

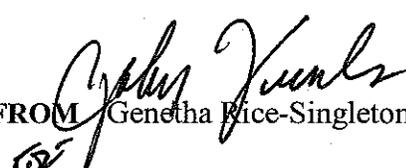
**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA**

**INTERDEPARTMENT CORRESPONDENCE**

**FILE** P. I. No. 532370-, Bryan County  
STP00-0630-00(010)  
SR 144 Widening

**OFFICE** Preconstruction

**DATE** October 17, 2008

  
**FROM** Genetha Rice-Singleton, Assistant Director of Preconstruction

**TO** SEE DISTRIBUTION

**SUBJECT** APPROVED REVISED PROJECT CONCEPT REPORT

Attached for your files is the approval for subject project.

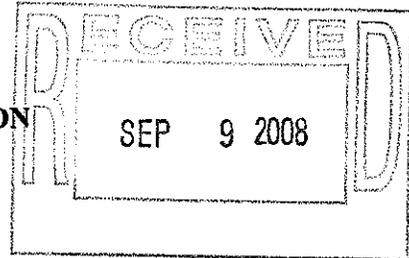
Attachment

**DISTRIBUTION:**

Brian summers  
Glenn Bowman  
Ken Thompson  
Michael Henry  
Keith Golden  
Glenn Durrence  
Angela Alexander  
Dennis Odom  
Brad Saxon  
BOARD MEMBER

DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA

Interdepartmental Correspondence



File: STP00-0630-00(010) Bryan County  
Desc. SR 144 Widening  
P.I. No. 532370

Office : Jesup

Date: 9-2-08

From: Glenn W. Durrence, P.E., District Engineer 

To: Genetha Rice-Singleton, Asst. Director of Preconstruction

**Subject: Revised Project Concept Report**

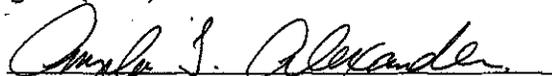
Remarks:

Attached is the original copy of the revised Concept Report for your further handling for approval in accordance with the Plan Development Process (PDP).

The revision consists of an urban four-lane section of roadway with the incorporation of 4-foot bike lanes on each outside edge of the travel lanes, a 20-foot raised grass median with 12' shoulders with sidewalks included with a design speed of 45 mph. The typical between MP 15.09 (SR 144 Spur) and the end of the project will remain the same (rural-four-lane section of roadway with a 24-foot raised grassed median with 6.5-feet of paved bikeable shoulders) per the revised concept dated May 1, 2006. Also within this typical there will be a proposed signalized intersection at MP 11.36 (Timber Trail Rd.) and a proposed signalized intersection at MP 13.29 (Port Royal Rd. and the New Entrance to Sterling Woods Subdivision). The project termini needs to be revised to incorporate the signalized intersection at Timber Trail and at the end of the project it needs to be lengthened to transition the traffic after County Road 154 <sup>(EXTEND THE RAISED MEDIAN)</sup> back to the existing roadway <sup>AND MAKE COMPLETE</sup> typical. The new project termini needs to be as follows: The project will begin at MP 11.31 and end at MP 16.24. The total length of the project will now be 4.93 miles.

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

Date 9-6-08

  
State Transportation Planning Administrator

GWD:ADO: td

Copies to:

Brad Saxon, Preconstruction Engineer  
Dennis Odom, District Design Engineer  
Brian Summers, Project Review Engineer

Glenn Bowman, State Environmental/Location Engineer  
Keith Golden, State Traffic Safety and Design Engineer  
Angela Alexander, State Transportation Planning Administrator  
Jamie Simpson, State Financial Management Administrator  
Paul Liles, State Bridge Design Engineer (only for those projects that involve structures)  
General File Unit, Atlanta  
Jesup Files

*Rev.10-17-07*

## REVISED PROJECT CONCEPT REPORT

**Need and Purpose:** The purpose of this project is to improve the safety and operational conditions of State Route 144 through the addition of travel and turn lanes. The need exists to increase the number of travel lanes in order to satisfactorily accommodate existing and future traffic volumes. Potential benefits of the project include energy conservation through the efficient movement of traffic that would otherwise be idled or delayed without the improvement and a safer traveling environment.

**Project location:** The current proposed project is from MP 11.4 (Timber Trail Rd.) southeast to MP 16.0 (County Road 154). The total length of the proposed project is 4.6 miles.

