ORIGINAL TO GENERAL FILES

D.O.T. 66

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE STP-3003(1) Butts County
P. I. No. 343440

OFFICE Preconstruction

DATE October 10, 2002

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

TO SEE DISTRIBUTION

SUBJECT **PROJECT CONCEPT REPORT APPROVAL**

Attached for your files is the approval for subject project.

MBP/cj

Attachment

DISTRIBUTION:

David Mulling
Harvey Keepler
Jerry Hobbs
Herman Griffin
Michael Henry
Phillip Allen
Marta Rosen
Paul Liles
Ben Buchan
Gerald Ross
Thomas Howell
BOARD MEMBER

D.O.T. 66

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE: STP-3003(1) Butts County
P.I. No. 343440

OFFICE Preconstruction

DATE September 24, 2002

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

TO Frank L. Danchetz, P.E., Chief Engineer

SUBJECT PROJECT CONCEPT REPORT

This project comprises the South Jackson Bypass from SR 16 west of Jackson near Bert Road continuing southeasterly on new location and tying back into the mainline (SR 16) near Bibb Station. The total length of the bypass is 9.50 miles. State Route 16 is functionally classified as a rural minor arterial providing a connecting route for Carrollton, Newnan, Griffin, Jackson, Monticello, Eatonton and Sparta. Without construction of the bypass, the projected Level of Service (LOS) for Jackson is projected to be at a LOS "F." Accident data for inventoried years 1995-1997, indicate the accident rate average exceeded the statewide averages for this type facility with the majority being of the "rear end" and "angle intersecting" collision types. Base year traffic (2005) is 7,098 VPD and the design year (2025) traffic is 13,434 VPD.

The construction proposes two, 12' lanes with 10' rural shoulders (6.5' paved) with left and right turn lanes at the at-grade intersections. The two lane roadway will be built on four lane right-of-way (250' minimum) to accommodate future widening. Access will be partially controlled and the proposed speed design is 55 MPH. Traffic will be maintained on existing roads during construction.

Environmental concerns include requiring a COE 404 Permit; an Environmental Assessment will be prepared; a public hearing will be held; time saving procedures are not appropriate.

The estimated costs for this project are:

	PROPOSED	APPROVED	PROG DATE	LET DATE
Construction (includes E&C and inflation)	$15,308,000	$15,308,000	LR	LR
Right-of-Way	$ 6,939,000	$ 6,939,000		
Utilities*	LGPA	LGPA		

*Butts County signed LGPA on 3-8-00 for PE and utilities.

STP-3003(1) Butts
September 24, 2002

This project is in the STIP. I recommend this project concept be approved.

MBP:JDQ/cj

Attachment

CONCUR _____
Thomas L. Turner, P.E., Director of Preconstruction

APPROVE _____
Frank L. Danchetz, P.E., Chief Engineer

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENTAL CORRESPONDENCE

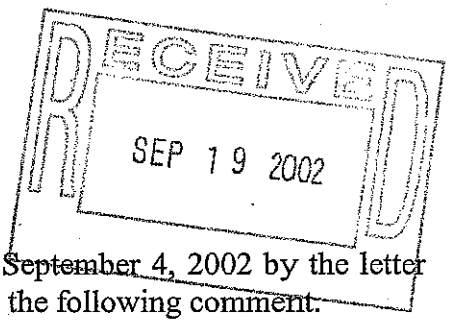
FILE: STP-3003(1) BUTTS
P.I. Number 343440

OFFICE: Engineering Services

DATE: September 19, 2002

FROM: David Mulling, Project Review Engineer REW

TO: Meg Pirkle, Assistant Director of Preconstruction



SUBJECT: CONCEPT REPORT

We have reviewed the concept report submitted September 4, 2002 by the letter from Gerald Ross dated August 9, 2002, and have the following comment:

- There needs to be some basis for verifying the unit costs on several items shown in the Preliminary Cost Estimate. This includes square foot costs for bridges, linear foot or cubic yard costs for box culverts, per each costs for Traffic Signals, and linear foot costs for guardrail.

The costs for the project are:

Construction	$12,622,495
Inflation	$1,293,806
E&C	$1,391,630
Reimbursable Utilities	$543,320
Right of Way	$6,938,900

REW/DTM

c: Gerald Ross, Attn: Stanley Hill

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENTAL CORRESPONDENCE

FILE STP-3003(1) Butts County
P.I. No. 343440
South Jackson Bypass

OFFICE Atlanta, GA

DATE August 9, 2002

FROM Gerald M. Ross, P.E., State Road and Airport Design Engineer

TO Meg Pirkle, Assistant Director of Preconstruction

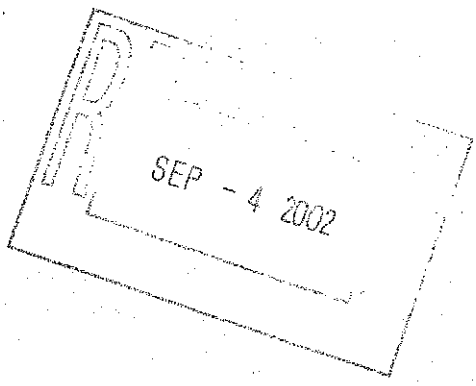
SUBJECT **PROJECT CONCEPT REPORT**

Attached, for your review and approval, is the Project Concept Report for the above project.

If you have any questions, please contact this Office.

GMR:WJM:SH:lc

Attachment



cc: David Mullin, w/attach.
Harvey Keepler, w/attach.
Phillip Allen, w/attach.
Thomas B. Howell, District 3 Engineer, w/attach.
Paul Liles, w/attach.
Marta Rosen, w/attach.
Herman Griffin, w/attach.

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
OFFICE OF ROAD AND AIRPORT DESIGN

Project Number: STP-3003 (1)
County: Butts
P. I. Number: 343440

Federal Route Number: None
State Route Number: None

Recommendation for approval

DATE 8/9/02 _____ Project Manager

DATE 9/3/02 _____ Office Head/District Engineer

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

DATE _____ State Transportation Planning Administrator

DATE _____ State Financial Management Administrator

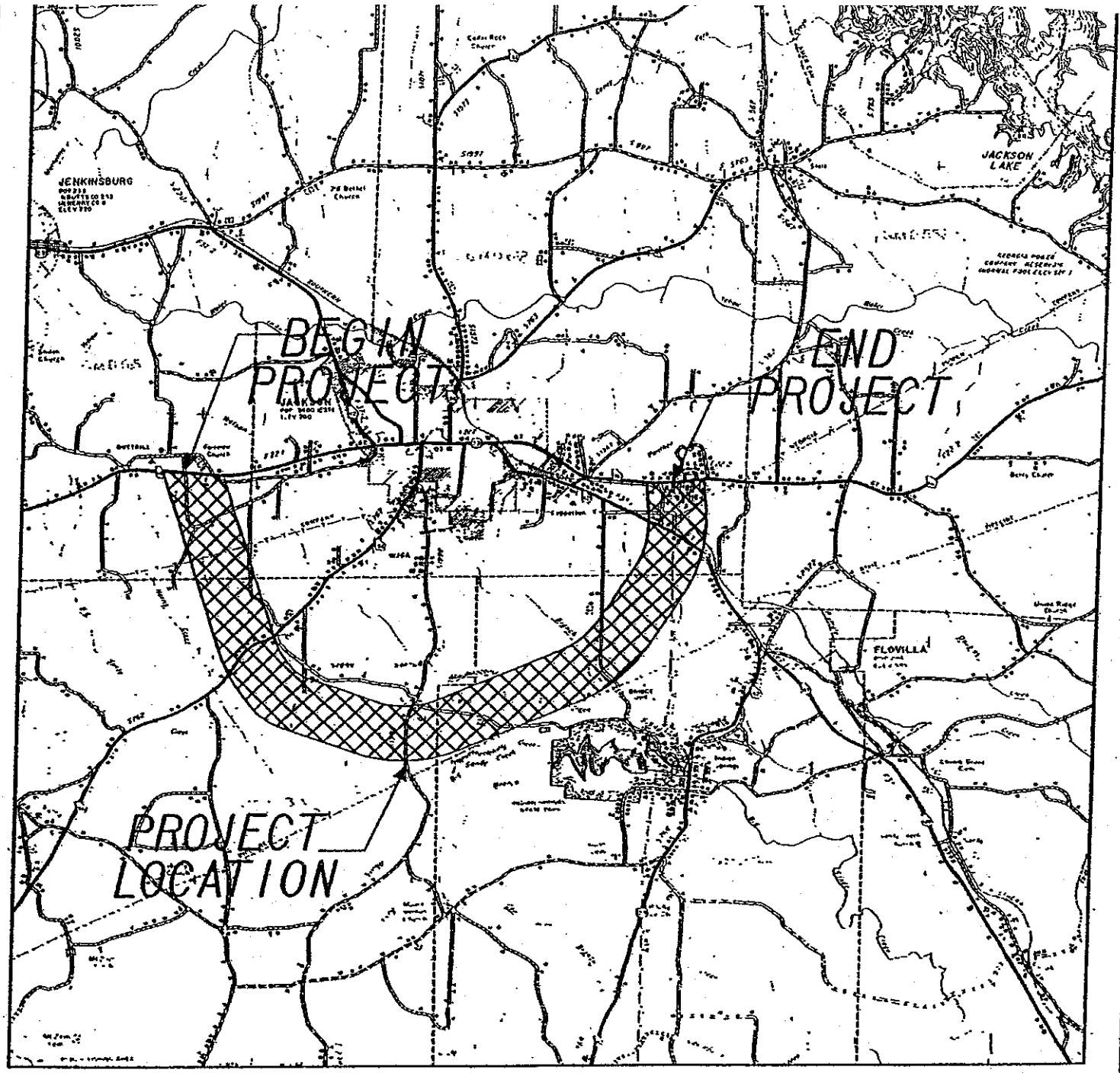
DATE _____ State Environmental/Location Engineer

