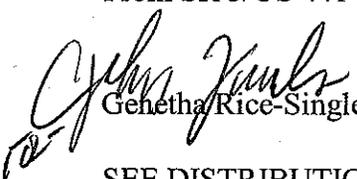


ORIGINAL TO GENERAL FILES

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE P. I. No. 431830-, Coffee County **OFFICE** Preconstruction
STP00-0079-01(042)
Widening of SR 135/Perimeter Road -
From SR 3/US 441 to SR 32 Including RR Separation
DATE April 24, 2008

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.

Attachment

DISTRIBUTION:

Brian Summers
Glenn Bowman
Ken Thompson
Michael Henry
Keith Golden
Angela Alexander
Paul Liles
Joe Sheffield
Brent Thomas
BOARD MEMBER

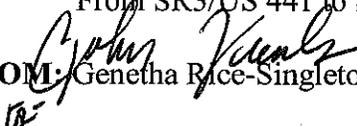
**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENTAL CORRESPONDENCE

FILE: P.I. No. 431830-, Coffee County
STP00-0079-01(042)
Widening of SR 135/Perimeter Road-
From SR3/US 441 to SR 32 Including RR Separation

OFFICE: Preconstruction

DATE: April 18, 2008

FROM:  Genetha Rice-Singleton, Assistant Director of Preconstruction

TO: Gerald M. Ross, P.E., Chief Engineer

SUBJECT: *PROJECT CONCEPT REPORT*

This project proposes to widen and reconstruct SR 135/Perimeter Road from US 441 east to SR 32 including a railroad separation for a total of 2.72 miles. SR 135 is functionally classified as a principal arterial. This section of roadway is also known as Perimeter Road, which serves as a bypass around the southern half of the city limits of Douglas. This section of Perimeter Road currently has two, 12' lanes with 8' grassed shoulders, with a posted speed limit ranging from 35 MPH to 55 MPH. The purpose of this project is to improve and enhance the safety, operations and traffic flow along the SR 135/Perimeter Road corridor by providing a railroad overpass and a widened roadway for the regional traffic traveling on SR 32 GRIP corridor between I-95 and I-75 and needing to bypass the city of Douglas. The proposed railroad overpass was predicated on safety for school buses where an estimated 50 school buses cross this railroad crossing. An estimated 23-26 train utilizes this segment of rail daily. In the build year 2013, the AADT is projected to range from 9300 to 18,300 vehicles with a LOS ranging from "B" to "C". In the design year 2033 with the AADT ranging from 11,990 to 24,950 vehicles, the LOS is projected to range from "C" to "D" for the no-build option and from "B" to "C" for the build option. Widening of this section of roadway will enhance traffic flow by providing needed additional capacity to meet current and future traffic volumes.

The proposed project will provide four 12' lanes (two in each direction), a 20' raised median, and 16' urban shoulders with curb and gutter and 5' sidewalks from US 441 to Old Axon/McDonald Road. From Old Axon/McDonald Road to the end of the project, the typical section changes to four, 12' lanes (two in each direction), a 14' flush median, 16' urban shoulders with curb and gutter, 5' sidewalks, and future 20' raised median footprint. The at-grade railroad crossing will be replaced with a bridge (300' x 84') that spans the railroad and the side street parallel to the rail line (Spooner/Old Nicholls Road). Traffic will be maintained via staging during construction.

Environmental concerns include requiring a COE 404 permit; An Environmental Assessment is anticipated; a Public Hearing Open House was held 9/6/2007; Time saving procedures is not appropriate.

The estimated costs for this project are:

	<u>PROPOSED</u>	<u>APPROVED</u>	<u>FUNDING</u>	<u>PROG DATE</u>
Construction (includes E&C)	\$ 21,466,000	\$ 17,860,000	L200	LR
Right-of-way	\$6,521,000	\$1,155,000	L200	2009
Utilities	-0-			

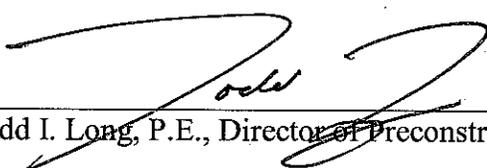
*Notification letter sent to Douglas 4-21-05

I recommend this project concept be approved.

GRS: JDQ

Attachment

CONCUR



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

APPROVED



Gerald M. Ross, P.E., Chief Engineer

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE: STP-079-1(42) Coffee County

OFFICE: Tifton

PI# 431830

SR 133 from SR 31/US 441 E to SR 32, Including
RR Separation in the City of Douglas

DATE: March 26, 2008

B.G.P.
FROM *For* Joe W. Sheffield, P.E., District Engineer

TO Johnny D. Quarles, Project Concept Review Engineer

SUBJECT CONCEPT REPORT SIGNATURE PAGE

Please find attached a cover sheet for the above referenced project bearing my signature.
The District supports the project and looks forward to its completion.

If you have any questions, please feel free to call me at (229) 386-3280.

JWS/bt

Attachment

c: Mohammed (Babs) Abubakari, PE, State Consultant Design & Proj Delivery Engineer
Nicoe Alexander, Consultant Design Manager
Brent Thomas, District Preconstruction Engineer

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**
Office of Consultant Design
PROJECT CONCEPT REPORT

Project Number: STP-079-1(42)
County: Coffee
P. I. Number: 431830

Federal Route Number: US 221
State Route Number: SR 135 / SR 206

*See Project location sketch on page 2.
SR 135 from SR 31/US 441 E to SR 32 Including RR Separation*

Recommendation for approval:

Date of Report: March 21, 2008

DATE 3/24/08

Nick Ald
Project Manager

DATE 3/24/08

Michael Hottel
Consultant Design & Program Delivery 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 Admin.

DATE _____

State Environment/Location Engineer

DATE _____

State Traffic Safety and Design Engineer

DATE 3-26-08

Joe W. Griffith
District Engineer

DATE _____

Project Review Engineer

DATE _____

State Bridge & Structural Design Engineer

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
Office of Consultant Design
PROJECT CONCEPT REPORT

Project Number: STP-079-1(42)
County: Coffee
P. I. Number: 431830

Federal Route Number: US 221
State Route Number: SR 135 / SR 206

*See Project location sketch on page 2.
SR 135 from SR 31/US 441 E to SR 32 Including RR Separation*

Recommendation for approval:

Date of Report: March 21, 2008

DATE 3/24/08

Ramon Ald
Project Manager

DATE 3/24/08

Michael Hittner
Consultant Design & Program Delivery 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 Admin.

DATE _____

State Environment/Location Engineer

DATE _____

State Traffic Safety and Design Engineer

DATE _____

District Engineer

DATE _____

Project Review Engineer

DATE 3/28/08

Paul V. Telen
State Bridge & Structural Design Engineer

Project Concept Report page 4
Project Number: STP-079-1(42)
P. I. Number: 431830
County: Coffee

Existing design features:

- Typical Section:
 - Two 12' lanes (one in each direction), with 8' rural shoulders (varies from 8' grassed to 2' paved, 6' grassed).
 - Two 12' lanes (one in each direction), with 10' rural shoulders (6.5' paved, 3.5' grass).
 - Two 12' lanes (one in each direction), with 10' urban shoulders (2.5' curb and gutter, 7.5' grassed).
- Posted speed: varies from 35 to 55 mph Minimum radius for curve: 1910 ft.
- Maximum super-elevation rate for curve: 7%
- Maximum grade: 3% on mainline; 1.86% on side roads
- Width of right-of-way: varies from 150 & 200 ft.
- Major structures: double 6'x5' and double 5'x5' box culverts
- Major interchanges or intersections along the project: SR 31/US 441/US 221/Peterson Ave. @ SR 135, Gaskin Ave. @ SR 135, McDonald/Old Axson Rd. @ SR 135, SR 158/East Baker Hwy. @ SR 135, CSX Railroad @ SR 135, SR 32/Ward St. @ SR 135, and SR 32/US 221/Westgreen Rd. @ SR 135.
- Existing length of roadway segment: 2.67 miles; MP 8.10+/- to MP 10.77+/-.

Proposed Design Features:

- Proposed typical section(s):
 - Four 12' lanes (two in each direction), a 20' raised concrete median, and 16' urban shoulders with curb & gutter and 5' sidewalks from SR 31/US441 to Old Axson/McDonald Road.
 - Four 12' lanes (two in each direction), a 14' flush median, 16' urban shoulders with curb & gutter, 5' sidewalks, and future 20' raised median footprint from Old Axson/McDonald Road to SR 32 west.
 - The at-grade railroad crossing will be replaced with a bridge that spans the railroad and the side street parallel to the rail line (Spooner/Old Nicholls Road).
- Proposed Design Speed Mainline: 45 mph
- Proposed Maximum grade Mainline: 5 % Maximum grade allowable: 6 %
- Proposed Maximum grade Side Street: 9 % Maximum grade allowable: varies 7-9 %
- Proposed Maximum grade driveway: 15% (residential), 10% (commercial)
- Proposed Maximum degree of curve: 3° 25' 51.19" Maximum degree allowable: 8° 3' 30.52"
- Right-of-Way:
 - Width: varies from 150' - 350'+/- mainline; varies from 40' - 350'+/- side roads
 - Easements: Temporary (), Permanent (), Utility (), Other (X).
 - Type of access control: Full (), Partial (), By Permit (X), Other ().
 - Number of parcels: 97 Number of displacements: 1
 - Business: 0
 - Residences: 1
 - Mobile homes: 0
 - Other: 0

Proposed Design Features (continued):

- Structures:
 - Bridge: 300' x 94 5' +/- new concrete bridge over CSX Railroad

MW 3/28/08

84'

20

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
Office of Consultant Design
PROJECT CONCEPT REPORT

Project Number: STP-079-1(42)
County: Coffee
P. I. Number: 431830

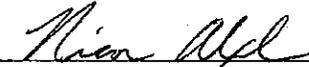
Federal Route Number: US 221
State Route Number: SR 135 / SR 206

See Project location sketch on page 2.
SR 135 from SR 31/US 441 E to SR 32 Including RR Separation

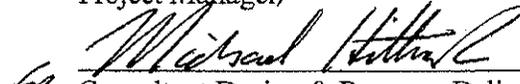
Recommendation for approval:

Date of Report: March 21, 2008

DATE 3/24/08

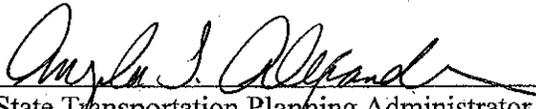

Project Manager

DATE 3/24/08


Consultant Design & Program Delivery 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 3/27/08


State Transportation Planning Administrator

DATE _____

State Transportation Financial Management Admin.

DATE _____

State Environment/Location Engineer

DATE _____

State Traffic Safety and Design Engineer

DATE _____

District Engineer

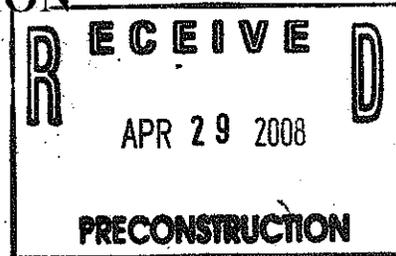
DATE _____

Project Review Engineer

DATE _____

State Bridge & Structural Design Engineer

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA



INTERDEPARTMENT CORRESPONDENCE

FILE: P.I. No. 431830

OFFICE: Environment/Location

DATE: April 24, 2008

FROM: 
Glenn Bowman, P.E., State Environmental/Location Engineer

TO: Genetha-Rice Singleton, State Transportation Planning Administrator

SUBJECT: **PROJECT CONCEPT REPORT**
STP-079-1(42) / Coffee County
SR 135 from SR 31/US 441 E to SR 32 Including RR Separation

The above subject Concept Report has been reviewed and appears satisfactory subject to the following comments:

1. Several historic structures associated with South Georgia University are located at the south/west project terminus. The CSX RR would be considered eligible for the National Register. Also, see remarks under Environmental Concerns in Concept Report.
2. The schedule should be adjusted to reflect that it would take approximately twelve (12) months to obtain an Individual Section 404 Permit.
3. Public Involvement – A public hearing will be required for this project. The time to complete Environmental is unrealistic. A minimum of eighteen (18) months is normally needed to receive approval on an Environmental Assessment assuming seasonal surveys are not required.
4. A PAR meeting needs to be held and a VE Study will be required. The cost of mitigating the large amount of wetland and stream impacts has not been taken into consideration nor has the availability of mitigation. A January '09 right-of-way date is not feasible.

If you have any questions, please contact Glenn Bowman at (404) 699-4401.

GB:lc

cc: Brian Summers
Jamie Simpson
Keith Golden
Angela Alexander
Babs Abubakari
Paul Liles

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
Office of Consultant Design
PROJECT CONCEPT REPORT

Project Number: STP-079-1(42)
County: Coffee
P. I. Number: 431830

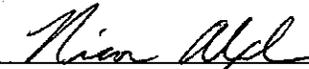
Federal Route Number: US 221
State Route Number: SR 135 / SR 206

See Project location sketch on page 2.
SR 135 from SR 31/US 441 E to SR 32 Including RR Separation

Recommendation for approval:

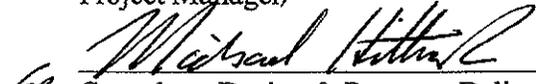
Date of Report: March 21, 2008

DATE 3/24/08



Project Manager

DATE 3/24/08



Consultant Design & Program Delivery 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).

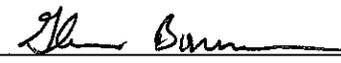
DATE _____

State Transportation Planning Administrator

DATE _____

State Transportation Financial Management Admin.

DATE 4/24/08



State Environment/Location Engineer

DATE _____

State Traffic Safety and Design Engineer

DATE _____

District Engineer

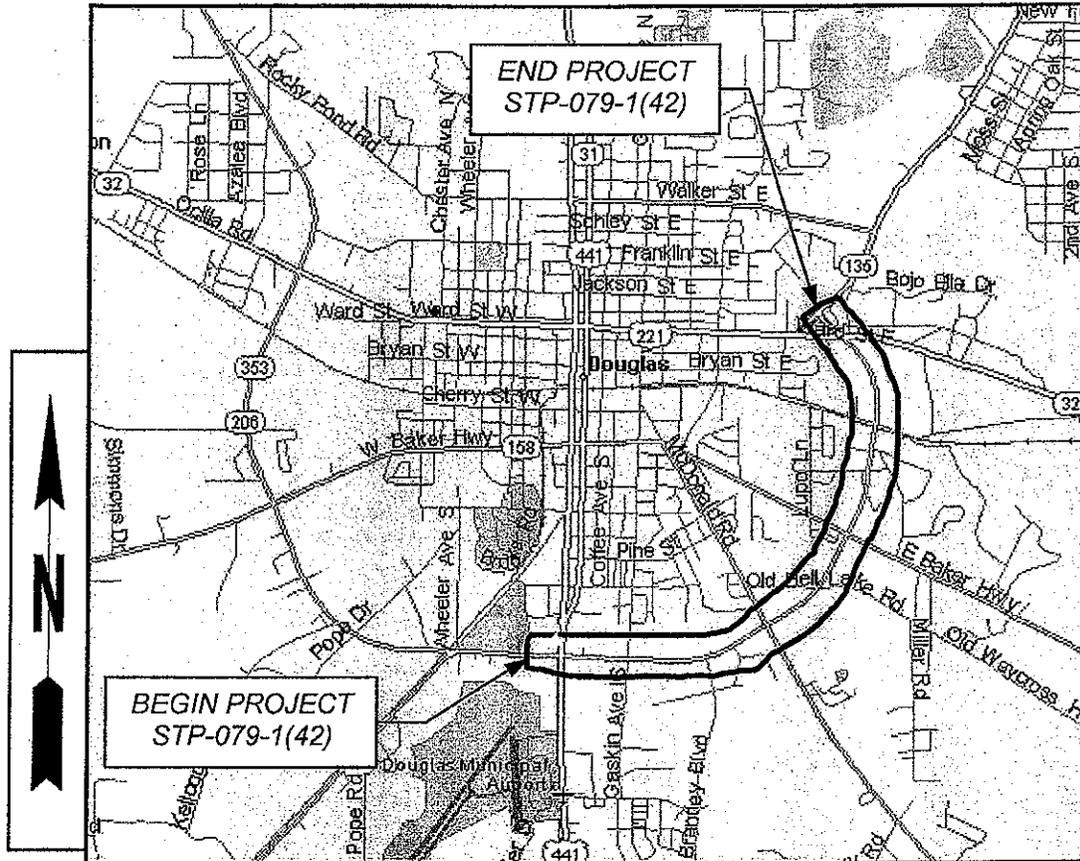
DATE _____

Project Review Engineer

DATE _____

State Bridge & Structural Design Engineer

Project Concept Report page 3
Project Number: STP-079-1(42)
P. I. Number: 431830
County: Coffee



LOCATION SKETCH

Not to Scale

Project: STP-079-1(42) P.I. No.: 431830 County: Coffee

Description: Widening of SR 135 from SR 31/US 441 East to SR 32, including Railroad Separation

Need and Purpose: The proposed project is needed to address current and future traffic congestion, which will also improve the Level of Service. The overpass is needed to accommodate the safe travel for school buses during their daily trips as well as improve the travel time and operational traffic flow for trucks using SR 135/Perimeter Road. The purpose of this project is to improve and enhance the safety, operations, and traffic flow along the SR 135/Perimeter Road corridor through providing a railroad overpass and a widened roadway for the regional traffic, cars, and trucks traveling on the SR 32 GRIP corridor between I-95 and I-75 and needing to bypass the city of Douglas. In addition, this project will tie into the southwestern portion of SR 135/Perimeter Road, which is already a rural 5-lane section with a flush median. The existing 2006 traffic volumes on the SR 135 corridor range from a minimum of 8,850 annual daily traffic (ADT) to a maximum of 17,610 (ADT). The build year (2013) ADT on this corridor is projected to range between 9,150 and 18,300. The design year (2033) ADT is projected to range between 11,900 and 24,950. The land use along SR 135/Perimeter Road has mixed uses consisting of retail, agricultural, commercial, industrial, and residential. In addition, there is a middle school located at the northwest corner of the intersection with US 441, and the City of Douglas Municipal Airport is located at the southwest corner of this intersection.

Description of the proposed project: This project proposes to widen SR 135 from a 2-lane and 3-lane section to a 4-lane divided highway. Although the highest traffic counts along this corridor require a 20' raised median, a second section with a flush median on a future 20' raised median footprint is proposed where the traffic counts drop below the threshold. This second section is due to the expected growth potential along the corridor. The first typical section is an urban 4-lane section with a 20' raised median, 16' shoulders, and 5' sidewalks from just west of the intersection with US 441/US 31 to the intersection with Old Axson/McDonald Road. The second typical section is an urban 4-lane section with a 14' flush median, 16' shoulders, and 5' sidewalks. This footprint extends from the intersection with Old Axson/McDonald Road to the intersection with SR 32/Westgreen Road. The entire project is located within the City of Douglas limits. This project is proposed to begin at Mile Post 8.10+/- and end at Mile Post 10.82+/- for a total length of 2.72 miles. The existing speed limit varies within the project corridor from 35 mph to 55 mph. The proposed design speed limit is 45 mph throughout the project limits.

