

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

REVISED PROJECT CONCEPT REPORT

Project Number: CSSTP-0007-00(217)
County: Newton/Walton
P. I. Number: 0007217
Federal Route Number: N/A
State Route Number: N/A

The purpose of this report is to revise the Design Speed for the Social Circle Bypass mainline from 65 mph to 55 mph in order to match the design speed for the existing Social Circle Bypass and to avoid the need for a design exception to the horizontal alignment. Also, it revises the Design Speed for East Hightower Trail from 55 mph to 45 mph to match the Design Speed of the existing vertical alignment and avoid a major reconstruction of the vertical alignment.

Submitted for approval: (Submit to "Concept Reports" in Outlook)

DATE 4-5-10

Joseph D. Wheeler RSH
Design Consultant Name and Firm Name

DATE 4-5-2010

Bobby Hilliard
Office Head (Project Manager's Office)

DATE 4-5-2010

Vanessa C. Peman
Project Manager

Recommendation for approval:

DATE 04/08/2010

GLENN BOWMAN / % *
State Environmental Administrator

DATE 04/07/2010

PAUL LILES / % *
State Bridge Design Engineer

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

DATE 4/12/10

Angela J. Alexander
State Transportation Planning Administrator

* RECOMMENDATION ON FILE

REVISED PROJECT CONCEPT REPORT

Need and Purpose: The purpose of the Social Circle Bypass is to alleviate traffic in historic downtown Social Circle, promote economic development for the city, and to complete the eastern bypass of Social Circle.

The proposed project will also provide an added benefit to industry north and east of the City of Social Circle. The new roadway will connect the existing northern bypass to SR 11 south of Social Circle. Truck traffic from the industries will be rerouted from passing through the historic area to the newly constructed bypass.

Refer to Attachment No. 3 for the entire Need and Purpose statement.

Project location: The proposed Social Circle Bypass project is to construct a new location roadway extending approximately 2.8 miles north and east from SR 11/S. Cherokee Road just south of the Newton/Walton County line (mile log 13.00 in Newton County) and connecting to the existing Social Circle Bypass at East Hightower Trail in Walton County.

Description of the approved concept: The concept is a new location roadway with two 12-foot lanes with 10-foot rural shoulders and a 65 mph speed design. The limits of the new location roadway extend approximately 2.8 miles north and east from SR 11/S. Cherokee Road beginning just south of the Newton/Walton County line (mile log 13.00 in Newton County) and connecting to the existing Social Circle Bypass at East Hightower Trail in Walton County. This project will complete the eastern Bypass around downtown Social Circle.

The existing SR 11 roadway at the Walton/Newton County line is classified as a Rural Minor Arterial with two (2) 12-foot wide travel lanes. The existing northern portion of the Social Circle Bypass is a Rural Local Road with two (2) 12-foot wide travel lanes and right of way to accommodate a future four lane roadway section; there are no existing shoulders.

The proposed new location roadway is to provide a facility that will adequately and safely serve current and future travel demand and provide interregional travel continuity for through traffic.

PDP Classification: Major Minor

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

| | | |
|-----------------------------------|--|------------------------------|
| Functional Classification: | <u>Proposed Social Circle Bypass</u> | <u>Rural Major Collector</u> |
| | <u>State Route 11/S. Cherokee Road</u> | <u>Rural Minor Arterial</u> |
| | <u>Existing Social Circle Bypass</u> | <u>Rural Local Road</u> |
| | <u>E. Hightower Trail</u> | <u>Rural Major Collector</u> |
| | <u>Cannon Drive/CR 195</u> | <u>Rural Local Road</u> |
| | <u>Thurman Baccus Road</u> | <u>Rural Local Road</u> |

The Office of Transportation Data, Federal Highway Coordinator will recommend to the Federal Highway Administration that the proposed Social Circle Bypass be functionally classified as a Rural Major Collector and that the existing section of the Bypass be modified to a functional classification of Rural Major Collector. If State Route 11 were to be relocated to the Bypass, the recommendation would be to functionally classify the entire Bypass as Rural Minor Arterial.

U. S. Route Number(s): N/A

State Route Number(s): N/A

Traffic (AADT) as shown in the approved concept:

The year the project is anticipated to be open for traffic use is the base year, 2011. Therefore, the project will be designed to accommodate traffic growth until 2031.

| <u>Traffic Data:</u> | Base Year | Design Year |
|---|-----------|-------------|
| Annual Average Daily Traffic (AADT) | 2011 | 2031 |
| Proposed Social Circle Bypass: | 7,070 | 11,370 |
| Existing N.E. Social Circle Bypass (Build): | 6,450 | 10,650 |
| SR11/S.Cherokee Rd. (Build): | 6,000 | 10,000 |
| East Hightower Trail (Build): | 3,450 | 5,700 |

Updated traffic data (AADT):

The traffic was updated with a base year of 2013 and a design year of 2033.

| <u>Traffic Data:</u> | Base Year | Design Year |
|---|-----------|-------------|
| Annual Average Daily Traffic (AADT) | 2013 | 2033 |
| Proposed Social Circle Bypass: | 7,290 | 11,720 |
| Existing N.E. Social Circle Bypass (Build): | 6,650 | 10,970 |
| SR11/S.Cherokee Rd. (Build): | 6,190 | 10,310 |
| East Hightower Trail (Build): | 3,560 | 5,870 |

Approved Programmed/Schedule:

P.E.: 2005

R/W: 2010

Construction: 2012

VE Study Required **Yes (X)** **No ()**

VE Study held February 8, 2008

Benefit/Cost Ratio = 0.48

Is the project located in an Ozone Non-attainment area? **Yes (X)** **No ()**

Is the project in a PM2.5 Non-Attainment area? Yes (X) No ()

This project is part of the Atlanta Regional Commission’s (ARC’s) Envision 6 plan and the current State Transportation Improvement Program. The projects in these plans have been modeled collectively to show a benefit to the Atlanta region’s air quality. The project limits and description of the proposed Social Circle Bypass project are the same as those used for modeling purposes. Because of its inclusion in the above mentioned models, this project is expected to contribute to improvement in the Atlanta region’s overall air quality.

| | |
|---|--|
| <p>Approved Features: The following features of the approved project concept are to be revised:</p> <ul style="list-style-type: none"> • Controlling Criteria Proposed Design Speed – Social Circle Bypass (65 mph) • Controlling Criteria Proposed Design Speed – East Hightower Trail (55 mph) | <p>Proposed Features: The proposed revised features of the concept are as follows:</p> <ul style="list-style-type: none"> • Controlling Criteria Proposed Design Speed – Social Circle Bypass (55 mph) • Controlling Criteria Proposed Design Speed – East Hightower Trail (45 mph) |
|---|--|

Reason for Change:

- At the southern terminus of the project, the Social Circle Bypass transitions away from the existing State Route 11 on a new curved alignment. In order to avoid four (4) relocations and additional right of way requirements, the proposed horizontal alignment uses a curve that meets the design speed criteria for 55 mph.

The use of a 55 mph design speed will make the design consistent with the existing Social Circle Bypass which also has a design speed of 55 mph. In addition, the proposed posted speed limit for the corridor will be 55 mph.

As noted previously, the Office of Transportation Data will recommend that the Social Circle Bypass be functionally classified as a Rural Major Collector. If the Bypass is added to the State Route system, their recommendation will be to classify it as a Rural Minor Arterial. The Department does not have a policy where the design speed of a roadway is based on the functional classification. The alignment should be designed in such a manner that it can function satisfactorily as an arterial highway. The 2004 edition of the AASHTO Green Book provides guidance regarding selection of an appropriate design speed. On page 13, it states that “Arterials are expected to provide a high degree of mobility for the longer trip length. Therefore, they should provide a high operating speed and level of service.” On page 72, it states “...it should be evident that there are important differences between the design criteria applicable to low- and high-speed designs. Because of these distinct differences, the upper limit for low-speed design is 70 km/h (45 mph) and the lower limit for high-speed design is 80 km/h (50 mph).” The 55 mph design speed would therefore qualify as a high-speed design and be satisfactory for a future arterial classification.