DATE _____ State Traffic Operations Engineer

DATE _____ District Engineer

DATE _____ Project Review Engineer

DATE _____ State Bridge & Structural Design Engineer



SOURCE: STATE HIGHWAY DEPARTMENT OF GEORGIA
BUTTS COUNTY GENERAL HIGHWAY MAP, 1968

ROSSER

ROSSER CIVIL ENGINEERING
A DIVISION OF
ROSSER INTERNATIONAL, INC

BUTTS COUNTY

LOCATION MAP

Jackson South Bypass
PROJECT NO STP-3003 (3) PI NO 343440

NEED AND PURPOSE
PROJECT STP - 3003 (1) BUTTS COUNTY
P. I. NO. 343440
Jackson South Bypass

Background:

Project STP-3003(1) proposes to construct the South Jackson Bypass around the City of Jackson in Butts County. The construction of this proposed bypass was recommended through an Office of Planning study, Jackson-Butts County Transportation Needs Analysis 1999. The study recommended six transportation improvement projects for Butts County. The proposed South Jackson Bypass was one of two recommended short-term (up to 2005) projects from the study. The proposed bypass was recommended to improve current and future traffic deficiencies identified in the study. The western terminus of the bypass will be SR 16/Bert Road and the east terminus will be SR 16/Bibb Station.

This proposed bypass is needed to improve the operational capacity and safety of SR 16 and to distribute freight around the Jackson area. This bypass would provide access to current and future businesses that would be south of the bypass. This proposed bypass would divert interregional and intra-regional traffic around downtown Jackson by providing an alternative route around the city. The segment of SR 16 included in this analysis will be from High Falls Road (CR 291) to Pratt Smith Road (CR 87).

The intersection of Mulberry Street (SR 36) and Third Street (SR 16/SR 42) has low curb-turning radii at its corners, which makes turning of trucks very difficult. The City of Jackson is opposed to increasing turning radii in downtown because of concern for pedestrian safety. This lack of adequate turning radii causes excessive delays for trucks. Trucks are unable to expediently turn with signal phases; most trucks have to wait for other vehicles to clear the intersection in order to get a clear and adequate turning path. This proposed bypass would improve the safety and operational capacity of this route by diverting traffic around downtown Jackson. The driving conditions through the city would be improved by the reduction in traffic, especially trucks. The project length is estimated at 9.5 miles.

Roadway Characteristics and Function:

State Route 16 is an east-west route in Middle Georgia. SR 16 connects the Cities of Carrollton, Newnan, Griffin, Jackson, Monticello, Eatonton and Sparta. SR 16 begins at I-20 in Haralson County and traverses southeasterly through Carroll and Coweta Counties to I-85. From I-85, SR 16 runs easterly through Fayette and Spalding Counties to I-75. From I-75, SR 16 runs easterly through Jackson, Butts County; it traverses eastward through Jasper, Putnam and Hancock Counties to SR 123 in Warren County, where it ends. SR 16 is a two-lane facility with turn lanes in Butts County.

State Route 16 connects Jackson with I-75 and Monticello, Jasper County. The section of SR 16 through Jackson is functionally classified as a rural minor arterial. The segment of SR 16 between Harkness Street and Macon Avenue is on the National Highway System. The segments of SR 16, High Fall Roads to Harkness Street and Macon Avenue to Pratt Smith Road are not on the National Highway System. This segment of SR 16, from High Falls Road to Pratt Smith Road, is not part of the State Pedestrian and Bicycle Plan Network. SR 16 is a

school bus route. This route has a volume of 15 percent truck traffic through Downtown Jackson. Major sources of the truck traffic along SR 16 are due to the usage of this route as an alternative east-west route in lieu of I-20.

Existing Facility:

State Route 16 is a two-lane facility with turn lanes in the City of Jackson. Starting in Jackson and going east, SR 16 merges with US 23/SR 42 at Harkness Street and continues along same alignment; it merges with SR 36 at Mulberry Street. SR 36 branches off and continues north at Covington Street and US 23/SR 42 branches off and continues south past Court Street. SR 16 continues easterly to Monticello, Jasper County; SR 42 continues southerly to I-75 in Forsyth, Lamar County and US 23/SR 87 continues southeasterly to Macon. On SR 16, there are three passing lanes between Cranes Lakes Road and the Baldwin County line. SR 16, US 23/SR 42 and SR 36 are all two-lane roadways in Butts County. Along the proposed bypass route, the existing land use is predominately agricultural with scattered residential parcels. High-density residential areas are located in and around the City of Jackson.

Proposed Improvements:

The project length is estimated at ~~7.0~~ 9.50 miles. The proposed bypass would be a two-lane facility built on a new location with sufficient right of way for future widening. Access to the proposed bypass would be partially limited. The proposed bypass will begin at SR 16 and will run southeasterly to and intersect SR 36; it will continue from SR 36 and will run southeasterly to and intersect Brownlee Road. The proposed bypass would continue from Brownlee Road and would traverse northeasterly to and intersect US 19/SR 42. From US 23/SR 42, the bypass will traverse northerly to SR 16, where it ends. The western terminus of this project will be at SR 16, near Bert Road and the eastern terminus of the project will be at SR 16, near Bibb Station. Both termini are outside of the Jackson City limits. The bypass is expected to reduce truck traffic in downtown Jackson, thereby improving the operation and safety of SR 16 through the City of Jackson.

Community Issues:

The Census Block Groups that were used in the analysis of US 23/SR 42, SR 16, SR 36, and SR 87 cover a wide geographic area. The affected populations (low income or minority) may or may not be concentrated within close proximity of the proposed improvement. According to the available data (1990 Income), the average percentage of households along this US 23/SR 42, SR 16, SR 36, and SR 87 corridor who earned less than $15,000 per year was thirteen percent. Thirty-five percent of the households earned income on average was between $15,000 and $35,000 per year. In 1997, the estimated median earned income of Butts County was $32,153 compared with a statewide average income earning of $36,372.

The 2000 Census showed that along the corridor, thirty percent of the residents were black and sixty-five percent were white. Butts County had a twenty-nine percent black population and a sixty-nine percent white population according to the 2000 Census. The proposed improvements do not impose a disproportional burden on minority or low-income groups in the project area; the groups' representation in project area is nearly proportional to countywide averages as shown by the 2000 Census. The proposed improvements would provide improved access between the residents and their jobs and interests in the surrounding areas.

Indian Springs State Park is the oldest park in the United States. This is the site where the Creek Indians ceded their lands to the State of Georgia in 1825. The springs in the park were used for centuries by Creek Indians for healing. This 528-acre park has a 105-acre lake and beach area, camping ground, nature trail and spring house. This park is located 3.4 miles southeast of Jackson. This park is accessible via SR 42 from Jackson or Lake Clark Road (CR 298) via SR 36. The construction of the proposed bypass would provide a direct and shorter route to the park, thereby reducing tourist traffic that must go through Jackson to reach Indian Springs State Park.

