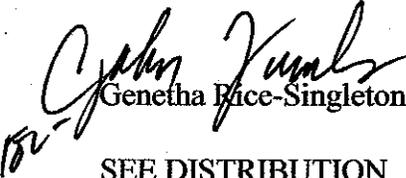


**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE P. I. No. 0004292, Greene County **OFFICE** Preconstruction
STP-0004-00(292)
SR 12 at CR 110 Intersection Improvements **DATE** May 1, 2007

FROM  Genetha Rice-Singleton, Assistant Director of Preconstruction

TO  SEE DISTRIBUTION

SUBJECT APPROVED PROJECT CONCEPT REPORT

Attached for your files is the approval for subject project.

Attachment

DISTRIBUTION:

Brian Summers
Harvey Keepler
Ken Thompson
Michael Henry
Keith Golden
Angela Alexander
Paul Liles
Mike Thomas
BOARD MEMBER

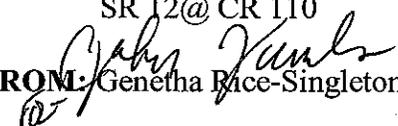
**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENTAL CORRESPONDENCE

FILE: P.I. No. 00004292 Greene County
STP-0004-00(292)
Intersection Improvement-
SR 12@ CR 110

OFFICE: Preconstruction

DATE: April 17, 2007


FROM: Genetha Rice-Singleton, Assistant Director of Preconstruction

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

SUBJECT: PROJECT CONCEPT REPORT

This project is the intersection improvement on SR 12/US 278 at CR110/Brick House Road and CR 110/ Cunningham Road. Brick House Road currently intersects SR12 on the south side of SR 12/US 278 at a very acute angle which hinders sight distance from oncoming traffic from the west approach. Also, Cunningham Road intersects SR 12 on the north side at an acute angle. The local roads are offset horizontally. Cunningham Road is now being used as the main entrance into the Greene County Recreational Department facilities which causes traffic spikes during baseball, soccer and football seasons. SR 12/ US 78 serves as a commuter route for local traffic as well as transient traffic traveling from the city of Union Point to the city of Greensboro. Vehicles attempting to turn onto SR 12 from CR 110 are challenged with sight distance due to poor horizontal alignment of the intersection. Accident data for the years 2000 through 2005 indicate a total of 26 accidents during this time frame.

The proposed project will relocate CR 110/ Brick House Road approximately 1056' east of the current intersection to provide better sight distance from both approaches to the intersection. CR 110/ Cunningham Road will be realigned to the west of the existing intersection to provide better sight distance. The proposed typical section for SR 12 within the project limits will consist of one, 12' lane in each direction with a 12' flush median and 10' rural shoulders (4' paved). The proposed typical section for CR 110/ Brick House Road and Cunningham Road will consist of one, 12' lane in each direction with 10' rural shoulders. On-site detours will be used to facilitate traffic through the area during construction due to reconstruction of the poor vertical alignment on SR 12/ US 78.

Environmental concerns include requiring a COE 404 permit; a Categorical Exclusion will be prepared; a Public hearing is not required; Time saving procedures are appropriate.

P.I. No. 00004292, Greene County
April 11, 2007

The estimated costs for this project are:

	PROPOSED	APPROVED	FUNDING	PROG DATE
Construction (includes E&C And inflation)	\$ 1,497,000	\$1,500,000	L250	2013
Right-of-way	\$ 377,000	\$ 377,000	L250	2011
Utilities	Local	Local		

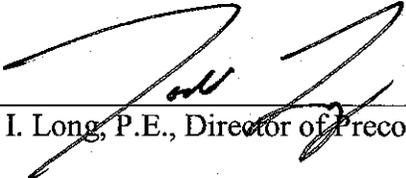
- Greene County Signed PFA for utilities 2-20-2007

I recommend this project concept be approved.

GRS: JDQ

Attachment

CONCUR



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

APPROVED



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

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENTAL CORRESPONDENCE

FILE: STP-0004-00(292) Greene County **OFFICE:** Engineering Services
P.I. No. 0004292
Intersection Improvement @ SR 12 and CR 110

DATE: March 12, 2007

FROM:  Brian K. Summers, P.E., Project Review Engineer
TO: Genetha Rice-Singleton Assistant Director of Preconstruction

SUBJECT: CONCEPT REPORT

MAR 13 2007

We have reviewed the Concept Report received March 12, 2007 from Alan Smith, and have the following comments.

The unit costs for the asphalt items in Roadway and On Site Detour are low. For the quantities indicated, a reasonable amount is \$70/ton. This will significantly affect the overall cost of the project.

~~Additional right of way will be required but estimate does not include any cost for right of way. An approved right of way estimate should be obtained from the Office of Right of Way.~~ ESTIMATE ATTACHED
A200

The current costs for this project are:

Construction	\$1,363,395
E & C	\$ 136,340
Reimbursable Utilities	\$ LOCAL
Right of Way	\$ 0 377,000

BKS

c: Mike Thomas, Attn.: Alan Smith

JDP
3/22/07

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
PROJECT CONCEPT REPORT**

District Two Design Office

Project Number: *STP-0004-00 (292)*

County: *Greene*

P. I. Number: *0004292*

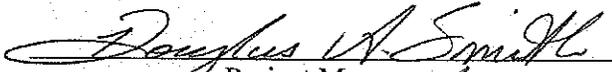
Federal Route Number: *278*

State Route Number: *12*

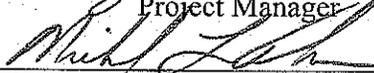
County Road Number: *None*

Recommendation for approval:

DATE *3-9-07*


Project Manager

DATE *3-9-07*


District Engineer

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

DATE *4-9-2007*


State Transportation Planning Administrator

DATE _____

State Transportation Programming Engineer

DATE _____

State Environmental/Location Engineer

DATE _____

State Traffic Safety and Design Engineer

DATE _____

Project Review Engineer

DATE _____

State Bridge & Structural Design Engineer

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
PROJECT CONCEPT REPORT**

District Two Design Office

Project Number: *STP-0004-00 (292)*

County: *Greene*

P. I. Number: *0004292*

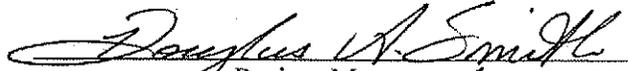
Federal Route Number: *278*

State Route Number: *12*

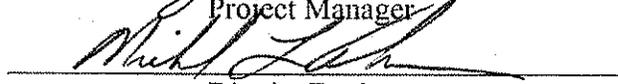
County Road Number: *None*

Recommendation for approval:

DATE *3-9-07*


Project Manager

DATE *3-9-07*


District Engineer

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

DATE _____

State Transportation Planning Administrator

DATE _____

State Transportation Programming Engineer

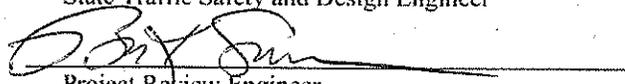
DATE _____

State Environmental/Location Engineer

DATE _____

State Traffic Safety and Design Engineer

DATE *3/12/07*


Project Review Engineer

DATE _____

State Bridge & Structural Design Engineer

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE: P.I. No. 0004292

OFFICE: Environment/Location

DATE: March 20, 2007



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

TO: Genetha Rice-Singleton, Assistant Director of Preconstruction

SUBJECT: **PROJECT CONCEPT REPORT**
STP-0004-00(292) / Greene County

The above subject concept report has been reviewed. This Office has no comments at this time.

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

HDK/lc

Attachment

cc: Brian Summers
Keith Golden
Michael L. Thomas
Angela Alexander
Jamie Simpson

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
PROJECT CONCEPT REPORT

District Two Design Office

Project Number: STP-0004-00 (292)

County: Greene

P. I. Number: 0004292

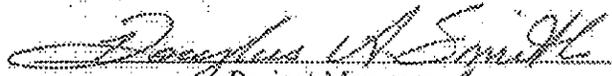
Federal Route Number: 278

State Route Number: 12

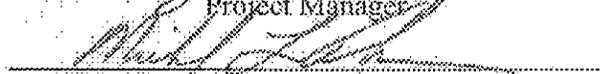
County Road Number: None

Recommendation for approval:

DATE 3-9-07


Project Manager

DATE 3-9-07


District Engineer

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

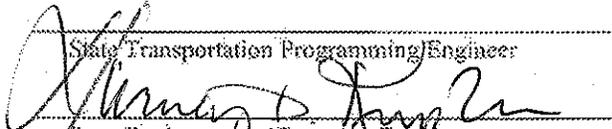
DATE _____

State Transportation Planning Administrator

DATE _____

State Transportation Programming Engineer

DATE 3.20.07


State Environmental/Location Engineer

DATE _____

State Traffic Safety and Design Engineer

DATE _____

Project Review Engineer

DATE _____

State Bridge & Structural Design Engineer

SCORING RESULTS AS PER MOG 2440-2

Project Number: STP-0004-00(292)		County: Greene		PI No.: 0004292	
Report Date: March 12, 2007		Concept By: DOT Office: District 2			
<input checked="" type="checkbox"/> Concept Stage					
Project Type: Choose One From Each Column		<input type="checkbox"/> Major <input checked="" type="checkbox"/> Minor	<input type="checkbox"/> Urban <input checked="" type="checkbox"/> Rural	<input type="checkbox"/> ATMS <input type="checkbox"/> Bridge Replacement <input type="checkbox"/> Building <input type="checkbox"/> Interchange Reconstruction <input checked="" type="checkbox"/> Intersection Improvement <input type="checkbox"/> Interstate <input type="checkbox"/> New Location <input type="checkbox"/> Widening & Reconstruction <input type="checkbox"/> Miscellaneous	
FOCUS AREAS	SCORE	RESULTS			
Presentation	100 96	<i>RIGHTS-OF-WAY AND UTILITIES ESTIMATES SHOULD BE INCLUDED IN THE REPORT.</i>			
Judgement	100				
Environmental	100				
Right of Way	100				
Utility	100				
Constructability	100				
Schedule	100				

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
PROJECT CONCEPT REPORT

District Two Design Office

Project Number: STP-0004-00 (292)

County: Greene

P. I. Number: 0004292

Federal Route Number: 278

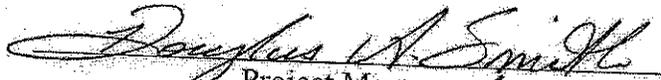
State Route Number: 12

County Road Number: None

Recommendation for approval:

DATE 3-9-07

DATE 3-9-07


Project Manager


District Engineer

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

DATE _____

DATE 3-16-07

DATE _____

DATE _____

DATE _____

DATE _____

State Transportation Planning Administrator


State Transportation Programming Engineer

State Environmental/Location Engineer

State Traffic Safety and Design Engineer

Project Review Engineer

State Bridge & Structural Design Engineer

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
PROJECT CONCEPT REPORT

District Two Design Office

Project Number: *STP-0004-00 (292)*

County: *Greene*

P. I. Number: *0004292*

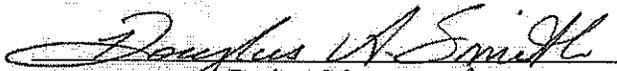
Federal Route Number: *278*

State Route Number: *12*

County Road Number: *None*

Recommendation for approval:

DATE *3-9-07*



Project Manager

DATE *3-9-07*



District Engineer

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

DATE _____

State Transportation Planning Administrator

DATE _____

State Transportation Programming Engineer

DATE _____

State Environmental/Location Engineer

DATE *3-13-07*



State Traffic Safety and Design Engineer

DATE _____

Project Review Engineer

DATE _____

State Bridge & Structural Design Engineer

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
PROJECT CONCEPT REPORT**

District Two Design Office

Project Number: *STP-0004-00 (292)*

County: *Greene*

P. I. Number: *0004292*

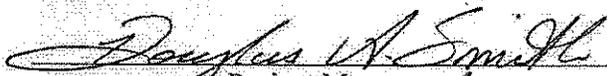
Federal Route Number: *278*

State Route Number: *12*

County Road Number: *None*

Recommendation for approval:

DATE *3-9-07*


Project Manager

DATE *3-9-07*


District Engineer

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

DATE _____

State Transportation Planning Administrator

DATE _____

State Transportation Programming Engineer

DATE _____

State Environmental/Location Engineer

DATE _____

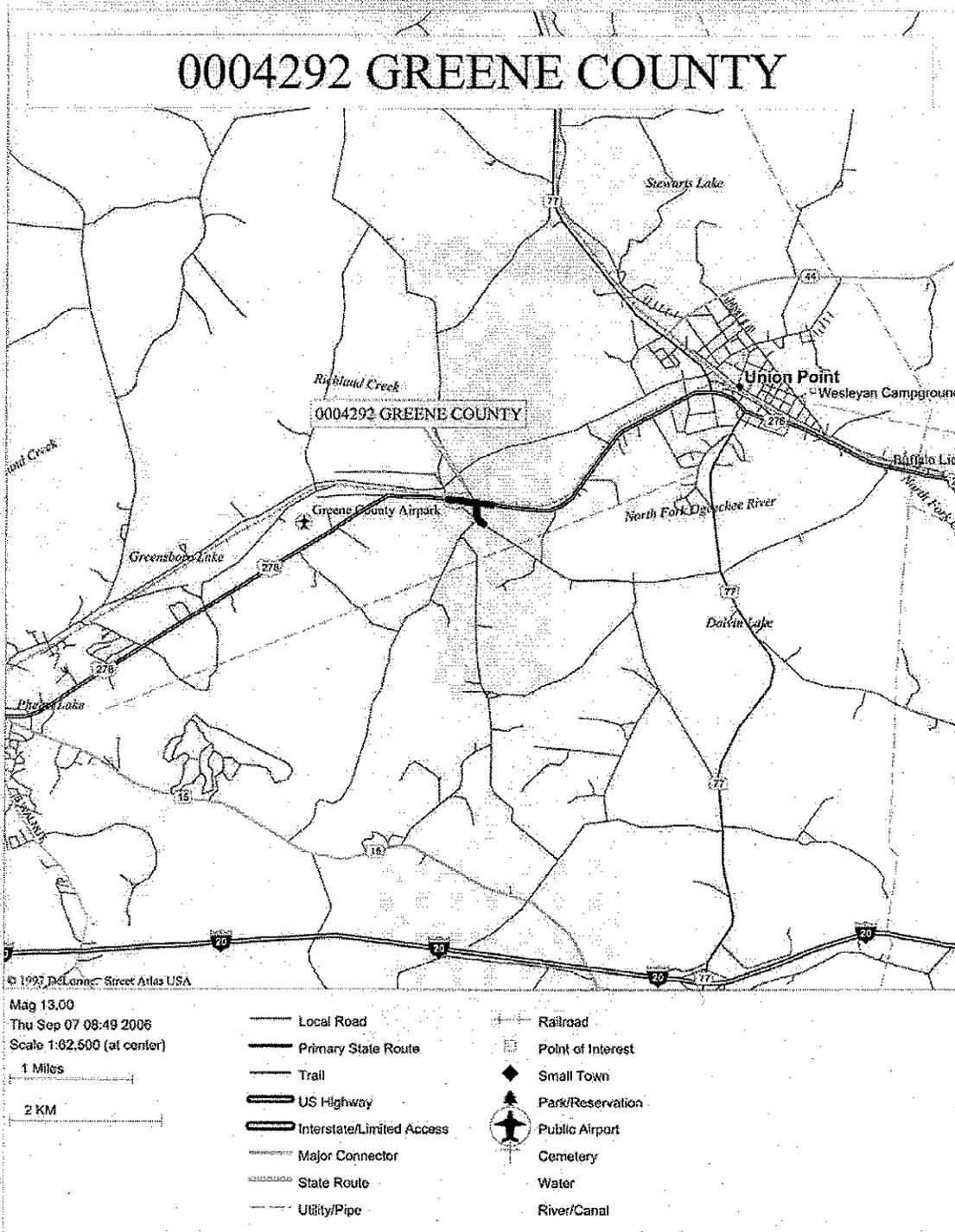
State Traffic Safety and Design Engineer

DATE _____

Project Review Engineer

DATE _____

State Bridge & Structural Design Engineer



Need and Purpose: *See Attachment # 1*

Description of the proposed project: *This project consists of intersection improvements on SR 12 / US 278 at CR 110 / Brick House Road and CR 110 / Cunningham Road. CR 110 / Brick House Road will be relocated approximately 1056-ft. east of the current intersection (MP 16.12) with SR 12 / US 278 to provide better sight distance from both approaches to the intersection. CR 110 / Cunningham Road will be realigned to the west of the existing intersection to provide better sight distance along SR 12. The project shall begin at MP 15.76 and end at MP 16.40. SR 12 will be comprised of 1 - 12-ft. travel lane in each direction with a 12-ft. flush median and 10-ft. rural shoulders (4-ft. paved each) each side. Horizontal and vertical alignments will be corrected to meet current GDOT ASHTO Green Book design criteria. CR 110 / Brick House Road and Cunningham Road will be comprised of 1 - 12-ft. travel lane in each direction with 10-ft. grassed shoulders each side. On-Site detours shall be used to facilitate traffic through the area during construction due to reconstruction of the poor vertical alignment of SR 12 / US 278.*

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

PDP Classification: Minor Major

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

Functional Classification: *SR 12 - Rural Minor Arterial
CR 110 - Local Road*

U. S. Route Number(s): 278
County Road Number(s): 110

State Route Number(s): 12

Traffic (AADT):

SR 12 / US 278:	Current Year: 6300 (2013)	Design Year: 8000 (2033)
CR 110:	1150 (2013)	1450 (2033)

Existing design features:

- Typical Section: *SR 12 - 1 - 12-ft. travel lane in each direction with 5-ft. grassed shoulders each side - CR 110 / Brick House Road / Cunningham Road - 1 - 10-ft. travel lane in each direction with 3-5-ft. grassed shoulders*
- Posted speed: 55 MPH Maximum degree of curvature: NA
- Maximum grade: *SR 12 - 6%, CR 110 - 3%*
- Width of right of way: *SR 12 - 100-ft., CR 110 - 60-ft. to 100-ft.*
- Major structures: *None*
Sufficiency Rating: NA
- Major interchanges or intersections along the project: *None*
- Existing length of roadway: *SR 12 - 0.64 miles
CR 110 - 0.28 miles*

Proposed Design Features:

- Proposed typical section(s): *SR 12 - 1 - 12-ft. travel lane in each direction with 10-ft. rural shoulders in each direction (4-ft. each paved), CR 110 - 1 - 12-ft. travel lane in each direction with 10-ft. grassed shoulders*
- Proposed Design Speed Mainline: *SR 12 - 55 MPH, CR 110 - 35 MPH*
- Proposed Maximum grade Mainline: *5%*
- Maximum grade allowable Mainline: *5%*
- Proposed Maximum grade Side Street: *10%*
- Maximum grade allowable on Side Streets: *10%*
- Proposed Maximum grade driveway: *11%*
- Proposed Maximum degree of curve: *960-ft.*
- Maximum degree allowable: *SR 12 - 1060-ft., CR 110 - 340-ft.*
- Right of way
 - Width: *SR 12 - Additional 10-ft to 12-ft strip parcels*
CR 110 - 100-ft. symmetrical along realignment portion - 15-ft. strips on existing alignment
 - Easements: Temporary , Permanent , Utility , Other .
 - Type of access control: Full , Partial , By Permit , Other .
 - Number of parcels: *7* Number of displacements: *0*
 - Business: *0*
 - Residences: *0*
 - Mobile homes: *0*
 - Other: *0*
- Structures:
 - Bridges: *None*
 - Retaining walls: *None*
- Major intersections and interchanges: *None*
- Traffic control during construction: *Alternate "A" - On-site detours may be required to facilitate traffic during construction to correct substandard grades and vertical curves on SR 12 / US 278.*
- Design Exceptions to controlling criteria anticipated:

	<u>UNDETERMINED</u>	<u>YES</u>	<u>NO</u>
HORIZONTAL ALIGNMENT:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ROADWAY WIDTH:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SHOULDER WIDTH:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
VERTICAL GRADES:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
CROSS SLOPES:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
STOPPING SIGHT DISTANCE:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SUPERELEVATION RATES:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
HORIZONTAL CLEARANCE:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SPEED DESIGN:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
VERTICAL CLEARANCE:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
BRIDGE WIDTH:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
BRIDGE STRUCTURAL CAPACITY:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- Design Variances: *None Anticipated.*
- Environmental concerns: *The CSX railroad that runs parallel to SR 12 is historic. A USACOE 404 Permit is applicable to this project.*

- Anticipated Level of environmental analysis:
 - Are Time Savings Procedures appropriate? Yes , No
 - Categorical exclusion
 - Environmental Assessment/Finding of No Significant Impact (FONSI) , or
 - Environmental Impact Statement (EIS) .

- Utility involvements:
 - Telephone - *BellSouth Telecommunications, Inc. - Windstream Communications, Inc.*
 - Power - *Rayle EMC*
 - Water - *City of Greensboro*
 - Sewer - *City of Greensboro*
 - Gas - *None*
 - Cable TV - *None*
 - Railroad - *CSX Railway Inc.*

Project responsibilities:

- Design: *District 2*
- Right of Way Acquisition: *District 2*
- Relocation of Utilities: *District 2*
- Letting to contract: *Office of Contracts Administration*
- Supervision of construction: *Madison Area Engineer's Office*
- Providing material pits: *In Contract*
- Providing detours: *In Contract*

Coordination

- Concept meeting date: *March 9, 2007*
- P. A. R. meetings: *None Required*
- FEMA, USCG, and/or TVA: *None*
- Public involvement: *None*
- Local government commitments: *The local governments will be asked to relocate their utilities at their expense.*
- Other projects in the area: *0005310 and 232210 Greene County*
- *VE STUDY REQUIRED: NO.*

Scheduling – Responsible Parties' Estimate

- Time to complete the environmental process: *1 Year*
- Time to complete preliminary construction plans: *1 Year*
- Time to complete right of way plans: *3 Months*
- Time to complete the Section 404 Permit: *1 Year*
- Time to complete final construction plans: *6 Months*
- Time to complete ^{the} purchase right of way: *1 Year*

Other alternates considered:

A "No Build" alternate was considered and found to be unfeasible because this would not correct the substandard angle of the intersection nor the sight distance problems thereby not correcting the existing operational problems at this intersection.

Comments:

1. *District 2 Design Office recommends approval of Alternate "A" of this concept as written.*
2. **GDOT Utility Department – Railroad Coordination unit** - *Railroad warning device design should include preemption capability and Constant Warning Time detection equipment for future traffic signal inter-connect cable.*
3. **Concept Team Meeting** - *While meeting on the project site, a property owner came up and asked if the roadbed could be removed at the intersection and his drive extended to SR 12 instead of using a cul-de-sac on Brick House Road. He was advised that this could be done and provisions will be made to accomplish this request. He was also advised that Greene County would have to approve the return of the existing right of way on abandoned portions of Brick House Road to his ownership.*
4. **GDOT Area Engineer's Office** – *Stated that the grade changes could possibly be done under traffic. However, it would be best to count on an on-site detour for now.*

Attachments:

1. Need & Purpose
2. Traffic Data
3. Cost Estimates:
 - a. Construction including E&C
4. Typical sections
5. Pavement Design
6. Location and Design Notice

Need and Purpose Statement

Project: STP-0004-00 (292)

P.I. #: 0004292

Greene County

Intersection improvements on Sr 12 / US 278 at CR 110 / Brick House Road

Location / Background:

This project is located on SR 12 / US 278 at CR 110 between the City of Greensboro and the City of Union Point. This project originated through several complaints from the local government and citizens regarding the safety of this intersection. CR 110 / Brick House Road currently intersects SR 12 on the south side at a very acute angle (< than 60 Degrees) which hinders sight distance from oncoming traffic from the western approach. Some work has been done to the existing intersection to align it to an angle closer to 90 degrees but this work does not allow for adequate sight distance. Also, CR 110 / Cunningham Road intersects SR 12 on the north side at an acute angle also (< than 60 Degrees). This portion of CR 110 is now the main entrance for a newly constructed Greene County Recreational facility which is now a traffic generator as well.