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

PDP Classification: Major X Minor _____

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

Functional Classification: Principal Urban Arterial

U. S. Route Number(s): 221 State Route Number(s): 135/206

Traffic (AADT):

Current Year: (2013) 18,300

Design Year: (2033) 24,950

Existing design features:

- Typical Section:
 - Two 12' lanes (one in each direction), with 8' rural shoulders (varies from 8' grassed to 2' paved, 6' grassed).
 - Two 12' lanes (one in each direction), with 10' rural shoulders (6.5' paved, 3.5' grass).
 - Two 12' lanes (one in each direction), with 10' urban shoulders (2.5' curb and gutter, 7.5' grassed).
- Posted speed: varies from 35 to 55 mph Minimum radius for curve: 1910 ft.
- Maximum super-elevation rate for curve: 7%
- Maximum grade: 3% on mainline; 1.86% on side roads
- Width of right-of-way: varies from 150 & 200 ft.
- Major structures: double 6'x5' and double 5'x5' box culverts
- Major interchanges or intersections along the project: SR 31/US 441/US 221/Peterson Ave. @ SR 135, Gaskin Ave. @ SR 135, McDonald/Old Axson Rd. @ SR 135, SR 158/East Baker Hwy. @ SR 135, CSX Railroad @ SR 135, SR 32/Ward St. @ SR 135, and SR 32/US 221/Westgreen Rd. @ SR 135.
- Existing length of roadway segment: 2.67 miles; MP 8.10+/- to MP 10.77+/-.

Proposed Design Features:

- Proposed typical section(s):
 - Four 12' lanes (two in each direction), a 20' raised concrete median, and 16' urban shoulders with curb & gutter and 5' sidewalks from SR 31/US441 to Old Axson/McDonald Road.
 - Four 12' lanes (two in each direction), a 14' flush median, 16' urban shoulders with curb & gutter, 5' sidewalks, and future 20' raised median footprint from Old Axson/McDonald Road to SR 32 west.
 - The at-grade railroad crossing will be replaced with a bridge that spans the railroad and the side street parallel to the rail line (Spooner/Old Nicholls Road).
- Proposed Design Speed Mainline: 45 mph
- Proposed Maximum grade Mainline: 5 % Maximum grade allowable: 6 %
- Proposed Maximum grade Side Street: 9 % Maximum grade allowable: varies 7-9 %
- Proposed Maximum grade driveway: 15% (residential), 10% (commercial)
- Proposed Maximum degree of curve: 3° 25' 51.19" Maximum degree allowable: 8° 3' 30.52"
- Right-of-Way:
 - Width: varies from 150' - 350'+/- mainline; varies from 40' - 350'+/- side roads
 - Easements: Temporary (), Permanent (), Utility (), Other (X).
 - Type of access control: Full (), Partial (), By Permit (X), Other ().
 - Number of parcels: 97 Number of displacements: 1
 - Business: 0
 - Residences: 1
 - Mobile homes: 0
 - Other: 0

Proposed Design Features (continued)

- Structures:
 - Bridge: 300' x 94.5' +/- new concrete bridge over CSX Railroad

84' → ADP 4/9/2008

- o Retaining walls: None required
- Major intersections and interchanges: SR 31/US 441/US 221/Peterson Ave. @ SR 135, Gaskin Ave. @ SR 135, McDonald/Old Axson Rd. @ SR 135, SR 158/East Baker Hwy. @ SR 135, CSX Railroad @ SR 135, SR 32/Ward St. @ SR 135, and SR 32/US 221/Westgreen Rd. @ SR 135.
- Traffic control during construction: staged construction to maintain traffic flow, possible on-site detours.
- Design Exceptions to controlling criteria anticipated:

	<u>UNDETERMINED</u>	<u>YES</u>	<u>NO</u>
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)

- The horizontal alignment design exception is for the less than acceptable skew angle at the intersection of Ward Street/SR 32 (40° 42' 53.28").
- Design Variances:
 - o 2 median opening spacings of less than 1000' (one from the intersection of US 441 to the Wal-Mart main driveway and one from the Wal-Mart main driveway to Gaskin Ave.).
- Environmental concerns: 2 potentially eligible historic properties (the railroad and a house); 1,208 acres of temporary and 3,670 acres of permanent wetland impacts; 4884 linear feet (1.125 acres) of stream impacts; 7 potential UST sites; 14 potential hazardous waste sites; unknown potential archeology, and potentially suitable foraging habitat for the Wood Stork.
- Level of environmental analysis:
 - o Are Time Savings Procedures appropriate? Yes (), No (X),
 - o Categorical Exclusion (),
 - o Environmental Assessment/Finding of No Significant Impact (FONSI) (X), or
 - o Environmental Impact Statement (EIS) ().
- Utility involvements: City of Douglas Electric, Satella EMC, Municipal Electric Authority of Georgia, City of Douglas Natural Gas, City of Douglas Water/Wastewater, CSX Railroad, Alma Telephone, Windstream Communications.

VE Study Required: Yes(X) ✓ No()

Project responsibilities:

- o Design: Consultant
- o Right-of-Way Acquisition: Consultant

Project Concept Report page 5
Project Number: STP-079-1(42)
P. I. Number: 431830
County: Coffee

- o Relocation of Utilities: Consultant
- o Letting to contract: General Office (Office of Contract Administration)
- o Supervision of construction: District 4 Construction Office
- o Providing material pits: Contractor
- o Providing detours: On site construction

Coordination:

- Initial Concept Meeting date and brief summary – held 5/30/07. See attached ICTM minutes.
- Concept meeting date and brief summary – held 1/17/08. See attached CTM minutes.
- P A R meetings, dates and results. To be scheduled.
- Public involvement: Stakeholders Meeting held 1/25/07 – see attached meeting minutes; PIOH held 9/6/07- see attached PIOH response letters.
- Local government comments. City of Douglas letters dated 10/7/04 and 1/2/07. See attached letters.
- Other projects in the area:
 - MSL-00-0004-00(800)**, PI 0004800, SR 32 from US 441 to CR 552/Liberty St. including Gauss Bridge – this is an 11.17 mile rehabilitation and reconstruction project near the northeastern end of SR 135 project. It is in long range.
 - CSTEE-008-00(106)**, PI 0008106, SR 135/US 221 @ 17 Mile River Bridge – this is a 1.23 mile bike/pedestrian facility construction near the end project location for SR 135 project. It is a local let project with construction date of 2008.
- Railroads: CSX Railroad – CSX owns the single rail line that intersects with SR 135/ Bowens Mill Road in the City of Douglas, Georgia. The Crossing Number is 638202N at Mile Post 0627.86. CSX has plans for a future second track in this vicinity. See attached letter sent to CSX on September 14, 2007 for this coordination effort.

Scheduling – Responsible Parties' Estimate:

- Time to complete the environmental process: 12 (with PAR) Months.
- Time to complete preliminary construction plans: 6 Months.
- Time to complete right-of-way plans: 3 Months.
- Time to complete the Section 404 Permit: 4 Months.
- Time to complete final construction plans: 12 Months.
- Time to complete to purchase right-of-way: 12 Months.
- Final Bridge Design: 10 Months.

Other alternates considered:

Alternate 1

This alternate consisted of widening symmetrically to four lanes, 20 foot raised median, and 16 foot urban shoulders from west of the intersection with US 441 eastward to the intersection with McDonald/Old Axson Road. From there, the typical section consisted of widening symmetrically to four lanes, 14 foot flush median, and 16 foot urban shoulders to approximately 1200 feet east of SR 158. At that point the proposed alignment centerline

Other alternates considered:

Alternate 1 (continued)

shifted 25 feet to the east of the existing alignment with the same typical section and extended to approximately 430 feet south of the intersection with Westgreen Road/SR 32/SR 221, where the new alignment tied back into the existing alignment. The proposed alternate ended at the intersection with Westgreen Road/SR 32/SR 221. There were 2 proposed bridges, one over the CSX railroad and one over Century Drive/Waldroup Avenue. This alternate also included a frontage road, which parallels the mainline and is separated by two MSE walls from the mainline, to maintain access from SR 135 to Spooner/Old Nicholls Road. SR 32 east was realigned on new location to tie to the access road. Ward Street, west of SR 135, was also relocated on new location to correct the less than acceptable roadway skew.

Alternate 2

This alternate consisted of widening symmetrically to four lanes, 20 foot raised median, and 16 foot urban shoulders from west of the intersection with US 441 eastward to the intersection with McDonald/Old Axson Road. From there, the typical section consisted of widening symmetrically to four lanes, 14 foot flush median, and 16 foot urban shoulders to approximately 1250 feet east of SR 158. At that point the proposed alignment centerline shifted onto new location to the west of the existing alignment with the same typical section. This new location was as much as 550 feet west of the existing alignment. SR 135 continued on the new location tying into SR 3/Westgreen Road east to create a true bypass loop. Westgreen Road west became a cul-de-sac, Ward Street west and Ward Street/SR 32 east were relocated to tie at an acceptable skew with SR 135. A new access road, located approximately 750 feet south of the existing Ward Street intersection, tied the new alignment with the old alignment of SR 135 to maintain access to several properties. Waldroup Avenue's existing intersection with SR 135 became a cul-de-sac. A new access drive was added to connect Century Drive and Waldroup Avenue to SR 135 at a new location approximately 410 feet south of their existing locations. There was one bridge proposed over the CSX railroad, but it was on a steeper skew angle than the existing at grade skew angle.

Alternate 3

This alternate consisted of widening symmetrically to four lanes, 20 foot raised median, and 16 foot urban shoulders from west of the intersection with US 441 eastward to the intersection with McDonald/Old Axson Road. From there, the typical section consisted of widening symmetrically to four lanes, 14 foot flush median, and 16 foot urban shoulders to approximately 1215 feet east of SR 158. At that point the proposed alignment centerline shifted 25 feet east of the existing railroad at grade crossing, and continued on a tangent onto new location to the east of the existing alignment with the same typical section. This new alignment proceeded north and eastward and tied into SR 135/Westgreen Road approximately 4030 feet to the northeast of its current tie point with the same typical section. This alternate also creates a true loop bypass, which would aid the movement of the truck traffic along the corridor. The old SR 135/Westgreen Road alignment would be realigned to tie into the new SR 135 at a 90 degree angle. Walker Street, Bojo Ella Drive, Ward Street west, and Ward Street/SR 32 east were proposed to be relocated to tie into the new location SR 135 with better skew angles. There were 2 proposed bridges, one over the CSX railroad and one over

Other alternates considered:

Alternate 3 (continued)

Project Concept Report page 5
Project Number: STP-079-1(42)
P. I. Number: 431830
County: Coffee

Century Drive/Waldroup Avenue. This alternate also included a frontage road connecting the mainline to Spooner/Old Nicholls Road. One MSE wall was proposed in-between the frontage road and SR 135 to minimize ROW impacts.

Comments:

Alternate 1 was rejected due to high costs of construction for the two bridges and the two MSE walls, and high costs of ROW due to the relocations of Ward St./SR 32 East.

Alternate 2 was rejected due to high costs for the new location construction and very high costs for ROW. This alternate also went through a potential EJ property and affected the view shed of a historic property. There were approximately 28 ROW takes on this alternate.

Alternate 3 was rejected due to very high construction cost for the two bridges, the MSE wall, and the new location roadways. The ROW costs were high due to the new location of Walker St., Bojo Ella Dr., Ward St. west, Ward St/SR 32 east, and SR 135. There were 8 ROW takes on this alternate, including part of an existing apartment complex, and the project length was extended approximately 3000 feet. This alignment was also the least desirable with the City of Douglas because they had previously purchased ROW along the existing alignment of SR 135 for this project, and a completely new alignment outside of the purchased ROW was not desirable.

Attachments:

1. Cost Estimates:
 - a. Construction including E&C (dated December 7, 2007)
 - b. Right-of-Way (dated January 30, 2008)
 - c. Utilities (dated February 22, 2008)
2. Typical sections
3. Accident summaries
4. Capacity analysis (report dated January 22, 2007)
5. Initial Concept Team Meeting Minutes (meeting held May 30, 2007)
6. Concept Team Meeting Minutes (meeting held January 17, 2008)
7. Stakeholders Meeting Minutes (meeting held January 25, 2007)
8. Need and Purpose Statement
9. PIOH summary of comments and responses (letter dated December 11, 2007)
10. Benefit-Cost Analysis

Attachment 1

Cost Estimates

Construction

Right-of-Way

Utilities

Estimate Report for file "431830-Alt4-20071207"

Section Road					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
150-1000	1	LS	500000.00	TRAFFIC CONTROL -	500000.00
153-1300	1	EA	72181.09	FIELD ENGINEERS OFFICE TP 3	72181.09
201-1500	1	LS	150000.00	CLEARING & GRUBBING -	150000.00
205-0001	40000	CY	5.58	UNCLASS EXCAV	223200.00
206-0002	280000	CY	7.90	BORROW EXCAV, INCL MATL	2212000.00
207-0203	4500	CY	59.77	FOUND BK FILL MATL, TP II	268965.00
232-0001	1	LS	50000.00	RAILROAD CONSTRUCTION	50000.00
310-5120	105000	SY	19.49	GR AGGR BASE CRS, 12 INCH, INCL MATL	2046450.00
318-3000	1000	TN	17.33	AGGR SURF CRS	17330.00
402-3112	12000	TN	80.00	RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME	960000.00
402-3113	15000	TN	80.00	RECYCLED ASPH CONC 12.5 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME	1200000.00
402-3143	24000	TN	85.00	RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL	2040000.00
413-1000	13250	GL	1.88	BITUM TACK COAT	24910.00
433-1300	1260	SY	200.85	REINF CONC APPROACH SLAB, INCL BARRIER	253071.00
441-0014	0	SY	38.51	DRIVEWAY CONCRETE, 4 IN TK	0.00
441-0016	1800	SY	39.87	DRIVEWAY CONCRETE, 6 IN TK	71766.00
441-0104	25300	SY	37.80	CONC SIDEWALK, 4 IN	956340.00
441-0748	9700	SY	40.49	CONCRETE MEDIAN, 6 IN	392753.00
441-4020	900	SY	38.75	CONC VALLEY GUTTER, 6 IN	34875.00
441-4030	0	SY	45.32	CONC VALLEY GUTTER, 8 IN	0.00
441-6022	50200	LF	18.51	CONC CURB & GUTTER, 6 IN X 30 IN, TP 2	929202.00
441-6720	13000	LF	15.91	CONC CURB & GUTTER, 6 IN X 30 IN, TP 7	206830.00
500-3101	800	CY	587.75	CLASS A CONCRETE	470200.00
500-3107	100	CY	467.59	CLASS A CONCRETE, RETAINING WALL	46759.00
500-3200	1000	CY	436.65	CLASS B CONCRETE	436650.00
511-1000	95500	LB	0.96	BAR REINF STEEL	91680.00
550-1240	29400	LF	53.56	STORM DRAIN PIPE, 24 IN, H 1-10	1574664.00
550-2180	2000	LF	35.54	SIDE DRAIN PIPE, 18 IN, H 1-10	71080.00
550-3524	30	EA	1026.24	SAFETY END SECTION 24 IN, STORM DRAIN, 6:1 SLOPE	30787.20
550-3618	50	EA	753.43	SAFETY END SECTION 18 IN, SIDE DRAIN, 6:1 SLOPE	37671.50
573-2004	1000	LF	18.96	UNDDR PIPE INCL DRAINAGE AGGR, 4 IN	18960.00
576-1015	180	LF	35.71	SLOPE DRAIN PIPE, 15 IN	6427.80
634-1200	80	EA	110.43	RIGHT OF WAY MARKERS	8834.40
641-1100	480	LF	52.43	GUARDRAIL, TP T	25166.40
641-1200	800	LF	18.89	GUARDRAIL, TP W	15112.00
641-5001	4	EA	631.55	GUARDRAIL ANCHORAGE, TP 1	2526.20
641-5012	4	EA	1878.51	GUARDRAIL ANCHORAGE, TP 12	7514.04
668-1100	175	EA	2285.08	CATCH BASIN, GP 1	399889.00
Section Sub Total:					\$15,853,794.63

Section Erosion Control					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
162-1300	100	EA	617.52	EROSION CONTROL CHECK DAM, TP -	61752.00
163-0232	45	AC	561.09	TEMPORARY GRASSING	25249.05
163-0300	4	EA	2863.84	CONSTRUCTION EXIT	11455.36
163-0503	100	EA	569.11	CONSTRUCT AND REMOVE SILT CONTROL GATE, TP 3	56911.00
163-0520	1000	LF	16.91	CONSTRUCT AND REMOVE TEMPORARY PIPE SLOPE DRAIN	16910.00
163-0531	1	EA	8446.07	CONSTRUCT AND REMOVE SEDIMENT BASTN, TP 1, STA NO -	8446.07
165-0010	29500	LF	0.93	MAINTENANCE OF TEMPORARY SILT FENCE, TP A	27435.00
165-0030	6000	LF	1.88	MAINTENANCE OF TEMPORARY SILT FENCE, TP C	11280.00
165-0040	50	EA	86.87	MAINTENANCE OF EROSION CONTROL CHECKDAMS/DITCH CHECKS	4343.50
165-0050	500	LF	3.73	MAINTENANCE OF SILT RETENTION BARRIER	1865.00
165-0060	1	EA	1316.58	MAINTENANCE OF TEMPORARY SEDIMENT BASIN, STA NO -	1316.58

165-0087	100	EA	200.21	MAINTENANCE OF SILT CONTROL GATE, TP 3	20021.00
165-0101	4	EA	676.71	MAINTENANCE OF CONSTRUCTION EXIT	2706.84
167-1000	4	EA	1319.80	WATER QUALITY MONITORING AND SAMPLING	5279.20
167-1500	24	MO	1061.85	WATER QUALITY INSPECTIONS	25484.40
170-1000	500	LF	18.83	FLOATING SILT RETENTION BARRIER	9415.00
171-0010	29500	LF	1.84	TEMPORARY SILT FENCE, TYPE A	54280.00
171-0030	6000	LF	3.86	TEMPORARY SILT FENCE, TYPE C	23160.00
700-6910	45	AC	893.28	PERMANENT GRASSING	40197.60
Section Sub Total:					\$407,507.60