**Description of the approved concept:**

**PDP Classification:** Major  X  Minor \_\_\_\_\_

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

**Functional Classification:** Rural Major Collector

**U. S. Route Number(s):** N/A **State Route Number(s):** 144

**Traffic (AADT) as shown in the approved concept:**

Current Year: (2015) 21000 Design Year: (2035) 32500

**Proposed features to be revised:**

- **Typical section:** The current typical consist of an urban four-lane section of roadway with a 20-foot raised grassed median with sidewalks starting at Timber Trail, approximately MP 11.4 to 144 Spur (MP 15.2). Between MP 11.6 and MP 14.7, the typical was to contain a 22.5-foot shoulder with an 8-foot asphalt bike lane. This typical will be revised to an urban four-lane section of roadway with 4-foot bike lanes, 20-foot raised grass median with 12' shoulders with sidewalks included. The reasoning for the change is due to the following: According to AASHTO's Guide for the Development of Bicycle Facilities, in Chapter 2, the section for Shared Use Paths, under sub-section Path-Roadway Intersections, it states that, "There are three basic categories of path-roadway intersections: midblock, adjacent path, and complex". In this typical, with the 8' asphalt bike lane, or "adjacent path", there would be numerous adjacent path crossings. In this area, along SR 144, there are a total of 7 T-intersections, possibly 2 four-legged intersections, and numerous driveways. With the potential conflicts that could occur from motorist and path users at each of these locations and the probability of having traffic control devices at each one of these locations, this design is highly undesirable.

- Project termini: The current project termini is from MP 11.4 (Timber Trail Rd.) southeast to MP 16.0 (County Road 154) with a project length of 4.6 miles. This termini needs to be changed at the beginning to include a signalized intersection at Timber Trail. At the end of the project it needs to be lengthened to transition the traffic after County Road 154 back to the existing roadway typical.
- Changes in right-of-way limits which may affect the analyses of Historic resources, Endangered species, Air quality, or Noise studies, would only have to be reevaluated in the areas where the project is to be extended at the beginning and end of the project.

**Describe the revised feature(s) to be approved:** The typical starting at MP 11.36 (Timber Trail Rd.) to MP 15.09 (SR 144 Spur) needs to be revised to an urban four-lane section of roadway with the incorporation of 4-foot bike lanes on each outside edge of the travel lanes, a 20-foot raised grass median with 12' shoulders with sidewalks included with a design speed of 45 mph. The typical between MP 15.09 (SR 144 Spur) and the end of the project will remain the same (rural-four-lane section of roadway with a 24-foot raised grassed median with 6.5-feet of paved bikeable shoulders) per the revised concept dated May 1, 2006. Also within this typical there will be a proposed signalized intersection at MP 11.36 (Timber Trail Rd.) and a proposed signalized intersection at MP 13.29 (Port Royal Rd. and the New Entrance to Sterling Woods Subdivision). The project termini needs to be revised to incorporate the signalized intersection at Timber Trail and at the end of the project it needs to be lengthened to transition the traffic after County Road 154 back to the existing roadway typical. The new project termini needs to be as follows: The project will begin at MP 11.31 and end at MP 16.24. The total length of the project will now be 4.93 miles.

**Design Variances Anticipated:** A variance is anticipated for the spacing of the median openings between Charlies Rd. (MP13.95) and Ogeechee Dr. (MP 14.06). The spacing between these openings are 582.84'. The minimum is 660'.

**Updated traffic data (AADT):**

Current Year: (2012) 14,145 Design Year: (2032) 21,984

**Programmed/Schedule:**

P.E. 1/31/00 R/W: 2008 Construction: 2010

VE Study Required Yes() No()

**Revised cost estimates:**

1. Construction cost including Engineering & Construction, and Construction Contingency
2. Right-of-Way, and
3. Utilities