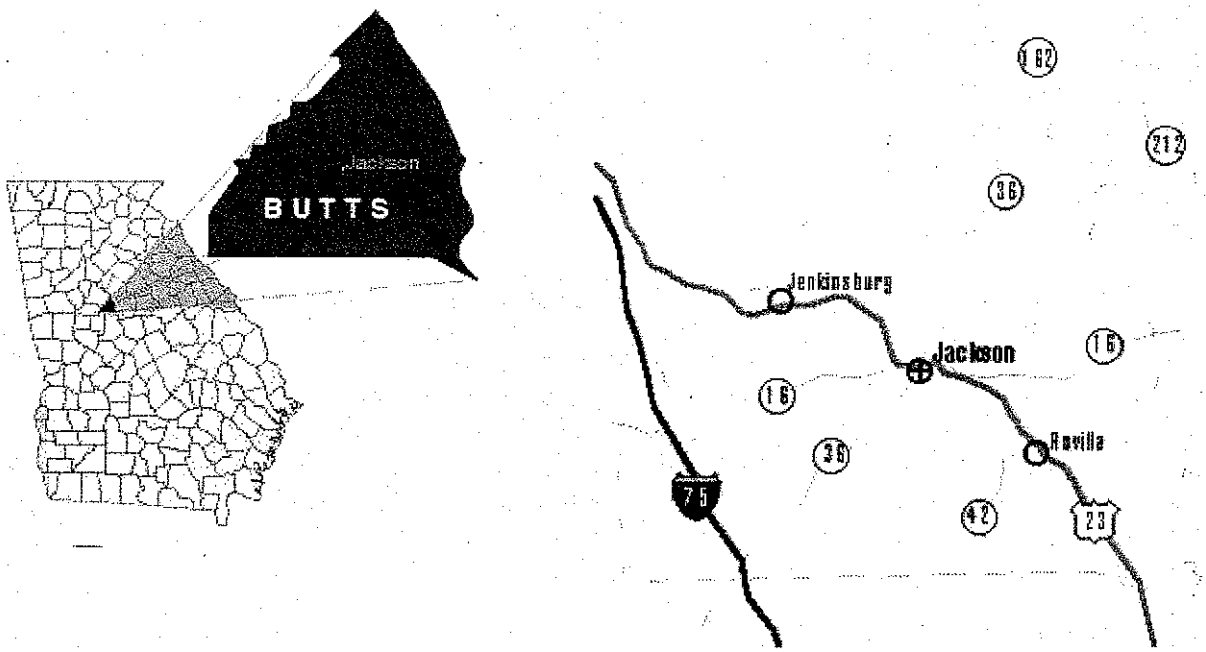
Projects In Area:

The following projects are located within the area and are programmed in the Department's Construction Work and Long Range Program:

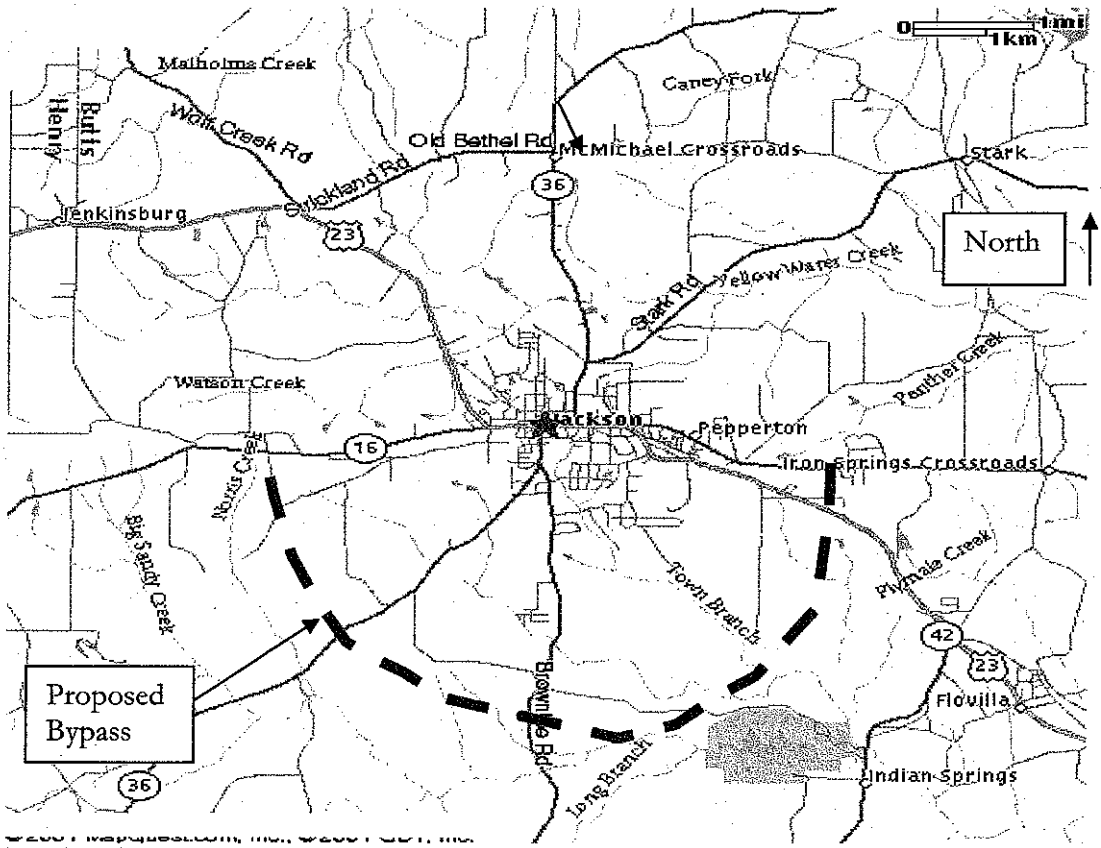
Project Number	Project Description	Project Schedule
P I No. 000052	SR 16/I-75 Interchange widening	PE - Auth. ROW - 2003 CST - 2005
P I No. 33252X	Widen SR 16 from Rehoboth Road, Spalding County to I-75, Butts County	PE - Long Range ROW - Long Range CST - Long Range
P I No. 000076	Widen SR 16 from I-75, Butts County to Jackson South Bypass	PE - Long Range ROW - Long Range CST - Long Range
P I No. 332360	Widen US 23/SR 42, construct passing lanes at two locations between Jackson and I-75	PE - Auth. ROW - 2002 CST - 2004
P I No. 322440	Widen SR 36 from SR 16 to Stark Road/CR 289	PE - Auth. ROW - Long Range CST - Long Range
P I No. 321800	Construct SR 16 Bridge over Southern Railroad	PE - Long Range ROW - Long Range CST - Long Range

Logical Termini:

The western terminus of this project will be Bert Road, west of Jackson, and the eastern terminus of the project will be Bibb Station, east of Jackson. The western terminus of the proposed bypass is logical because the Department of Transportation has programmed Project STP-0000(76), to widen SR 16 from I-75 to the western terminus of the proposed bypass in its Construction Work and Long Range Program. The current and future land uses east of the proposed bypass are mostly agricultural, there is considerable drop in traffic volumes east of the planned bypass, Bibb Station is a rural gravel road currently serving as a connector for vehicles (mostly trucks) traveling from SR 16 to US 23/SR 42, and there are manufacturing facilities with access along Bibb Station; these conditions and usages make Bibb Station a logical terminus for the proposed bypass on the eastern end.



Location of the City of Jackson and Butts County in Georgia



Location of Proposed Jackson South Bypass near the City of Jackson, Butts County

Operational Analysis:

The traffic volumes on the state routes in the Jackson area have increased over the years. The 2001 average annual daily traffic (AADT) on SR 16 west of the proposed bypass was 6,800 vehicles per day (VPD) and east of the proposed bypass was 5,000 VPD. The AADT south of the proposed bypass were 3,700 VPD on SR 36, 5,700 VPD on US 23/SR 42 and 1,200 VPD on Brownlee Road (CR 296). The 1999-2001 AADT in downtown Jackson showed traffic volumes of 14,170 VPD – 15,000 VPD. The volumes of truck traffic through Jackson were 15 percent.