Section Signing and Marking

Item Number	Quantity	Units	Unit Price	Item Description	Cost
636-1032	250	SF	19.23	HIGHWAY SIGNS, TP 2 MATL, REFL SHEETING TP 6	4807.50
636-2020	30	LF	18.98	GALV STEEL POSTS, TP 2	569.40
653-1501	13500	LF	0.63	THERMOPLASTIC SOLID TRAF STRIPE, 5 IN, WHITE	8505.00
653-1502	41600	LF	0.68	THERMOPLASTIC SOLID TRAF STRIPE, 5 IN, YELLOW	28288.00
653-1704	900	LF	5.04	THERMOPLASTIC SOLID TRAF STRIPE, 24 IN, WHITE	4536.00
653-3501	43100	GLF	0.47	THERMOPLASTIC SKIP TRAF STRIPE, 5 IN, WHITE	20257.00
653-3502	13500	GLF	0.37	THERMOPLASTIC SKIP TRAF STRIPE, 5 IN, YELLOW	4995.00
653-6004	7600	SY	2.71	THERMOPLASTIC TRAF STRIPING, WHITE	20596.00
653-6006	3900	SY	3.28	THERMOPLASTIC TRAF STRIPING, YELLOW	12792.00
Section Sub Total:					\$105,345.90

Section Signals

Item Number	Quantity	Units	Unit Price	Item Description	Cost
647-1000	5	LS	70000.00	TRAFFIC SIGNAL INSTALLATION NO -	350000.00
Section Sub Total:					\$350,000.00

Section Bridge

Item Number	Quantity	Units	Unit Price	Item Description	Cost
525-1000	1	EA	19676.50	COFFERDAM	19676.50
543-9000	1	Lump Sum	2550000.00	CONST OF BRIDGE COMPLETE - RAILROAD	2550000.00
Section Sub Total:					\$2,569,676.50

Total Estimated Cost: \$19,286,324.63

Subtotal Construction Cost ~~\$19,286,324.63~~
 E&C Rate 0.0 % \$0.00
 Inflation Rate 0.0 % @ 0.0 Years \$0.00

+ 5% EE'C - 964,316
 + 6% CNT - 1,215,038

 TOTAL CONST = 21,465,678

Total Construction Cost ~~\$19,286,324.63~~
 Right Of Way \$6,521,150.00
 ReImb. Utilities \$0.00 ✓ OK

Grand Total Project Cost ~~\$25,807,474.63~~
\$27,986,828

Handwritten signature and date: 4/11/2008

Preliminary ROW Cost Estimate Alt. 4

Date: 1/30/08

Project: STP-079-1(42)

Existing/Required R/W:

Project Termini:

Project Description: SR 135 FM SR 31/US441 East to SR 32 with R/R Separation

Land:

P.I. Number: 431830

No. Parcels: 114

Commercial	666,686.702	s.f	@ \$ 2.00	/s.f. = \$ 1,333,373.40	
Industrial		s.f	@ \$	/s.f. = \$	
Residential	343,351.746	s.f	@ \$ 0.40	/s.f. = \$ 137,340.70	
Agricultural		s.f	@ \$	/s.f. = \$ _____	
TOTAL					<u>\$ 1,470,714.1</u>

Improvements:

Relocation:

Commercial	0	@ \$25,000/parcel	=	\$
Residential	8	@ \$40,000/parcel	=	\$ 320,000.00

TOTAL **\$ 1,790,714.1**

Damages:

Proximity -	\$ 87,500.00
Consequential -	\$
Cost to Cure -	\$

TOTAL **\$ 87,500.00**

SUB-TOTAL: **\$ 1,878,214.1**

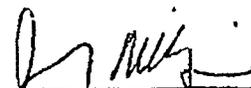
Net Cost		\$ 1,878,214.10
Scheduling Contingency	55 %	\$ 1,033,017.76
Adm/Court Cost	60 %	\$ 4,657,970.80
Market Appreciation	40 %	\$ 6,521,159.10

TOTAL **\$ 6,521,159.10**

Total Cost

\$ 6,521,150

Prepared By: Cheryl Brewer

Approved: 
Howard P. Copeland
R/W Administrator

REVISED: 12-8-06

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE

Project No: **STP00-0079-01(042)**
County **COFFEE**
P.I. # **431830-**

OFFICE: **Tifton**
DATE: **2-22-2008**

Description: **SR 135 FM SR 31/US 441 EAST TO SR 32 INCLUDING RR
SEPARATION**

FROM Tim Warren, P.E., District Utilities Engineer

TO Nicoe Alexander, Project Manager

SUBJECT **UTILITY COST ESTIMATE**

A field review of utilities located on the above referenced project has been conducted without a design concept. Listed below is a breakdown of reimbursable and non-reimbursable cost.

<u>Utility Owner</u>	<u>Reimbursable</u>	<u>Non- Reimbursable</u>
City Of Douglas	\$0.00	\$3,329,368.00
Windstream	\$0.00	\$2,128,896.00
MEAG	\$0.00	\$330,000.00
Charter Communications	\$0.00	\$85,344.00
Total	\$ 0.00	\$5,873,608.00

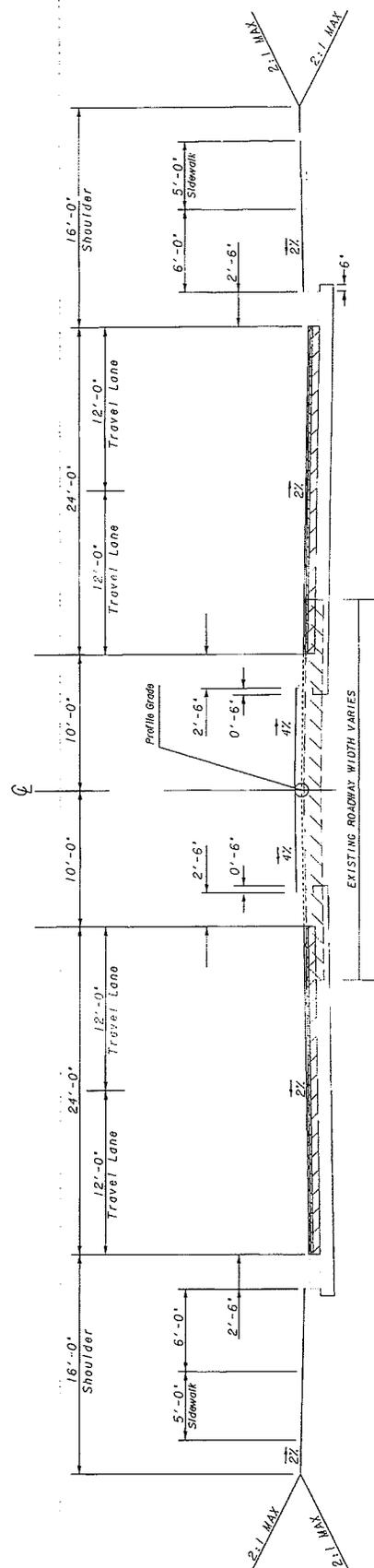
If additional information is needed, please contact me or Bill Cooper, Assistant District Utilities Engineer at (229) 386-3288.

TW:BC:KC:ec

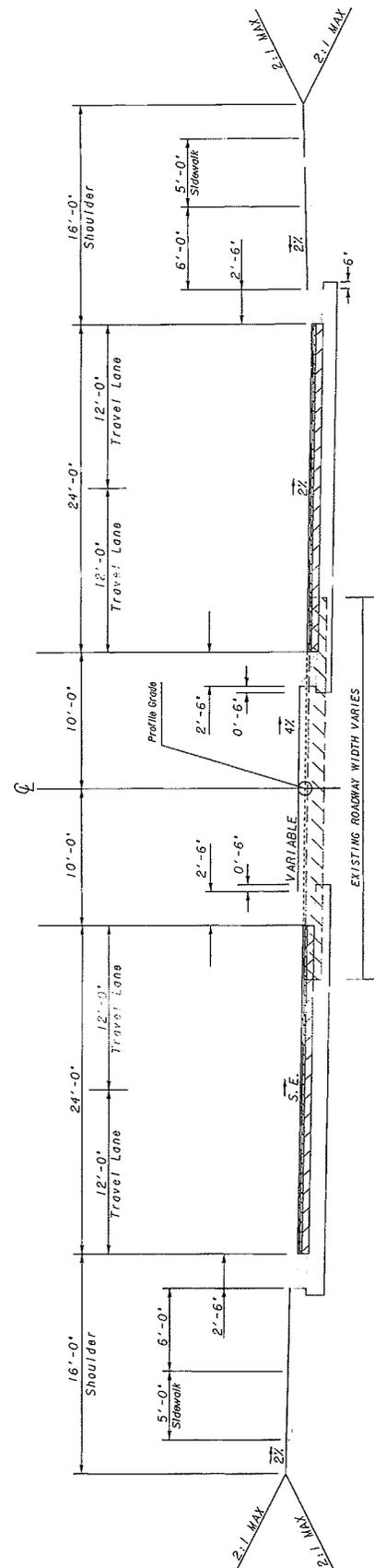
c: Jeff Baker, P.E., State Utilities Engineer
Brent Thomas, District Preconstruction Engineer
Jamie Simpson, State Financial Management Administrator
Babs Abubakari, P.E., State Consultant Design Engineer

Attachment 2

Typical Sections

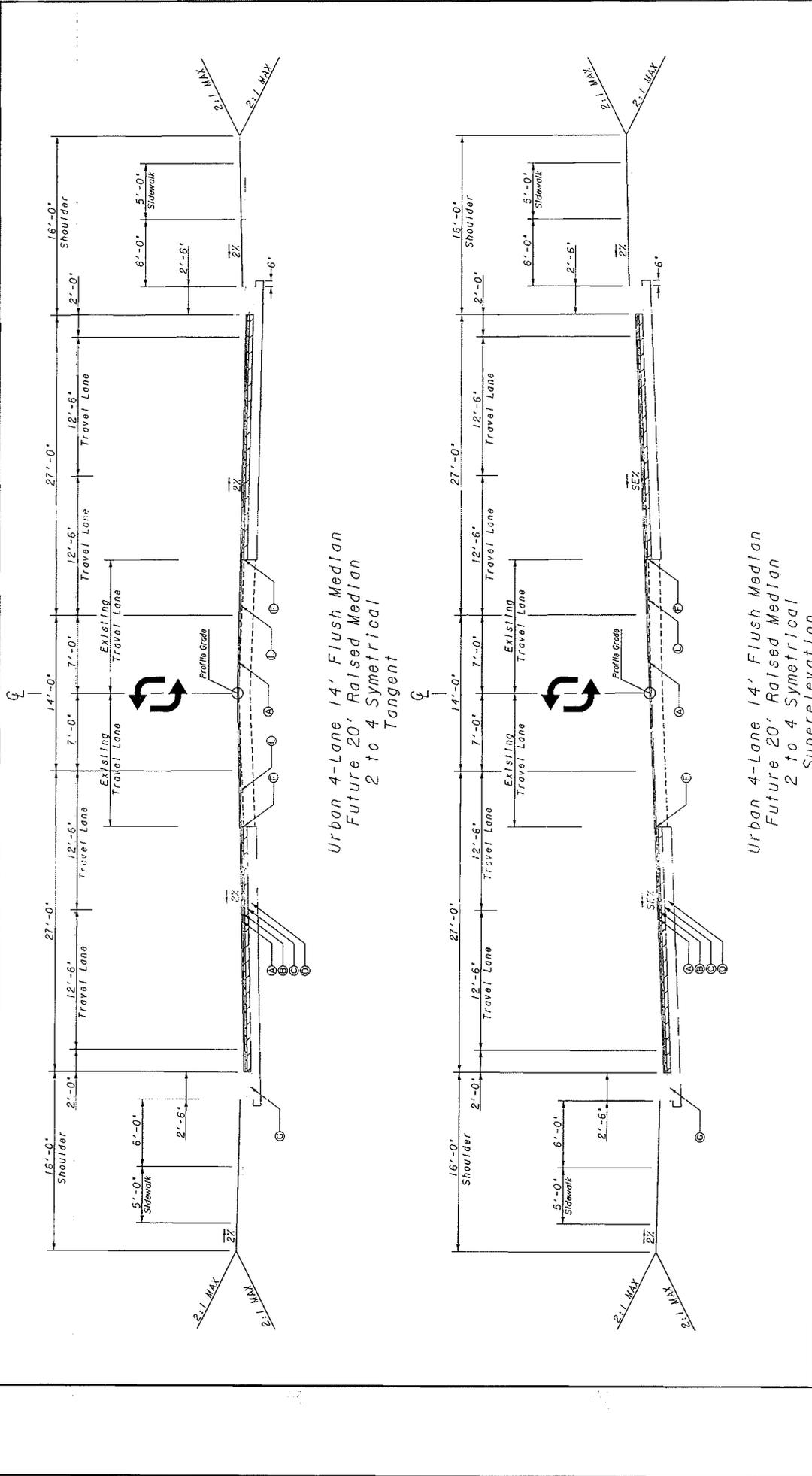


Urban 4-Lane 20' Raised Median
 2 to 4 Symmetrical
 Tangent

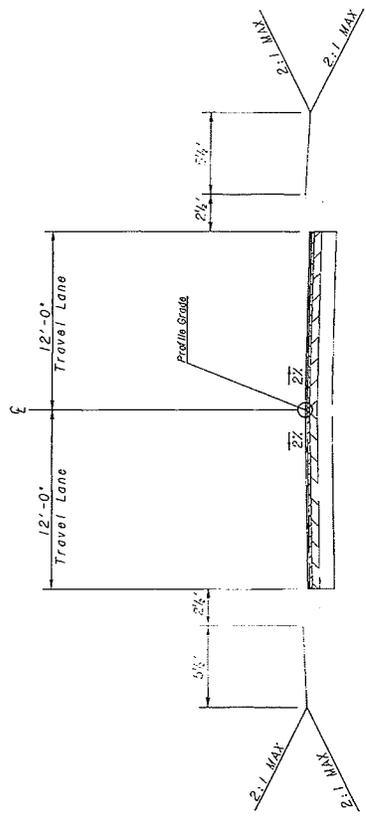


Urban 4-Lane 20' Raised Median
 2 to 4 Symmetrical
 Superelevation

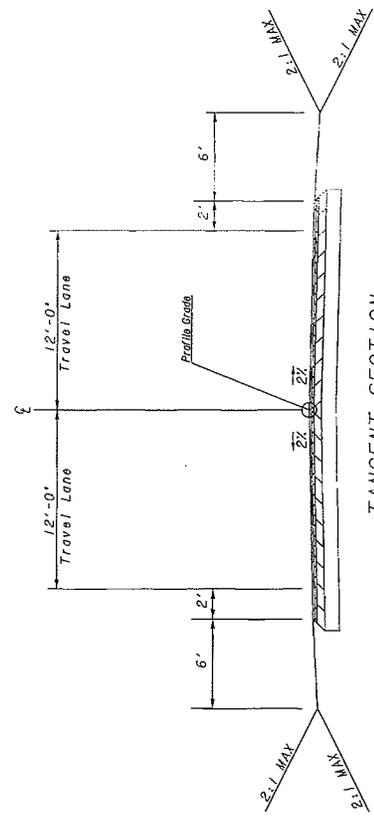
<p>COLUMBIA ENGINEERING 2703 Meadow Church Road, Suite 100 Marietta, Georgia 30067 Phone: (770) 925-0557 Fax: (770) 925-0555</p>	<p>REVISION DATES</p>	<p>STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION OFFICE: OFFICE OF CONSULTANT DESIGN</p>
	<p>TYPICAL SECTIONS</p>	<p>SR 35 FM SR31/AUS 441 EAST TO INCL RR SEPARATION SR32 COFFEE COUNTY</p>
<p>PRELIMINARY NO. 5-01</p>		



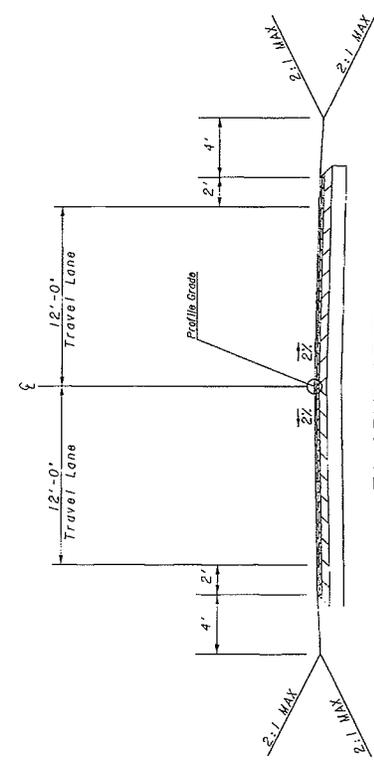
REVISION DATES	STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION OFFICE: OFFICE OF CONSULTANT DESIGN
	TYPICAL SECTIONS SR135 FM SR31/US 441 EAST TO SR32 INCL. RR SEPARATION COFFEE COUNTY
	COLUMBIA ENGINEERING 2763 Meadow Church Road, Suite 100 Duluth, Georgia 30097 Phone: (770) 924-0357 Fax: (770) 924-0355
	



Urban 2-Lane (SIDE ROADS)



Rural 2-Lane (SIDE ROADS)



TANGENT SECTION

Rural 2-Lane (SIDE ROADS)
Low Speed, Low Volume

 <p>COLUMBIA ENGINEERING 2163 Meadow Church Road, Suite 100 Columbus, Georgia 31906 Phone: (770) 925-4057 Fax: (770) 925-4555</p>	<p>STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION OFFICE: OFFICE OF CONSULTANT DESIGN</p>										
	<p>TYPICAL SECTIONS SR135 FM SR31/US 441 EAST TO SR32 INCL RR SEPARATION COFFEE COUNTY</p>										
<p>REVISION DATES</p> <table border="1"> <tr><td> </td><td> </td></tr> </table>											<p>DATE: 11/11/11 10:00 AM 140238 TUNERS 10001 APPORTABLE14 COUNTY COFFEE COUNTY PROJECT NUMBER SIP-078-11421 SHEET NO. TOTAL SHEETS</p>

Attachment 3
Accident Summaries

STP-079-1(42), Coffee County
P.I. No. 431830

Summary of Accident Data 2003 – 2005

Location of accident	Total Accidents	Type of Accidents
US 441/ Peterson Ave.	9	7-rear end, 1-sideswipe, 1-angle
Old Axson/McDonald Rd.	5	4-rear end, 1-angle
East Baker Hwy.	4	2-rear end, 2-angle
Brantley Blvd.	4	4-rear end
Gaskin Ave.	4	2-rear end, 1-head on, 1-angle
Spooner Ave.	3	2-angle, 1-rear end
Century Dr.	2	2-rear end
Waldroup Ave.	2	2-rear end
SR 32	2	2-angle
Other	17	9-rear end, 6-angle, 2-sideswipe

Data	Year			Grand Total
	2003	2004	2005	
Count of Accident No	4	36	12	52
Count of Injuries	1	15	6	22
Count of Fatalities				

	2003	2004	2005
Accident per 100 million miles traveled	34.79	307.6	124.9
Injuries per 100 million miles traveled	8.699	128.2	62.47
Fatalities per 100 million miles traveled	0	0	0

AADT 12,114 12,333 10,120

MP to

MP to

Length 2.6 miles

Attachment 4

Capacity Analysis



TRAFFIC ENGINEERING REPORT
For
PROPOSED ROADWAY IMPROVEMENTS SR 135
FROM SR31/US441 NORTH AND EAST TO US221
INCLUDING RAILROAD GRADE SEPARATION
COFFEE COUNTY, GA
GDOT PROJECT NO. STP-079-1(42)
P.I. No.: 431830

Prepared for the
Georgia Department of Transportation
W&A Project No. 06-629

January 22, 2007

WOLVERTON & ASSOCIATES, INC.
6745 SUGAR OAK PARKWAY
SUITE 100
DULUTH, GA 30097
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(770) 447-9070 FAX
www.wolverton-assoc.com

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1. INTRODUCTION

SR 135 TRAFFIC ENGINEERING REPORT

The purpose of this report is to analyze concept improvements for SR 135 in Douglas, Georgia. The project extends from SR 31/US 441 at its southwestern most point to US 221 at its northeastern point. This connection will serve bypass trips around the City of Douglas, Georgia to relieve traffic in the downtown district.