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

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

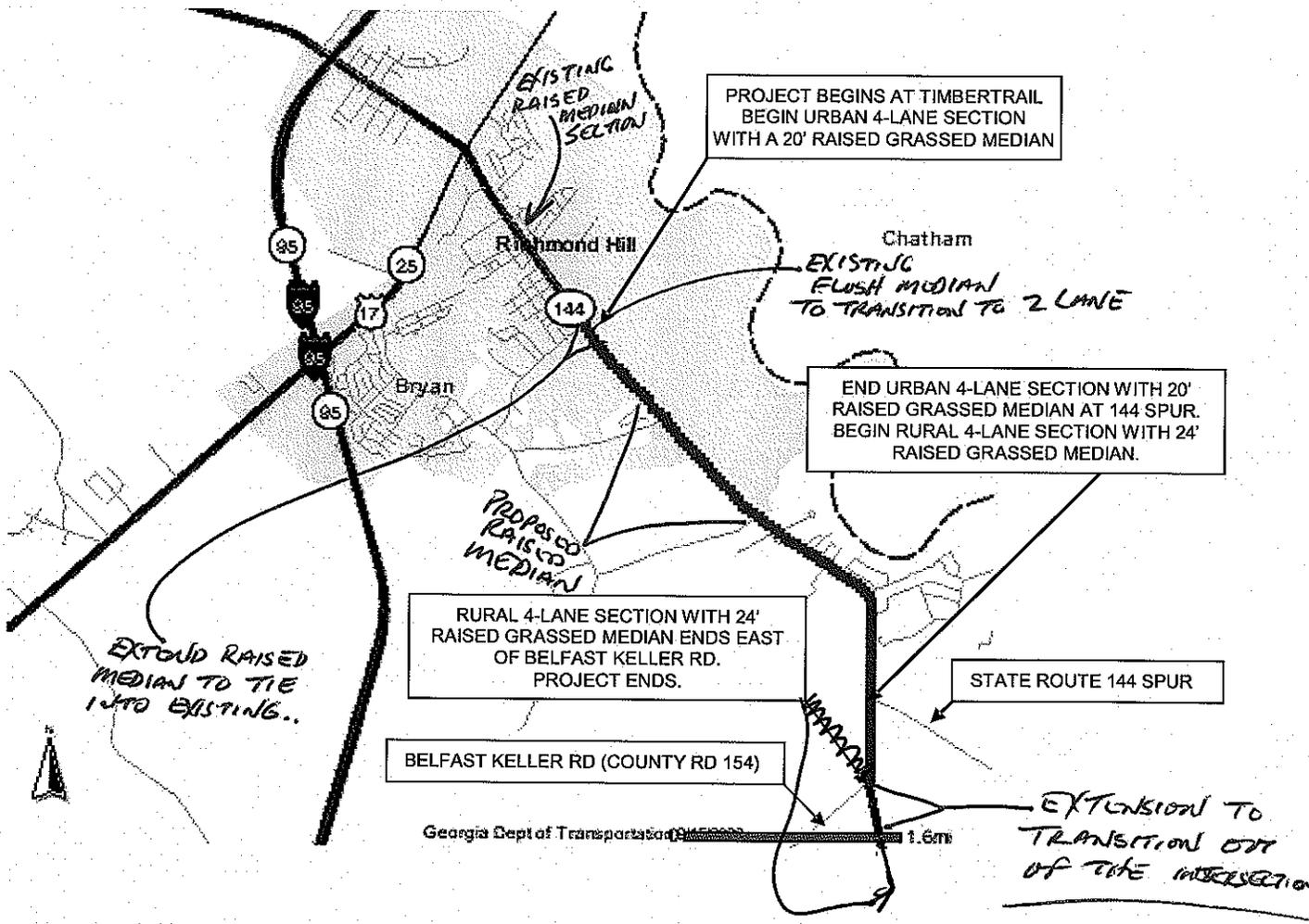
implementation.

Attachments:

1. Sketch Map,
2. Cost Estimates (Construction, R/W, & Utility)
3. Current Typical Sections
4. Revised Typical Sections

Concur: *Genet H. Rice - Lytle* <sup>for *Director*</sup>  
Director of Preconstruction

Approve: *D. Q. M. R.*  
Chief Engineer



**PROJECT LOCATION MAP  
FOR  
STP-0630(10), BRYAN COUNTY, P.I. NO. 532370  
WIDENING AND RECONSTRUCTION OF SR 144**

## PRELIMINARY COST ESTIMATE

DATE: 9/2/2008

PROJECT NUMBER: STP-0630(10), BRYAN COUNTY

P.I. NUMBER: 532370

PROJECT DESCRIPTION: SR 144

PROPOSED CONCEPT: WIDENING EXISTING TWO LANES WITH A 4 LANE URBAN SEC. WITH 20' RAISED MEDIAN AND A 4 LANE RURAL SECTION WITH A 24' RAISED MEDIAN

TRAFFIC: EXISTING: (2012)14145 DESIGN (2032)21984

Program Process ( ) Concept Development ( ) Project Development (X)