State Route 16 is the primary truck route in Butts County. SR 16 is an alternate east-west route to I-20 for truckers seeking to avoid traveling through Metro Atlanta. In Jackson, SR 16 is striped with parking areas between Mulberry Street (SR 36W) and Covington Street (SR 36E). The parking areas reduce the sight distances for trucks and other vehicles. Vehicles attempting to parallel-park in the parking areas cause congestion by blocking the through lanes; in addition, trucks that are waiting for an adequate clear path to turn cause congestion by blocking other vehicles from turning and causing traffic signal phase failure. This improvement would provide inter-regional continuity by removing inter-regional traffic from Downtown Jackson, thus improving travel conditions and improving the mobility of freight on this route.

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 following table describes existing and future average annual daily traffic (AADT) and LOS on SR 16 near the City of Jackson:

Roadway Segment State Route 16	2005 Traffic / LOS No-Build	2025 Traffic / LOS No-Build	2025 Traffic / LOS Build
West of Bypass	8,880 / C	12,692 / D	12,692 / D
Bert Road to Imogene Goff Road	8,968 / C	13,198 / D	10,800 / D
Imogene Goff Road to U S 23/SR 42 (Harkness St.)	15,556 / D	19,042 / F	10,800 / D
Harkness Street to SR 36 (Mulberry Street)	15,556 / D	19,042 / F	10,800 / D
Mulberry Street to SR 36(Covington Street)	16,133 / D	21,710 / F	17,100 / E
Covington Street to Macon Avenue(US 23/SR 42)	16,720 / E	20,204 / F	16,930 / E
Macon Avenue to Bibb Station	7,477 / C	10,357 / D	4,750 / B
East of Bibb Station	4,199 / B	5,897 / C	14,650 / D

The following table describes future average annual daily traffic (AADT) and LOS on the proposed bypass near the City of Jackson:

Roadway Segment Jackson South Bypass	2005 Traffic / LOS Build	2025 Traffic / LOS Build
SR 16 to SR 36	4,000 / B	5,400 / C
SR 36 to Brownlee Road	4,700 / C	6,900 / C
Brownlee Road to US 23/SR 42	4,100 / B	6,800 / C
US 23/SR 42 to SR 16	4,600 / C	9,400 / D

Safety:

The available accident data on the section of SR 16, between Harkness Street and Cross Street, showed that the accident and injury rates were at least eight times the statewide averages for rural minor arterials on the National Highway System in 1995, 1996 and 1997. For the latest year (1997) for which accident data is available, the accident and injury rates were ten times the statewide averages.

Most of the accidents that occurred along this route were either 'angle-intersect' or 'rear end' and a disproportionate number of those accidents occurred near the intersection of SR 36 and SR 16/US 23/SR 42. This intersection has inadequate turning radii and poor sight distance. Outside of Jackson, the accident and injury rates on SR 36 and US 23/SR 42 did not exceed statewide averages. East of Jackson, the accident and injury rates on SR 16 exceeded the statewide average for 1995, 1996 and 1997. Below are accident data for US 23/SR 42/SR 16 and comparable statewide averages:

Year	1995		1996		1997	
Comparison	SR 16	Statewide	SR 16	Statewide	SR 16	Statewide
Accidents	59		70		68	
Accident Rate	**1095**	200	**1238**	121	**1243**	125
Injuries	35		21		24	
Injury Rate	**649**	73	**372**	42	**439**	49
Fatalities	0		0		0	
Fatality Rate	0.0	2.56	0.00	2.17	0.00	2.40

Need and Purpose:

The proposed project is needed to provide improved travel conditions for the public and the fluid movement of freight on SR 16. The bypass could function as a rural major collector by collecting and distributing trips within the Jackson area. The project has independent utility in that it requires no other improvements to serve as a useful transportation function or need. Constructing the bypass will provide a safer environment for trucks to operate, facilitate the movement of freight more efficiently and improve the safety and operational characteristics of SR 16 in the City of Jackson.

PROJECT CONCEPT REPORT

PROJECT NO.: STP-3003 (1), Butts County **P.I. No.:** 343440

PROJECT LOCATION & DESCRIPTION
This project consists of the construction of a bypass south of the city of Jackson, Georgia in Butts County. The bypass is proposed to begin on SR 16 west of Jackson, and traverse in a southeasterly direction, and tie back into SR 16 east of Jackson. The project consists of a two lane undivided facility on a four lane right of way, in order to accommodate future widening. PROJECT LENGTH: 9.5 miles

TRAFFIC			
CURRENT		PROJECTED	
YEAR	AADT	YEAR	AADT
2005	7,098	2025	13,434

PDP CLASSIFICATION	FUNCTIONAL CLASSIFICATION
Major Project / New Location	Rural Arterial

NON-CA ( )	CA ( )	EXEMPT (X)	N/A ( )

P.I. NO: 343440

EXISTING ROADWAY

TYPICAL SECTION: **R/W WIDTH**

POSTED SPEED **MIN RADIUS OF CURVE** **MAXIMUM GRADE**

MAJOR STRUCTURES:

1.

2.

3.

PROPOSED ROADWAY

TYPICAL SECTION: Two -12 ft Lanes with 10 ft shoulders (6.5' paved) on the outside. The typical section will also include right and left turn lanes at the at-grade intersections.

DESIGN SPEED	MAX. DEGREE OF CURVE		MAX GRADE	
55 mph	ALLOWABLE:	6°00'	ALLOWABLE:	4.50 %
	PROPOSED:	2°30'	PROPOSED:	4.50 %

MAJOR STRUCTURES:

1. Construct a new bridge over Norfolk Southern Railroad
2. Construct a new bridge over the Town Branch of Aboothlacoosta Creek
3. Construct 12 culverts over minor tributaries.

PROPOSED RIGHT OF WAY

R/W WIDTH **DISPLACEMENTS**

250 ft Min. RES: 8 BUS: 2 M.H.: 0

TYPE OF ACCESS CONTROL: Partial Limited Access

NUMBER OF PARCELS: 48

P.I. NO: 343440

COORDINATION	
CONCEPT TEAM MEETING DATE:	To Be Determined
LOCATION INSPECTION DATE:	To Be Determined
PERMITS REQUIRED (4f, COE, 404, etc.):	404
LEVEL OF PUBLIC INVOLVEMENT:	Public Hearing (to be scheduled later)
TIME SAVING PROCEDURES APPROPRIATE:	No
OTHER PROJECTS IN AREA:	STP-054-1(48), P.I. #322440 SR 36 / Jackson from SR 16 to CR 289 Stark Road
TRAFFIC CONTROL DURING CONSTRUCTION:	None
LEVEL OF ENVIRONMENTAL ANALYSIS:	Environmental Assessment
DESIGN VARIATIONS REQUIRED: None	

DESIGN EXCEPTIONS			
CONTROLLING CRITERIA	YES	NO	UNDETERMINED
SUBST HORIZONTAL ALIGNMENT	( )	(X)	( )
SUBST ROADWAY WIDTH	( )	(X)	( )
SUBST SHOULDER WIDTH	( )	(X)	( )
SUBST VERT GRADES	( )	(X)	( )
SUBST CROSS SLOPES	( )	(X)	( )
SUBST STOPPING SIGHT DISTANCE	( )	(X)	( )
SUBST SUPERELEV RATES	( )	(X)	( )
SUBST HORIZ CLEARANCE	( )	(X)	( )
SUBST SPEED DESIGN	( )	(X)	( )
SUBST VERTICAL CLEARANCE	( )	(X)	( )
SUBST BRIDGE WIDTH	( )	(X)	( )
SUBST BR STUCT CAPACITY	( )	(X)	( )

UNDERGROUND STORAGE TANKS:	None
HAZARDOUS SITES:	None

P.I. No.: 343440

SCHEDULING CONSIDERATIONS		
TIME TO COMPLETE ENVIRONMENTAL	12	MONTHS
TIME TO COMPLETE PRELIMINARY PLANS	10	MONTHS
TIME TO COMPLETE 404 PERMIT	12	MONTHS
TIME TO COMPLETE FINAL CONSTRUCTION PLANS	9	MONTHS
TIME TO COMPLETE RIGHT-OF-WAY PLANS	4	MONTHS
TIME TO BUY RIGHT-OF-WAY	12	MONTHS

ESTIMATED COST			
CONSTRUCTION:	$12,622,495	RIGHT-OF-WAY:	$ 6,938,900
E & C (10):	$1,391,630	ACQUIRED BY:	Georgia D.O.T.
INFLATION:	$1,293,806	UTILITIES:	$ 543,320
		ADJUSTED BY:	LGPA
TOTAL CONSTRUCTION COST:		$ 15,307,931	

ALTERNATIVES CONSIDERED

1. Construction of a bypass that reduces truck traffic through downtown and reduces impacts to homeowners.

2. Construction of a bypass following the alignment set forth in the Jackson-Butts County Transportation Needs Analysis.

3. Construction of a bypass following the alignment set forth by Congressman Collins, utilizing CR 202/Dub Walker Road.

Alternate 1 was chosen because it has minimal impacts to homeowners, wetlands and streams in the area. Additionally, it minimizes the length of the overall project as much as possible.