Improvements include:

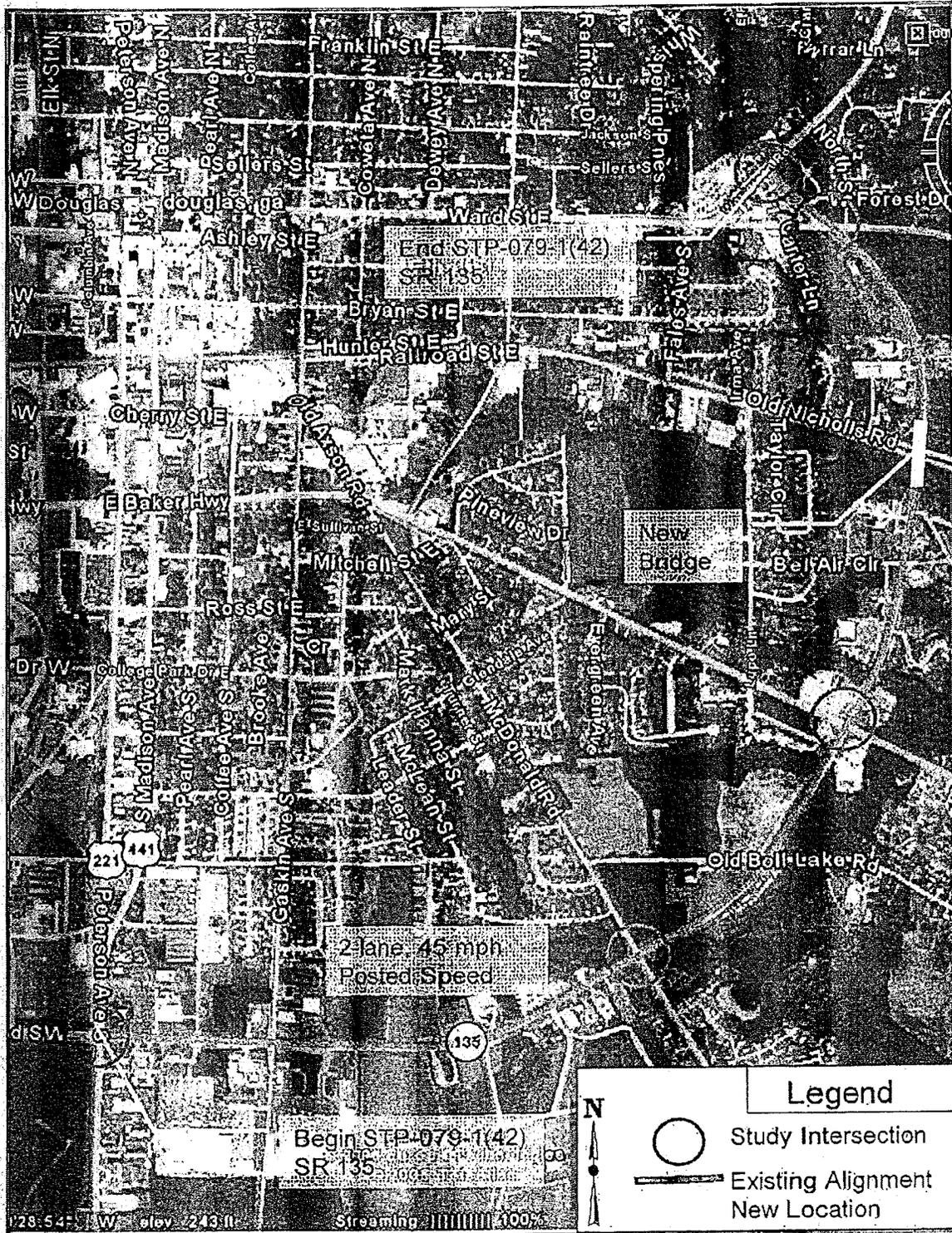
- widening the existing two-lane rural highway section on SR 135 to a four-lane divided rural section
- a new bridge for a grade separated section at the CSX rail crossing.

The project proposes a 14 foot flush median on a rural cross section for the entire length.

Figure 1 schematically illustrates the project concept and location.

These improvements are part of the Georgia Department of Transportation (GDOT) work program.

Figure 1 – Project Location Map



Methodology

Traffic on the major roadways; SR 135, is expected to increase as a result of continuing development in the region. Historical count data for the immediate area was obtained from the Georgia Department of Transportation (GDOT) in order to establish an historical traffic growth rate. The existing traffic was grown to provide an estimate for the 2013 and 2033 volumes. Estimates were then made of the traffic that will utilize SR 135. The existing traffic was re-routed and assigned to the roadway network for the build (2013) and design (2033) years.

2. EXISTING CONDITIONS

SR 135 TRAFFIC ENGINEERING REPORT

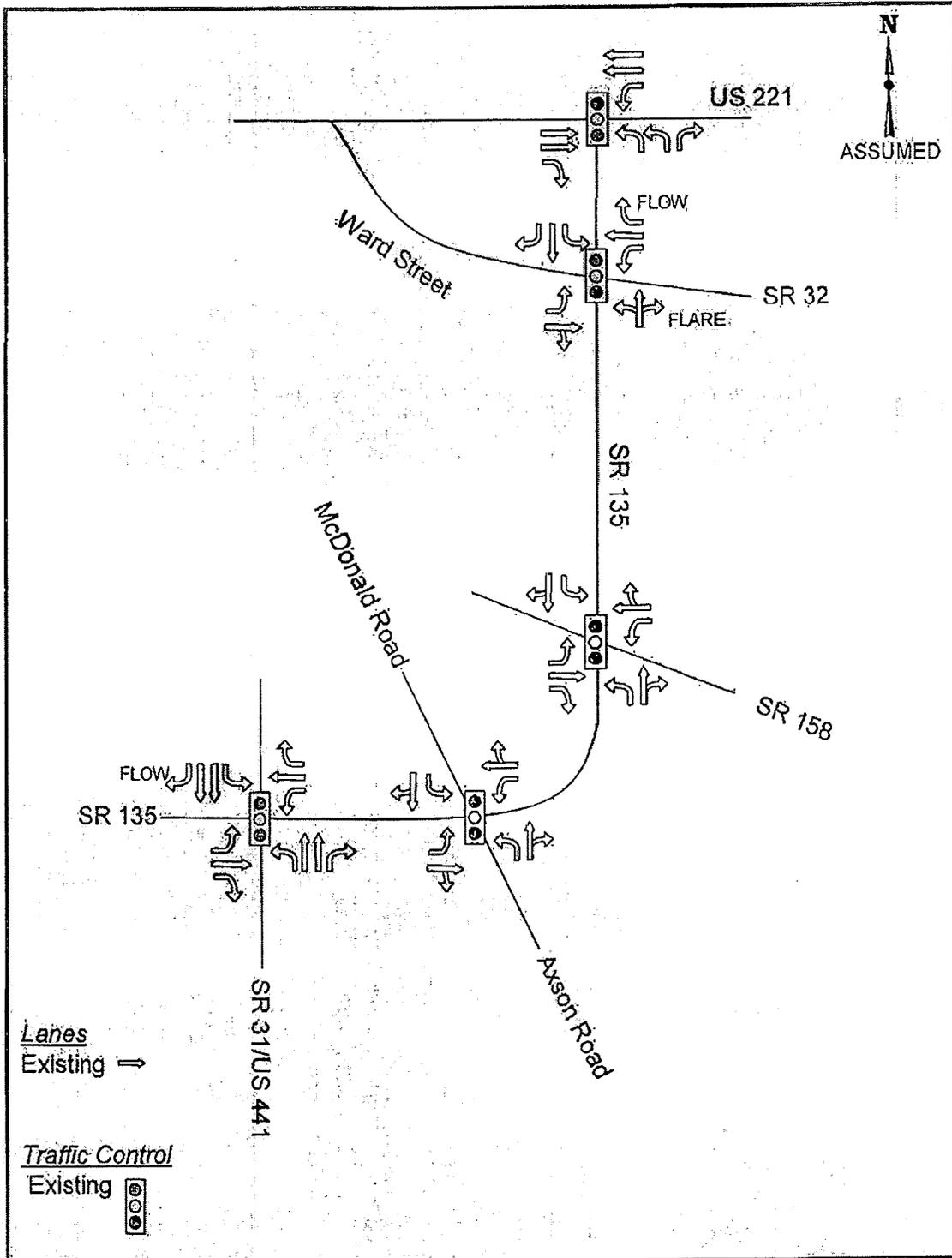
The project begins at the intersection of SR 135 and SR 31/US 441. SR 31/US 441 is a four-lane arterial that splits into a one way pair just north of the project.

Study intersections along the corridor are SR 135 at:

1. SR 31/US 441
2. McDonald Road/Old Axson Road
3. SR 158 (E. Baker Highway)
4. SR 32 (Ward Street)
5. US 221

Figure 2 shows the existing intersection geometry. As a general assumption for all figures in this report SR 135 is considered as being east/west at intersections 1 and 2 and SR 135 is considered as being north/south at intersections 3, 4, and 5.

Figure 2 – Existing Lane Geometry



3. TRAFFIC DATA

SR 135 TRAFFIC ENGINEERING REPORT

Turning movement counts (TMCs) were collected at the study intersections and 24-hr vehicle classification tube counts at select locations in the study area. The existing peak volumes are illustrated in Figure 3. Printouts for TMCs and 24-hr vehicle classification tube counts are provided in Appendix A.

The years 2006, 2013, and 2033 traffic projections were formulated for locations in the project area corresponding to the tube count locations. The future year projections are graphed, and annual growth rates determined for the corridor. Printouts for the model data are provided in Appendix B.

Projected Average Daily Traffic Volumes, AADT

The growth rates were averaged to obtain an adjusted annual growth rate. The growth rates for the build year (2013) and design year (2033) were then calculated. A rate of 1.6% per year was calculated.

The growth rate was applied to the AADT numbers to project 24-hr traffic for the build year (2013) and design year (2033).

Projected Peak Hour Volumes

Using the 24-hr count, a 'K' factor and 'D' factor were calculated. The 'K' factor is the proportion of daily traffic occurring during the peak hour. The 'D' factor or directional factor is the percentage split of traffic traveling in either direction during a particular time of day.

Projected hourly traffic volumes are obtained by applying the growth rate to the existing traffic volumes found in Figure 3. Those projected hourly volumes are checked against those projections using the 'K' and 'D' factors. The projected peak volumes for the 2013 Build Year are illustrated in Figure 4, and projected peak volumes for the 2033 Design Year are illustrated in Figure 5. Traffic projections for the Build and Design Year ADT are provided in Appendix C.