### PROJECT COSTS

#### A. RIGHT OF WAY:

1. PROPERTY ( LAND & EASEMENTS)	\$3,034,603
2. IMPROVEMENTS -	\$270,000.00
3. DISPLACEMENTS & RELOCATIONS-	0
4. DAMAGES(PROXIMITY, CONSEQUENTIAL, COST TO CURE)	\$696,500
5. SCHEDULING CONTINGENCY	\$2,200,607
6. OTHER COSTS (ADM./COURT COST)	\$2,400,662
SUBTOTAL =====	\$8,602,372

#### B. REIMBURSABLE UTILITIES:

1. TELEPHONE LINES -	\$0
2. TRANSMISSION LINES -	\$350,000
3. SERVICES -	\$0
SUBTOTAL =====	\$350,000

**C. NON-REIMBURSABLE UTILITIES: (not included in grand total project cost)**

1. TELEPHONE LINES -	\$1,397,150
2. TRANSMISSION LINES -	\$0
3. SERVICES -	\$1,880,700
<b>SUBTOTAL =====</b>	<b>\$3,277,850</b>

**D. MAJOR STRUCTURES:**

1. WALLS -	\$0
2. BRIDGE- widening @ stream crossing -120 x 92 @ \$78/SF	\$861,120
3. BRIDGE - over/underpass	\$0
4. BOX CULVERTS -	\$0
<b>SUBTOTAL =====</b>	<b>\$861,120</b>

**E. GRADING AND DRAINAGE:**

1. EARTHWORK	
In-Place Embankment	\$3,750,000
2. DRAINAGE	
a. CROSS DRAIN PIPES (exc. Box culverts) -	\$112,220
b. CURB & GUTTER - 1F X \$21/lf	\$1,846,950
c. LONGITUDINAL SYSTEM (incl. Catch Basins) -	\$1,832,224
<b>SUBTOTAL =====</b>	<b>\$7,541,394</b>

**F. BASE AND PAVING:**

1. AGGREGATE BASE / 10" GAB	\$1,667,563
2. ASPHALT PAVING - SUPERPAVE	\$4,515,854
3. CONCRETE PAVING -	\$246,246
4. OTHER (driveways, mill existing paving, etc.) -	\$0
<b>SUBTOTAL =====</b>	<b>\$6,429,663</b>

**G. LUMP SUM ITEMS:**

1. EROSION CONTROL -	\$306,131
2. CLEARING & GRUBBING -	\$142,000
3. TRAFFIC CONTROL -	\$556,837
4. LANDSCAPING -	\$0
5. DETOURS (incl Temp. bridges) -	\$0

SUBTOTAL ===== \$1,004,968

**H. MISCELLANEOUS:**

1. LIGHTING -	\$0
2. SIGNING & STRIPING - \$ 10,000/mi X 4.93 mi -	\$49,300
3. GUARDRAIL -	\$15,000
4. 2-TRAFFIC LIGHTS -	\$360,000

SUBTOTAL ===== \$424,300

**ESTIMATE SUMMARY**

<b>A. RIGHTS-OF-WAY -----</b>	\$8,602,372
<b>B. REIMBURSABLE UTILITIES -----</b>	\$350,000
<b>C. NON-REIMBURSABLE UTILITIES (not included in grand total project cost)-----</b>	\$3,277,850

**CONSTRUCTION COST SUMMARY**

<b>D. MAJOR STRUCTURES -----</b>	\$861,120
<b>E. GRADING AND DRAINAGE -----</b>	\$7,541,394
<b>F. BASE AND PAVING -----</b>	\$6,429,663
<b>G. LUMP SUM ITEMS -----</b>	\$1,004,968
<b>H. MISCELLANEOUS -----</b>	\$424,300

SUBTOTAL CONSTRUCTION COST ----- \$16,261,445

ENGINEERING & INSPECTION (5%) ----- \$813,072

CONSTRUCTION CONTINGENCY (6%) --- \$975,687

TOTAL CONSTRUCTION COST ===== \$18,050,203 ✓

GRAND TOTAL PROJECT COST ===== \$27,002,575

**Cost Estimate Prepared by: Travis Dent, Design Squad Leader**

# Preliminary Right of Way Cost Estimate

Date: 7-25-08

Project: STP00-0630-00(010), Bryan County

Existing/Required R/W: +/- 38 Acres (req'd r/w)

Project Termini: Milepost 11.31 to Milepost 16.24 along SR144

Project Description: SR 144 Widening from CR 100(Timber Trail Rd.) to CR 154(Belfast Keller Rd.)