- The existing vertical alignment along East Hightower Trail does not meet the requirements of a 55 mph speed design. Upgrading the alignment to meet a 55 mph speed design would require either the lowering of a crest vertical curve or flattening the

approach grade to the vertical curve which would extend the length of the project. Either option would cause the construction limits to be extended and would result in additional right of way and construction costs. In addition, the current posted speed limit for East Hightower Trail through the limits of the project is 45 mph. The proposed project does not add any additional capacity to East Hightower Trail. It will add a fourth leg to the existing 3-way intersection with Standridge Road. These changes will not increase the average vehicle running speed through this section of the corridor.

| Updated Cost Estimate | |
|--|---------------------|
| Construction including Contingencies, Engineering and Inspection | \$16,587,792 |
| Fuel Adjustment | \$2,007,559 |
| Right-of-Way | \$4,728,100 |
| Utilities (reimbursable) | \$287,561 |
| Utility Contingencies | \$0 |
| Environmental Mitigation | \$10,500 |

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

Attachments:

1. Sketch Map
2. Cost Estimate:
 - a. Construction including E&C
 - b. Right-of-Way, and
 - c. Utilities
 - d. Environmental Mitigation
3. Conforming plan's network schematics showing thru lanes
4. Need and Purpose
5. Benefit/Cost Ratio

Concur: James B. Buckle
 Director of Engineering

Approve: Dee M. Perry Date: 5/9/2010
 Chief Engineer

REVISED PROJECT CONCEPT REPORT

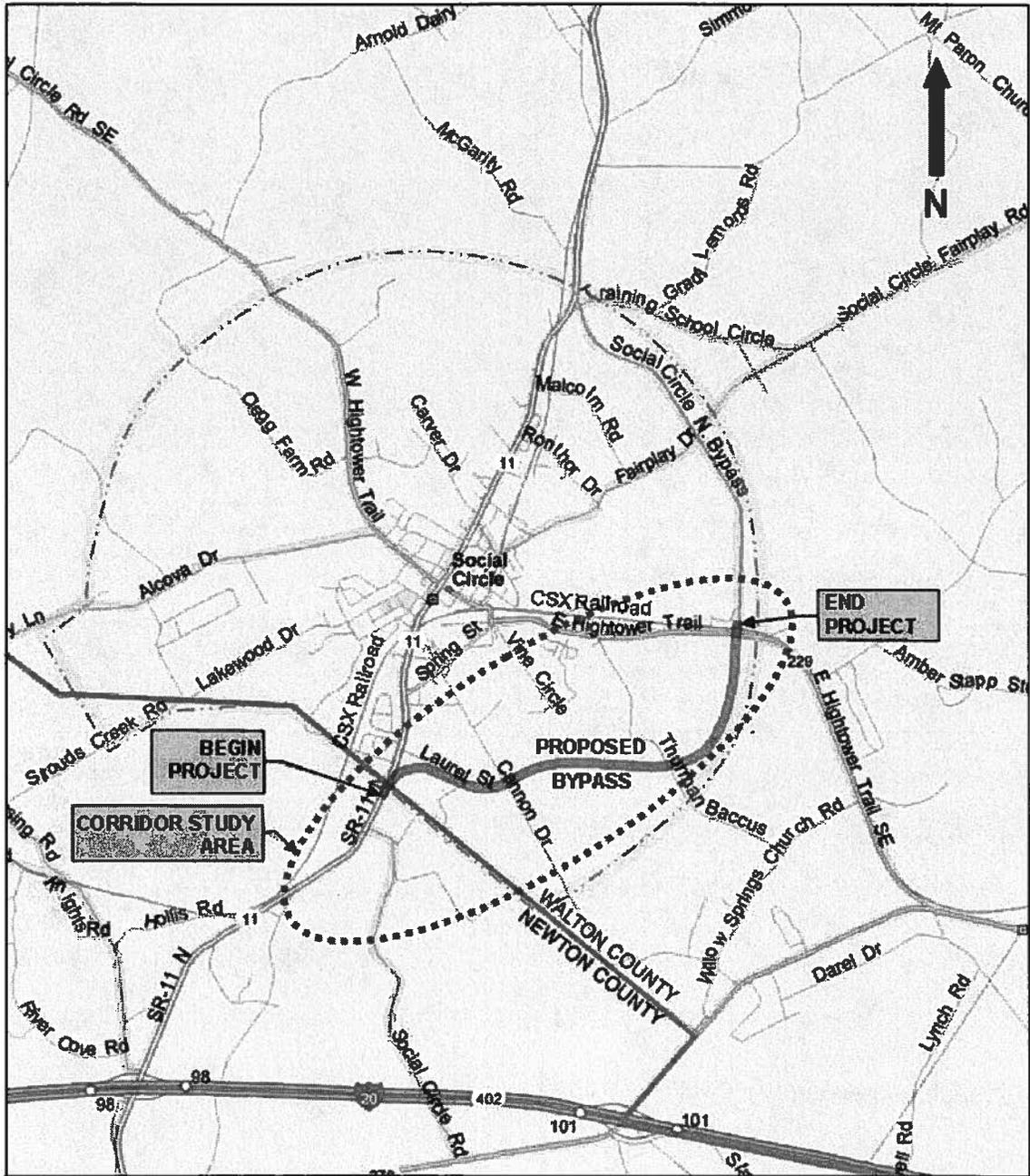
Project Number: CSSTP-0007-00(217)

Newton/Walton Counties

P. I. Number: 0007217

Attachment #1

Location Sketch Map



Project Location Map
NOT TO SCALE

CSSTP-0007-00(217)
SOCIAL CIRCLE BYPASS
NEWTON & WALTON COUNTIES
P.I. # 0007217

REVISED PROJECT CONCEPT REPORT

Project Number: CSSTP-0007-00(217)

Newton/Walton Counties

P. I. Number: 0007217

Attachment #2

Cost Estimates

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE PROJECT No. , **OFFICE**

DATE

P.I. No.

FROM

TO Ronald E. Wishon, Project Review Engineer

SUBJECT REVISIONS TO PROGRAMMED COSTS

PROJECT MANAGER

MNGT LET DATE

MNGT R/W DATE

PROGRAMMED COST (TPro W/OUT INFLATION)

LAST ESTIMATE UPDATE

CONSTRUCTION \$

RIGHT OF WAY \$

UTILITIES \$

DATE

DATE

DATE

REVISED COST ESTIMATES

CONSTRUCTION* \$

RIGHT OF WAY \$

UTILITIES** \$

* Costs contain % Engineering and Inspection and % Construction Contingencies.

** Costs contain % contingency.

REASON FOR COST INCREASE

CONTINGENCY SUMMARY

| | | |
|-----------------------------|---|--|
| Construction Cost Estimate: | \$ <input type="text" value="15,359,066.76"/> | (Base Estimate) |
| Engineering and Inspection: | \$ <input type="text" value="767,953.34"/> | (Base Estimate x <input type="text" value="5"/> %) |
| Construction Contingency: | \$ <input type="text" value="460,772.00"/> | (Base Estimate x <input type="text" value="3"/> %) |
| | | (The Construction Contingency is based on the Project Improvement Type in TPro.) |
| Total Fuel Adjustment | \$ <input type="text" value="873,031.28"/> | (From attached worksheet) |
| Total Liquid AC Adjustment | \$ <input type="text" value="1,134,527.99"/> | (From attached worksheet) |
| Construction Total: | \$ <input type="text" value="18,595,351.37"/> | |
| Utility Cost Estimate: | \$ <input type="text" value="287,561.00"/> | |
| Utility Contingency: | \$ <input type="text" value="0"/> | <input type="text" value="0"/> % |
| Utility Total: | \$ <input type="text" value="287,561.00"/> | |

REIMBURSABLE UTILITY COST

| Utility Owner | Reimbursable Cost |
|------------------------|-------------------|
| Georgia Power | \$48,720 |
| City of Social Circle | \$211,277 |
| Bellsouth/AT&T | \$25,034 |
| Verizon | \$1,044 |
| Comcast Communications | \$1,486 |
| | |
| | |
| | |