Figure 3 – Existing Traffic Volumes

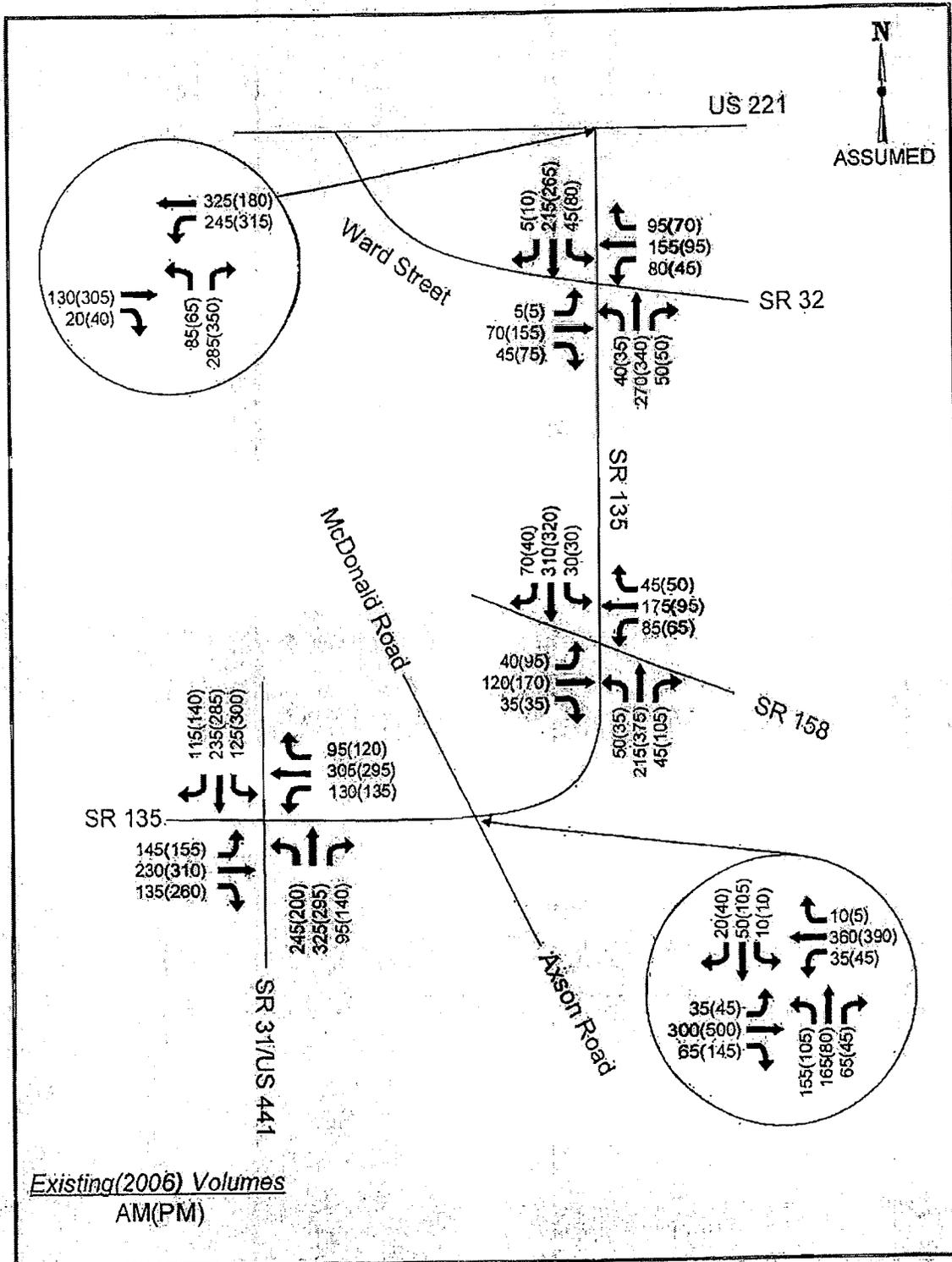


Figure 4 – Build Year (2013) Traffic Volumes

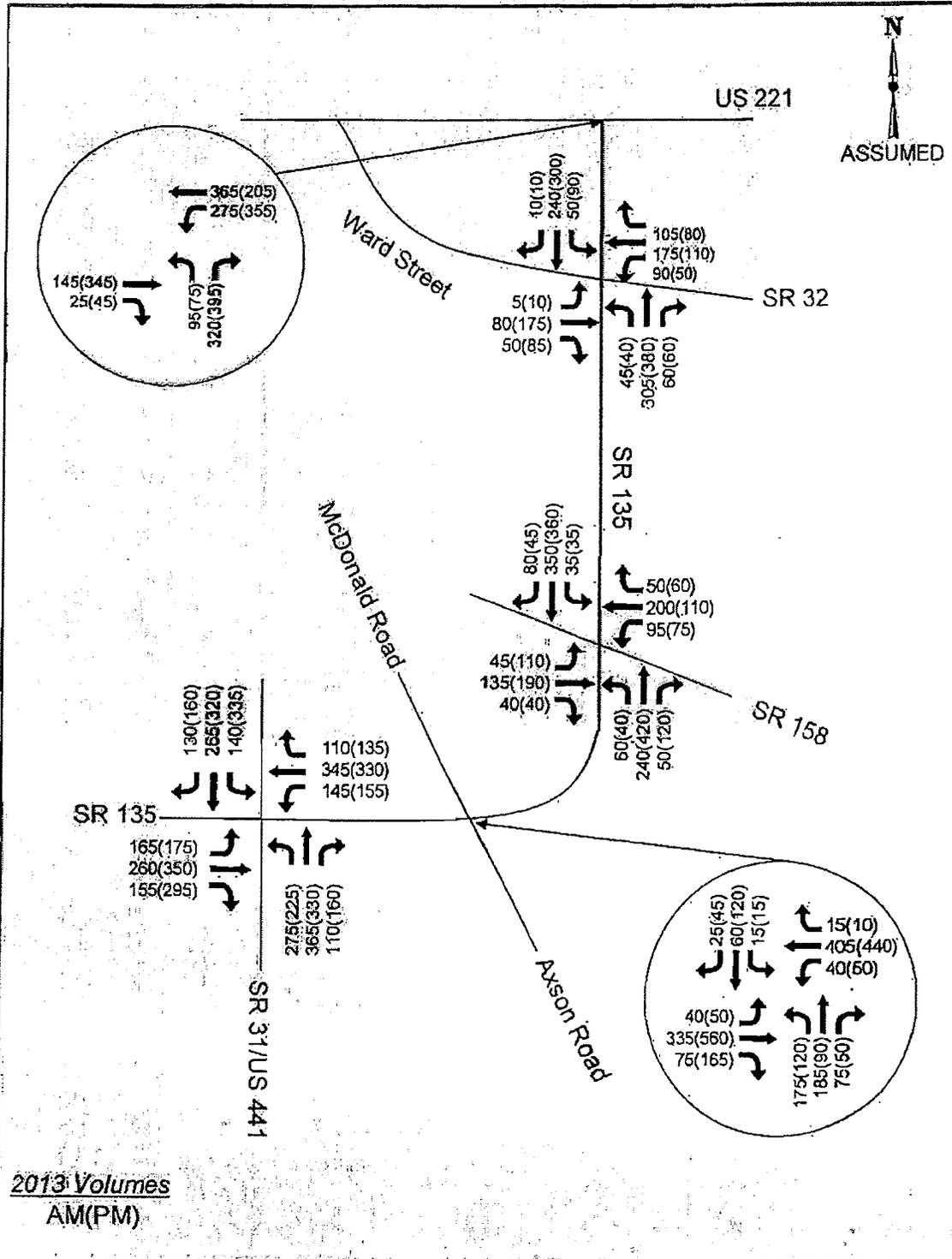
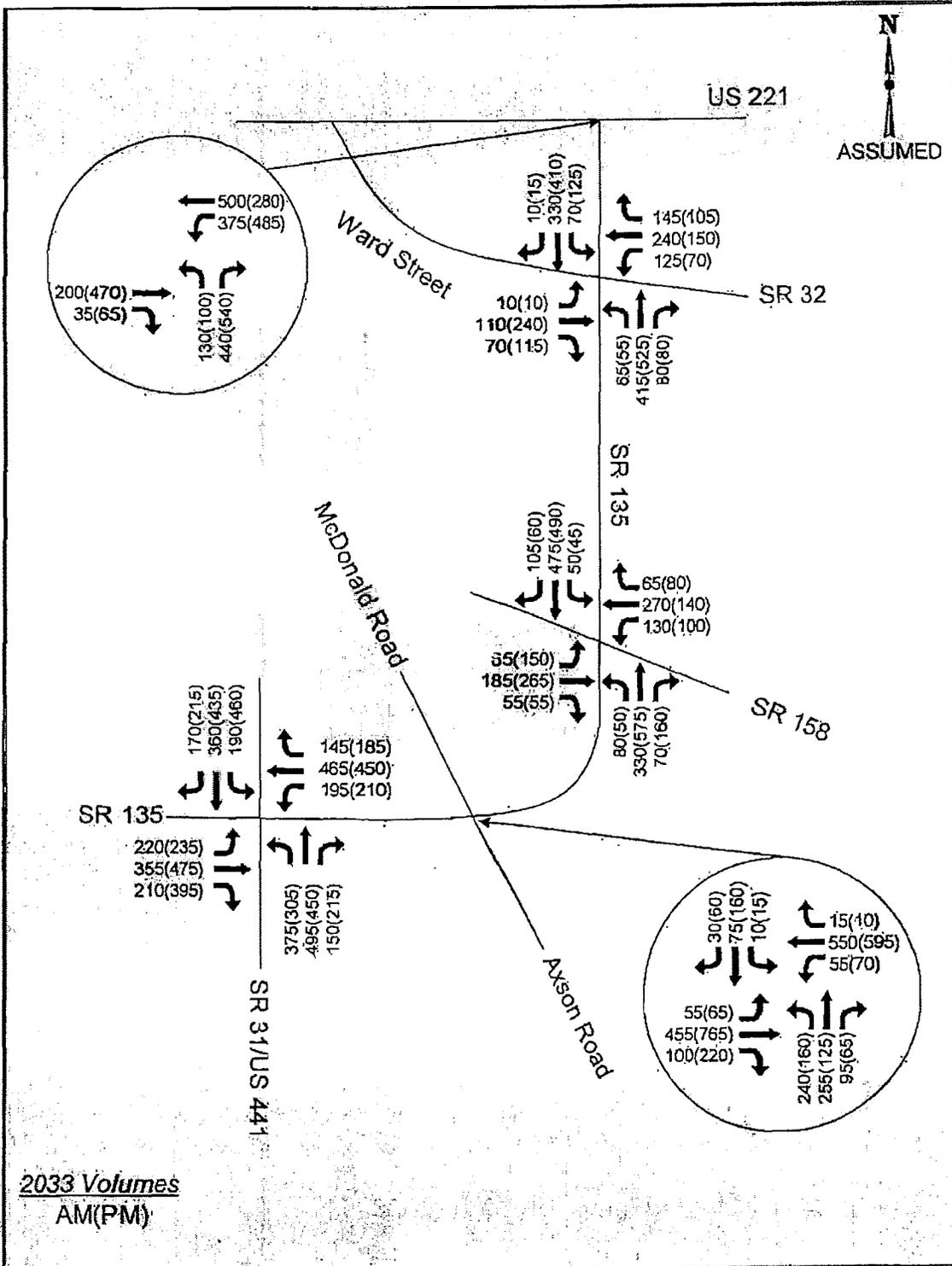


Figure 5 – Design Year (2033) Traffic Volumes



4. DATA ANALYSIS

SR 135 TRAFFIC ENGINEERING REPORT

Capacity

Capacity analysis was used to evaluate the projected volumes at the study intersections along the corridor. This process was used to define geometry and traffic control needed to result in acceptable levels of service for the projected conditions.

The *Synchro Program* was used to conduct capacity analysis. *Synchro* implements the capacity methods of the *Highway Capacity Manual (HCM)* for performing the industry standard evaluation of intersection performance. The delays used in the reports follow the procedure as recommended by the HCM.

The *Highway Capacity Manual* defines level of service (LOS) in terms of the amount of control delay. Control delay includes initial deceleration delay, queue move-up time, stopped delay and final acceleration delay.

The levels of service definitions for both stop controlled and signal controlled intersections are provided in Table 1.

Table 1 – Level of Service Criteria

LEVEL OF SERVICE	CONTROL DELAY PER VEHICLE (SEC)	
	WITH STOP-SIGN CONTROL	WITH SIGNAL CONTROL
A	≤ 10	≤ 10
B	> 10 and ≤ 15	> 10 and ≤ 20
C	> 15 and ≤ 25	> 20 and ≤ 35
D	> 25 and ≤ 35	> 35 and ≤ 55
E	> 35 and ≤ 50	> 55 and ≤ 80
F	> 50	> 80

Source: Highway Capacity Manual

The GDOT has ranges of acceptable Levels of Service based on the area. Rural, sparsely developed areas have a minimum LOS requirement of C. This is due to the expectancy of rural residents for relatively uncongested conditions and design flexibility related to lower right of way costs of impacts. The minimum LOS for urban areas is D. This reflects the greater acceptance of delay and congestion by urban residents. Additionally, the increased density of developments makes right of way costs much higher in urban areas. The project corridor is rural in nature and has a minimum LOS requirement of C.

Capacity Analysis Results

No Build

Study intersections were initially evaluated with a no build option. This analysis shows what the level of service would be at each intersection in the Years 2013 and 2033 if the existing facility were to remain unchanged. This establishes a baseline for comparing improvements.

Table 2 contains the results of capacity analysis of projected volumes for the signalized intersections in the Build and Design Years.

The values shown in parenthesis indicate the estimated delay in seconds per vehicle. Asterisks indicate very high delay that is beyond the limits that can be estimated within the valid range of the capacity analysis procedure. Synchro printouts for the Build and Design Year no-build options are provided in Appendix D.

Table 2 – Capacity Analysis Results, No-Build

Intersection	2013		2033	
	AM Peak	PM Peak	AM Peak	PM Peak
SR 135 @ SR 31/US 441	C (23.7)	C (26.6)	C (31.0)	D (38.4)
SR 135 @ McDonald Rd/Axson Rd	C (22.2)	B (18.0)	C (25.5)	C (31.0)
SR 135 @ SR 158	B (19.0)	C (20.8)	C (21.3)	C (25.4)
SR 135 @ SR 32	B (18.6)	B (19.6)	C (22.4)	C (24.0)
SR 135 @ US 221	C (22.4)	C (24.8)	C (23.0)	C (25.9)

As shown in the table above, the intersection of US 441 at SR 135 in the PM Peak condition operate unacceptably in the Design Year with a LOS of D.

Build

The build option consists of constructing a four-lane divided facility with turn lanes at all median breaks. The concept calls for a 14 foot flush median with four twelve foot lanes. The proposed intersection configurations are shown in each intersection was analyzed using the proposed roadway configuration. Synchro printouts for the Build and Design Year build options are provided in Appendix E.

Table 3 – Capacity Analysis Results, Build

Intersection	2013		2033	
	AM Peak	PM Peak	AM Peak	PM Peak
SR 135 @ SR 31/US 441	C (21.9)	C (24.4)	C (25.0)	C (30.9)
SR 135 @ McDonald Rd/Axson Rd	C (20.7)	B (15.4)	C (20.8)	B (15.4)
SR 135 @ SR 158	B (19.4)	B (18.5)	B (19.8)	C (20.5)
SR 135 @ SR 32	B (17.5)	B (18.8)	B (18.1)	B (19.7)
SR 135 @ US 221	C (21.1)	C (25.6)	C (20.3)	C (28.3)

Table 3 shows the levels of service on the study intersections have improved with the addition of the project improvements.

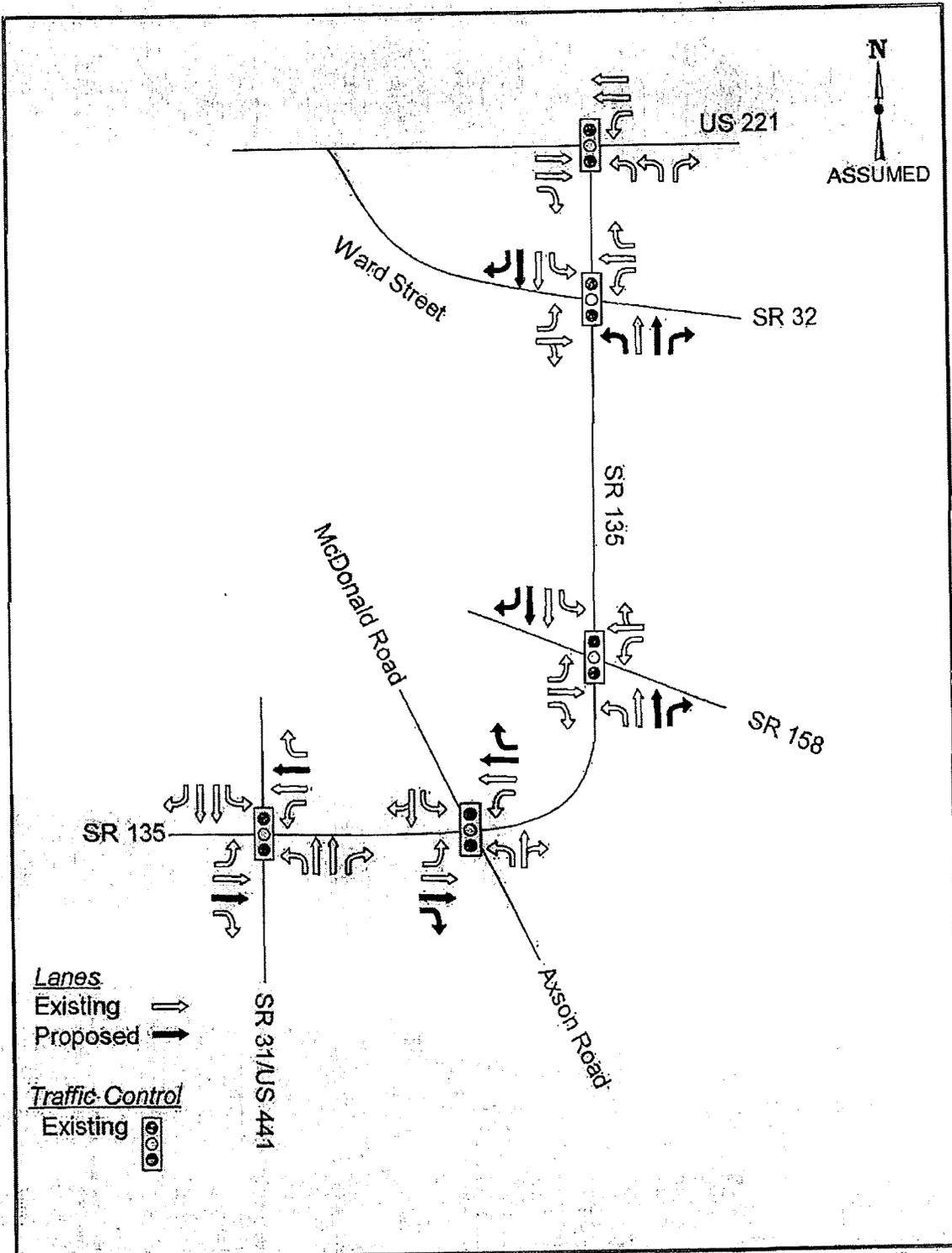
Lengths in Table 4 are the recommended storage length only. See GDOT standards and details for bay taper and deceleration lengths.

Table 4 – Storage Summary

SR 135 @	Recommended Storage Length (ft)												Control
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
US 441	200	250	100	175	*	*	275	200	75	425	200	75	Signalized
McDonald/Axson	*	125	25	*	200	*	225	275	---	25	200	---	Signalized
SR 158	125	200	25	125	300	---	*	225	75	*	100	*	Signalized
SR 32	25	325	---	150	225	50	*	200	*	25	75	25	Signalized
US 221	---	250	50	375	150	---	50	400	---	---	---	---	Signalized

* Queues are controlled by upstream signal, use GDOT minimum storage length.

Figure 6 – Proposed Lane Geometry



Access Management

Driveways along the existing alignments of SR 135 were noted for study. The only access management issues are between the intersections of SR 135 @ US 441 and SR 135 @ Gaskin Road. The existing accesses include a gas station, two fast food restaurants, shopping center, etc. The existing road network makes access to all existing points fully accessible. The median proposed divided cross-section allows for congestions to take place with the current number of driveways in this area. It is recommended that several of these driveways be linked to reduce the number of driveways between the intersections of SR 135 @ US 441 and SR 135 @ Gaskin Road. Linking these driveways and restricting them to right-in right-out access would be beneficial.

Crashes

The crash analysis examines the crash rates along the SR 135 corridor and compares them to statewide averages of similar facilities. The statewide averages are calculated using crash data annually collected by GDOT. Crash rates are based on the number of property damage, injury, and fatal crashes per million vehicle miles traveled. The calculations are as follows:

$$\#Crashes / \frac{adt \times \text{section length (mi)} \times 365}{100,000,000}$$

Crash data is collected for the previous three years that the data is available. Data for this project was collected for the years 2003, 2004, and 2005. Table 8 shows the comparison of the SR 135 crash rates with statewide averages.

Table 8 – Crash Rates

Section	Type	2003		2004		2005	
		Statewide	SR 135	Statewide	SR 135	Statewide	SR 135
SR 31/US 441 to US 221	Collision	775	35	342	308	363	125
	Injuries	195	9	89	128	95	62
	Fatalities	1.72	0	1.07	0	1.30	0

The section of SR 135 is consistently lower than the statewide average for injury and total crashes.

5. SUMMARY OF RECOMMENDATIONS

SR 135 TRAFFIC ENGINEERING REPORT

Based on the analysis documented in this report, Wolverton and Associates, Inc. make the following conclusions and recommendations:

1. A four-lane median divided facility will accommodate the projected traffic.
2. Change the channelized free flow right turn lane to a channelized yield control right turn lane at the intersection of SR 135 @ US 441. The exiting westbound through lane will be added from the widening project.
3. Existing access points along SR 135 between US 441 and Gaskin Road should be linked restricted to right in / right out.
4. Add a northbound and southbound right turn lane at the intersection of SR 135 @ SR 158 in addition to the through lane proposed for the widening project.
5. Add an eastbound and westbound right turn lane at the intersection of SR 135 @ McDonald/Axson Road in addition to the through lane proposed for the widening project.
6. At the intersection of SR 135 @ SR 32/Ward Street, add northbound right and left turn lanes, as well as a southbound right turn lane in addition to the through lane proposed for the widening project.
7. The intersection of SR 135 @ US 221 is to remain unchanged.

REFERENCES

1. Highway Capacity Manual, HCM 2000, Transportation Research Board, Washington, DC, 2000.
2. Signalized Intersections: An Informational Guide, Federal Highway Administration, Washington, DC, 2004.
3. Manual of Traffic Signal Design, Institute of Transportation Engineers, Washington, DC, 1982.
4. Manual on Uniform Traffic Control Devices, 2003 Edition, Federal Highway Administration, Washington, DC, 2003.
5. "Traffic Engineering," McShane and Roess, 1990, Prentice-Hall, Inc.

Attachment 5

Initial Concept Team Meeting Minutes

Initial Team Concept Meeting
SR 135 from SR 31/US 441 East to SR 32 Including RR Separation
STP-079-1(42), P.I. 431830
Coffee County
CES No. 3031.00

Meeting Date: May 30 2007, 1:45 P.M.
Meeting Location: City of Douglas, City Hall, Council Chambers

Attendees:

<u>COMPANY</u>	<u>NAME</u>	<u>EMAIL / PHONE</u>
Georgia Dept of Transportation, Consultant Des. Mgr.	Nicoe Alexander	nicoe.alexander@dot.state.ga.us / (404)463-6135
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Georgia Dept of Transportation, Asst Dist. Utility Eng.	Bill Cooper	william.cooper@dot.state.ga.us / (229)386-3288
Georgia Dept of Transportation, Dist. Traffic Ops. Mgr.	Danny Gay	danny.gay@dot.state.ga.us / (229)386-3435
Georgia Dept of Transportation, Area 2 Permit Inspect.	Amy Spivey	amy.spivey@dot.state.ga.us / (912)389-4201
Georgia Dept of Transportation, Dist. Traffic Ops. Eng.	Van Mason	van.mason@dot.state.ga.us / (229)386-3435
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Columbia Engineering & Services, Inc.	Helen Hawkins	hhawkins@columbia-engineering.com / (770)925-0357
Columbia Engineering & Services, Inc.	Richard Mielke	rmielke@columbia-engineering.com / (770)925-0357
City of Douglas, Director, Natural Gas Dept	Sammy Deason	sdeason@accessatc.net / (912)389-3427
City of Douglas, Director, Community Develop.	Dale Batten	dalebatten@accessatc.net / (912)389-3433
City of Douglas, City Manager	Jackie Wilson	jackiewilson@accessatc.net / (912)389-3401
City of Douglas, Director, Water/Wastewater	Ernest R. Crussel	ecrussel@accessatc.net / (912)389-3447

Handouts: Project Description

Mr. Nicoe Alexander welcomed everyone to the meeting and invited everyone to sign-in. Everyone introduced themselves. Mr. Alexander gave a brief project description and background information. He mentioned that everyone's input will be helpful. In addition, Mr. Alexander stated that the let date is currently scheduled for January 2010, and the programmed R.O.W. date is January 2009.

Mr. Paul Cook read portions of the *DRAFT* Need and Purpose statement, including crash data and main structures for this project. He then gave a detailed description of all three (3) Alternates. Ms. Jackie Wilson mentioned that the City of Douglas owns property at S.R. 32/S.R. 135 and Cotton Drive. She asked if the City should hold onto it for the construction of the project, and that the City was considering selling it. Several people mentioned that the project would benefit from the City holding onto it.