COMMENTS:

ATTACHMENTS: Cost Estimate, Environmental Scan, Historic Resources Reconnaissance Survey, Typical Sections and Traffic Diagrams, Final Concept Team Meeting Minutes and Capacity Analysis.

PRELIMINARY COST ESTIMATE

P.I. NUMBER: 343440 **DATE:** June 27, 2002

PROJECT NUMBER: STP-3003 (1) South Jackson Bypass

COUNTY: Butts **ESTIMATED LETTING DATE:** 2005

PREPARED BY: S. Dodd **PROJECT LENGTH:** 9.5 miles

( ) **PROGRAMMING PROCESS** (X) **CONCEPT DEVEL.** ( ) **DURING PROJ. DEVEL.**

PROJECT COST

A. RIGHT-OF-WAY			
1. PROPERTY (LAND AND EASEMENTS)	**288 acres Right of Way**		**$ 1,195,200**
2. DISPLACEMENTS	**RES:8, BUS:2, M.H.:0**		**$ 210,000**
3. OTHER COSTS			**$ 5,533,700**
		SUBTOTAL	**$ 6,938,900**
B. REIMBURSABLE UTILITIES			
1. RAILROAD			**$ 0**
2. TRANSMISSION LINE			**$ 100,000**
3. SERVICES			**$ 443,320**
		SUBTOTAL	**$ 543,320**
C. CONSTRUCTION			
1. MAJOR STRUCTURES			
a. WALLS			**$ 0**
b. BRIDGE STREAM CROSSING	**2 - Type I MOD AASHTO girders on pile bents - Lump Sum**		**$ 900,000**
c. BRIDGE OVER/UNDERPASS	**1 – Bulb Tee prestressed concrete beams on reinforced concrete piers - Lump Sum**		**$ 700,000**
d. BOX CULVERTS	**12 – 8'x8', 80' long over minor tributaries @ $ 60,000 per Each**		**$ 720,000**
		SUBTOTAL	**$ 2,320,000**
2. GRADING AND DRAINAGE			
a. EARTHWORK			
1) Unclassified	**525,000 CY @ $5 / CY**		**$ 2,625,000**
b. DRAINAGE			
1) 9.5 miles	**9.5 miles @ 55,263.16 / Mile**		**$ 525,000**
2) Curb and Gutter			**$ 0**
2) Longitudnal System (include Catch Basins)			**$ 0**
		SUBTOTAL	**$ 3,150,000**

PROJECT COSTS

3. BASE AND PAVING				
a. AGGREGATE BASE CRS	**148,265 SY @ $15 / SY**		**$**	**2,223,975**
b. ASPHALT PAVING				
1) Asph. Conc.	**4" superpave base – 32,657.5 Tons @ $40 / Ton**		**$**	**1,302,700**
2) Asph. Conc.	**2" superpave binder – 18,093.25 Tons @ $40 / Ton**		**$**	**723,730**
3) Asph. Conc.	**1 ½" superpave surface – 12,664.75 Tons @ $40 / Ton**		**$**	**506,590**
c. BITUMINOUS TACK COAT	**17,500 Gallons @ $1 / Gal**		**$**	**17,500**
d. OTHER PAVING			**$**	
		SUBTOTAL	**$**	**4,774,495**
4. LUMP ITEMS				
a. TRAFFIC CONTROL		**Lump Sum**	**$**	**150,000**
b. CLEARING AND GRUBBING		**Lump Sum**	**$**	**694,100**
c. LANDSCAPING		**Lump Sum**	**$**	**236,800**
d. SIGNALS	**Bypass @ SR 16, Bypass @ SR 36, Bypass @ SR 42, Bypass @ Brownlee Road, Bypass @ SR16**	**Lump Sum**	**$**	**350,000**
		SUBTOTAL	**$**	**1,430,900**
5. MISCELLANEOUS				
a. SIGNING/STRIPING/SIGNAL			**$**	**101,500**
b. GUARDRAIL			**$**	**150,000**
c. FIELD OFFICE			**$**	**30,000**
d. EROSION CONTROL			**$**	**665,600**
		SUBTOTAL	**$**	**947,100**
		TOTAL	**$**	**12,622,495**

ESTIMATED SUMMARY

A.	**RIGHT-OF-WAY**		**$**	**6,938,900**
B.	**REIMBURSABLE UTILITIES**		**$**	**543,320**
C.	**CONSTRUCTION**			
	1.	**MAJOR STRUCTURES**	**$**	**2,320,000**
	2.	**GRADING AND DRAINAGE**	**$**	**3,150,000**
	3.	**BASE AND PAVING**	**$**	**4,774,495**
	4.	**LUMP ITEMS**	**$**	**1,430,900**
	5.	**MISCELLANEOUS**	**$**	**947,100**
	6.	**SPECIAL FEATURES**	**$**	**0**
		SUBTOTA.L CONSTRUCTION COST	**$**	**12,622,495**
		INFLATION 5%/YR x 2 YR	**$**	**1,293,806**
		E. & C. (10%)	**$**	**1,391,630**
		TOTAL CONSTRUCTION COST	**$**	**15,307,931**
		GRAND TOTAL CONSTRUCTION COST	**$**	**15,307,931**

Memorandum

To: Ms. Shannon M. Dodd, P.E.
Rosser International, Inc.

From: Russ Danser, AICP
Project Planner, Edwards-Pitman Environmental, Inc.

Date: February 14, 2001

Subject: South Jackson Bypass, Butts County
Project Concept Report, Environmental Overview

Edwards-Pitman Environmental, Inc. (EPEI) has completed a preliminary reconnaissance of the study area related to the above referenced project. Our study area was based on the aerial/quad mapping that was provided by your office. Information was based on field reconnaissance, study area mapping, and correspondence with staff at the McIntosh Trail Regional Development Center and the Butts County Planning Office. The information collected and presented is to be used by your staff in the Concept Report being developed for the subject project. This documentation is based on criteria outlined on page 33 of the Georgia Department of Transportation (GDOT) *Plan Development Process – 2000, Manual Of Guidance – 4050* (Preconstruction Division, October 31, 2000). The environmental concerns that are identified in that document include the following:

- History,
- Archaeology,
- Neighborhoods,
- Special interest groups,
- Context Sensitive Design,
- Cemeteries,
- Parks and recreation,
- Wetlands and streams, including PAR's,
- Endangered species,
- Erosion and sedimentation control,
- Air quality, and
- Noise.

Because Rosser has assigned a subconsultant to specifically address historical and archaeological resources (Garrow), EPEI did not survey for the first two items listed. The following text provides a summation of our findings to date. This inventory of the area's resources is not to be considered exhaustive as other environmental concerns could be identified during preparation of the project's environmental document. The information can be used in refining the alternative alignments currently proposed.

Neighborhoods

The land use adjacent to both currently proposed alternatives is primarily undeveloped and rural. Most development is isolated stand-alone structures located along the corridor's major roadways. It is anticipated that neither of the proposed alignments would impact any neighborhoods through relocations.

Special Interest Groups

There are no facilities associated with special interests or population groups located adjacent to either of the proposed alignments. The study area does not appear to contain any residential concentrations of populations with special needs.

Context Sensitive Design

The project area contains few constraints or community concerns that would require the consideration of context sensitive design. One area identified during our preliminary reconnaissance is located on the eastern end of the project area at SR 16. There are two large industrial facilities at that terminus that, based on correspondence with Butts County GIS Coordinator Lisa Beck, are the industries of Toga and American Woodmark, two major employers of the area. In addition, there is an area east of those structures that contains a number of land uses of local concern including Walker Concrete, Walker Recycling, and the County Animal Control. Efforts should be made to consider the concerns of these specific land uses during coordination efforts. In addition, both alignments would cross a number of area streams. Context sensitive design measures could be employed to minimize impacts to these crossings.