Attachments

c: Genetha Rice-Singleton, State Program Control Administrator

Estimate Report for file "PI 0007217 Social Circle Bypass Final"

| Section Roadway | | | | | |
|---------------------------|-----------------|--------------|-------------------|---|-----------------------|
| Item Number | Quantity | Units | Unit Price | Item Description | Cost |
| 310-1101 | 58000 | TN | 17.64 | GR AGGR BASE CRS, INCL MATL | 1023120.0 |
| 318-3000 | 500 | TN | 16.89 | AGGR SURF CRS | 8445.0 |
| 402-1812 | 450 | TN | 59.21 | RECYCLED ASPH CONC LEVELING, INCL BITUM MATL & H LIME | 26644.5 |
| 402-3121 | 16400 | TN | 74.66 | RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME | 1224424.0 |
| 402-3130 | 8200 | TN | 69.02 | RECYCLED ASPH CONC 12.5 MM SUPERPAVE, GP 2 ONLY, INCL BITUM MATL & H LIME | 565964.0 |
| 402-3190 | 13700 | TN | 81.04 | RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME | 1110248.0 |
| 413-1000 | 8000 | GL | 1.7 | BITUM TACK COAT | 13600.0 |
| 432-5010 | 2825 | SY | 1.25 | MILL ASPH CONC PVMT, VARIABLE DEPTH | 3531.25 |
| 433-1000 | 585 | SY | 130.67 | REINF CONC APPROACH SLAB | 76441.95 |
| 641-1100 | 116 | LF | 41.01 | GUARDRAIL, TP T | 4757.16 |
| 641-1200 | 5495 | LF | 17.0 | GUARDRAIL, TP W | 93415.0 |
| 641-5012 | 16 | EA | 1789.57 | GUARDRAIL ANCHORAGE, TP 12 | 28633.12 |
| 643-0103 | 5000 | LF | 4.0 | FIELD FENCE BARBED WIRE, 3 STRANDS | 20000.0 |
| Section Sub Total: | | | | | \$4,199,223.98 |

| Section Earthwork | | | | | |
|---------------------------|-----------------|--------------|-------------------|-------------------------|-----------------------|
| Item Number | Quantity | Units | Unit Price | Item Description | Cost |
| 201-1500 | 1 | LS | 3800000.0 | CLEARING & GRUBBING - | 3800000.0 |
| 205-0001 | 310476 | CY | 5.0 | UNCLASS EXCAV | 1552380.0 |
| 208-0100 | 212842 | CY | 4.61 | IN PLACE EMBANKMENT | 981201.62 |
| Section Sub Total: | | | | | \$6,333,581.62 |

| Section Signing and Marking | | | | | |
|------------------------------------|-----------------|--------------|-------------------|--|--------------------|
| Item Number | Quantity | Units | Unit Price | Item Description | Cost |
| 610-6560 | 1 | EA | 1021.56 | REMOVE HISTORIC MARKER, STONE | 1021.56 |
| 611-5420 | 1 | EA | 2810.0 | RESET HISTORIC MARKER, STONE | 2810.0 |
| 636-1020 | 400 | SF | 16.0 | HIGHWAY SIGNS, TP 1 MATL, REFL SHEETING, TP 3 | 6400.0 |
| 636-1029 | 144 | SF | 22.5 | HIGHWAY SIGNS, TP 2 MATL, REFL SHEETING, TP 3 | 3240.0 |
| 636-2070 | 510 | LF | 12.0 | GALV STEEL POSTS, TP 7 | 6120.0 |
| 636-2090 | 160 | LF | 10.06 | GALV STEEL POSTS, TP 9 | 1609.60 |
| 653-0100 | 2 | EA | 414.89 | THERMOPLASTIC PVMT MARKING, RR/HWY CROSSING SYMBOL | 829.78 |
| 653-0120 | 70 | EA | 75.0 | THERMOPLASTIC PVMT MARKING, ARROW, TP 2 | 5250.0 |
| 653-1501 | 43400 | LF | 0.53 | THERMOPLASTIC SOLID TRAF STRIPE, 5 IN, WHITE | 23002.0 |
| 653-1502 | 16500 | LF | 0.53 | THERMOPLASTIC SOLID TRAF STRIPE, 5 IN, YELLOW | 8745.0 |
| 653-1704 | 290 | LF | 3.15 | THERMOPLASTIC SOLID TRAF STRIPE, 24 IN, WHITE | 913.5 |
| 653-1804 | 1400 | LF | 2.13 | THERMOPLASTIC SOLID TRAF STRIPE, 8 IN, WHITE | 2982.0 |
| 653-3501 | 2600 | GLF | 0.51 | THERMOPLASTIC SKIP TRAF STRIPE, 5 IN, WHITE | 1326.0 |
| 653-3502 | 6310 | GLF | 0.51 | THERMOPLASTIC SKIP TRAF STRIPE, 5 IN, YELLOW | 3218.1 |
| 653-6004 | 2500 | SY | 2.93 | THERMOPLASTIC TRAF STRIPING, WHITE | 7325.0 |
| 653-6006 | 870 | SY | 3.32 | THERMOPLASTIC TRAF STRIPING, YELLOW | 2888.39 |
| 654-1001 | 420 | EA | 5.25 | RAISED PVMT MARKERS TP 1 | 2205.0 |
| 654-1003 | 360 | EA | 5.25 | RAISED PVMT MARKERS TP 3 | 1890.0 |
| Section Sub Total: | | | | | \$81,775.94 |

| Section TRAFFIC CONTROL | | | | | |
|--------------------------------|-----------------|--------------|-------------------|-------------------------|-------------|
| Item Number | Quantity | Units | Unit Price | Item Description | Cost |
| 150-1000 | 1 | LS | 354100.0 | TRAFFIC CONTROL - | 354100.0 |

| | | | | | |
|---------------------------|-------|----|---------|---|-----------------------|
| 153-1300 | 1 | EA | 67749.0 | FIELD ENGINEERS OFFICE TP 3 | 67749.0 |
| 310-5080 | 16400 | SY | 15.0 | GR AGGR BASE CRS, 8 INCH, INCL MATL | 246000.0 |
| 400-3130 | 970 | TN | 101.47 | ASPH CONC 12.5 MM SUPERPAVE, GP 1 OR 2, INCL POLYMER-MODIFIED BITUM MATL & H LIME | 98425.9 |
| 400-3604 | 1610 | TN | 101.43 | ASPH CONC 12.5 MM SMA, GP 2 ONLY, INCL POLYMER-MODIFIED BITUM MATL & H LIME | 163302.30 |
| 620-0100 | 5150 | LF | 24.74 | TEMPORARY BARRIER, METHOD NO. 1 | 127410.99 |
| Section Sub Total: | | | | | \$1,056,988.20 |

Section DRAINAGE

| Item Number | Quantity | Units | Unit Price | Item Description | Cost |
|---------------------------|----------|----------|------------|--|---------------------|
| 500-3101 | 42 | CY | 363.58 | CLASS A CONCRETE | 15270.35 |
| 511-1000 | 3275 | LB | 0.6 | BAR REINF STEEL | 1965.0 |
| 550-1180 | 714 | LF | 45.0 | STORM DRAIN PIPE, 18 IN, H 1-10 | 32130.0 |
| 550-1240 | 448 | LF | 55.0 | STORM DRAIN PIPE, 24 IN, H 1-10 | 24640.0 |
| 550-1300 | 190 | LF | 68.83 | STORM DRAIN PIPE, 30 IN, H 1-10 | 13077.69 |
| 550-1361 | 116 | LF | 96.59 | STORM DRAIN PIPE, 36 IN, H 10-15 | 11204.44 |
| 550-1423 | 180 | LF | 161.0 | STORM DRAIN PIPE, 42 IN, H 20-25 | 28980.0 |
| 550-3318 | 4 | EA | 616.85 | SAFETY END SECTION 18 IN, STORM DRAIN, 4:1 SLOPE | 2467.4 |
| 550-3324 | 2 | EA | 746.15 | SAFETY END SECTION 24 IN, STORM DRAIN, 4:1 SLOPE | 1492.3 |
| 550-4118 | 18 | EA | 664.67 | FLARED END SECTION 18 IN, SIDE DRAIN | 11964.06 |
| 550-4124 | 10 | EA | 776.31 | FLARED END SECTION 24 IN, SIDE DRAIN | 7763.09 |
| 550-4230 | 4 | EA | 945.11 | FLARED END SECTION 30 IN, STORM DRAIN | 3780.44 |
| 550-4236 | 2 | EA | 1246.55 | FLARED END SECTION 36 IN, STORM DRAIN | 2493.1 |
| 550-9999 | 1 | Lump Sum | 768500.0 | Contech 3-Sided Culvert | 768500.0 |
| Section Sub Total: | | | | | \$925,727.90 |