During the discussion of Alternate 1, Ms. Wilson asked if the median was required from U.S. 441 to Old Axson Road/McDonald Road. Mr. Cook replied that it was required based on the traffic study. He also mentioned that the traffic study was not approved yet. Mr. Cook also mentioned that one of the median openings was located at Wal-Mart. Mr. Danny Gay mentioned that the new Design Manual requires 1000' spacing between median openings instead of 660', and therefore this median opening might need to move. In addition, Mr. Gay mentioned that the District wanted a traffic signal analysis done at the Walmart to see if signalization is required. Mr. Cook mentioned that the location was not in the original scope of work. Mr. Gay also mentioned that the Sonic restaurant is currently under construction, as is the movie theater.

Continuing on with Alternate 1, Mr. Cook mentioned that the location of Old Bell Lake Road relocation would need to be changed due to the new 1000' median opening requirement. Mr. Alexander mentioned that a design variance could possibly be used to keep it at 660'. Mr. Cook also mentioned that the speed limit would be 45 mph throughout the corridor, and that the traffic counts did not warrant a 20' median footprint for the future design year. Mr. Gay stated that he thought the traffic volumes presented were low because he recalled that a few years ago the counts were approximately 23,000 for the design year and 44,000 for the future design year. Mr. Cook explained that the traffic counts from the past several years had decreased with the exception of 2005 to 2006, which increased. He continued that even though the growth rate was negative in this timeframe, a positive growth rate of 1.6% was utilized. Ms. Wilson mentioned that a major business (1,000 employees plus) closed down around the year 2000, which could have caused part of the decline in traffic. It was also mentioned that improvements on several other major roadways in the vicinity may also have contributed to the traffic decline. Several other attendees mentioned that the future traffic counts may increase significantly

due to construction of the Sonic, movie theater, and other outparcels. In addition, it was mentioned that the current utility lines are a problem along S.R. 135, and that if the City could plan and upgrade them (especially the sewer capacity) then the traffic counts would greatly increase due to new development. Mr. Cook also mentioned that the major structures for Alternate 1 included a new box culvert at Old Bell Lake Road, a wall along the frontage road near the veterinary clinic, a bridge over the railroad, and a bridge to connect Century Drive and Waldroup Avenue.

Mr. Cook mentioned that all three alternates were the same from U.S. 441 to just past East Baker Highway. He also mentioned that if a roadway was built on the old alignment of Bel Air Circle, then the bridge would not be required at Century Drive and Waldroup Avenue, as long as Century Drive has a tie point to Bel Air Circle. Ms. Wilson also mentioned that impacts to the Environmental Justice (EJ) Apartments on Century Boulevard might now be permissible, as one of the owners is no longer a Commissioner.

For Alternate 2, Mr. Cook mentioned that the alignment had a longer bridge over the railroad than the other two alternates due to the sharper skew, but that the veterinary clinic was not impacted. He also stated that this alignment goes through several buildings at the back of the storage units' property and then ties back in to West Green at a new location, with a 700' radius. He continued by stating that this radius will be super-elevated, creating more impacts to properties on the west side of the alignment and a longer tie point on Ward Street do to the vertical change for matching the super elevation on SR 135. Mr. Cook then mentioned that impacting the four houses on Cotton Drive could flatten the 700' curve, allowing it to be less super-elevated. Mr. Gay had asked if there was enough sight distance for the side roads from the bridge to the end of the project, and Mr. Cook stated that the approaching/departing grade for the bridge is 3%-4%, and there was approximately 2600' to Ward Street and 1700' to the relocated SR 32/Frontage Road on Alternate 1 (Alternate 2 is 2200' and 1300', respectively; Alternate 3 is 2050' and 1250', respectively). The District Office mentioned that S.R. 32 was a Governor's Road Improvement Program (GRIP) Corridor and eventually it would be upgraded to a four-lane section. Mr. Cook stated that Alternate 2 realigns S.R. 32 and S.R. 135 with a better skew and that it is a five-lane section through this intersection, and then tapers back down to a two-lane section. The old alignment of S.R. 32 would be a two-lane cul-de-sac at the dealership. Ms. Wilson asked a question about the at-grade railroad crossing being left open, and Mr. Cook stated that it would be closed on all alternates.

Mr. Cook described Alternate 3. He mentioned that the bridge over the railroad would require a wall to maintain access to the veterinary clinic. He also mentioned that the new apartments on the northeast side of the railroad would be impacted by losing their clubhouse, one apartment building, and their mailbox structure. Mr. Cook also pointed out that the new alignment of S.R. 135 would intersect S.R. 32 at a 90 degree angle and that several houses would be removed due to the new alignment. It was also mentioned that the parking at the American Legion property would be impacted, but not the building. Mr. Cook stated that this alignment would parallel the dam and not impact the lake. Ms. Wilson mentioned that this alternate was most like the original alternate before the subdivision was built. Mr. Cook added that the curves for this alignment would need little super elevation, and therefore be more suitable for truck traffic. He also stated that Ward Street would stay as it is currently. Mr. Crussel stated his concern for the use of the Frontage Road along the old alignment of S.R. 135 because the businesses would not have direct access to S.R. 135. Mr. Cook stated that utilizing a frontage road was the best way to access these businesses and that the only other alternate would be to access them from the back of their properties, which would impair the business operations. He also mentioned that the bridge would need a wall to save the businesses along frontage road. Mr. Gay asked that some intersections along the new alignment be eliminated. Mr. Cook stated that that the design tries to maintain access to different properties. He also mentioned that there may be operational conflicts tying the driveways. Ms. Wilson mentioned that this alternate does not utilize the right-of-way the City purchased, therefore making these purchases a waste. It was mentioned that the old alignment could be changed to a two-lane or three-lane section to access parcels. Ms. Wilson asked if the old curb and gutter would be replaced with new curb and gutter for the new configuration. Mr. Cook said yes. Ms. Wilson also mentioned that the property owners would be upset because they maintain their yards, and the State would maintain the new grass that replaced the old pavement and curb and gutter, which would not be well maintained.

Mr. Alexander mentioned that the purpose of this meeting is to validate the Need and Purpose Statement. It was mentioned that the termini at the southern end was valid. Mr. Cook read the Need and Purpose statement. He mentioned that the crash data indicated most accidents occurred from U.S. 441 to Brantley Boulevard. It was mentioned that dual left turn lanes are needed on U.S. 441 onto S.R. 135. Several people stated that there are extreme backups and long queues in all directions. Mr. Gay asked for Columbia Engineering to look at the traffic turning movements at this intersection during peak hours. It was mentioned that the State maintains the signals along this corridor and Mr. Gay mentioned that the existing signals need replacing.

Mr. Cook stated that the major structures in this corridor are the bridges, walls, and several box culverts, some of which parallel the roadway and might need to be relocated. Mr. Cook also mentioned that the cost of construction only on Alternate 1 is approximately \$32.5 million, Alternate 2 is approximately \$34.7 million, and Alternate 3 is approximately \$39.7 million. He stated that a big jump in the cost estimates was due to the new costs for asphalt. He also asked if anyone knew the approximate cost of borrow material in the area. The District stated that \$7-\$9 per yard was normal. Mr. Cook continued with the right-of-way cost of

Alternate 1 being approximately \$1 million, Alternate 2 being approximately \$6 million, and Alternate 3 being approximately \$3 million.

Mr. Cook described the environmental impacts within the corridor. He stated that the railroad was historic and that the alignments avoid a potential historic house off of Ward Street. He also stated that there was a cemetery and a junkyard in the southeast quadrant of Ward Street/S.R.32 and S.R. 135. He also stated that there were several wetlands impacted and that this project would have an individual permit. Mr. Cook stated that the number and location of the Underground Storage Tanks (USTs) were unknown.

Mr. Alexander asked for questions and comments. Mr. Cooper mentioned that the utility costs from 2004 were approximately \$3.2 million and that \$2.7 million would be the responsibility of the City. He mentioned that there would be more utility impacts with Alternate 3. It was also mentioned that there is an 18" trunk main at Old Bell Lake Road with high flows.

The City asked for copies of the alignments. Columbia Engineering left one set with them and one set with the GDOT Area Office.

Mr. Alexander mentioned that GDOT would take the City's input into consideration of the alternates, but that the decision was not only based on the City comments. He added that there would be a Team Concept Meeting coming up and then, a public information open house.

Ms. Wilson mentioned that several Commissioners could cause problems with the alternates, but she would give us feedback on it. She also mentioned that there were several names on the concept layouts that could also cause problems. It was also mentioned that the new apartments at the northeast quadrant of the railroad would be upset with the impacts to their property because they tried hard to coordinate with the City and State to accommodate the different alternates at that time.

Mr. Crussel asked about a time frame from when an alternate is chosen to when the letting occurs. Mr. Alexander mentioned that it would be a few years. It was mentioned that the funding for development could be impacted by this project. The City asked if GDOT could give more money towards the utility relocations. Mr. Alexander stated that the Department is in a money crunch now also, and that the Department is trying to do the most with the least amount of money. It was also stated that more planning is needed up front to accommodate this request. The City said that they would look at all the alternates and send Columbia Engineering their comments.

The District Traffic Operations requested fiber optic interconnect cable to be added to the corridor. They also requested replacing the existing signals and studying the traffic at the Wal-Mart for a signal warrant.

Ms. Wilson asked if GDOT would pick up part of the utility costs, but not necessarily now. It was also mentioned that there are 100-year old lines throughout the City of Douglas, so the City needed help with money from GDOT. Mr. Gay asked if the portion of the corridor from U.S. 441 to McDonald/Old Axson Road could be built by itself, due to the funding shortage. Mr. Alexander stated that this would not meet the Need and Purpose Statement, so it would not be possible.

Mr. Alexander thanked everyone for attending and their input. The meeting was adjourned at 3:00 P.M.

Mr. Danny Gay, District Traffic Operations Manager added the following comments via email on 5/31/07:

- Perform traffic warrant analysis at the intersection of S.R. 135 and Walmart/K-Mart driveway and determine if signalization is needed.
- Evaluate all approaches at the intersection of S.R. 135 and U.S. 441 for the need for dual-left turns.
- Evaluate the intersection of S.R. 135 at S.R. 32 (depending on alternate chosen) for the need for dual-left turn lanes.
- Replace existing signals at the following locations during the project:
 - a. S.R. 135 at U.S. 441
 - b. S.R. 135 at Gaskins Avenue
 - c. S.R. 135 at McDonald Road
 - d. S.R. 135 at S.R. 158
 - e. S.R. 135 at S.R. 32
 - f. S.R. 135 at S.R. 135/S.R. 32 Conn.

Mr. Gay also states that they wish to withdraw/retract their request to include fiber optic interconnect cable.

Attachment 6

Concept Team Meeting Minutes

Concept Team Meeting
STP-079-1(42), Coffee County
SR 135 from SR 31/US 441 East to SR 32 Including RR Separation
P.I. 431830

Meeting Date: January 17, 2008, 2:00 P.M.
Meeting Location: GDOT District 4, Area 2 Office conference room

Attendees:

<u>NAME</u>	<u>COMPANY</u>	<u>EMAIL / PHONE</u>
Nicoe Alexander	Georgia Dept of Transportation, Consultant Design Mgr.	nialexander@dot.ga.gov / (404)463-6135
Brent Thomas	Georgia Dept of Transportation, Dist. 4, Pre-Const Eng.	bthomas@dot.ga.gov / (229)386-3300
Joe Sheffield	Georgia Dept of Transportation, Dist. 4 Engineer	jsheffield@dot.ga.gov / (229)386-3280
Bill Cooper	Georgia Dept of Transportation, Asst Dist. 4 Util. Eng.	wcooper@dot.ga.gov / (229)386-3288
Danny Gay	Georgia Dept of Transportation, Dist. 4 Traffic Ops. Mgr.	dgay@dot.ga.gov / (229)386-3435
Van Mason	Georgia Dept of Transportation, Dist. 4 Traffic Ops. Eng.	vmason@dot.ga.gov / (229)386-3435
Melanie Nable	Georgia Dept of Transportation, OEL NEPA Spec.	mnable@dot.ga.gov / (404)699-4436
Shane Pridgen	Georgia Dept of Transportation, Dist. 4 Plan. /Prog. Eng.	spridgen@dot.ga.gov / (229)386-3045
Tim Warren	Georgia Dept of Transportation, Dist. 4 Utilities Eng.	twarren@dot.ga.gov / (229)386-3288
Joe Cowan	Georgia Dept of Transportation, Dist. 4 Const. Eng.	jcowan@dot.ga.gov / (229)386-3304
Brad Dockery	Georgia Dept of Transportation, Dist. 4 Area 2 Asst. Eng.	bdockery@dot.ga.gov / (912)389-4201
Keith Carver	Georgia Dept of Transportation, Dist. 4 Area 2 Engineer	hcarver@dot.ga.gov / (912)389-4201
Paul Cook	Columbia Engineering & Services, Inc.	pcook@columbia-engineering.com / (770)925-0357
Helen Hawkins	Columbia Engineering & Services, Inc.	hhawkins@columbia-engineering.com / (770)925-0357
Sam Fleming	Columbia Engineering & Services, Inc.	sfleming@columbia-engineering.com / (770)925-0357
Richard Mielke	Columbia Engineering & Services, Inc.	rmielke@columbia-engineering.com / (770)925-0357
Russ Danser	Edwards-Pitman Environmental, Inc.	rdanser@edwards-pitman.com / (770)333-9484
Sammy Deason	City of Douglas, Director, Natural Gas Dept	sdeason@cityofdouglas.com / (912)389-3427
Dale Batten	City of Douglas, Director, Community Develop.	dbatten@cityofdouglas.com / (912)389-3433
Jackie Wilson	City of Douglas, Mayor	mayorwilson@cityofdouglas.com / (912)389-3401
Jerry Lott	City of Douglas, Water/Wastewater Dept.	jlott@cityofdouglas.com / (912)389-3447
Lamar Hill	City of Douglas, Electric Dept.	dougelec@yahoo.com / (912)389-3445
John Bagley	Alma Telephone	jbagley@accessatc.net / (912)632-3138
Billy Shores	Satilla EMC	bshores@satillaemc.com / (912)632-3481
Jasper Stewart	Windstream Douglas	jasper.stewart@windstream.com / (912)383-0991

Mr. Nicoe Alexander welcomed everyone to the meeting and introductions were made. A sign-in sheet was passed around (attached). Mr. Alexander gave a brief project identification. Mr. Alexander stated that the construction let date was currently scheduled for January 2011, and the programmed R.O.W. date was January 2009.

Ms. Helen Hawkins gave the project description and design information. She stated that the project is not located in a non-attainment area, the PDP classification is major, the functional classification is principal arterial, and the project is exempt from federal oversight. Ms. Hawkins described the need and purpose for this project and gave the accident data, as well as the traffic data.

Ms. Hawkins began with the project limits, describing the existing and proposed design features. Ms. Hawkins stated the lane configuration with number of lanes, lane widths, turn lane locations, types and width of medians, width of shoulders, right-of-way width, and sidewalks widths. In addition, she explained that design variance would be needed at the Wal-Mart driveway for the less than desirable median opening width and a design exception for the skew angle at Ward Street.

Ms. Hawkins continued explaining the existing and proposed design criteria. Mr. Paul Cook stated that the ROW from the Burger King along the northern portion of the corridor to Gaskins Avenue was not current. He continued that Columbia Engineering would verify the right-of-way in that area, and that what was shown was from the Coffee County Tax Assessors Office and not the surveyor. Ms. Jackie Wilson, Mayor of the City of Douglas, asked if Old Bell Lake Road would no longer be a straight through roadway and asked if a driver heading south on Old Bell Lake Road would have to turn left onto SR 135 and then make a right turn to get back onto Old Bell Lake Road. Ms. Hawkins confirmed the analysis and responded that the configuration was due to safety issues with the skew angle. Ms. Wilson commented that because of it being a safety issue, it should be acceptable to the public.

Ms. Hawkins described the design speed, minimum radii, and maximum grades for existing and proposed design. She stated that the access control is by permit, and the proposed drainage would be an urban longitudinal system. She stated that the clear zones ranged from 20 feet to 34 feet throughout the project corridor.

Ms. Hawkins stated that the number of parcels with ROW to be purchased is currently 97, with only one parcel being displaced. This parcel is a residence at Waldrop Avenue by the bridge. Ms. Dale Batten asked if the barbeque restaurant would be displaced due to the relocation of Old Bell Lake Road. Ms. Hawkins responded that the restaurant may be displaced, but the physical location and impacts to the restaurant are unknown because the survey is not complete at this time. She explained that the survey is needed to determine the physical location. Mr. Cook further responded that an accurate survey would be provided that would determine the location of the small barbeque house. Ms. Hawkins stated the major structure on this project is the bridge, which is approximately 300 feet x 94.5 feet and it spans the CSX railroad tracks. She also stated that no retaining walls or MSE walls were being proposed, but that there are several box culverts along this roadway that may need to be relocated, especially the culverts in front of the Alltel building. These culverts are parallel to the roadway, and the project proposes to widen symmetrically, which will impact them.

Ms. Hawkins stated that the easements were changed to required ROW based on recommendations from the District Engineer. In addition, Ms. Hawkins stated that there will be some driveway easements, which are not shown at this time, and the ROW cost estimate has increased due to this change. She stated that the ROW cost is now \$6,521,159 and the reimbursable utility cost is \$3,291,000. The construction cost estimate is \$19,286,324, which brings the total project cost estimate to just over \$29,000,000.

Ms. Hawkins stated that the bridge and the new roadway would require staged construction to maintain traffic and that any detours, if needed, would be on-site. She stated that most of the proposed widening is symmetrical and on the existing alignment.

Ms. Hawkins stated that the erosion control would consist of protecting the wetlands and stream buffers along the project corridor. She stated that orange fencing would be used everywhere there are wetlands and stream buffers within close proximity of the project limits. She also stated that the erosion control would be based on the staged construction. Ms. Hawkins said that there are a number of lakes and ponds along this project that will need to be protected but the protection should be within the project limits.

Ms. Hawkins stated that the utilities currently on this project are the City of Douglas Electric, City of Douglas Natural Gas, City of Douglas Water-Wastewater, Satilla EMC, Municipal Electric Authority of Georgia, Windstream Communications, Alma Telephone, and the CSX Railroad.

Mr. Russ Danser gave the environmental analysis. He stated that the archaeology was complete and that there was a small cemetery which is noted on the layout. The two historic resources are the CSX railroad and a house, located approximately 575 feet west of the project centerline and outside of the existing ROW. The new barbeque restaurant near Old Bell Lake Road would be treated as a relocation in the NEPA document, but could be subject to change later. He also stated there was one environmental justice area along the corridor, a duplex center near the railroad, that has socio-economic data corresponding to an EJ area, but no relocation was anticipated due to the proposed roadway alignment.

Mr. Danser stated that the wetlands impact consisted of 1.2 acres of temporary and 3.67 acres of permanent. He continued with the stream impact being 4800 linear feet and 1.125 acres, with over 1100 linear feet in one location. In addition, Mr. Danser stated that the impacts in this large area were unavoidable due to the high costs of shifting the proposed alignment to the southeast of the existing roadway. He also said that this impact places the project into the requirements for a 404 Individual Permit.

