstructed, and standard shoulder widths be provided, as part of the upcoming I-75 HOV project (P.I. 0003167, MSL-0003-00(167)) in this area.
- The design of MSL-0003-00(167) is still in the concept phase, making it impossible, at this time, to predict the design features of the proposed bridge reconstruction (location, span arrangement, vertical clearance, etc).
- The cost of the bridge reconstruction would be prohibitive in executing this interim project to relieve congestion.

RECOMMENDATION

Based on the information contained in this request, the Office of Urban Design recommends approval of this exception.

Design Exception for Inside Shoulder Width:

Recommended: _____
Chief Engineer

Date

Approved: _____
FHWA Division Administrator

Date