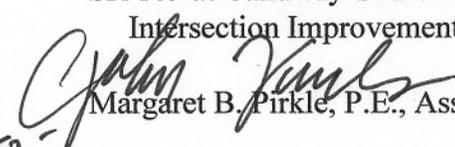


D.O.T. 66

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE P. I. No. 322240, Troup County **OFFICE** Preconstruction
STP-005-1(21)
SR 109 at Callaway Church Road
Intersection Improvements **DATE** July 13, 2005

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

TO *for* 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
Ben Buchan
Thomas Howell
BOARD MEMBER
David Millen
Bill Rountree

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

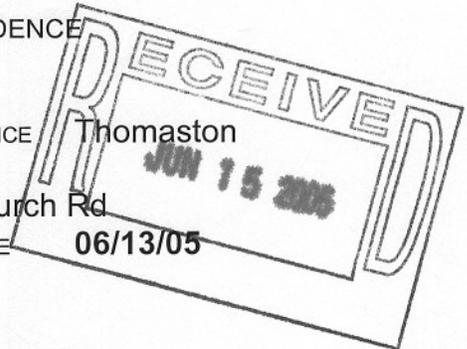
FILE STP-005-1(21) TROUP
P.I. 322240
Intersection improvement of SR 109 at Callaway Church Rd

FROM Thomas B. Howell, P.E., District Engineer

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

SUBJECT **Revised Project Concept Report**

OFFICE Thomaston
DATE 06/13/05



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 revised concept is a result of the downsizing of the project scope and termini. This scope reduces the project termini on the east side of the intersection of SR 109 at Callaway Church Rd only.

The revised 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 6/24/05


State Transportation Planning Administrator

DBM:WJR:LTR

C: Brian Summers, Project Review Engineer
Harvey Keepler, State Environmental/Location Engineer
Keith Golden, State Traffic and Safety Design Engineer
Joe Palladi, State Transportation Planning Administrator
Jamie Simpson, State Transportation Programming Engineer
Paul Liles, State Bridge Design Engineer
Debra Benton, District Environmentalist
Ethel White, Support Assistant

Existing Conditions

The existing roadway has four 12-foot lanes with three-foot shoulders from the interchange of I-85 to the intersection of Callaway Church Road. The posted speed limit is 55 mph. The route is functionally classified as an urban minor arterial. The percentage of trucks on the SR 109 is estimated at two percent (2%) from the I-85 interchange to Callaway Church Road. East of Callaway Church Road the estimated percentage of trucks increases to fifteen percent (15%). There is a flashing signal that warns travelers that a stoplight is approaching when headed westbound on SR 109 before the intersection of SR 109 and Callaway Church Road. There are no other projects planned within the vicinity at this time.

Proposed Improvements

SR 109 is proposed to be widened to a four lane section from the intersection of Callaway Church Road and tapered to the existing 2 lane section approximately one third (1/3) of a mile east of the intersection. Vertical and horizontal alignment improvements have been proposed on SR 109 east of Callaway Church Road. There will be a 34 foot depressed median along the route.

Alignment improvements have also been proposed for the intersections of SR 109 and I-85 northbound and I-85 southbound.

Existing and Projected Traffic Conditions

Level of service (LOS) is defined as a qualitative measure describing operational conditions within a traffic stream. There are six identified LOS with letters 'A' through 'F'. LOS A represents the best operating conditions and LOS F represents the worst. LOS C is considered as acceptable and marks the beginning of a range of traffic flow in which level of driving comfort declines noticeably on the roadway. LOS E represents at or near capacity for traffic flow. LOS F represents heavily congested flow with traffic demands exceeding capacity.

The current traffic for SR 109 between I-85 and Callaway Church Road is 14,800 vpd, indicating a LOS 'A'. Approximately thirty-eight percent (38%) of the eastbound and westbound traffic on SR 109 utilizes Callaway Church Road. The annual average daily traffic (AADT) for 2032 is projected to be 28,235 vpd between I-85 and Callaway Church Road, indicating a LOS 'C'.

Logical Termini

The western terminus is the southbound exit ramp of the I-85 interchange. The project's eastern terminus is Stewart Road.

Project Linkage

This project links the City of Lagrange and I-85 to Callaway Church Road and Stewart Road. There is a Wal-Mart distribution facility on Callaway Church Road and a Milliken textile plant is located on Stewart Road.

Environmental Justice

This project bisects two Census Tracts (CT), CT 13285960502 to the north and CT 13285960600 to the south. Both CTs are located within Troup County. There is a significant difference in the percentage of minority population between the two CTs, however, from careful review of this project and the demographic information in Table 1, this project does not seem to disproportionately effect the environment for minorities or the elderly population.