Mr. Danser stated that the project area consisted of the major species habitat of the Wood Stork and the Eastern Indigo Snake. He stated they were in the process of researching for the ecology. No public parks are located within the project corridor. There is a football field located at the northwest quadrant of the intersection with US 441 that is owned by the School Board and that part of the land adjacent to the football field had been sold to a developer.

Mr. Cooper asked if Mr. Danser has any information on the Underground Storage Tanks (UST). Mr. Danser responded that the UST information is based on the preliminary windshield survey data and would have to be refined because the information is extremely conservative. In addition, Mr. Danser stated that the gas stations, garages, and car lots were marked as a potential hazardous waste sites. Ms. Hawkins stated that there are 14 hazardous material sites and 9 UST sites. Mr. Danser stated that he anticipates a decrease upon further investigation.

Mr. Alexander stated that the median opening design variance is needed at the Wal-mart driveway because although the minimum requirement is 660 feet, placing a signal there would require a minimum of 1,000 feet to allow the corridor to function operationally. He also stated that the design exception at SR 32 for the skew angle is being requested for several reasons: one reason is that the current accident data at this location does not attribute the accidents to the less than desirable skew angle; the second reason is that when the roadway was built in 1983, the Department chose not to fix the skew angle and it was acceptable at that time, therefore, we recommend not to improve it now. Ms. Hawkins also stated that the predominant movement (66%) of traffic is the through movement

at the intersection, which is already signalized and has dedicated turn lanes. Mr. Alexander also stated that fixing the skew angle would increase the cost of the project.

Mr. Alexander discussed the ROW costs for the project. He stated that if the costs for easements along this corridor are not as close in price to the costs for ROW, then some of the ROW may resort back to easements to reduce the overall cost of the project.

Questions and Comments

City of Douglas

Mayor Jackie Wilson asked if there would be a signal at Wal-Mart.

Ms. Hawkins responded that there would be a median opening but not a signal. Mr. Brad Dockery stated that the signals at Gaskins Avenue and US 441 could be used by Wal-Mart customers, so a signal at the main driveway was not necessary. Mr. Alexander stated that a signal warrant analysis was not performed at that location. Mr. Cook continued that the signal warrant analysis at this location was not in the project scope. Mr. Alexander stated that adding a signal at this location could affect the operations of the traffic along this section of the corridor. He also stated that needs change during the design phases and that if needed, the opening could be analyzed at a later time for a potential signal. The Mayor stated that she still wanted the signal there.

Mr. Alexander stated that although the proposed median ends at Old Axson/McDonald Road, the design may change prior to the letting to a raised median throughout the corridor.

Mr. Hill stated that the City had thought the alignment would be to the west of the existing alignment rather than the east.

Mr. Alexander responded that shifting the alignment to the west would cause the ROW costs to go up substantially more than the cost of the utility relocations due to all the businesses and residences that would need to be taken. Ms. Hawkins stated that the City's water tower would need to be relocated if the alignment shifted to the west, and that if the bridge was built on the existing alignment, the proposed ROW would be outside of the existing ROW because of the 30 foot fill sections.

Mayor Wilson stated that the City always tells the people developing their properties to meet with GDOT because SR 135 is to become a 4-lane section. She continued that the City has done everything they could to avoid conflicts with the GDOT proposed widening for SR 135.

Mr. Hill stated that they did not have the budget to pay for the utility relocations. He also stated that the City has their poles located 4 feet inside of the existing ROW and 4 feet inside of private property.

Mr. Alexander responded that GDOT was in a funding dilemma, just as the City is in a funding dilemma. He also stated that additional costs could hinder the project. Mr. Cook stated that the best the design could do is to remove the access road to Spooner/Old Nicholls Road and place the proposed roadway over the existing roadway, but the utility lines would still need to be moved because any configuration at the bridge will need additional ROW.

District Engineer Comments/Questions:

Mr. Sheffield stated that the design is the best that could be done at this time and that it was unfortunate that we could not foresee the problems when this project was started a long time ago. He stated that the environmental laws have changed significantly since this project was first looked at back then, and therefore the alignment has changed somewhat due to these new laws.

Mr. Cooper stated that the worst case scenario had been shown, but until the utilities had been placed on the plans by the SUE, they could not tell what needs to be relocated and whether any utilities would stay at their current locations. He continued to state that as soon as the utilities were on the plans, then they could evaluate the impacts on utilities and know whether they may or may not need to be relocated.

Mayor Wilson asked if the alignment could shift somewhat to minimize the City's relocation costs.

Mr. Cooper responded that until we see the utilities from SUE, we really won't know what the impacts are and if we can minimize them. Mr. Alexander stated that the plan is to move forward with this alternate.

Traffic Operations Comments/Questions

Mr. Gay asked if SR 135 was classified as a rural or an urban principal arterial because the proposed speed limit might not be correct.

Ms. Hawkins responded that the western portion of SR 135 is considered rural, but she believes the project corridor is considered urban because the existing speed limit on either side of US 441 is 35mph and then it bumps back up beyond Gaskin Avenue. She further explained that Gaskin Avenue was already pedestrian friendly with crosswalks, pedestrian signal heads/bullions, and handicap ramps. Ms. Hawkins continued by saying that configuration was another reason she believed the corridor should be classified as an urban principal arterial. Ms. Hawkins continued by stating that the corridor was originally a rural arterial in 1983. It was stated that the 35 mph was for the school at US 441 and the congestion from the school buses caused the reduced speed limit. Mr. Gay said he didn't have a problem with the classification being urban, but that they would need to do a study for reducing the regulatory speed limits.

Mr. Gay stated the maximum driveway grade of 15% shown in the draft concept report may be too steep.

Ms Hawkins responded that during design they would try to keep the driveways under 10% for commercial and residential driveways. She continued that the 15% may be required at Waldrop Avenue, as the grade on the road will be steep due to being located approximately half way up the grade on SR 135 to the bridge. She also stated that until she receives the survey, she will not know what the actual grades will be because she used GIS information for the concept design. Mr. Alexander further responded that the designers would do their best to stay away from the max grade. Mr. Gay stated that his office believes the desirable driveway grade is 6% for a commercial property and 10% for a residential property. Mr. Cook responded that even if they had the survey, that Waldroup Avenue is located on the approach to the bridge and any driveways in that vicinity could be steep.

Mr. Gay stated that the signal at Westgreen Road would need to be replaced. He stated that quantities need to be added for the signal, including advance signal loops on the approach and that the poles may need to be moved based on staging.

Ms. Hawkins responded that SR 135 up to Westgreen Road was already a 5-lane section, and the proposed design was only fixing striping and adding a right turn lane onto Ward Street.

Mr. Gay had commented that he would like the intersection at US 441 to be evaluated for dual left turns for all four legs of the intersection.

Ms. Hawkins responded that the traffic data on the east-west lanes did not support dual lefts for vehicles turning northbound and southbound.

Mr. Gay stated that the queuing lanes extended to the fire station and that dual lefts are really needed. Mr. Hill and Mr. Keith Carver concurred.

Mr. Gay and Mr. Carver also asked that the driveways located within the left turn lane areas become right-in, right-out to keep motorist from using the left turn lanes as a 14 foot flush median.

Mr. Alexander responded that the designers would look at placing raised medians on US 441 to help facilitate the operations of the dual left turns on US 441, as well as adding right-in, right-out configurations at these driveways. He also stated that the dual lefts and median could be cost prohibited.

Mr. Gay asked how traffic was to be maintained at the bridge during staging.

Ms. Hawkins responded that the staging would be two or three stages and that there should be enough room to build the outside lanes of the approaches and the bridge with maintaining traffic on the existing roadway. Mr. Cook added that there should be enough room on the new section for temporary barrier walls and two lanes of traffic, and that possibly sheet piling or geofabric could be temporarily used on the slopes. He also stated that the old roadbed and the additional proposed lanes could be built while traffic is the new outside lanes of the bridge.

Mr. Hill stated that the City would like to have joint use poles for the signals and utilities at the intersections to keep from having 5 or 6 poles at all the intersections.

Mr. Gay responded that they would look at that.

Environmental Comments/Questions:

Ms. Nable commented that the environmental document needs to include the driveway easements. She also stated that stream buffer variances are required.

Scheduling Comments/Questions:

Scheduling had no comments.

Utilities Comments/Questions:

Mr. Lamar Hill stated that GDOT needs to look at the utility costs for the City and Satilla EMC to relocate all the poles from Old Axson and SR 32. Mayor Wilson stated that the City had coordinated with the State years ago as to where to place the utilities in the existing ROW, which they had purchased, to avoid conflicts with the new road alignment. With the current design, Mr. Hill stated that the City's electrical lines, EMC's lines, and the City's gas lines will all need to be relocated and cost the City a lot of money.

Mr. Cooper stated that the reimbursable utility costs were incorrect.

Ms. Hawkins responded that the costs should have been the actual relocation costs for the utilities rather than the reimbursable costs.

Mr. Cooper also stated that the utilities inside of the existing ROW are not reimbursable.

Utility Companies had no comments.

Mr. Alexander thanked everyone for coming and their input. The meeting was adjourned.

Attachment 7

Stakeholders Meeting Minutes

Stakeholders Meeting Notes
SR 135 from SR 31/US 441 East to SR 32 Including RR Separation
STP-079-1(42), P.I. 431480
Coffee County
CBS 3031.00

Meeting Date: January 25, 2007, 2:00 P.M.
Meeting Location: City of Douglas, City Hall, Council Chambers

Attendees:

<u>COMPANY</u>	<u>NAME</u>	<u>EMAIL / PHONE</u>
Georgia Dept of Transportation (OCD)	Vinesha C. Pegram	vinesha.pegram@dot.state.ga.us / (404)463-2988
Georgia Dept of Transportation, Area 2 Engineer	Keith Carver	keith.carver@dot.state.ga.us / (912)389-4201
Georgia Dept of Transportation, Dist 4, Pre-Const Eng.	Brent A. Thomas	brent.thomas@dot.state.ga.us / 229)386-3300
Georgia Dept of Transportation, Dist 4 Engineer	Joe W. Sheffield	joe.sheffield@dot.state.ga.us / (229)386-3282
Columbia Engineering & Services, Inc.	Paul Cook	pcook@columbia-engineering.com / (770)925-0357
Columbia Engineering & Services, Inc.	Helen Hawkins	hhawkins@columbia-engineering.com / (770)925-0357
City of Douglas, Director, Natural Gas Dept	Sammy Deason	sdeason@accessatc.net / (912)389-3427
City of Douglas, Director of Public Works	Larry Royal	streetdept@accessatc.net / (912)389-3450
City of Douglas	Ken Floyd	kfloyd@accessatc.net / (912)384-1409
City of Douglas	Anthony Kirkland	streetdept@accessatc.net
City of Douglas, Director, Community Develop.	Dale Batten	dalebatten@accessatc.net / (912)389-3433
City of Douglas, Director, Electric Dept	Donald Carver	dougelec@atc.net / (912)389-3442
City of Douglas, City Manager	Jackie Wilson	jackiewilson@accessatc.net / (912)389-3401
City of Douglas, Chief of Police	Clifford Thomas	chiefthomas@yahoo.com / (912)384-2222
City of Douglas, Code Enforcement, Plan.-Zoning	Ray Parker	rparker@accessatc.net / (912)389-3462
City of Douglas, Director, Water/Wastewater	Ernest R. Crussel	ecrussel@accessatc.net / (912)389-3447
City of Douglas, Mayor Pro-Tem	Johnnie Lee Roper, Sr.	(912)384-9664 Cell: (912)393-4605
Coffee County, Commissioner, District 2	Jimmy Kitchens	jimmy@americantruckparts.com / (912)383-8888
Coffee County	Wesley Vickers	wwickers@coffeecountygov.com

Handouts: Project Description

Ms. Pegram welcomed everyone to the meeting and gave a brief project overview. Everyone signed in and provided their contact information.

Mr. Cook gave a detailed description of the project. Mr. Sheffield and Ms. Wilson stated that Columbia Engineering should not consider a 44-foot depressed median as one of the potential typical sections. Ms. Wilson recommended a 5-lane flush median as a preferred typical section. She mentioned that there was a lot of undeveloped land that would be developed in the future. She expressed concern that these properties and owners could be cut-off if a raised median is used.

Mr. Donald Carver mentioned that there was Municipal Electric Authority of Georgia (MEAG) on this project. He also mentioned that the City of Douglas Electric Department owns the substation.

Ms. Pegram asked about current parcels in the vicinity of project that are being developed. The primary location was stated as the new movie theater and outparcels located in the southeast quadrant of intersection with Brantley Boulevard. Ms. Wilson said that she would assist GDOT and Columbia Engineering in contacting the developer. She also mentioned that there were numerous other sites in talks with them. Ms. Batten mentioned that Sonic might be developing in this area too. Mayor Pro-Tem Roper mentioned that there is a single-family subdivision proposed off of Brantley Boulevard. Ms. Wilson mentioned that the pecan orchard at Old Nicholls Road was zone R-3 and possibly a senior living center will be developed there.

Ms. Pegram mentioned that the use of raised medians was based on traffic counts, and that the bridge will span the railroad and Spooner Road /Old Nicholls Road. It was mentioned that commercial properties, homes, and apartment complexes will have access

issues due to the fill required for the bridge approaches. Also, the old roadbed south of Waldrop Avenue, was no longer owned by the City. Mr. Cook mentioned that the apartments northeast of the railroad might clear the fill or wall from the proposed bridge design, but it is currently unknown because the design phase has not begun. Ms. Wilson stated that the Veterinary Clinic northwest of the railroad was for large animals and that the owners need access for tractor trailers. It was also mentioned that the property near the water tank might have a future development of apartments, but that it could still be rezoned to commercial.

Mr. Cook stated that the signal poles located near the end of the airport runway in the southwest quadrant of US 441 and SR 135 will probably need to be moved back (closer to the end of the runway), due to the addition of a new right turn lane. Ms. Wilson mentioned that the City owns the landscaped island, gas regulator, water lines, and power poles in this area, and that they could all be impacted. It was also mentioned that the Board of Education had just sold two (2) acres in the northwest quadrant of this intersection.

Mr. Crussel mentioned that there is water and sewer on both sides of SR 135 up to the Walmart. He then mentioned that they are extending these lines to the movie theater, that is under construction, along the creek on the north side of SR 135 and then back under SR 135 with 12" water and sewer lines. He stated that there is a 6" main that goes up McDonald Road, and that there is sewer and water along Old Axsom Road leading to the subdivisions. It was mentioned that there are 15" to 18" sewer lines that go to the back of the treatment plant and a 12" water line that goes to the water tower. This sewer line crosses SR 135 and Waldrop Avenue. There is also a 10" sewer line located along Spooner Road from the Veterinary Clinic to the sewer treatment plant, and it runs outside of the roadway.

Mr. Donald Carver stated that there are 150,000 watt power lines from US 441/Peterson Avenue to Gaskin Avenue and then to the substation to McDonald Road and also that Satella EMC has transmission lines prior to Axsom Road. He said there are distribution lines all the way to SR 32 with Satella EMC. Both lines at East Baker Highway go eastward. Also, there are distribution lines that run on the south side of the railroad to the sewer treatment plant. All these are in the right-of-way and there are no easements along the project corridor.

Ms. Wilson said she will give Columbia Engineering the existing Right-of-Way Plans because the City purchased right-of-way for the originally proposed roadway widening. It was mentioned that there is a jog in the right-of-way east of Gaskin Avenue. It was further stated that there is a proposed bike route along SR 135, which will require a wider right-of-way if it is added to this project. The City personnel and the GDOT District personnel mentioned that there was an initial team concept meeting about two (2) years ago (9/30/04) with three alternate design layouts. These alternatives are on aerial layouts currently hanging in the GDOT Area Two office. Mr. Keith Carver mentioned that Columbia Engineering could make copies of these layouts and return them to the Area Office. The City personnel mentioned that they had made their recommendations as to the alignment they preferred at that meeting. Ms. Pegram stated that Columbia Engineering should email Kinney Wilson, Andy Casey, and Jason McCook, with a copy to Ms. Pegram and Mr. Stanley Hill, to ask for the meeting notes and layouts as well as other project information.

Mr. Deason said that there is a high pressure gas regulator at the southwest quadrant of SR 135 and US 441, and a low pressure main on north side of US 441. He mentioned that there are 4" plastic lines on the south side of SR 135 and east of US 441. It was also stated that there are 4" plastic lines in an easement behind the shopping center to the north of SR 135, with spur lines here and there. US 441 have steel lines only. There are lines running along Spooner Road that end at SR 135. SR 32 has 4" lines, and the 4" lines end at the railroad. It was also mentioned that the dirt road (Wood Valley Drive) off of Waldrop Avenue has an easement, and that if Waldrop Avenue does not have access to the mainline then the utilities will need an easement. Also, there is fiber optic on the north side of SR 135 at the Walmart along to Old Nichols Road. It was also mentioned that all sewer lines belong to the City, and everything is in the city limits. The City will let Columbia Engineering know the dollar amount they will dedicate to include in this project. Ms. Pegram stated that the City will design the plans, create a cost estimate and fund the relocation, then GDOT can add it to the contract for the contractors. This will need to be addressed as soon as possible.

Ms. Pegram mentioned that the right-of-way is scheduled for January 2009 or the winter of 2009. The City said that a consultant was currently working on Phase II of their water and sewer project. Ms. Wilson mentioned a newly proposed law that requires GDOT contractors to do the water and sewer relocations. Mr. Crussel mentioned that he is the contact for sewer. He also mentioned that Jordan Jones & Goulding are doing the design for the proposed sewer from Spooner Road to SR 32 and that Eric Neese may be the designer.

A question was asked about flooding within the corridor, and it was mentioned that only Gaskin Avenue floods and that at McDonald Road there are beaver problems as well as undersized culverts under Old Bell Lake Road and East Baker Street that need to be upgraded with this project. In the area of the EJ Apartments, Mayor Pro-Tem Roper stated that he does not want the apartments to tie to the cul-de-sac of the mobile home subdivision behind them. Ms. Wilson stated that Spooner Road is half on the CSX railroad property because it was originally a dirt road. In addition, it was stated that the original concept layouts showed the mainline approximately 200' to the east of its current location with the railroad crossing. Columbia Engineering asked for everyone to look for the initial concept team

meeting minutes so that Columbia knows which of the three original proposals was requested. The City mentioned that the right-of-way on Columbia's layout was incorrect because the City had already purchased some of the proposed right-of-way.

It was stated that the existing speed limits within the project limits are 35, 45, and 55 miles per hour (mph). The City said that the southwest end of SR 135 west of SR 441 is signed for 55 mph and then transitions to 50 mph, 45 mph, then 35 mph as it approaches the intersection with US 441 and the western beginning of this project. It was mentioned that the proposed sections be designed for 35 mph and/or 45 mph. The City said that the intersection with South Gaskin Avenue is already pedestrianized and that the southern end of it will have sidewalk (the northern end already has sidewalks). It was also mentioned that there is already bike traffic on Gaskin Avenue to the Walmart. Ms. Pegram stated that the Public Information Open House could be held in six to eight months.