Functional Classification:

SR 12 / US 278 - Rural Minor Arterial

CR 110 - Local Road

Roadway Characteristics:

SR 12 / US 278 is comprised of 1 - 12-ft. travel lane in each direction with 5-ft. grassed shoulders each side. The horizontal alignment is straight with no curves in the vicinity of the project. The vertical alignment is poor with short vertical curves and grades that vary from 1% to 7%. This does not meet current AASHTO criteria and will need to be corrected.

CR 110 / Brick House Road is comprised of 1 - 10-ft. travel lane in each direction with 3 to 5-ft. grassed shoulders each side. The horizontal alignment is relatively straight with no curves in the vicinity of the project. The vertical alignment is comprised of grades ranging from 1% to 3% which meet current AASTHO Green Book criteria.

CR 110 / Cunningham Road is also comprised of 1 - 10-ft. travel lane in each direction with 3 to 5-ft. grassed shoulders each side. The horizontal alignment is relatively straight with no curves in the vicinity of the project. The vertical alignment is comprised of grades ranging from 1% to 4% which meet current AASTHO Green Book criteria.

CR 110 / Brick House Road currently intersects SR 12 / US 278 at an acute southeasterly angle of less than 60 degrees which does not meet current Green Book requirements nor GDOT policy. There does appear to be adequate sight distance in each direction along SR 12 from the intersection. The intersection of SR 12 and CR 110 is near the intersection of SR 12 and CR 110 / Cunningham Road, however, the local roads are offset horizontally which further complicates the intersections. CR 110 / Cunningham Road intersects SR 12 / US 278 at an acute angle on the north side of SR 12. This road is now being used as the main entrance into the Greene County Recreational Department facilities which causes traffic spikes during baseball, soccer and football seasons. This side of the intersection is further complicated by the CSX railroad crossing on CR 110 / Cunningham Road.

Travel Demand and Operational Conditions:

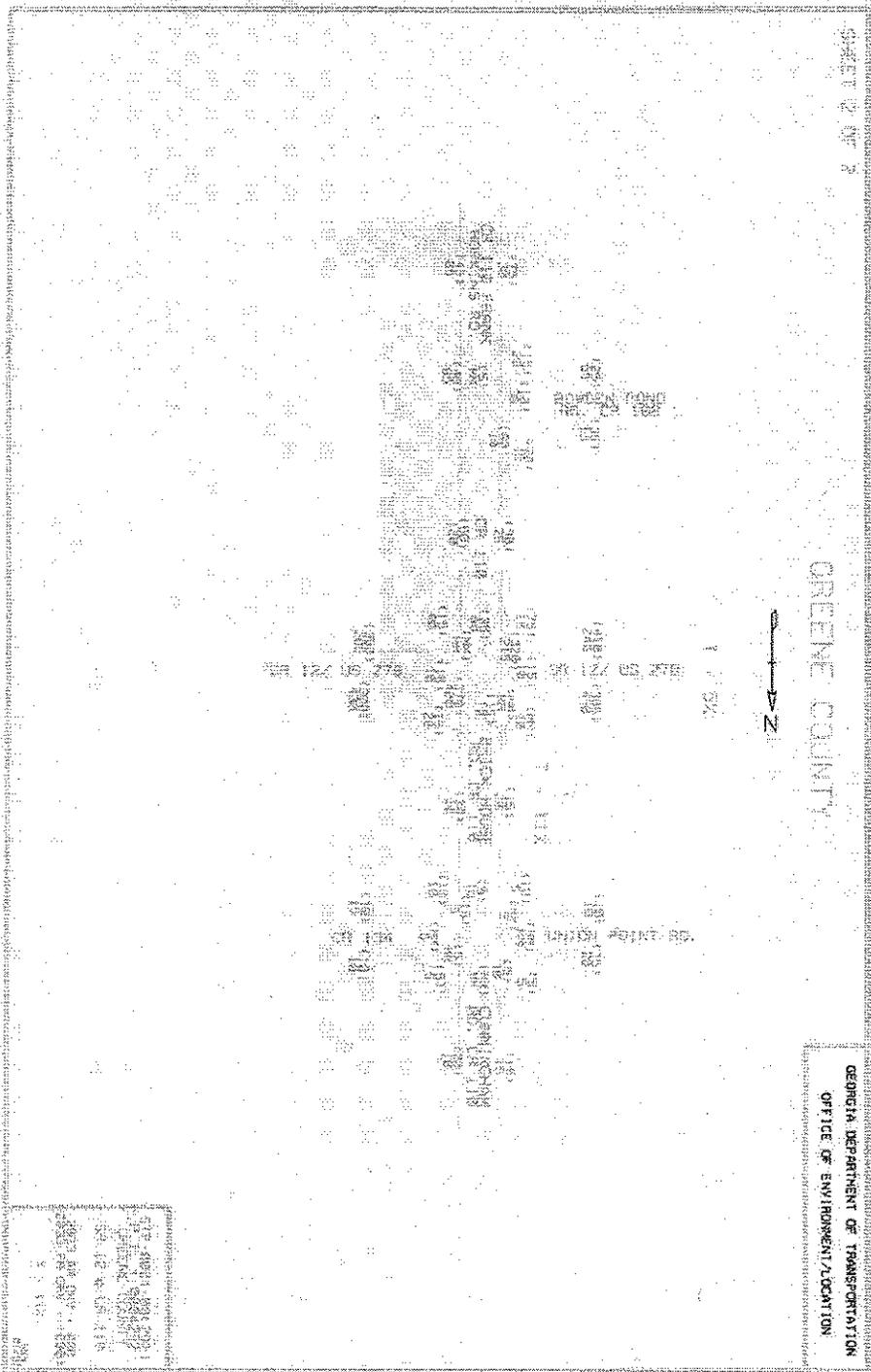
SR 12 / US 278 serves as a commuter route for local traffic as well as transient traffic travelling from the City of Union Point to the City of Greensboro which is the county seat and local traffic that is using the recreational facilities. Traffic is comprised of cars, trucks, school buses and emergency vehicles. SR 12 appears to have adequate capacity and is operating on a service level of A with little to no congestion in this area. However, there is the presence of turning movements onto both sides of CR 110 from SR 12 and vice-versa. There is a recreational park located just north of SR 12 which is another traffic generator at times. Vehicles attempting to turn onto SR 12 from CR 110 are challenged with sight distance due to the poor horizontal alignment of the intersection. An accident report has been generated for the years of 2000 through 2005. Of the 26 accidents that occurred in this time frame, 5 were angle intersecting, 4 were rear end type accidents and 3 were sideswipe type accidents. The remaining 14 accidents were off-road accidents where vehicles struck objects.