Cemeteries

One cemetery, Watkins Cemetery, is shown on mapping of the project area. This cemetery is located approximately 1,200 feet west of Watkins Park Pool Road and would not be impacted be either of the proposed alignments.

Parks and Recreation

There are no public parks adjacent to the proposed alignments.

Wetlands and Streams

The study area contains a number of potential wetland and stream crossings. EPEI has yet to survey the wetland areas; however, mapping has been reviewed to identify potential stream crossings. Depending on final roadway configuration, Alignment 1 could cross an unnamed tributary of Aboothlacoosta Creek, Town Branch, and Aboothlacoosta Creek. Alignment 2 could cross these same streams as well as an unnamed tributary of Big Sandy Creek. During finalization of the project concept, impacts to these waters of the US should be avoided when possible. Where they cannot be avoided, efforts should be made to minimize stream impacts. In addition, the study area does contain a number of small lakes and ponds that should be avoided during the development of the concept alignment.

Endangered Species

Per the February 24, 1998 agreement between the Fish and Wildlife Service (FWS) and the Federal Highway Administration (FHWA), EPEI reviewed the monthly update of county-level Threatened and Endangered Species and Habitat Listing provided by FWS for Butts County. This list, which also provides information related to the species' preferred habitat, is reproduced below.

Animals		
Bald eagle	Haliaeetus leucocephalus	Inland waterways and estuarine areas in Georgia
Red-cockaded woodpecker	Picoides borealis	Nest in mature pine with low understory vegetation (<1.5m); forage in pine and pine hardwood stands ≥30 years of age, preferably ≥10" dbh
Plants		
Little amphianthus	Amphianthus pusillus	Shallow pools on granite outcrops, where water collects after a rain. Pools are less than 1 foot deep and rock rimmed.
Black-spored quillwort	Isoetes melanospora	Shallow pools on granite outcrops, where water collects after a rain. Pools are less than 1 foot deep and rock rimmed.

EPEI has yet to survey for these species; however, the list is provided for your record.

Erosion and Sedimentation Control

During the construction phase, this project would be expected to produce some increased siltation within the streams being crossed; however, no substantial impact is expected to occur to water quality or drinking water supplies. Provisions in the construction contract would require the contractor to exercise every reasonable precaution during construction to prevent the pollution of streams in the project vicinity. Where possible, early revegetation of disturbed areas would be accomplished so as to hold soil movement to a minimum. Dumping of chemicals, fuels, lubricants, bitumens, raw sewage, or other harmful wastes into or alongside of streams or impoundments, or natural or manmade channels leading thereto, would be prohibited.

Additional contract provisions would require the use of temporary erosion control measures as shown on the construction plans or as deemed necessary during construction. These temporary measures may include the use of berms, dikes, dams, sediment basins, fiber mats, netting, gravel, mulches, grasses, slope drains and other erosion control devices or methods, as applicable. These provisions would be coordinated with the permanent erosion control measures insofar as practical to assure economical, effective and continuous erosion control throughout the construction and post-construction periods and are in accordance with the Federal-Aid Policy Guide, Part 650, Subpart B.

Air Quality

This project is consistent with the State Implementation Plan (SIP) for the attainment of clean air quality in Georgia and is in compliance with both state and federal air quality standards. The proposed project is in an area where the SIP does not contain any transportation control measures.

Noise

Detailed noise impacts have not been modeled for the alignments being considered. However, impacts can be expected at locations where the alignment would come in close proximity to residential development.

TRC

Customer-Focused Solutions

January 23, 2000

Mr. Stan Frederick
Rosser Civil Engineering
524 West Peachtree Street, NW
Atlanta, GA 30308-0680

Subject: Information on Previously Recorded Cultural Resources, to be Included in Concept Report for Jackson South Bypass, Butts County, Georgia

Dear Mr. Frederick:

I am writing to convey the results of TRC Garrow Associates' investigations on previously recorded archaeological sites and historic architectural properties. This information is to be included in your draft concept report for the proposed Jackson South Bypass in Butts County, Georgia.

PREVIOUSLY RECORDED ARCHAEOLOGICAL SITES

Investigations at the Georgia Archaeological Site File, housed at the University of Georgia in Athens, revealed no known archaeological sites within a one-mile radius of either alternate route proposed for the Jackson South Bypass.

PREVIOUSLY RECORDED HISTORIC ARCHITECTURE

Investigations at the National Register Files and the County Survey Files, maintained by the Georgia Historic Preservation Division, revealed that there are no know historic structures located within one mile of either route of the proposed South Jackson Bypass.

SUMMARY

Even though no known cultural resources have been identified within the vicinity of the proposed bypass routes, previously unidentified resources may be yet be present. Completion of the field investigation phase of the project will present a clearer picture of any potential cultural resources that may be affected by the proposed project.

3772 Pleasantdale Road, Suite 200 • Atlanta, Georgia 30340-4214
Telephone 770-270-1192 • Fax 770-270-1392

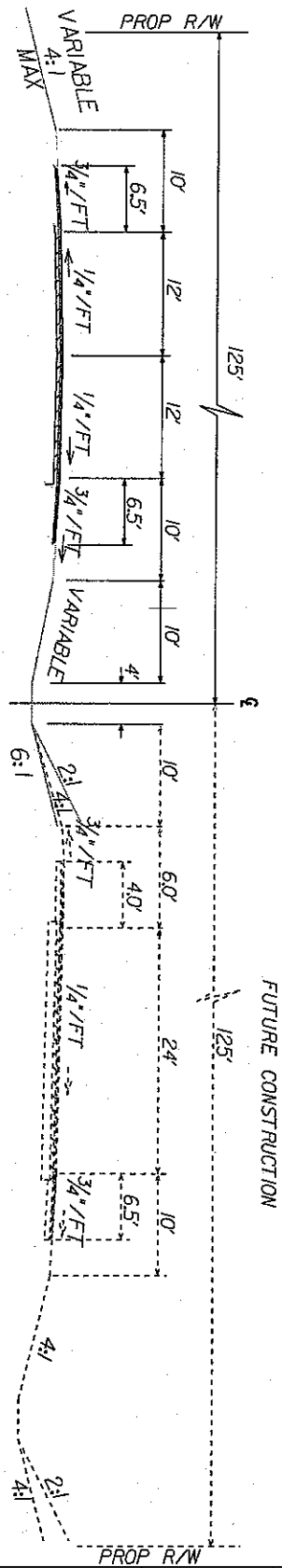
If you have questions about the results of these background investigations, please let me know. Otherwise, contact us when you are ready for us to begin field investigations. Thank you.