Section EROSION CONTROL

| Item Number | Quantity | Units | Unit Price | Item Description | Cost |
|---------------------------|----------|-------|------------|---|---------------------|
| 163-0232 | 30 | AC | 734.02 | TEMPORARY GRASSING | 22020.6 |
| 163-0240 | 250 | TN | 250.0 | MULCH | 62500.0 |
| 163-0300 | 2 | EA | 1500.0 | CONSTRUCTION EXIT | 3000.0 |
| 163-0521 | 432 | EA | 384.18 | CONSTRUCT AND REMOVE TEMPORARY DITCH CHECKS | 165965.76 |
| 165-0030 | 34400 | LF | 0.63 | MAINTENANCE OF TEMPORARY SILT FENCE, TP C | 21672.0 |
| 165-0040 | 432 | EA | 85.0 | MAINTENANCE OF EROSION CONTROL CHECKDAMS/DITCH CHECKS | 36720.0 |
| 165-0101 | 2 | EA | 600.0 | MAINTENANCE OF CONSTRUCTION EXIT | 1200.0 |
| 171-0030 | 34400 | LF | 2.65 | TEMPORARY SILT FENCE, TYPE C | 91160.0 |
| 700-6910 | 54 | AC | 1078.44 | PERMANENT GRASSING | 58235.76 |
| 700-7000 | 250 | TN | 100.0 | AGRICULTURAL LIME | 25000.0 |
| 700-7010 | 210 | GL | 18.6 | LIQUID LIME | 3906.00 |
| 700-8000 | 6 | TN | 324.0 | FERTILIZER MIXED GRADE | 1944.0 |
| 700-8100 | 2700 | LB | 2.0 | FERTILIZER NITROGEN CONTENT | 5400.0 |
| Section Sub Total: | | | | | \$498,724.12 |

Section SIGNALS

| Item Number | Quantity | Units | Unit Price | Item Description | Cost |
|---------------------------|----------|----------|------------|--------------------------|---------------------|
| 647-0100 | 1 | Lump Sum | 400000.0 | Railroad Warning Devices | 400000.0 |
| Section Sub Total: | | | | | \$400,000.00 |

Section BRIDGES

| Item Number | Quantity | Units | Unit Price | Item Description | Cost |
|---------------------------|----------|-------|------------|------------------|-----------------------|
| 500-0000 | 9453 | SF | 95.0 | BRIDGE #1 | 898035.0 |
| 500-0001 | 10158 | SF | 95.0 | BRIDGE #2 | 965010.0 |
| Section Sub Total: | | | | | \$1,863,045.00 |

Total Estimated Cost: \$15,359,066.76

| | |
|-----------------------------------|------------------------|
| Subtotal Construction Cost | \$15,359,066.76 |
| E&C Rate 0.0 % | \$0.00 |
| Inflation Rate 0.0 % @ 0 Years | \$0.00 |
| <hr/> | |
| Total Construction Cost | \$15,359,066.76 |
| Right Of Way | 4728100.00 |
| ReImb. Utilities | 287561.00 |
| <hr/> | |
| Grand Total Project Cost | \$20,374,727.76 |

**Preliminary Right of Way Cost Estimate
REVISED**

Date: January 31, 2008 **Updated 8/4/2009** **P.I. Number:** 0007217
Project: CSSTP-0007-00(217) Walton **No. Parcels:** 36
Existing/Requiring R/W: Varies/Varies
Project Termini: From SR11 to East Hightower Trail

Project Description: Social Circle Bypass

Land:

Industrial
707,909 s.f. @ \$1.15/s.f. = \$814,095

Residential
1,190,937 s.f. @ \$0.69/s.f. = \$821,747

Agricultural
902,114 s.f. @ \$0.30/s.f. = \$270,634

TOTAL \$1,906,476

Improvements:

None

Relocation:

Commercial @ \$25,000/parcel N/A
 Residential @ \$40,000/parcel N/A

TOTAL \$0

Damages:

Proximity - \$ 0
 Consequential \$ 0
 Cost To Cure \$ 0

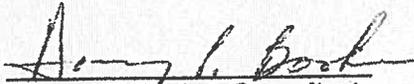
TOTAL \$ 0

SUB-TOTAL \$1,906,476

| | | |
|-----------------------------------|----|------------------|
| Net Cost | \$ | 1,906,476 |
| Scheduling Contingency 55% | \$ | 1,048,562 |
| Adm/Court Cost 60% | \$ | <u>1,773,023</u> |
| | \$ | 4,728,061 |

Total Cost

\$4,728,100

Prepared By: 
 Harvey P. Booker, Consultant
 Booker Real Estate Services, LLC

Approved: 
 GDOT R/W

Utility Cost Estimate
 Project Number: CSS31P-0007-00(217)
 P I Number: 0007217
 County: Newton/Hall/Columbus

| SECTION | SECTION NO | SECTION LEN | SITE | UTILITY OWNER | UTILITY | CITY | UNIT COST 2007 | UTILITY ADJUSTMENT COST | ENGINEER NG BY OWNER (15%) | Fuel Cost Surcharge (%) | Total | Utility Comments |
|---------|------------|-------------------|-----------------------------|---------------------------|---------|-------|----------------|-------------------------|----------------------------|-------------------------|----------|------------------|
| E | CP01 | SR11 | Georgia Power | single phase pole | | 2 | \$2,900.00 | \$8,800 | \$870 | \$290 | \$5,960 | |
| E | CP02 | Laurel St | Georgia Power | single phase pole | | 3 | \$2,900.00 | \$9,700 | \$1,305 | \$435 | \$10,440 | |
| E | CP03 | Laurel St | Georgia Power | single phase pole | | 3 | \$2,900.00 | \$9,700 | \$1,205 | \$435 | \$10,440 | |
| E | CP11 | E Hightower Trail | Georgia Power | single phase pole | | 6 | \$2,900.00 | \$17,400 | \$2,610 | \$970 | \$20,980 | |
| G | CP11 | E Hightower Trail | City of Social Circle Gas | 4" High Pressure Gas Main | | 851.5 | \$48.72 | \$41,484 | \$8,223 | \$2,074 | \$48,780 | |
| G | CP12 | Exost SC Bypass | City of Social Circle Gas | 4" High Pressure Gas Main | | 186.4 | \$48.72 | \$9,070 | \$1,435 | \$478 | \$11,483 | |
| T | CP01 | SR11 | BellSouth | pr phone | | 559 | \$5.48 | \$3,063 | \$489 | \$153 | \$3,676 | |
| T | CP02 | Laurel St | BellSouth | pr phone | | 689.1 | \$5.48 | \$3,697 | \$559 | \$183 | \$4,400 | |
| T | CP03 | Laurel St | BellSouth | pr phone | | 1647 | \$5.48 | \$8,976 | \$1,271 | \$424 | \$10,172 | |
| T | CP04 | Cannon Dr | BellSouth | pr phone | | 400 | \$5.48 | \$2,192 | \$329 | \$110 | \$2,630 | |
| T | CP08 | Trueman Baccus Rd | BellSouth | pr phone | | 150 | \$5.48 | \$822 | \$123 | \$41 | \$986 | |
| T | CP11 | E Hightower Trail | BellSouth | pr phone | | 482 | \$5.48 | \$2,642 | \$396 | \$132 | \$3,170 | |
| T | CP11 | E Hightower Trail | Vannson (formerly MTC) | fiber optic cable | | 450 | \$5.90 | \$2,655 | \$131 | \$44 | \$3,104 | |
| TV | CP01 | SR11 | Comcast Communications | Coxs Cable TV | | 244.3 | \$2.32 | \$567 | \$85 | \$28 | \$680 | |
| TV | CP02 | Laurel St | Comcast Communications | Coxs Cable TV | | 289.3 | \$2.32 | \$671 | \$101 | \$34 | \$805 | |
| W | CP01 | SR11 | City of Social Circle Water | 6" Water Main | | 788.2 | \$30.30 | \$23,882 | \$3,952 | \$1,194 | \$28,999 | |
| W | CP02 | Laurel St | City of Social Circle Water | 6" Water Main | | 788.7 | \$30.30 | \$23,232 | \$3,485 | \$1,182 | \$27,878 | |
| W | CP03 | Laurel St | City of Social Circle Water | 6" Water Main | | 1814 | \$30.30 | \$45,863 | \$8,879 | \$2,293 | \$55,039 | |
| W | CP11 | E Hightower Trail | City of Social Circle Water | 6" Water Main | | 860.6 | \$30.30 | \$25,875 | \$3,911 | \$1,364 | \$31,290 | |
| W | CP12 | Exost SC Bypass | City of Social Circle Water | 6" Water Main | | 196.7 | \$30.30 | \$5,958 | \$894 | \$298 | \$7,150 | |