Logical Termini:

The logical termini for this project is based on the need to provide safer turning opportunities at the intersection of SR 12 and CR 110 / Brick House Road and SR 12 at CR 110 / Cunningham Road. SR 12 is not currently earmarked for any major improvement within the next 10 to 15 years. The logical terminus for this project should be limited to the length needed to provide turn lanes and sight distance to the intersections of SR 12 / US 278 and CR 110 / Brick House Road / Cunningham Road.

Project Need and Purpose:

The need exists to re-align CR 110 / Brick House Road to a new location along SR 12 where adequate sight distance and proper turning movements can be provided. The horizontal and vertical alignments of SR 12 and CR 110 need to be corrected to meet current AASTHO Green Book criteria and current GDOT design guidelines. The need also exist to provide auxilliary lanes to accommodate turning vehicles. The intersection of SR 12 at CR 110 / Cunningham Road needs to be realigned to the west to meet current AASHTO criteria and provide turn lanes for peak hour traffic volumes. The existing railroad crossing would have to be reconstructed in order to accomplish this work.



SHEET 1 OF 2

GREENE COUNTY



GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE OF ENVIRONMENT/LOCATION

PROJECT NO. STP-0004-00 (292)
PI # 0004292
COUNTY GREENE
SHEET 1 OF 2

STP-0004-00 (292) Greene County

P.I. # 0004292

Section ROADWAY

Item Number	Quantity	Units	Unit Price	Item Description	Cost
150-1000	1	LS	75000.00	TRAFFIC CONTROL -	75000.00
201-1500	1	LS	50000.00	CLEARING & GRUBBING -	50000.00
205-0001	6822	CY	4.28	UNCLASS EXCAV	29198.16
206-0002	22853	CY	4.99	BORROW EXCAV, INCL MATL	114036.47
207-0203	50	CY	40.23	FOUND BK FILL MATL, TP II	2011.50
310-1201	0	TN	20.95	GR AGGR SUBBASE CRS, INCL MATL	0.00
318-3000	500	TN	17.95	AGGR SURF CRS	8975.00
402-1812	500	TN	47.81	RECYCLED ASPH CONC LEVELING, INCL BITUM MATL & H LIME	23905.00
402-3111	2120	TN	42.90	RECYCLED ASPH CONC 19 MM MIX, GP 1 OR 2, INCL BITUM MATL & H LIME	90948.00
402-3121	5400	TN	47.69	RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME	257526.00
402-3130	1896	TN	45.39	RECYCLED ASPH CONC 12.5 MM SUPERPAVE, GP 2 ONLY, INCL BITUM MATL & H LIME	86059.44
413-1000	5400	GL	1.25	BITUM TACK COAT	6750.00
446-1100	3070	LF	4.50	PVMT REINF FABRIC STRIPS, TP 2, 18 INCH WIDTH	13815.00
456-2015	1	GLM	780.54	INDENTATION RUMBLE STRIPS - GROUND-IN-PLACE (SKIP)	780.54
500-3101	20	CY	505.48	CLASS A CONCRETE	10109.60
511-1000	8000	LB	0.85	BAR REINF STEEL	6800.00
550-1180	264	LF	34.83	STORM DRAIN PIPE, 18 IN, H 1-10	9195.12
550-1240	54	LF	43.96	STORM DRAIN PIPE, 24 IN, H 1-10	2373.84
550-2180	254	LF	26.67	SIDE DRAIN PIPE, 18 IN, H 1-10	6774.18
550-3518	14	EA	609.61	SAFETY END SECTION 18 IN, STORM DRAIN, 6:1 SLOPE	8534.54
550-4218	6	EA	546.44	FLARED END SECTION 18 IN, STORM DRAIN	3278.64
550-4224	2	EA	625.01	FLARED END SECTION 24 IN, STORM DRAIN	1250.02
634-1200	24	EA	94.35	RIGHT OF WAY MARKERS	2264.40
643-0010	1200	LF	5.26	FIELD FENCE WOVEN WIRE	6312.00
643-8000	2	EA	455.12	GATE, FIELD FENCE -	910.24
Section Sub Total:					\$816,807.69

Section EROSION CONTROL

Item Number	Quantity	Units	Unit Price	Item Description	Cost
603-2181	20	SY	38.34	STN DUMPED RIP RAP, TP 3, 18 IN	766.80
603-7000	20	SY	4.26	PLASTIC FILTER FABRIC	85.20
700-6910	10	AC	831.10	PERMANENT GRASSING	8311.00
700-7000	20	TN	58.94	AGRICULTURAL LIME	1178.80
700-7010	46	GL	18.60	LIQUID LIME	855.60
700-8000	6	TN	287.58	FERTILIZER MIXED GRADE	1725.48
700-8100	1800	LB	1.68	FERTILIZER NITROGEN CONTENT	3024.00
716-2000	6000	SY	1.12	EROSION CONTROL MATS, SLOPES	6720.00
Section Sub Total:					\$22,666.88