P.I. Number: 532370

No. Parcels: +/- 79 Par

**Land:**

Commercial

2.2288 Acres @ \$500,000 /Acre = \$1,114,400

Residential

15.50 Acres @ \$85,000 /Acre = \$1,317,500

Residential/Acreage

20.0901 Acres @ \$30,000 /Acre = \$ 602,703

**TOTAL**

**\$3,034,603**

**Improvements:**

**\$270,000**

**TOTAL**

**\$270,000**

**Relocation:**

Commercial @ \$25,000/parcel = \$N/A

Residential @ \$40,000/parcel = \$N/A

**TOTAL**

**\$N/A**

**Damages: Proximity**

**\$695,000.00**

**Consequential**

**\$N/A**

**Cost to Cure**

**\$ 1,500.00**

**TOTAL**

**\$696,500.00**

**SUB-TOTAL:**

**\$4,001,103**

Net Cost

**\$4,001,103**

Scheduling Contingency 55 %

**\$2,200,607**

Adm/Court Cost 60 %

**\$2,400,662**

**TOTAL**

**\$8,602,372**

**Total Cost ®**

**\$8,600,000.00**

Prepared By:

*G. B. Harris III*

Reviewed / Approved:

*Howard P. Copeland*

Howard P. Copeland

R/W Administrator

Note: Accuracy of estimate is the sole responsibility of the Preparer.

Note: The Market Appreciation(40%) is not included in this Preliminary Cost Estimate.

REVISED: 2-8-08

*RMB*  
*To: DENNIS*  
*TAVIS*

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA**

**INTERDEPARTMENTAL CORRESPONDENCE**

FILE: STP-0630(10) Bryan  
P.I.#532370

OFFICE: Jesup, Georgia

DATE: 04/18/2008

*[Signature]*  
FROM: Karon Ivery, District Utilities Engineer

TO: Brad Saxon, P.E. District Preconstruction Engineer

SUBJECT: Utility Cost Estimate- SR # 144 fm CR #100 to CR #154

Per your request an on site inspection was made by this office and the following utilities were found to be located within the project limits:

- Telephone- Coastal Communications
- Water & Sewer- City of Richmond Hill
- Gas- Atlanta Gas Light
- Power- Coastal EMC & Georgia Power
- CATV- Comcast

Based upon our review of the above referenced project the above referenced utility companies appear to be primarily located on the existing right of way of S.R. #144. The exception appears to be the power poles owned by Ga. Power and Coastal EMC. There are approximately 70 poles in conflict @ \$5,000 per pole for a reimbursable cost of \$350,000.

The remaining facilities appear to be on the right of way and not eligible for reimbursement. They are as follows:

- 4" plastic AGL gas main 23,000 linear feet @ \$45/ foot for a total of \$1,035,000
- Various telephone copper cable, fiber optic and duct bank belonging to Coastal Communications at a total cost of \$1,397,150.
- 12" PVC water main 2,300 feet at \$180/foot for a total of \$414,000 and 100 linear feet of 24" steel casing @ \$300/foot for a total of \$30,000. This belongs to the City of Richmond Hill. Additionally, the City has 6,600 linear feet of 8" PVC force main in conflict at \$40/foot for a total of \$264,000. City of Richmond Hill's total relocation cost are \$708,000.

Comcast has 16,200 linear feet of aerial coax cable attached jointly to the power company's power poles at \$8.50/foot for a total cost of \$137,700.

In summary, the total amount of reimbursable utilities for this project is estimated at \$350,000. The total amount of non reimbursable utilities for this project is estimated at \$3,277,850. The total utility expense for this project is estimated at \$3,627,850.

If you need additional information please contact Stephen Thomas @ 427-5779.

Copy:

Travis Dent, District 5 Road Design  
District Office files  
Utility Office files







ORIGINAL TO GENERAL FILES

D.O.T. 66

DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

**FILE** P. I. No. 532370-, Bryan County **OFFICE** Preconstruction  
STP-0630(10)  
SR 144 Widening **DATE** May 1, 2006

**FROM** *Margaret B. Pirkle*  
Margaret B. Pirkle, P.E., Assistant Director of Preconstruction

**TO** SEE DISTRIBUTION

**SUBJECT** APPROVED REVISED PROJECT CONCEPT REPORT

Attached for your files is the approval for subject project.