Table 1: Demographics

Census Tract	% Minority	\$0-25K Per household	\$25-50K Per household	\$50-75K Per household	\$75-100K Per household	\$100K+ Per household	1990 Pop.	2000 Pop.
13285960502	27%	28%	30%	24%	14%	4%	4215	4943
13285960600	73%	49%	30%	14%	5%	3%	4823	4946

Bike and Pedestrian Facilities

There are no proposed bike and pedestrian improvements within this corridor in the GDOT Statewide Bicycle & Pedestrian Plan. However, this section of SR 109 is in the draft Chattahoochee Flint Regional Bicycle and Pedestrian Plan. The route has been identified, but there are no facilities planned or constructed at this time. Additionally, bicycle and pedestrian facilities should be considered for inclusion within this project to connect residential developments to the east of the project with the commercial and industrial facilities located within and in proximity to the project.

Accident Data

Table 2 depicts the accident rates on SR 109 between I-85 and Callaway Church Road. A review of Table 2 shows that the accident, injury, and fatality rates on SR 109 between I-85 and Callaway Church Road were below the statewide averages for the years 2000, 2001, and 2002. Accident rate data for the years 2003 and 2004 is not yet available. The predominant accident type was rear end collisions in all three years.

Table 2: Accidents / Accident Rates for SR 109 between I-85 and Callaway Church Road
For the Years 2000, 2001, 2002

Year	2000		2001		2002	
Comparison	SR 109	Statewide	SR 109	Statewide	SR 109	Statewide
Accidents	8		7		3	
Accident Rate	342	660	248	564	111	577
Injuries	3		1		0	
Injury Rate	128	258	35	218	0	222
Fatalities	0		0		0	
Fatality Rate	0	1.44	0	1.35	0	1.24

Need and Purpose

The need for improvements at the intersection of SR 109 and Callaway Church Road is due to the volume of traffic utilizing both Callaway Church Road and SR 109. The purpose is to alleviate a large traffic queue along Callaway Church Road and to better utilize the two westbound lanes on SR 109.

There is a need for intersection improvements at the entrance and exit ramps of I-85. Vehicles that are exiting I-85 and headed westbound on SR 109 must share the same intersection with vehicles headed westbound on SR 109 that are turning left onto the entrance ramp of I-85 where there is not currently a traffic signal. The purpose of the improvements is to mitigate safety hazards at the intersection of SR 109, the I-85 southbound exit ramp, and the I-85 northbound entrance ramp.

Project Location: *This project is located east of the City of Lagrange, Georgia. The proposed improvement is to widen S.R. 109 from two to four through lanes from I-85 to Stewart Rd. just east of I-185.*

Description of the approved concept: *The approximate project length is 2.0 miles. The project begins at mile log 1531 on S.R. 109 and ends at mile log 1708. The project is located east of the City of Lagrange, Georgia between I-85 and I-185.*

The western terminus is I-85, where the project would tie to an existing four-lane section. The eastern terminus is programmed as I-185; however, this is not a logical terminus because I-185 is not an interchange. The eastern terminus should be Stewart Road (County Road 226) which is the first side street after I-185 that has a substantial traffic drop off.

At the projected future traffic volume levels, the widening of SR 109 would provide an increased level of service; Level of Service B. In addressing the operating conditions, the proposed improvement would also address roadway geometrics that do not meet current design standards; thereby providing a safer driving environment.

PDP Classification: Major X Minor _____

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

Functional Classification: *Urban Minor Arterial*

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

State Route Number(s): 109

Traffic (AADT) as shown in the approved concept:

Current Year: 12968 (2004) Design Year: 23422 (2024)

Proposed features to be revised:

The typical section from the approved concept report is as follows: Four-lane rural section with a 44' depressed median and 10' shoulders. All lanes will be 12' wide. Left and right turn lanes will be provided at all major intersections. This needs to be revised because the scope of the project changed to improve the existing intersection at Callaway Church Rd and lower the grade just east of that intersection.

The project termini from the approved concept report is as follows: Begin Mile Post 15.31 to End Mile Post 17.08. This needs to be revised because the scope of the project calls for a lesser impact thus shortening the project greatly.

The right-of-way limits from the approved concept report are as follows: Width 200 ft the entire length of the project with temporary easements. This needs to be revised because the scope of the project has changed the termini and widening to lesser amounts.

The revised alignment from the approved concept report is as follows: The alignment will straighten the horizontal curve just east of the intersection at Callaway Church Rd and follow the existing centerline to the end of the project. The widening will be symmetrical to accommodate the 4 lane section with a 44' depressed median. This needs to be revised because the scope of the project has shortened the needed alignment and changed to improve the intersection at Callaway Church Rd and lower the grade and straighten the curve just east of the intersection.

Describe the revised feature(s) to be approved:

Typical Section: Match existing typical section 4 lane with 34' depressed median to intersection of Callaway Church Rd and then taper to 2 lane typical section around Mile Post 16.00

Project Termini: Begin Mile Post 15.31 to End Mile Post 16.00+/-

Right of Way Limits: Width 120 ft with Temporary Easements

Revised Alignment: Alignment will be shifted north to straighten the horizontal curve and lowered to flatten the vertical curve just east of the intersection at Callaway Church Rd.