Section TEMPORARY EROSION CONTROL					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
163-0232	5	AC	519.64	TEMPORARY GRASSING	2598.20
163-0240	48	TN	203.93	MULCH	9788.64
163-0300	6	EA	1810.75	CONSTRUCTION EXIT	10864.50
163-0520	500	LF	14.04	CONSTRUCT AND REMOVE TEMPORARY PIPE SLOPE DRAIN	7020.00
163-0530	1000	LF	3.01	CONSTRUCT AND REMOVE BALED STRAW EROSION CHECK	3010.00
165-0010	1000	LF	1.06	MAINTENANCE OF TEMPORARY SILT FENCE, TP A	1060.00
165-0030	550	LF	1.34	MAINTENANCE OF TEMPORARY SILT FENCE, TP C	737.00
165-0070	500	LF	1.76	MAINTENANCE OF BALED STRAW EROSION CHECK	880.00
165-0101	6	EA	481.00	MAINTENANCE OF CONSTRUCTION EXIT	2886.00
167-1000	2	EA	1561.24	WATER QUALITY MONITORING AND SAMPLING	3122.48
167-1500	12	MO	924.68	WATER QUALITY INSPECTIONS	11096.16
171-0010	2000	LF	1.93	TEMPORARY SILT FENCE, TYPE A	3860.00
171-0030	1000	LF	3.31	TEMPORARY SILT FENCE, TYPE C	3310.00
Section Sub Total:					\$60,232.98

Section ON-SITE DETOUR					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
205-0001	12266	CY	4.28	UNCLASS EXCAV	52498.48
206-0002	16355	CY	4.99	BORROW EXCAV, INCL MATL	81611.45
400-3205	352	TN	58.38	ASPH CONC 12.5 MM OGFC, GP 2 ONLY, INCL BITUM MATL & H LIME	20549.76
402-3121	940	TN	47.69	RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME	44828.60
402-4012	420	SY	10.25	2 IN RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME	4305.00
413-1000	342	GL	1.25	BITUM TACK COAT	427.50
429-1000	2	EA	516.53	RUMBLE STRIPS	1033.06
570-1000	1	LS	4568.15	CONSTR, MAINT & REMOVE DETOUR DRAINAGE STR, NO -	4568.15
Section Sub Total:					\$209,822.00

Section RAILROAD GRADE CROSSING NO 1					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
232-0001	1	LS	43825.00	AT-GRADE CROSSING CONSTRUCTION	43825.00
647-1000	1	LS	203492.00	GATES, LIGHTS AND BELLS FOR RAILROAD CROSSING	203492.00
Section Sub Total:					\$247,317.00

Section SIGNING AND MARKING					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
636-1033	72	SF	21.15	HIGHWAY SIGNS, TP 1 MATL, REFL SHEETING, TP 9	1522.80
636-2080	100	LF	9.22	GALV STEEL POSTS, TP 8	922.00
652-0110	8	EA	38.96	PAVEMENT MARKING, ARROW, TP 1	311.68
652-0120	4	EA	39.71	PAVEMENT MARKING, ARROW, TP 2	158.84
652-5451	8740	LF	0.15	SOLID TRAFFIC STRIPE, 5 IN, WHITE	1311.00
652-5452	8740	LF	0.16	SOLID TRAFFIC STRIPE, 5 IN, YELLOW	1398.40
652-5701	102	LF	2.70	SOLID TRAF STRIPE, 24 IN, WHITE	275.40
652-6502	800	GLF	0.10	SKIP TRAFFIC STRIPE, 5 IN, YELLOW	80.00
652-9001	84	SY	1.92	TRAFFIC STRIPE, WHITE	161.28
652-9002	114	SY	1.83	TRAFFIC STRIPE, YELLOW	208.62
654-1001	26	EA	3.58	RAISED PVMT MARKERS TP 1	93.08
654-1003	28	EA	3.78	RAISED PVMT MARKERS TP 3	105.84
Section Sub Total:					\$6,548.94

Total Estimated Cost: \$1,363,395.49

Subtotal Construction Cost	\$1,363,395.49
E&C Rate 10.0 %	\$136,339.55
Inflation Rate 0.0 % @ 0.0 Years	\$0.00
Total Construction Cost	\$1,499,735.04
Right Of Way	\$0.00
ReImb. Utilities	\$0.00
Grand Total Project Cost	\$1,499,735.04

Utility and R/w Estimates to be provided by the respective offices.

Preliminary Right of Way Cost Estimate

Phil Copeland
 Right of Way Administrator
 By: Jerry Milligan

Date: September 15, 2006

Project: STP-0004-00(29)Greene

Existing/Required R/W: Varies/Varies

Project Termini: Intersection Improvement on SR 12 / US 278 @ CR 110 between
 Greensboro and Union Point

Project Description: SR 12 Intersection Improvement @ CR 110

P.I. Number: 0004292

No. Parcels: 7

Land:

R/W Agricultural / Residential : 2.85 acres @ \$ 25,000 / acre	\$ 71,250	
Esmt. Ag / Res : 2.18 acres @ \$ 25,000 / acre @ 50%	<u>27,250</u>	\$ 98,500