MBP/cj

Attachment

**DISTRIBUTION:**

Brian Summers  
Harvey Keepler  
Ken Thompson  
Jamie Simpson  
Michael Henry  
Keith Golden  
Joe Palladi (file copy)  
Babs Abubakari  
Glenn Durrence  
BOARD MEMBER

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA**

Interdepartmental Correspondence

File: STP-0630(10), Bryan County  
Desc. SR 144  
P.I. No. 532370

Office : Jesup

Date: 4-18-06

From: Glenn Durrence, District Engineer

To: Meg Pirkle, Asst. Director of Preconstruction

**Subject: Revised Project Concept Report**

**Remarks:**

Attached is the original copy of the revised Concept Report for your further handling for approval in accordance with the Plan Development Process (PDP).

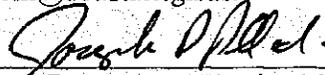
The revision consists of widening the existing two travel lanes (24 foot wide) of SR 144 to provide an urban four-lane section of roadway with a 20-foot raised grassed median with sidewalks starting at Timber Trail, at approximately MP 11.4, to SR 144 Spur (MP 15.2). A 22.5-foot shoulder on the right side, which will contain an 8-foot asphalt bike lane, will begin at approximately MP 11.6 and will tie into an existing bike lane on the left side at approximately MP 14.7 of the project. After MP 14.7, the typical will revert back to regular 16-foot shoulders. The posted speed limit will be 45 MPH. The proposed design from SR 144 Spur (MP 15.2) to east of Belfast Keller Rd. (MP 16.0) will consist of a rural four-lane section of roadway with a 24-foot raised grassed median with 6.5-foot bikeable shoulders with a design speed of 55 mph. A proposed drainage structure will also include a bridge at Sterling Creek (MP 12.7).

This project as proposed will improve safety and the operation of traffic. The current ADT from MP 11.5 to Port Royal Rd.(MP 13.3) is 21000. It is also recommended that a future project be considered from County Road 154 (Belfast Keller Road) to County Road 90 (Oak Level Road) due to the increasing traffic flow.

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

If there are any questions or if additional information is needed, please contact Dennis Odom at (912) 427-5716 or e-mail at [dennis.odom@dot.state.ga.us](mailto:dennis.odom@dot.state.ga.us).

DATE 4/20/06

  
State Transportation Planning Administrator

GP:ADO: td

Copies to:

## REVISED PROJECT CONCEPT REPORT

**Need and Purpose:** The purpose of this project is to improve the safety and operational conditions of SR 144 through the addition of travel and turn lanes. The need exists to increase the number of travel lanes in order to satisfactorily accommodate existing and future traffic volumes. Potential benefits of the project include energy conservation through the efficient movement of traffic that would otherwise be idled or delayed without the improvement and a safer traveling environment.

**Project Location:** The proposed length of the project will be from MP 11.5 (existing four-lane section/Timber Trail) southeast to MP 16.0 south of County Road 154.

**Description of the approved concept:** The approved concept consists of widening the existing two travel lanes of SR 144 to provide an urban five-lane section of roadway from Timber Trail (MP 11.5) to SR 144 Spur (MP 15.1) with a design speed of 45 mph. From SR 144 Spur (MP 15.1) to Belfast Keller Road (CR154) consists of a four-lane divided section with a 44 foot depressed median with a design speed of 55 mph.

**PDP Classification:**

Full Oversight( ), Exempt (X), SF ( ), Other ( )

**Functional Classification:** Rural Major Collector

**U.S. Route Number(s):**None

**State Route Number(s):** 144

**Traffic (AADT) as shown in the approved concept:**

Current Year: (2008) 11000

Design Year:(2028) 18000

**Proposed features to be revised:**

- **Typical Section:** The current typical provides an urban five-lane section of roadway from Timber Trail (MP 11.5) to SR 144 Spur (MP 15.1). The project will be designed to incorporate a future 20-foot raised median. The current posted speed design is 55 mph and will be lowered to 45 mph. The current typical from SR 144 Spur (15.1) to south of CR 154 (MP 16.0) consists of a rural 4-lane divided highway with a 44' depressed median.
- **Project Termini:** The proposed project will be from MP 11.5 (existing four-lane) southeast to MP 16.0 (County Road 154). Total project length will be 4.5 miles.