Sum \$287,561

Prepared By: 
 Eric W. Seckinger
 Regmonds, Smith & Hillis, Inc

Reviewed By: 
 GDOT Utilities Engineer

Special Provision, Section 109-Measurement and Payment
FUEL PRICE ADJUSTMENT (ENGLISH 125% MAX)

| | |
|------------------|-------|
| ENTER FPL DIESEL | 2.772 |
| ENTER FPM DIESEL | 6.237 |

| | |
|--------------------|--------|
| ENTER FPL UNLEADED | 2.538 |
| ENTER FPM UNLEADED | 5.7105 |

<http://www.dot.ga.gov/doingbusiness/Materials/Pages/asphaltcementindex.aspx>

| |
|----------------------------|
| INCREASE ADJUSTMENT |
| 125.00% |

| |
|----------------------------|
| INCREASE ADJUSTMENT |
| 125.00% |

| ROADWAY ITEMS | QUANTITY | DIESEL FACTOR | GALLONS DIESEL | UNLEADED FACTOR | GALLONS UNLEADED | REMARKS |
|--|------------|---------------|----------------|-----------------|------------------|---------|
| Excavations paid as specified by Sections 205 (CUBIC YARD) | 310476.000 | 0.29 | 90038.04 | 0.15 | 46571.40 | |
| Excavations paid as specified by Sections 206 (CUBIC YARD) | | 0.29 | | 0.15 | | |
| GAB paid as specified by the ton under Section 310 (TON) | 74400.000 | 0.29 | 21576.00 | 0.24 | 17856.00 | |
| Hot Mix Asphalt paid as specified by the ton under Sections 400 (TON) | 2580.000 | 2.90 | 7482.00 | 0.71 | 1831.80 | |
| Hot Mix Asphalt paid as specified by the ton under Sections 402 (TON) | 25050.000 | 2.90 | 72645.00 | 0.71 | 17785.50 | |
| PCC Pavement paid as specified by the square yard under Section 430 (SY) | | 0.25 | | 0.20 | | |

| BRIDGE ITEMS | Quantity | Unit Price | QF/1000 | Diesel Factor | Gallons Diesel | Unleaded Factor | Gallons Unleaded | REMARKS |
|---|----------|------------|----------|---------------|----------------|-----------------|------------------|---------|
| Bridge Excavation (CY) Section 211 | 104.00 | 48.59 | 5.0534 | 8.00 | 40.43 | 1.50 | 7.58 | |
| Class __ Concrete (CY) Section 500 | 142.00 | 551.00 | 78.2420 | 8.00 | 625.94 | 1.50 | 117.36 | |
| Class __ Concrete (CY) Section 500 | | | | 8.00 | | 1.50 | | |
| Class __ Concrete (CY) Section 500 | | | | 8.00 | | 1.50 | | |
| Superstru Con Class __ (CY) Section 500 | 240.00 | 550.00 | 132.0000 | 8.00 | 1056.00 | 1.50 | 198.00 | |
| Superstru Con Class __ (CY) Section 500 | | | | 8.00 | | 1.50 | | |
| Superstru Con Class __ (CY) Section 500 | | | | 8.00 | | 1.50 | | |
| Concrete Handrail (LF) Section 500 | | | | 8.00 | | 1.50 | | |
| Concrete Barrier (LF) Section 500 | 365.00 | 43.92 | 16.0308 | 8.00 | 128.25 | 1.50 | 24.05 | |

| BRIDGE ITEMS | Quantity | Unit Price | QF/1000 | Diesel Factor | Gallons Diesel | Unleaded Factor | Gallons Unleaded | REMARKS |
|--|-----------|------------|------------------|-------------------------|---------------------|-----------------|------------------|---------|
| Stru Steel Plan Quantity (LB) Section 501 | | | | 8.00 | | 1.50 | | |
| Stru Steel Plan Quantity (LB) Section 501 | | | | 8.00 | | 1.50 | | |
| PSC Beams____ (LF) Section 507 | 905.00 | 205.00 | 185.5250 | 8.00 | 1484.20 | 1.50 | 278.29 | |
| PSC Beams____ (LF) Section 507 | | | | 8.00 | | 1.50 | | |
| PSC Beams____ (LF) Section 507 | | | | 8.00 | | 1.50 | | |
| Stru Reinf Plan Quantity(LB) Section 511 | | | | 8.00 | | 1.50 | | |
| Stru Reinf Plan Quantity(LB) Section 511 | | | | 8.00 | | 1.50 | | |
| Bar Reinf Steel (LB) Section 511 | 104000.00 | 0.87 | 90.4800 | 8.00 | 723.84 | 1.50 | 135.72 | |
| Piling____inch (LF) Section 520 | 640.00 | 70.00 | 44.8000 | 8.00 | 358.40 | 1.50 | 67.20 | |
| Piling____inch (LF) Section 520 | | | | 8.00 | | 1.50 | | |
| Piling____inch (LF) Section 520 | | | | 8.00 | | 1.50 | | |
| Piling____inch (LF) Section 520 | | | | 8.00 | | 1.50 | | |
| Piling____inch (LF) Section 520 | | | | 8.00 | | 1.50 | | |
| Piling____inch (LF) Section 520 | | | | 8.00 | | 1.50 | | |
| Drilled Caisson,____ (LF) Section 524 | | | | 8.00 | | 1.50 | | |
| Drilled Caisson,____ (LF) Section 524 | | | | 8.00 | | 1.50 | | |
| Drilled Caisson,____ (LF) Section 524 | | | | 8.00 | | 1.50 | | |
| Pile Encasement,____(LF) Section 547 | | | | 8.00 | | 1.50 | | |
| Pile Encasement,____(LF) Section 547 | | | | 8.00 | | 1.50 | | |
| SUM QF DIESEL= | | | 196158.09 | SUM QF UNLEADED= | | | 84872.90 | |
| DIESEL PRICE ADJUSTMENT(\$) | | | | | \$625,312.76 | | | |
| UNLEADED PRICE ADJUSTMENT(\$) | | | | | \$247,718.52 | | | |

**ASPHALT CEMENT PRICE ADJUSTMENT FOR
TACK COAT(Surface Treatment 125% MAX)**

BITUMINOUS

APPLICABLE TO CONTRACTS CONTAINING THE 413 SPEC. SECTION 413.5.01 ADJUSTMENTS ASPHALT PRICE ADJUSTMENT FOR BITUMINOUS TACK COAT

<http://www.dot.ga.gov/doingbusiness/Materials/Pages/asphaltcementindex.aspx>

ENTER APL

ENTER APM

125.00% INCREASE ADJUSTMENT

Use this side for Asphalt Emulsion Only

| L.I.N. | TYPE | ASPHALT EMULSION (GALLONS) |
|----------------------------|------|----------------------------|
| | | |
| TMT = <input type="text"/> | | |
| REMARKS: | | |

Use this side for Asphalt Cement Only

| L.I.N. | TYPE | TACK (GALLONS) |
|----------------------------|------|----------------|
| | | |
| TMT = <input type="text"/> | | |
| REMARKS: | | |

MONTHLY PRICE ADJUSTMENT(\$)

ADJUSTMENT SUMMARY

| | |
|--|------------------------------|
| FUEL PRICE ADJUSTMENT (<i>ENGLISH 125% MAX</i>) | |
| DIESEL PRICE ADJUSTMENT(\$) | <u>\$625,312.76</u> |
| UNLEADED PRICE ADJUSTMENT(\$) | <u>\$247,718.52</u> |
| ASPHALT CEMENT PRICE ADJUSTMENT (BITUMINOUS TACK COAT 125% MAX) | <u>\$19,997.99</u> |
| 400 / 402 ASPHALT CEMENT PRICE ADJUSTMENT 125% MAX | <u>\$1,114,530.00</u> |
| ASPHALT CEMENT PRICE ADJUSTMENT FOR BITUMINOUS TACK COAT (Surface Treatment 125% MAX) | |

REMARKS:

TOTAL ADJUSTMENTS \$2,007,559.27

From: Casey Glen
To: Wheeler, Joseph;
cc: "Linda Edwards";
Subject: mitigation credits
Date: Thursday, March 18, 2010 2:16:51 PM

Joe,

The cost of 1.5 compensatory wetland mitigation credits, at a cost of approximately \$7,000 per credit, is roughly \$10,500. Please let us know if you have any additional questions. Thank you, and have a great day! -Casey

John Casey Glen
Senior Ecologist
Edwards Pitman Environmental, Inc.
1250 Winchester Parkway
Suite 200
Smyrna, GA 30080
Ph: 770/333-9484
Fax: 770/333-8277
cglen@edwards-pitman.com

REVISED PROJECT CONCEPT REPORT

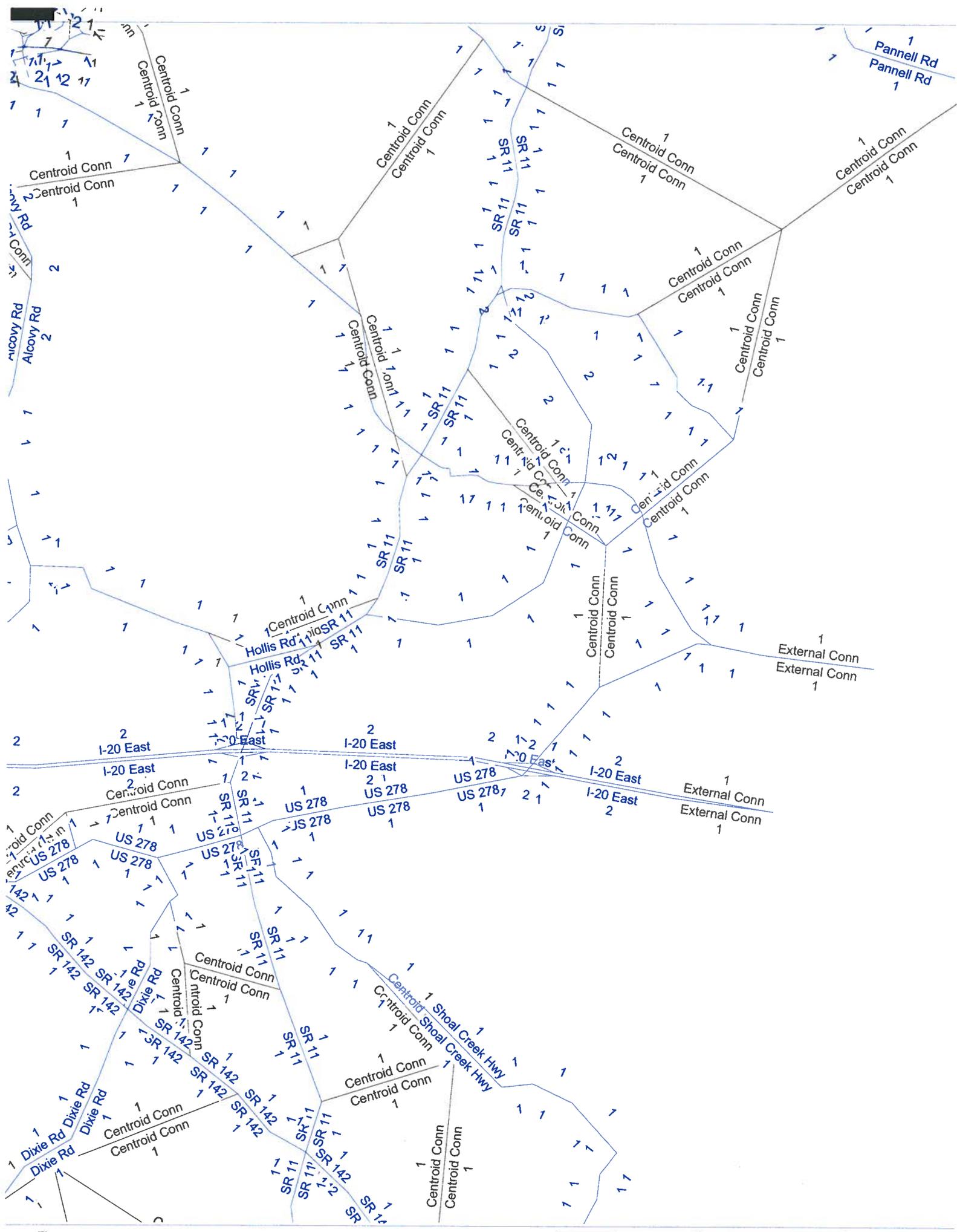
Project Number: CSSTP-0007-00(217)

Newton/Walton Counties

P. I. Number: 0007217

Attachment #3

Conforming Plan's Network Schematics



REVISED PROJECT CONCEPT REPORT

Project Number: CSSTP-0007-00(217)

Newton/Walton Counties

P. I. Number: 0007217

Attachment #4

Need and Purpose Statement

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

Office of Program Delivery

Need and Purpose

Project Number: CSSTP-0007-00(217)

County: Newton/Walton Counties

P. I. Number: 0007217

Social Circle Bypass from SR 11/S. Cherokee Road northeasterly to East Hightower Trail

Background

The City of Social Circle requested a bypass project to relieve traffic in historic downtown, in particular truck traffic. Walton County constructed the northern portion of the Social Circle Bypass and the Georgia Department of Transportation (GDOT) programmed the remainder of the bypass. Previously GDOT conceptually designed the bypass linking the existing bypass northeast of the city with SR 11 giving access to I-20. A conceptual redesign was needed to account for the industrial developments along the proposed corridor. The State Transportation Improvement Program (STIP) recommends the Social Circle Bypass from E. Hightower Trail to SR 11. The concept phase kicked off in January 2006. In May 2006, an early coordination Public Involvement Open House (PIOH) was held. In addition to the PIOH, coordination with officials from the City of Social Circle, Walton County and Newton County led to a consensus on the proposed alignment.

Proposed Improvement

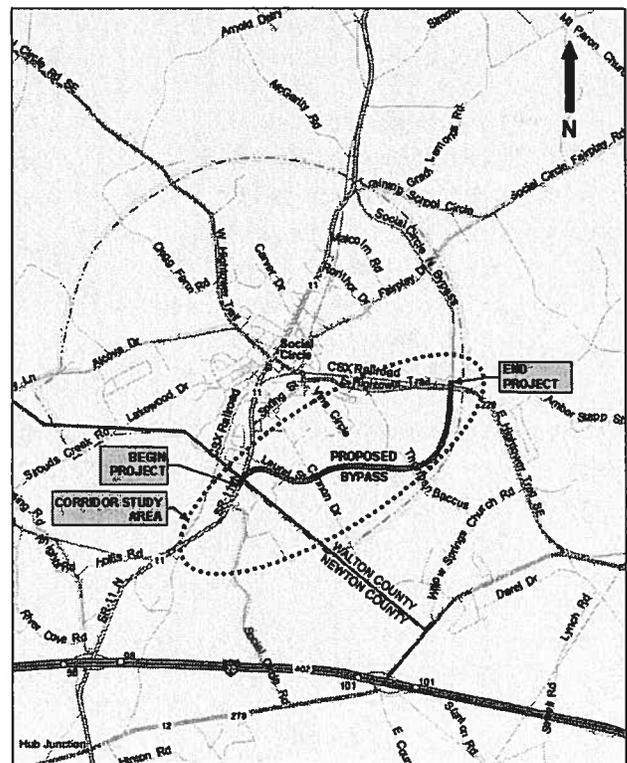
Project CSSTP-0007-00(217), P.I. No. 0007217 proposes to construct a new location roadway extending approximately 2.8 miles north and east from SR 11/S. Cherokee Road at the Newton/Walton County line and connecting to the existing Social Circle Bypass at E. Hightower Trail in Walton County. This project will complete the eastern bypass around downtown Social Circle.

The existing SR 11 roadway at the Walton/Newton County line is a rural arterial with two (2) 12-foot wide travel lanes. The existing northern portion of the Social Circle Bypass is a rural local road with two (2) 12-foot wide travel lanes and right of way to accommodate a future four lane roadway section.

The proposed new location roadway is to provide a facility that will adequately and safely serve current and future travel demand and provide interregional travel continuity for through traffic.