Sincerely,

Larissa A. Thomas

Larissa A. Thomas, Ph.D.
Senior Archaeologist

TRC
Customer-Focused Solutions



TYPICAL SECTION FOR PREFERRED CANDIDATE ALTERNATE

NOT TO SCALE

ROSSER

ROSSER CIVIL ENGINEERING

A DIVISION OF

ROSSER INTERNATIONAL, INC

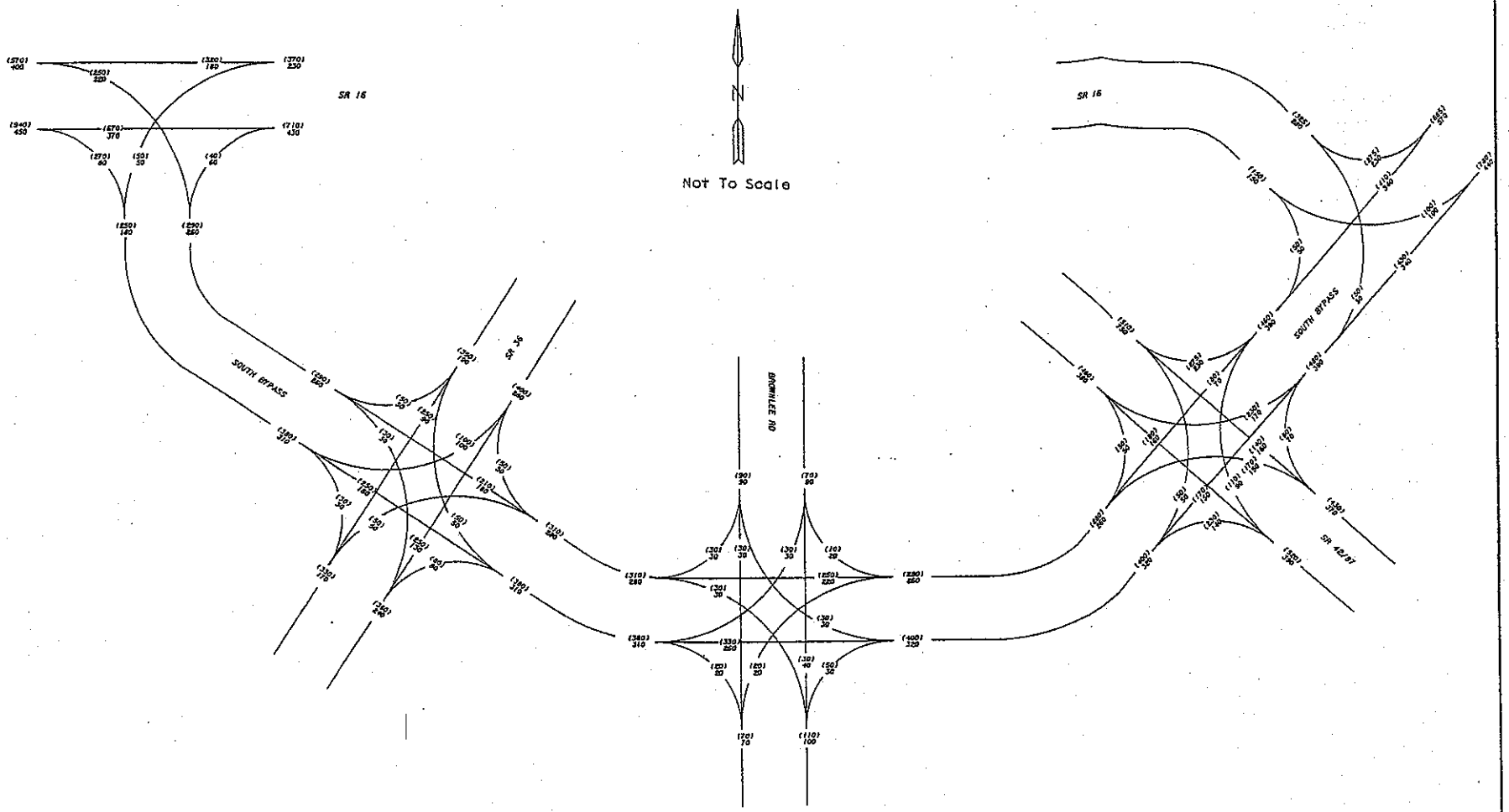
BUTTS COUNTY

TYPICAL SECTION

Jackson South Bypass

PROJECT NO STP-3003 (3) PI NO 343440

STATE	PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS
GEORGIA	STP-3003(3)		



REVISIONS					
REVISION NO.	DATE	DESCRIPTION	DATE	BY	DESCRIPTION

Wolverton & Associates
WOLVERTON & ASSOCIATES, INC.
5300 OAKBROOK PARKWAY
SUITE 150
NORCROSS, GA 30093
(770) 447-9999

DATE OF DRAWING: 4/23/02

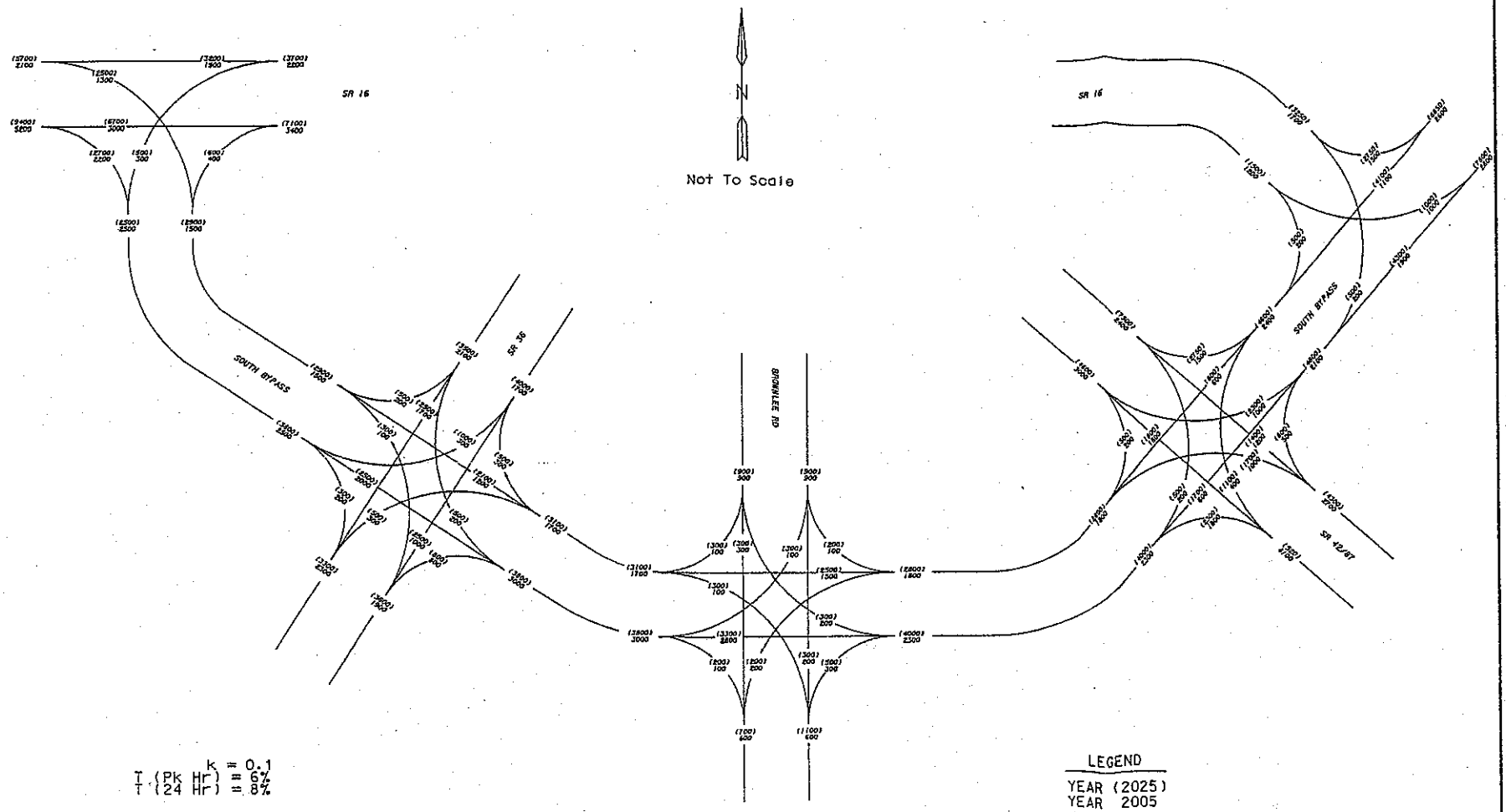
SUPERVISED BY: TOMMY G. WILBURN, P.E.

SOUTH JACKSON BYPASS

PEAK HOUR VOLUMES
YEAR 2025

DRAWING NUMBER: 11

STATE	PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS
GEORGIA	STP-300300		



REVISIONS					
REVISION NO.	DATE	DESCRIPTION	DATE	BY	DESCRIPTION

Wolverton & Associates, Incorporated
WOLVERTON & ASSOCIATES, INC.
5300 OAKBROOK PARKWAY
SUITE 150
NORCROSS, GA 30093
(770) 447-9889

DATE OF DRAWING: 4/23/02

SUPERVISED BY: VERNON G. McBURNEY, P.E.

SOUTH JACKSON BYPASS

DAILY TRAFFIC VOLUMES

DRAWING NUMBER: 12

CONCEPT TEAM MEETING MINUTES

MEETING DATE: October 23, 2001, 10:00 a.m.