Improvements : Misc. Site Improvement		10,000
--	--	--------

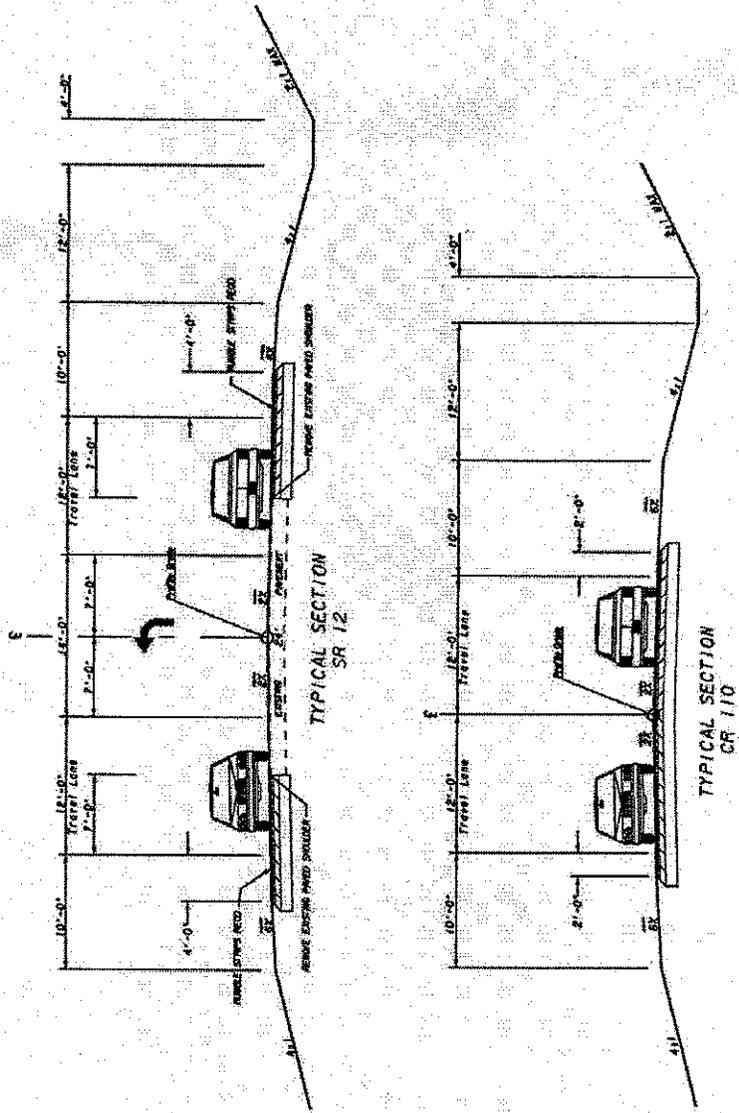
Relocation: Residential (0)		
Commercial (0)		0

Damage : None		<u>0</u>
----------------------	--	----------

Net Cost		\$ 108,500
----------	--	------------

Net Cost		\$ 108,500
Scheduling Contingency	55 %	59,675
Adm/Court Cost	60 %	100,905
Inflation Factor	40 %	<u>107,632</u>
		\$ 376,712

Total Cost \$ 376,725



FLEXIBLE PAVEMENT DESIGN ANALYSIS

Project: STP-0004-00 (292) County: GREENE
 P.I. no.: 0004292
 Description: INTERSECTION IMPROVEMENTS ON SR 12 AR CR 110

Traffic Data (NOTE: AADTs are one-way)
 24-hour Truck Percentage: 8.50%
 AADT initial year of design period: 3,150 vpd (2013)
 AADT final year of design period: 4,000 vpd (2033)
 Mean AADT (one-way): 3,575 vpd

Design Loading
 Mean AADT LDF Trucks 18-K ESAL Total Daily Loads
 3,575 * 1.00 * 0.085 * 0.84 = 256

Total predicted design period loading = 256 * 20 * 365 = 1,868,800

Design Data
 Terminal Serviceability Index: 2.50
 Soil Support: 3.00
 Regional Factor: 1.60

PROPOSED FLEXIBLE PAVEMENT STRUCTURE

Material	Thickness		Structural Coefficient	Structural Value
	Inches	(mm)		
9.5 mm Superpave	1.25	(32)	0.44	0.55
19 mm Superpave	2.00	(51)	0.44	0.88
25 mm Superpave	1.25	(32)	0.44	0.55
	5.75	(146)	0.30	1.73
Graded Aggregate Base	12.00	(305)	0.16	1.92
Required SN = 4.68			Proposed SN = 5.63	

>>> Proposed pavement is 20.4% Overdesigned <<<

Remarks: PAVEMENT SECTION USED FOR STANDARD MINOR PROJECT.

Prepared by ALAN SMITH March 02, 2007
 DISTRICT DESIGN ENGINEER Date

Recommended _____
 District Engineer Date

Approved _____
 State Pavement Engineer Date

NOTICE OF LOCATION AND DESIGN APPROVAL

**STP-0004-00 (292) Greene County
P.I. # 0004292**

Notice is hereby given in compliance with Georgia Code 22-22-109 that the Georgia Department of Transportation has approved the Location and Design of the above project.

The date of location and design approval was MAY 1, 2007
Date of Approval

This project consists of intersection improvements on SR 12 / US 278 at CR 110 / Brick House Road / Cunningham Road. The project will begin at MP 15.75 and end at MP 16.40.

CR 110 / Brick House Road will be relocated approximately 1056-ft. east of the current intersection along SR 12 / US 278 (MP 16.12) to provide better sight distance from both approaches to the intersection. CR 110 / Cunningham Road will be relocated approximately 150-ft. west of the existing intersection with SR 12 to provide adequate sight distances. Turn lanes and auxiliary lanes will be provided at both intersections to ensure safer turn movements.

SR 12 will be comprised of 1 – 12-ft. travel lane in each direction with a 12-ft. left turn lane constructed on the westbound approach to the intersection and 10-ft. rural shoulders (4-ft. paved each) each side. CR 110 / Brick House Road / Cunningham Road shall consist of 1 – 12-ft. travel lane in each direction with 10-ft. grassed shoulders each side. Horizontal and vertical alignments of all roadways will be corrected to meet current GDOT ASHTO Green Book design criteria. On-Site Detours will be used during construction to facilitate traffic.

Drawings of the proposed project are on file and are available for inspection at the Georgia Department of Transportation.

Bryan Gibbs
Bryan.Gibbs@dot.state.ga.us
1570 Bethany Road
Madison, Georgia 30650

Any interested party may obtain a copy of the drawings or maps or plats or portions thereof by paying a nominal fee and requesting in writing to:

GEORGE M. BREWER
PRECONSTRUCTION ENGINEER
P.O. BOX 8
TENNILLE, GEORGIA 31089
478-552-4629

Any written request or communication in reference to this project SHOULD include the Project and PI numbers as noted at the top of this notice.