The meeting was adjourned at 3:20 P.M.

Attachment 8

Need and Purpose Statement

Need & Purpose Statement
STP-079-1(42)
P.I. 431830 - Coffee County
Widening of SR-135 from US 441 to US 221
(a.k.a. 'Perimeter Road, Bowens Mill Road')

Roadway Description

SR-135, which is also partially co-routed with US 221 and SR-206 from the intersection of US 441 to the intersection with US 221 (northeastern portion of Douglas) in Coffee County, is functionally classified as a principal arterial. This section of roadway is also known as Perimeter Road and Bowens Mill Road, which serves as a bypass around the southern half of the city limits of Douglas. Regionally, Perimeter Road facilitates smoother east-west travel on SR-32, a Governor's Road Improvement Program (GRIP) corridor, between I-75 to the west and I-95 in Brunswick to the east. The GRIP was initiated in the 1980's to address the importance of stimulating economic growth via an improved transportation network. In 2005, the total traffic volume ranged from 9,000 near US 221 to 17,900 vehicles per day near US 441, with an average of 18% truck traffic. From 1999 to 2005, the traffic on this section of roadway grew at an average annual rate of 1.6%.

This section of Perimeter Road currently has two 12' lanes with 8' grassed shoulders, with a posted speed limit ranging from 35 to 55 mph. This section of Perimeter Road is located on a proposed bike route in the Southeast Georgia Regional Bike and Pedestrian Plan.

Background on Project

Consequent to a study conducted by the Office of Planning (April 1996), the S.H.I.P. Committee (currently known as the Project Nomination Review Committee) requested that the eastern portion of SR-135 be widened to match the four lane segment (western segment) of Perimeter Road under the assumptions that if this section of SR-135 was left as a two lane facility, it could create a bottleneck. In 1996, this section of SR-135 had a LOS D and was projected to have a future LOS E¹.

A recommended railroad overpass (located on the southeast portion of Perimeter Road) was predicated on safety for school buses where an estimated 50 school busses cross daily at this RR-crossing, which 23 to 36 trains utilized this segment of rail daily. In 1992 and 1993, the accident rates at the intersection (un-signalized) of Old Nichols Rd were higher than any other intersection along the southeast portion of Perimeter Road.

The proposed overpass was recommended also to improve traffic flow and travel time for trucks coming from the Wal-Mart Distribution Center in Douglas, located on the southwest portion of Perimeter Road. Wal-Mart estimated that it had an output of 1,340 trucks per week as well as receiving 2,390 trucks weekly. These trucks utilized the southeast portion of Perimeter Road, therefore needing to cross the CSX RR tracks.

In light of safety, operational traffic flow (LOS current/future), and travel time, this project is proposed to construct two lanes in each direction on SR-135 from the SR-135/SR-206 intersection eastwards to Baker Road/SR-158. From Baker Road/SR-158, the project would be taken on to new location and bridged (grade separation) over the CSX railroad with two lanes in each direction. The project is then proposed to terminate at US 221/SR-135, northeast of Douglas.

Widening this section of roadway would enhance traffic flow by providing needed additional capacity to meet current and future traffic volumes.

The western terminus at the SR-135/SR-206 intersection with US 441 has logical termini due to the proposed project typical section matching the existing southwestern portion of the Perimeter Road's typical section, a 4-lane road with a 14' flush median. The eastern endpoint of the proposed project has its' logical termini ending at the US 221/SR-135 intersection in the northeastern part of Douglas because SR-135 ties into the existing US 221/SR-32 at a "T" intersection. Additionally, if the chosen alternate is re-aligned so that SR-135 merges with the existing US 221/SR-32, then the logical termini is also based on tying to the existing US 221/SR-32 four-lane roadway section. Currently, US 221/SR-32 has adequate capacity for the re-alignment of SR-135 with US 221/SR-32 based 2006 traffic data (2013 build year 12,880 and 2033 design year 17,550).

¹ Level of service (LOS) is defined as a qualitative measure describing operational conditions within a traffic stream. There are six levels or degrees of LOS consisting of letters 'A' thru 'F'. LOS A indicates the most optimal road operating conditions, whereas LOS F signifies the worst operational conditions. LOS C is considered to be the acceptable degree, which typically indicates the beginning of a range of traffic flow where the level of driving comfort declines noticeably on the roadway. LOS E represents at or near capacity for traffic flow.

Land Use

This area of land along Perimeter Road has mixed uses consisting of retail (Wal-mart, Lowe's Home Improvement Center) agricultural, commercial, industrial, and residential. In addition, there is a middle school located at the northwest corner of the intersection with US 441, and the City of Douglas Municipal Airport is located at the southwest corner of this intersection.

Community of Coffee County and the City of Douglas

For the year 2000, there were four Census Tracts (CT) located in the vicinity of Perimeter Road. CT 13069990500 covers the northwest section of Douglas, between SR-32 and US 441. CT 13069990700 covers the southwest portion of Douglas and it is located south of SR-32 and west of US 441 (it overlaps SR-158 and SR-135). CT 13069990800 covers the southeast portion of Douglas, south of SR-32 and east of US 441 (it overlaps SR-158). CT13069990400 covers the northeast portion of Douglas, north of SR-32 and east of US 441 (overlaps US 221).

CT	% Minority	\$0 - 25K per household	\$25 - 50K per household	\$50 - 75K per household	\$75 - 100K per household	\$100K+ per household	1990 Population	2000 Population
13069990500	23.7	34%	30%	17%	7%	11%	3,207	3,748
CT	% Minority	\$0 - 25K per household	\$25 - 50K per household	\$50 - 75K per household	\$75 - 100K per household	\$100K+ per household	1990 Population	2000 Population
13069990700	38.8	42%	36%	16%	2%	3%	4,190	5,158
CT	% Minority	\$0 - 25K per household	\$25 - 50K per household	\$50 - 75K per household	\$75 - 100K per household	\$100K+ per household	1990 Population	2000 Population
13069990800	48	47%	30%	16%	4.5%	2%	6,969	8,231
CT	% Minority	\$0 - 25K per household	\$25 - 50K per household	\$50 - 75K per household	\$75 - 100K per household	\$100K+ per household	1990 Population	2000 Population
13069990400	24	38.6%	32.8%	14.7%	6.8%	7%	4,995	5,433

In 2006, Coffee County had a population of 40,242 compared to the state's population, 9.3 million. From the years 1990 to 2000, the county's population grew 26.4%; from April 2000 to July 2006, the population grew 7.6%. In 2005, Coffee County had a minority segment that accounted for 36.6% of the county's total population, compared to the state's 40.4%. In 2004, the per capita income was \$22,510 compared to the state's \$29,782. The homeownership rate in 2000 for Coffee County was 74.4% compared to the state's 67.5%.

Crash Data

TYPE	2003		2004		2005	
	Statewide	SR 135	Statewide	SR 135	Statewide	SR 135
Collisions	775	35	342	308	363	125
Injuries	195	9	89	128	95	62
Fatalities	1.72	0	1.07	0	1.30	0

For the years 2003 thru 2005, the accident and injury rates were lower than the statewide averages on Perimeter Road for all categories except the injury rate in 2004, which was 128 injuries, versus the statewide average of 89. The only fatalities reported were in the years 2000 and 2001. The types of crashes that occurred were as follows: approximately 29% were classified as 'Angle'; 63% were classified as 'Rear End'; 8% were classified as 'Not a Collision with another vehicle'.

Travel Demand

There are seven traffic count stations located along this specific section of Perimeter Road: TC 232 (located just west of the SR-206/SR-135 common section intersection with US 441/SR-31); TC 483 (located to the east of the intersection of SR-206/SR-135 with US 441/SR-31); TC 485 (located just west of the intersection with South Gaskin Avenue); TC 456 (located to the east of the intersection at South Gaskin Avenue and to just west of the intersection of CR-766/Brantley Boulevard); TC 454 (located in-between the intersections of CR-26/Old Bell Lake Road and SR-158/East Baker

Highway with SR-206/SR-135); TC 458 (located north of the intersection with SR-158/East Baker Highway and south of the intersection with Waldroup Avenue); and TC 460 (located immediately south of SR-32 and north of the intersection with Ward Street)

In 2005, the average annual daily traffic (AADT) on Perimeter Road ranged from 8,900 to 17,940 vehicles, which gives this section of roadway a LOS (Level-of-Service) ranging from 'B' to 'C'. In the build year 2013, the AADT is projected to range from 9,300 to 18,300 vehicles with a LOS ranging from 'B' to 'C' for both the No-Build and Build options. In the design year 2033 with the AADT ranging from 11,900 to 24,950 vehicles, the LOS is projected to range from 'C' to 'D' for the No-build option and from 'B' to 'C' for the Build option.

Projects in Local Vicinity

Project No.	Project Description	Project Schedule For FY07/09 STIP
PI No. 0000293	SR 206 From SR 32 in Douglas to CR 143/Moseley Road	PE – 2012 ROW – 2014 CST–2015
PI No. 0004800	SR 32 From US 441 to Liberty ST/CR 552 incl. GA USS Bridge	PE – LR ROW – LR CST–LR
PI No. 0007368	SR 158 @ 7 LOCS; SR 31 @ 1 LOC & SR 31 DU @ 1 LOC	PE – 2005 ROW – LUMP CST–LUMP
PI No. 0008106	SR 135/US 221 @ 17 Mile River Bridge	CST–2007
PI No. 421345	SR 32 FM W of CR 296 East to West City Limits of Douglas	PE – 1992 ROW – 1997 CST–2008

Need & Purpose

The proposed project is needed to address current and future traffic congestion, therefore improving the LOS. Specifically, the overpass is needed to accommodate the safe travel for school buses during their daily trips as well as improve the travel time and operational traffic flow for trucks using Perimeter Road. The project's purpose will be to improve and enhance the operational flow for traffic along Perimeter Road and the flow of regional traffic, cars, and trucks traveling on the SR 32 GRIP corridor between I-95 and I-75 and needing to bypass the city of Douglas.

Attachment 9

PIOH Summary of Comments and Responses



Department of Transportation

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December 11, 2007

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<<TITLE>> <<NAME>>
<<COMPANY NAME>>
<<STREET_ADDRESS>>
<<CITY_STATE_ZIP>>

**RE: GDOT Project STP-079-1(42), Coffee County, PI No. 431830
The Proposed Widening of State Route (SR) 135 from SR 31/US 441 East to SR 32**

Dear <<TITLE>> <<NAME>>>,

Thank you for your input regarding the September 6, 2007 Public Information Open House (PIOH) for the above proposed project. We apologize for the delay in responding to your comment. Your interest in this meeting and your comments are appreciated. Your comments will be made a part of the official record of the project.

A total of 63 people attended the PIOH held for the subject project. From those attending, 19 comment forms and 2 verbal statements were received. An additional two comments were received during the ten-day comment period following the PIOH, for a total of 23 comments from 20 individuals. From the comments received, 13 supported the project, six conditionally supported the project, none opposed the project, and one was uncommitted.

The attendees of the PIOH and those persons sending in comments afterwards raised the following questions and concerns. The Georgia Department of Transportation (GDOT) has prepared one response to all comments so that everyone can be aware of the concerns raised and the responses given. Please find the comments, concerns, and questions listed below along with their response in italics.

- Accelerate the project schedule.

The GDOT must follow a specific process for each project, as set forth by the Federal Highway Administration, and has a set schedule to follow. The project is currently in the Concept phase, and will progress through Preliminary and Final Design phases. The availability of funds for right-of-way acquisition and construction also affects the project schedule. The current schedule for this project is to begin right-of-way acquisition in early 2009 with a LET date of June 2011, though this schedule may be subject to change.

- The access road to Spooner/Old Nicholls Roads should have curb and sidewalk with no ditch to minimize property impacts.

The proposed design for the access road to Spooner/Old Nicholls Road is a rural typical section with two 12-foot lanes with six-foot shoulders (two feet paved) and ditch section, if required. The rural section was proposed on the side roads to minimize construction costs. At this specific location, an urban typical section, which would consist at a minimum of two 12-foot travel lanes with a 2.5-foot curb and gutter, a two-foot grassed strip between the back of the gutter and the sidewalk, a five-foot sidewalk, and a 2.5-foot grassed strip to the shoulder break point, would prove more expensive when compared to a rural section. In addition, an urban section would require a longitudinal closed drainage system which would increase construction costs. The right-of-way needs for an urban typical section at this specific area would also result in greater impacts to adjacent land owners due to the larger project footprint required to accommodate the sidewalk and drainage.

- Multiple businesses near Spooner/Old Nicholls Road are accessed by pickups with trailers and tractor-trailers.

The frontage road would be designed to current Federal and State guidelines. The GDOT will analyze access to businesses and Spooner/Old Nicholls Roads for tractor-trailers and pick-up trucks with animal trailers from the frontage road; therefore, its proposed location may require some modification. In addition, the median openings used for the left turning vehicles are designed to be traversed by most tractor-trailer trucks.

- Will the railroad have enough room to double track without having to replace the overpass?

The GDOT has been in contact with CSX Transportation about the railroad's requirement for a second track. Currently, CSX is making a determination of the need for a future additional track and of the proposed location/configuration of this potential additional line. The bridge would be designed to accommodate the track configuration once CSX determines what is required at this location.

- Median will affect businesses, traffic flow, and cause accidents from U-turns, so a center turn lane is preferred. Additional concerns regarding access for semi trucks to businesses along project are making roadway like Hwy 82 west of Tifton toward Albany and having symmetrical widening.

According to the GDOT's design guidelines for arterial roadways, the threshold for utilizing a raised median is based on an Annual Daily Traffic (ADT) count for the build year of greater than 18,000 vehicles, and for the design year of greater than 24,000 vehicles. From US 441 to Old Axson/McDonald Road, the build year (2013) ADT is 18,300 and the design year (2033) ADT is 24,950, both of which exceed the minimum requirements for a raised median. Studies have shown that the installation of a raised median reduces the conflict points, or points at which two vehicle paths intersect, from 43 to 5. Conflict points correlate to the potential for accidents on roadways, and reducing the number of conflict points significantly reduces the chances of a collision.

As previously noted, the median openings used for the left turning vehicles are designed to be traversed by most tractor-trailer trucks. According to GDOT guidelines, a right turn lane is constructed at a commercial property if it is warranted by the projected volumes turning into the parcel.

SR 82 west of Tifton is a five-lane section, which was designed in 1971 according to State guidelines at that time. Since that time, the GDOT has updated their guidelines to create safer and more efficient roadways.

- Reduce the speed limit.

This corridor has a Federal Highway Administration functional classification of a principal urban arterial, which means its primary function is intended for longer trips (regional truck traffic) and to provide movements between larger urban areas. Typically, the proposed design speed in these areas is 55 miles per hour (mph). This corridor has existing posted speed limits ranging from 35 mph to 55 mph. The proposed design and posted speed limit of 45 mph would be less than the suggested 55 mph speed limit.

- Work with government entities to support inter-parcel connectivity.

The GDOT will work with the local governments to the extent of designing the proposed project corridor within the stated need and purpose of the project, to address current and future traffic congestion for traffic on SR 135, and for regional traffic traveling on the SR 32 corridor between I-95 and I-75, via the SR 135 bypass. Design elements outside the stated need and purpose are not addressed in this project. Zoning issues along the project corridor would be the responsibility of the City of Douglas.

- The right-of-way lines shown are incorrect from US 441 to past Gaskin Avenue.

The GDOT will verify the existing right-of-way along the entire corridor and update the plans accordingly.

- Change the existing ditch to a culvert in front of the shopping center at Gaskin Ave to improve the appearance and for easier maintenance.

The design for this corridor is an urban roadway, which uses a closed longitudinal drainage system underneath the shoulder and sidewalk. In some cases, the existing ditches parallel to the mainline will be replaced by the longitudinal system. If the topography is such that runoff (water) is running from a parcel onto the bottom of the fill slope for the roadway, then a ditch may be required to keep the slope from eroding. This will be determined in the preliminary design phase when more detailed information has been received.

In addition, there are a number of federal environmental regulations and policies that have to be considered when designing a project. For example, Section 404 of the Clean Water Act regulates the discharge of pollutants, including construction/fill material, into wetlands and streams. Because many of the ditches along the project corridor (including the ditch in front of the shopping center at Gaskin Avenue) are considered jurisdictional wetlands and streams, Section 404 guidelines require that the design for the corridor include measures to avoid or minimize impacts to these areas. An open water system would impact these waters less than putting in a culvert system.

- The project will change the access to businesses on Old Nicholls Road. Customers will have to go out of their way to get there.

Part of the need and purpose for this project is the grade separation of SR 135 with the CSX railroad while widening the existing roadway. This design will help minimize traffic delays for vehicles as well as trains and will minimize the potential for collisions with vehicles and trains. This concept provides a frontage

<<TITLE>> <<NAME>>

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road from Bowens Mill Road/SR 135 to Spooner/Old Nicholls Road; therefore, access will be maintained to these existing roads. The intersections of Old Nicholls Road at Mingledorf Drive and Old Nicholls Road at SR 32 will not be modified with this project; therefore, access from these roads to the businesses in the area will not change.

- The project will impact parking and will affect business sales.

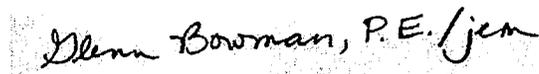
Any parking areas impacted with either proposed easements or proposed right-of-way will be discussed with the individual property owners during the right-of-way negotiations. This will occur after the preliminary design phase is complete.

- Add a traffic signal at the Wal-Mart main entrance and allow access to the signal from the property across the street.

The GDOT will evaluate this location for a signal during the preliminary plan design phase. For a signal to be installed at a particular location, the location must be analyzed and meet the Federal Highway Administration's traffic signal warrants.

If you have any additional questions or concerns, please contact Melanie Nable at (404) 699-4436 or Jennifer Mathis at (404) 699-4408.

Sincerely,



Glenn Bowman, P.E.
State Environment/Location Engineer

GSB/MN/epei-rkd

**Benefit Cost Analysis Work Sheet
CONGESTION Projects**

STP-079-1(42)

FH# 431830

COFFEE COUNTY

SR 135 from SR 31/US 441 east to US 221/SR 32

Congestion Benefit = Tb + Cmb + Fb

Person Time Savings Benefit (Tb)

*Db (hrs)	0.027111
ADT	17,300.00
Tb (\$s)	\$16,122,572.81

Commercial or Truck Time Savings Benefit (Cmb)

Db (hrs)	0.027111
% Truck Traffic	0.18
ADT	17,300.00
Cmb	\$15,333,446.16

Fuel Savings Benefit (Fb)

ADT	17,300.00
Fb (\$s)	\$5,618,472.34

Total Congestion Benefit	\$37,074,491.31
Total Project Cost	\$19,286,324.63
B/C Ratio	1.92