**Describe the revised feature(s) to be approved:**

- **Typical Section:** The typical will be revised to provide an urban four-lane section of roadway with a 20-foot raised grassed median with sidewalks starting at Timber Trail, approximately MP 11.4, to 144 Spur (MP 15.2). Between MP 11.6 and MP 14.7, the typical will contain a 22.5-foot shoulder for a proposed 8-foot asphalt bike lane. The posted speed limit will be 45 MPH. A typical from SR 144 Spur (MP 15.2) to east of Belfast Keller Rd. (MP 16.0) will consist of a rural four-lane section

of roadway with a 24-foot raised grassed median with 6.5-foot paved bikeable shoulders with a design speed of 55 mph.

- Project Termini: The proposed project will be from MP 11.4 (Timber Trail Rd.) southeast to MP 16.0 (County Road 154). Total project length will be 4.6 miles.

**Updated traffic data (AADT):**

Current Year: (2015) 21000

Design Year: (2035) 32500

**Programmed/Schedule:**

PE 1/31/00

R/W: 2008

Construction: 2013

**Revised cost estimates:**

1. Construction cost including inflation and E&C,
2. Excluding Right-of-way, and
3. Excluding Utilities

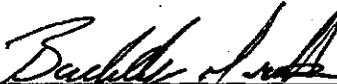
Is the project located in a Non-attainment area? \_\_\_ Yes. X No.

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

**Attachments:**

1. Sketch Map
2. Cost Estimate

Concur:

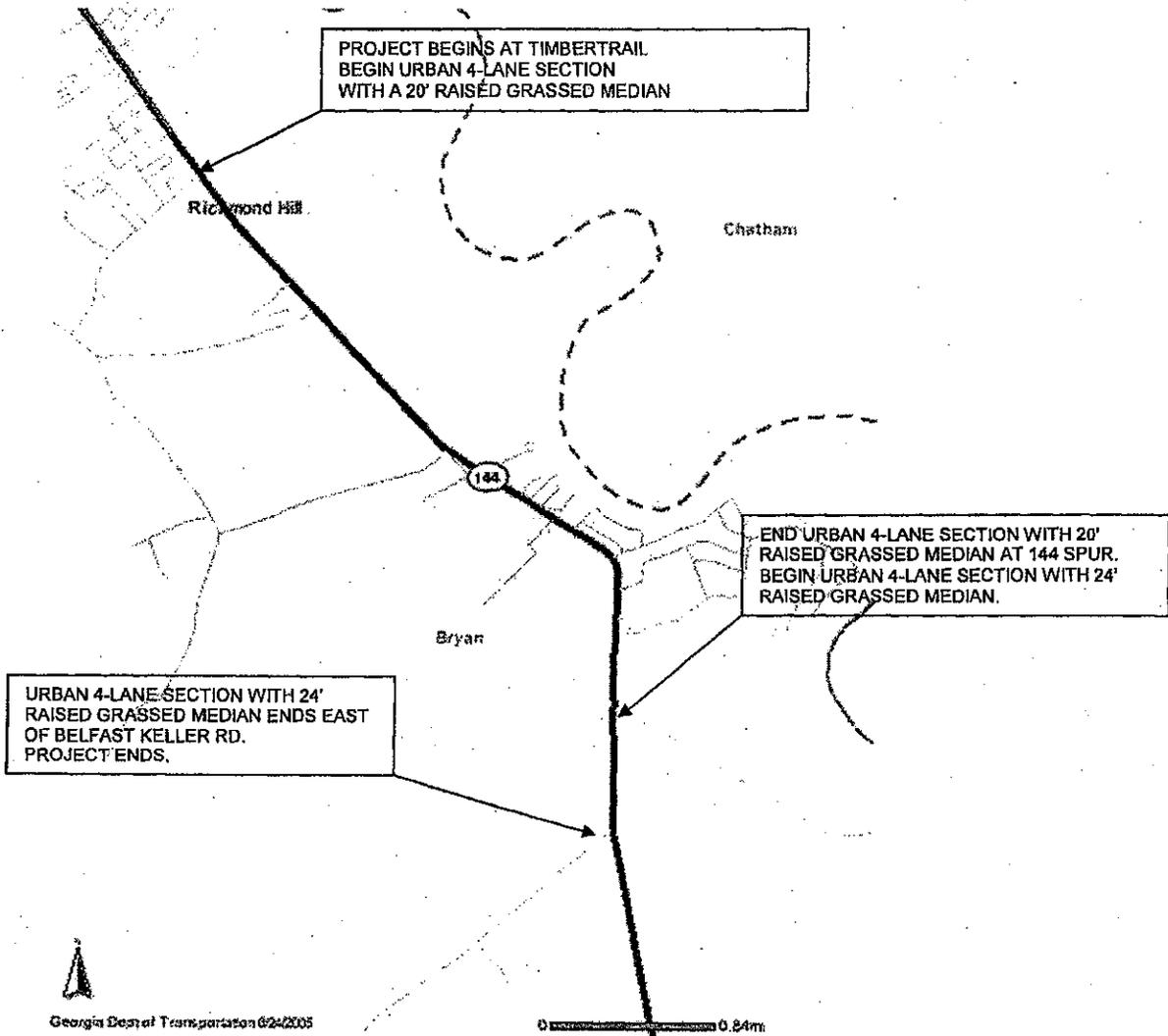


Director of Preconstruction

Approve:



Chief Engineer



## PRELIMINARY COST ESTIMATE

DATE: 4/18/2006

PROJECT NUMBER: STP-0630(10), BRYAN COUNTY

P.I. NUMBER: 532370

PROJECT DESCRIPTION: SR 144

PROPOSED CONCEPT: WIDENING EXISTING TWO LANES WITH A 4 LANE URBAN SEC. WITH 20' RAISED MEDIAN AND A 4 LANE RURAL SECTION WITH A 24' RAISED MEDIAN

TRAFFIC: EXISTING: (2015)21000 DESIGN (2035)32500

Program Process ( ) Concept Development (X) Project Development ( )

### PROJECT COSTS

#### A. RIGHT OF WAY:

1. PROPERTY ( LAND & EASEMENTS)	\$600,000
2. DISPLACEMENTS & RELOCATIONS -	\$0.00
3. OTHER COSTS (ADM./COURT/INFLATION) -	\$357,000
SUBTOTAL =====	\$957,000

#### B. REIMBURSABLE UTILITIES:

1. TELEPHONE LINES -	\$0
2. TRANSMISSION LINES -	\$0
3. SERVICES -	\$0
SUBTOTAL =====	\$0

#### C. MAJOR STRUCTURES:

1. WALLS -	\$0
2. BRIDGE- stream crossing -160 x 84 @ \$57/SF	\$766,080
3. BRIDGE - over/underpass	\$0
4. BOX CULVERTS -	\$0
SUBTOTAL =====	\$766,080

**D. GRADING AND DRAINAGE:**

**1. EARTHWORK**

Grading Complete \$390,000  
unclas excavation - \$0

**2. DRAINAGE**

a. CROSS DRAIN PIPES (exc. Box culverts) - \$112,220

b. CURB & GUTTER - If X \$12/lf \$913,000

c. LONGITUDINAL SYSTEM (incl. Catch Basins) - \$1,135,900

SUBTOTAL ===== \$2,551,120

**E. BASE AND PAVING:**

1. AGGREGATE BASE -300 SY / 6" GAB \$0

2. ASPHALT PAVING - SUPERPAVE \$3,588,100

3. CONCRETE PAVING - \$670,646

4. OTHER (driveways, mill existing paving, etc.) - \$0

SUBTOTAL ===== \$4,258,746

**F. LUMP SUM ITEMS:**

1. EROSION CONTROL - \$86,000

2. CLEARING & GRUBBING - \$51,600

3. TRAFFIC CONTROL - \$840,000

4. LANDSCAPING - \$0

5. DETOURS (incl Temp. bridges) - \$0

SUBTOTAL ===== \$977,600

**G. MISCELLANEOUS:**

1. LIGHTING - \$0

2. SIGNING & STRIPING - \$ 10,000/mi X 1.0 mi - \$92,000

3. GUARDRAIL - \$15,000

SUBTOTAL ===== \$107,000

**ESTIMATE SUMMARY**

A. RIGHTS-OF-WAY -----	\$957,000
B. REIMBURSABLE UTILITIES -----	\$0

**CONSTRUCTION COST SUMMARY**

C. MAJOR STRUCTURES -----	\$766,080
D. GRADING AND DRAINAGE -----	\$2,551,120
E. BASE AND PAVING -----	\$4,258,746
F. LUMP SUM ITEMS -----	\$977,600
G. MISCELLANEOUS -----	\$107,000
SUBTOTAL CONSTRUCTION COST -----	\$8,660,546
E & C (10%) -----	\$866,055
INFLATION (2 YRS @ 5% /YR) -----	\$866,055
<b>TOTAL CONSTRUCTION COST =====</b>	<b>\$10,392,655</b>
<b>GRAND TOTAL PROJECT COST =====</b>	<b>\$11,349,655</b>