Updated traffic data (AADT):

Current Year: 5800 (2004)

Design Year: 10650 (2024)

Programmed/Schedule:

P.E. 1992

R/W: 2010

Construction: 2011

Revised cost estimates:

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

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

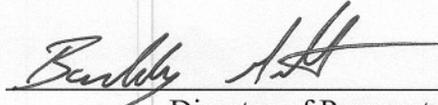
Recommendation: Recommend that the proposed revision to the concept be approved for implementation.

Attachments:

1. Sketch Map,
2. Cost Estimate, and
3. Other supporting documents.

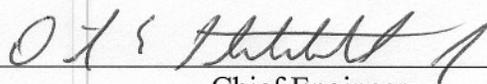
• **Exempt projects**

Concur:



Director of Preconstruction

Approve:



Chief Engineer

PRELIMINARY COST ESTIMATE

PROJECT NUMBER: STP-005-1(21)

COUNTY: TROUP

DATE: 04/20/05

ESTIMATED LETTING DATE: 2011

PREPARED BY: J SWIDERSKI

PROJECT LENGTH: 2.00 mi

 PROGRAMMING PROCESS CONCEPT DEVELOPMENT DURING PROJECT DEV.

PROJECT COST	
A. RIGHT-TO-WAY:	
1. PROPERTY (LAND & EASEMENT)	\$269,800
2. DAMAGES; RES: , BUS; , M.H.:	\$40,000
3. OTHER COST (ADM./COST, INFLATION)	\$652,406
SUBTOTAL:A	\$982,206
B. REIMBURSABLE UTILITIES:	
1. RAILROAD	\$
2. TRANSMISSION LINES	\$120,000
3. SERVICES	\$170,000
SUBTOTAL:B	\$290,000
C. CONSTRUCTION:	
1. MAJOR STRUCTURES	
a. OVERPASSES	\$
b. OTHER	\$
SUBTOTAL:C-1	\$0.00
2. GRADING AND DRAINAGE:	
a. EARTHWORK (52,000 cy @ \$5.00/cy)	\$260,000
b. DRAINAGE:	
1) Cross Drain Pipe (LUMP)	\$25,000
2) Curb and Gutter (1,400 ft @ \$10/ft)	\$14,000
3) Longitudinal System(include catch basins) Pipe(200 lf @ \$35.00/lf)	\$7,000

PROJECT COST		
SUBTOTAL:C-2		\$306,000
3. BASE AND PAVING:		
a. AGGREGATE BASE (5500 Ton @ \$15/Ton)		\$82,500
b. ASPHALT PAVING: Surface (2800 Ton @ \$32/ Ton)	\$89,600	
Binder (1100 Ton @ \$30/ Ton)	\$33,000	
Base (2200 Ton \$32/Ton)	\$70,400	
SUBTOTAL:C-3.b		\$193,000
c. CONCRETE PAVING		\$
d. OTHER (Bituminous Tack 1400 Gal @ \$ 1.00/Gal)		\$1,400
SUBTOTAL:C-3		\$276,900
4. LUMP ITEMS:		
a. GRASSING (8 ac @ \$1600.00/ac)		\$12,800
b. CLEARING AND GRUBBING (15 ac @ \$4000/ac)		\$60,000
c. LANDSCAPING		\$
d. EROSION CONTROL		\$150,000
e. TRAFFIC CONTROL		\$75,000
SUBTOTAL:C-4		\$297,800
5. MISCELLANEOUS:		
a. SIGNAL INSTALLATION		\$160,000
b. SIGNING - MARKING		\$15,000
c. V-GUTTER – (500 ft @ \$9/ft)		\$4,500
d. SIDEWALK (yd ² @\$20/yd ²)		\$
SUBTOTAL:C-5		\$179,500
6. SPECIAL FEATURES (NONE)		
SUBTOTAL:C-6		\$0.00

ESTIMATE SUMMARY			
A. RIGHT-OF-WAY ()		\$982,206.00	
B. REIMBURSABLE UTILITIES		\$290,000.00	
C. CONSTRUCTION			
1. MAJOR STRUCTURES		\$0.00	
2. GRADING AND DRAINAGE		\$306,000.00	
3. BASE AND PAVING		\$276,900.00	
4. LUMP ITEMS		\$297,800.00	
5. MISCELLANEOUS		\$179,500.00	
6. SPECIAL FEATURES		\$0.00	
SUBTOTAL CONSTRUCTION COST		\$1,060,200.00	
E. & C. (10%)		\$106,020.00	
INFLATION (5% PER YEAR)		\$159,030.00	
NUMBER OF YEARS	3		
TOTAL CONSTRUCTION COST		\$1,325,250.00	
GRAND TOTAL PROJECT COST		\$2,597,456.00	

This project is 100 percent in congressional district 8.