Logical termini

The proposed roadway should reasonably bypass traffic around the developed downtown City of Social Circle, while facilitating the movement of through traffic efficiently around the city. The logical terminus begins by tying into SR 11 south of downtown Social Circle in the vicinity of Laurel Street and ends by connecting to the existing northern Social Circle Bypass at E. Hightower Trail. These termini



will complete the eastern bypass of Social Circle and will fulfill the need to route traffic around historic downtown. At a length of nearly 3 miles, this project is of sufficient length and would serve an independent utility. At this time industrial businesses located east of downtown Social Circle are unable to utilize existing roadways west to SR 11 because of roadway geometry and load restricted bridges along the route. The proposed project will provide a usable alternate route and assist in economic development of the area by providing a more direct path to SR 11 and I-20. The completion of the Social Circle Bypass is not anticipated to cause the need for additional improvements to the existing SR 11 roadway corridor.

Projects in the vicinity of the proposed project

No impacts or conflicts between this proposed new location roadway project and the following projects are anticipated.

Walton County:

- P.I. No. 0000413, SR 11 from North of the City of Social Circle to Barrow County Line.
- P.I. No. 0000414, SR 138 from Miller Bottom Rd to SR10/US 78, Preliminary Engineering (PE) is scheduled 2008, ROW and Construction is scheduled after 2009. The project is a widening project.
- P.I. No. 0004708, Social Circle Pedestrian and Bicycle Trailways.

Newton County:

- P.I. No. 0006022, SR 11/I-20 Relocate Close Frontage Rd – River Rd Extension, Preliminary Engineering (PE) is scheduled 2009, ROW and Construction is scheduled after 2009. The project is a new construction project.
- P.I. No. 231630, SR 12/US 278 from CR 653/Covington Bypass East to SR 142, Preliminary Engineering (PE) is underway, ROW is scheduled 2007-2008 and Construction is scheduled 2008. The project is a widening project.
- P.I. No. 242230, SR 142 from I-20 to Alcovy Rd in Covington, Preliminary Engineering (PE) is underway, ROW is scheduled 2007 and Construction is scheduled 2009. The project is a widening project.

Traffic Data, Capacity and Level of Service (LOS)

In 2005, GDOT took a classification count on SR 11. This count showed a total truck percentage of 14% and a volume count of 8,900 vpd. GDOT then determined the diverted volumes for the proposed Bypass by making the following assumptions:

- The number of trucks being diverted to the Bypass would be 95% of the existing truck traffic.
- An additional 18% of the remaining traffic on SR 11 would be diverted to the Bypass.

The year the project is anticipated to be open for traffic use is the base year, 2011. Therefore, the project will be designed to accommodate traffic growth thru 2031.

| <u>Traffic Data:</u> | Current Year | Base Year | Design Year |
|-------------------------------------|--------------|-----------|-------------|
| Annual Average Daily Traffic (AADT) | 2005 | 2011 | 2031 |
| Proposed Social Circle Bypass: | 5,400 | 7,070 | 11,370 |

| | | | |
|--|-------|--------|--------|
| Existing N.E. Social Circle Bypass (Build): | 5,200 | 6,450 | 10,650 |
| Existing N.E. Social Circle Bypass (No-Build): | 1,400 | 1,770 | 2,800 |
| SR11 North of Social Circle/North of Bypass (Build): | 4,800 | 6,000 | 10,000 |
| SR11 North of Social Circle/North of Bypass (No-Build): | 8,600 | 10,870 | 18,000 |
| SR 11 South of Social Circle/North of Bypass (Build): | 4,000 | 5,000 | 8,300 |
| SR 11 South of Social Circle/South of Bypass (No-Build): | 9,150 | 11,770 | 19,170 |
| E. Hightower Trail (Build): | 2,750 | 3,450 | 5,700 |
| E. Hightower Trail (No-Build): | 2,750 | 3,450 | 5,700 |

State Route 11, a Rural Minor Arterial, connects I-85 to I-20 and essentially serves as a bypass to the Atlanta Metro area. Of the traffic passing through downtown Social Circle, 12% is truck traffic that originates north of Social Circle from major industrial/commercial businesses, such as the Wal-Mart Distribution Center in Monroe. Due to the restriction of the load limited bridge over the CSX railroad on E. Hightower Trail at E Willow Drive, truck traffic generated east of downtown Social Circle travel west on E. Hightower Trail to US 278 to access I-20 or north on the northern bypass to SR 11 to access I-85. Ultimately, the destination of the traffic in this area is south to access I-20 and north to access I-85. The bypass completion will reroute this truck traffic around historic downtown Social Circle and the load restricted bridge as well as provide a continuous north-south corridor for accessing I-20 and I-85.

| <u>Truck Percentage on SR 11</u> | | |
|---|------------------------|------------------------|
| | South of Social Circle | North of Social Circle |
| T | 12% | 9% |
| 24 T | 14% | 13% |
| SU | 7% | 8% |
| COMB. | 7% | 5% |

The average daily volume on the proposed Social Circle Bypass is 11,370 in design year 2031. The proposed bypass was divided into four segments for HighPlan analysis. The operational level of service (LOS) analysis was conducted for both the corridor and study intersections to determine LOS in design year 2031. The objective was to determine appropriate lane configurations for the proposed bypass and study intersections that provided an overall LOS of "C" or better for the corridor and a LOS of "D" or better for the intersections.

Design Year (2031) Corridor Operational Analysis Summary

| Segment | AADT | # of Lanes | v/c* Ratio | LOS |
|--|--------|------------|------------|-----|
| E. Hightower Tr. to Thurman Baccus Rd | 10,160 | 2 | 0.43 | C |
| Thurman Baccus Rd to Cannon Dr. | 10,670 | 2 | 0.45 | C |
| Cannon Dr. to Social Circle Rd (CR 114) | 10,870 | 2 | 0.46 | C |
| Social Circle Rd to SR 11/ S. Cherokee Rd. | 11,370 | 2 | 0.48 | C |

*v/c = volume over capacity

Operational analysis results show the proposed bypass will operate at acceptable LOS “C” in design year 2031 as a 2-lane roadway. If traffic grows at a similar rate beyond year 2031, the Social Circle Bypass will need to be 4-laned in year 2043 to maintain the acceptable LOS of “C”. All the study intersections operate at an acceptable LOS in the Design Year 2031.

Design Year 2031 Intersection Operational Analysis Summary

| Intersection | Signal | AM Peak | | PM Peak | |
|--|--------|---------|-----|---------|-----|
| | | Delay* | LOS | Delay* | LOS |
| Social Circle Bypass @ E. Hightower Rd | Yes | 19.5 | B | 18.0 | B |
| Social Circle Bypass @ Thurman Baccus Rd | No | 24.9 | C | 19.9 | C |
| Social Circle Bypass @ Cannon Dr. | No | 28.5 | D | 25.8 | D |
| Social Circle Bypass @ Social Circle Rd | No | 31.6 | D | 31.5 | D |
| Social Circle Bypass @ SR 11/South Cherokee Rd | Yes | 21.0 | C | 21.1 | C |

*Delay = Average Delay measured in seconds per vehicle

Two alternates for crossing E. Hightower Trail and the CSX Railroad will be considered during the Concept Development. If the proposed bypass is at grade at E. Hightower Trail and the CSX railroad, the intersections of Social Circle Bypass at E. Hightower Trail and Social Circle Bypass at SR 11/S. Cherokee Road will require signals in the design year 2031. If the proposed bypass overpasses E. Hightower Trail and the CSX railroad and all other connections are retained then only the intersection of the bypass with SR 11/S. Cherokee Road would need to be signalized.

According to the GDOT funded Critical Analysis Reporting Environment (CARE) data analysis software system, the accident, injury, and fatality rates are above the statewide average along SR 11 from I-20 to Training School Circle (the northern terminus of the existing northern Social Circle Bypass). The tables below are the accident summaries for the years 2000 to 2005.

Accident, Injury, and Fatality Data

SR 11 from I-20 to Training School Circle

| Year | Accidents | | Injuries | | Fatalities | |
|------|-----------|------|----------|------|------------|------|
| | Number | Rate | Number | Rate | Number | Rate |
| 2000 | 59 | 337 | 33 | 188 | 0 | 0 |
| 2001 | 45 | 225 | 22 | 110 | 0 | 0 |
| 2002 | 33 | 175 | 13 | 69 | 0 | 0 |
| 2003 | 33 | 174 | 18 | 95 | 0 | 0 |
| 2004 | 66 | 328 | 24 | 119 | 0 | 0 |
| 2005 | 58 | 302 | 29 | 151 | 0 | 0 |

Statewide Accident, Injury, and Fatality Rate Comparison

SR 11 from I-20 to Training School Circle

| Year | Accident Rate | Injury Rate | Fatality Rate |
|------|---------------|-------------|---------------|
|------|---------------|-------------|---------------|

| | | Statewide Rate | | Statewide Rate | | Statewide Rate |
|------|-----|----------------|-----|----------------|---|----------------|
| 2000 | 337 | 182 | 188 | 99 | 0 | 2.06 |
| 2001 | 225 | 190 | 110 | 101 | 0 | 2.26 |
| 2002 | 175 | 199 | 69 | 110 | 0 | 2.50 |
| 2003 | 174 | 212 | 95 | 113 | 0 | 2.56 |
| 2004 | 328 | 243 | 119 | 134 | 0 | 2.77 |
| 2005 | 302 | 181 | 151 | 103 | 0 | 2.77 |

General land use in the project area

According to the Future Land Use Plans for Newton County most of the industrial development will be located around the eastern edge of Newton County along I-20. Based on of the Walton County Comprehensive Plan, the future land use plan is focusing on developing communities within compact areas to deter continuing sprawl patterns. These sprawl patterns decrease the economic feasibility of public agencies (schools, libraries etc), infrastructure, and public safety. The location and type of compact development will be based on the real estate market and infrastructure.

Identification of any known Environmental Justice or other community concerns

- It has been determined, through coordination with local officials and citizens that attended the Early Coordination PIOH, that there is an Environmental Justice (EJ) community within the Corridor Study Area along Scott Terrace (CR 432). FHWA states that the local residents define their own community; if proposed alignments are considered in this area close coordination will need to take place with the residents in delineating the EJ boundary.
- Level of environmental analysis: Environmental Assessment/Finding of No Significant Impact (FONSI)
- Utility involvements: CSX Railroad, Bellsouth, Comcast Communications, Georgia Power, City of Madison Gas, MCI, City of Monroe CATV, Newton County Water, City of Social Circle Sewer, City of Social Circle Water, City of Social Circle Gas, Snapping Shoals EMC, Walton EMC
- Estimate of potential relocations is unknown at this time.
- GDOT expects impacts to waters and wetlands of the US, but the exact impact has not been calculated at this time. It is anticipated that a Nationwide Permit (NWP) will be required.
- Historic Resources are present, but impacts are unknown.
- Archaeological Resources may be present and impacts are unknown.

Safety

The high truck/train conflict potential and emergency vehicles access to properties north of E. Hightower are main concerns for safety. The Georgia Department of Transportation Office of Traffic and Safety Design (OTSD) has confirmed that 16 trains run daily along the CSX Rail: 8 daytime trains, 6 night trains and 2 switching (stop in a local yard and unload/reload and continue back to using the same crossing again. Based on this information, OTSD has requested a grade separated railroad overpass alternative be considered. The overpass will provide a separation of vehicle and rail traffic, reduce delay at the intersection by providing continuous movement, and ensure that emergency vehicles always have access to areas north of E. Hightower regardless of train presence.

Need and Purpose page 6
Project Number: CSSTP-0007-00(217)
P. I. Number: 0007217
County: Newton/Walton Counties

By allowing vehicle and trucks access from I-20 using SR 11 in Newton County to the industrial area in Walton County, the bypass will alleviate the impacts (noise, area, surface, etc) to historic Social Circle. This decreased vehicle count will positively affect the local citizens by improving their quality of life, safety conditions, and economic growth. It is anticipated that these improvements from a new location bypass will help enhance the safety and operational characteristics of the surrounding area for trucks and passenger vehicles. This project will satisfactorily accommodate existing and future demands along the bypass with the industrial development and economic growth.

Need and Purpose

The purpose of the Social Circle Bypass is to alleviate traffic in historic downtown Social Circle, promote economic development for the city, and to complete the eastern bypass of Social Circle.

Current traffic through historic downtown Social Circle is an estimated 9,150 vehicles per day (vpd). The bypass would reroute approximately 5,150 vpd around the east side of the city; thereby reducing the downtown area traffic. The project will be designed to accommodate traffic growth until 2031. In that year the bypass will handle 11,370 vpd and the existing SR 11 through downtown will handle 8,300 vpd. The traffic passing through the existing SR 11, if the bypass is not constructed, would be over 19,000 vpd through the historic area. This volume of traffic could not be handled by the existing 2-lane roadway; widening the existing SR 11 would cause extensive detrimental impacts to the historic area.

The proposed project will also provide an added benefit to industry north and east of the City of Social Circle. The new roadway will connect the existing northern bypass to SR 11 south of Social Circle. Truck traffic from the industries will be rerouted from passing through the historic area to the newly constructed bypass.

REVISED PROJECT CONCEPT REPORT

Project Number: CSSTP-0007-00(217)

Newton/Walton Counties

P. I. Number: 0007217

Attachment #5

Benefit/Cost Ratio Documentation

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENTAL CORRESPONDENCE

OFFICE: Planning

DATE: December 3, 2009

FROM  Angela T. Alexander, Director of Planning and Transportation Data
TO Bobby Hillard, P.E., Transportation Engineering Administrator
Attn: Vinesha Pegram, Project Manager

SUBJECT Benefit/Cost Calculation - SOCIAL CIRCLE BYPASS FROM EAST
HIGHTOWER TRAIL TO SR 11, P.I. No. 0007217, WA-020

The Office of Planning is providing the Benefit/Cost Calculation for Project ID No. 0007217. Based on this December 3, 2009 review, the Benefit/Cost for this project is 0.48, as calculated within the project prioritization process through the attached equations.

If any changes occur to the proposed concept, please notify this office immediately. If you have any questions, please call Andrew Heath at (404) 631-1750.

ATA:ajh

GDOT Benefit-Cost Equations

1. Annualized Cost

$$A = P \times \frac{i}{1 - (1 + i)^{-n}}$$

where

| | |
|---|-----------------------------|
| A | annualized cost |
| P | total cost (PE + ROW + CST) |
| n | design life |
| i | discount rate |

2. Auto Delay Savings

$$DC_A = (VHT_{NB} - VHT_B) \times (1 - T) \times Value_A$$

where

| | |
|--------------------|---|
| DC _A | auto delay cost savings |
| VHT _{NB} | vehicle hours traveled in 2035 - no build |
| VHT _B | vehicle hours of travel in 2035 - build |
| T | percent of traffic consisting of trucks |
| Value _A | value of time for autos |

3. Truck Delay Savings

$$DC_T = (VHT_{NB} - VHT_B) \times T \times Value_T$$

where

| | |
|--------------------|---|
| DC _T | truck delay cost savings |
| VHT _{NB} | vehicle hours traveled in 2035 - no build |
| VHT _B | vehicle hours of travel in 2035 - build |
| T | percent of traffic consisting of trucks |
| Value _T | Value of time for trucks |

4. Fuel Cost Savings

$$FC = (VMT_{NB} - VMT_B) \times \left(\frac{\text{Fuel Price}}{\text{Fuel Economy}} \right)$$

where

| | |
|-------------------|--|
| FC | fuel cost savings |
| VMT _{NB} | vehicle hours of travel in 2035 - no build |
| VMT _B | vehicle hours of travel in 2035 - build |

5. Change in gross state product

$$GSP = (DC_A \times 0.0000071) + (DC_T \times 0.0000701)$$

where

| | |
|-----------------|--------------------------|
| GSP | Change in GSP |
| DC _A | auto delay cost savings |
| DC _T | truck delay cost savings |

6.a Benefits with no GSP component

$$Benefits = DC_A + DC_T + FC$$

where

| | |
|-----------------|--------------------------|
| DC _A | auto delay cost savings |
| DC _T | truck delay cost savings |
| FC | fuel cost savings |

6.b. Benefits with GSP component

$$Benefits = 0.7 \times (FC_A + DC_A) + GSP$$

where

| | |
|-----------------|-------------------------|
| FC _A | auto fuel cost savings |
| DC _A | auto delay cost savings |

7. Benefit-Cost Ratio

$$B/C = \frac{Benefits}{Annualized Cost}$$