MEETING LOCATION: Georgia Department of Transportation (GDOT)
Room # 133 in Atlanta, GA

PROJECT: Jackson South Bypass, STP-3003 (1), P.I. #343440

ATTENDEES:

Stanley Hill, GDOT Road Design	404-656-5180
Calvin Harris, GDOT Road Design	404-656-5180
Gerald Welsh, GDOT Road Design	404-656-5180
Joe Jabaley, GDOT Road Design	404-656-5180
Joe Leoni, GDOT Road Design	404-656-5293
Shannon Dodd, Rosser International	404-888-6921
Parks Preston, GDOT Env/Loc	404-699-4411
Larissa Thomas, TRC Garrow Assoc.	770-270-1192
Stan Frederick, Rosser International	404-888-6908
Mark Lawing, GDOT Eng Svcs.	404-651-7470
Jerry Milligin, GDOT Right of Way	404-463-2564
Peter Hartman, GDOT Policy	404-657-5227
Tom Queen, GDOT - Thomaston	706-646-6591
Katie Mullins, GDOT Programming	404-651-7043
Adam Hazell, MTRDC	770-227-6300
Tate Jones, LandAir Surveying	770-730-9950
Barry Brown, Browder & LeGuizamon	404-851-9580
The Honorable Mac Collins	770-603-3395
Matt Ramsey, Rep. Collins Office	770-603-3395
Russ Danser, Edwards-Pitman Env.	770-333-9484
Amy Etheridge, LandAir Surveying	770-730-9950
Phillip Allen, GDOT Traffic Safety & Des.	404-635-8115
Stan Petoski, GDOT TO-Des Rev	404-635-8126
Brook Martin, GDOT Traffic Safety & Des.	404-635-8127
Jim Willmer, Willmer Engineering	770-939-0089
Frank Danchetz, GDOT Chief Engineer	404-656-5277

Project Description: 9.5 mile Truck Bypass South of the City of Jackson
SR 16 @ Bert Road to SR 16 @ Bibb Station Road

I. Welcome

Mr. Stanley Hill opened the meeting and introduced Mr. Calvin Harris. Mr. Harris welcomed everyone to the meeting.

II. Introduction of Each Attendee

Each attendee introduced themselves and the company they represent.

III. Project Identification

The project was identified as the Jackson South Bypass, Project No. STP-3003 (1), P.I. Number 343440.

IV. Functional Classification

The project was stated to be Rural Arterial.

V. Need and Purpose Statement

GDOT Planning personnel were not in attendance therefore Mr. Harris read the "Need & Purpose" statement from the draft Concept Report. The major issues in this document indicate there is an important need to provide a bypass truck route around the city of Jackson. Based on historical increases of general traffic and the county's historical employment growth rate, it is estimated that the current truck volume of 1,385 through downtown will increase to 1,488 trucks in 2005 and 1,889 trucks in 2025. Approximately 10% of the truck volume through downtown occurs during the peak truck volume hour (4:00 p.m. to 5:00 p.m.) which would result in 149 truck trips in 2005 and 189 trucks in 2025. These are unacceptable truck volumes for a 2-lane roadway in an urban area. Since SR 16 will likely never be widened and one-way operation is not acceptable for the city, SR 16 will likely have the same cross-section and operation in the future. This leaves the only feasible alternative as the construction of a truck bypass.

VI. Traffic Projections

The traffic projects were stated to be 6,449 in 2005 and 13,673 in 2025.

VII. Existing Typical Section

It was stated because this is a new location roadway, there are no existing typical sections.

VIII. Design Criteria

This project has a design speed of 55 mph, with a maximum degree of curvature of 6 degrees and a maximum grade of 4.5%.

IX. Proposed Project Description

Ms. Shannon Dodd presented the color display of the conceptual layout for the project. The project will begin west of Bert Road, and have at grade intersections at SR 36, Brownlee Road, Lake Clark Road, and US 23/SR 42. This project will end near Bibb Station Road. There are bridge crossings at Norfolk Southern Railroad, and a bridge crossing at the town branch of the Aboothlacoosta Creek. Reference was also made to the fact that 12 culverts

were needed over minor tributaries. It was mentioned that the project termini were at present designed to promote the bypass as the major roadway, with SR 16 being a "T" intersection, following a meeting between the designers and Mr. Jim Kennerly.

Ms. Dodd also discussed the typical section for this project. She stated that the required right of way for this first phase would be for a future four-lane roadway. Only two lanes will be built during this phase. The typical section display showed two – 12 ' travel lanes, one in each direction, with 6.5' wide paved shoulders. Future plans for this road will include a 44 ft. depressed median and two – 12 ft. wide lanes, two in each direction with 6.5 ft. wide paved shoulders.

The three alternates routes for this project were also discussed, as well as the overall need for the project and potential for a northern bypass.

The first alternate route discussed was set forth in the Jackson-Butts County Transportation Needs Analysis. This alternate was rejected because it tied into SR 16 at both ends of the project at "T" intersections and did not take into account the homeowners and businesses in the area.

The Honorable Mac Collins suggested the second alternate for this project. He suggested that Dub Walker Road be used and that the alignment needed to avoid the new subdivisions on Buttrill Road and Buttrill Court. This alternate was rejected because it increased the length of the project, increased damage to wetlands, and impacted the residents on Dub Walker Road.

The third and preferred alternate was shown on the color display and is a bypass which reduced truck traffic through downtown, reduced impacts to homeowners (including Buttrill Road and Buttrill Court), reduced impacts to wetlands and streams, and minimized the overall project length as much as possible.

Ms. Dodd asked at this time if there were any questions.

The Honorable Mac Collins stated that he was present in a visitor status only, and as someone who lived in this area his entire life. He also stated that there was a new school and new church being built near the beginning of the project and because of this, he wanted to see the start of the project pushed farther to the west, away from Bert Road. He also mentioned an alternate route that would parallel the existing power lines. He continued by saying that his primary concern was with the traffic going into town and heading north on SR 36. He stated that the turns that trucks must negotiate (at 3rd Street and SR 36) are bad. The Honorable Mac Collins emphasized that he is a resident of Butts County, but does not represent the City of Jackson, and he said that he was on the Butts County Board of Commissioners 25 years ago.

Ms. Dodd responded that the goal of keeping the through-route tie-in's as proposed is to make the bypass the preferred route to drivers. At this time, no other alternates were proposed or discussed.

IX. Major Structures

Mr. Harris stated that Ms. Shannon Dodd said that bridges are needed over Norfolk Southern Railroad and the town branch of Aboothlacoosta Creek. In addition, 12 culverts are needed over minor tributaries.

X. Design Variances / Exceptions – No design variances or exceptions are required at this time.

XI. Right of Way Displacements / Relocations

Mr. Jerry Milligin of GDOT stated that there are 8 residential displacements, 2 business displacements and 48 total parcels affected. He provided a right of way cost estimate of $6,938,900.

XII. Utilities

GDOT District Three utility personnel were not able to attend this meeting, therefore Mr. Harris provided the following list of utilities involved in the project: Georgia Power Transmission, Georgia Power, Bellsouth Telecommunications, Butts County Water & Sewerage, Atlanta Gas Light Company, Central Georgia EMC and Charter Communications. He stated that the utility cost estimate for this project would be $543,320.00

XIII. Alternates Considered and Reasons for Rejection

Mr. Calvin Harris stated the Ms. Dodd had previously discussed the three project alternates and the reasons for their rejection.

XIV. Level of Environmental Analysis and Environmental Concerns

Mr. Russ Danser of Edwards-Pitman Environmental consultants stated that the level of environmental analysis would be an Environmental Assessment. He stated that the main areas of concern would be the disruption of homes and businesses at the eastern terminus of the project; and the crossing of area streams. He stated that the impacts to wetlands would be determined once an alignment is approved.

a. **Historic Areas** – Ms. Larissa Thomas of TRC Garrow Associates stated that an investigation was performed into previously recorded archaeological sites and historic architectural properties. No known sites were within a one-mile radius of the project. The field investigation will begin in the project corridor, once it has been approved.

b. **Hazardous Wastes** – None.

c. **Underground Storage Tanks** – None.

XV. Project Development Schedule

Ms. Katie Mullins of GDOT Programming Office stated that Right of Way was scheduled for 2007 and that construction was in the long-range program.

XVI. Public Hearing – Required

Mr. Frank Danchetz stated that a Public Information Meeting should also be scheduled because the public needed to hear directly and officially from GDOT instead of getting information second-hand.

XVII. Other Projects in Area

The only project identified was SR 36 / Jackson from SR 16 to CR 289 Stark Road, Project No. STP-054-1 (48), P.I. Number 322440.

XVIII. Comments from Attendees

a. **Local Government/Others**

1.

The Honorable Mac Collins stated that he did not currently represent Butts County in any official capacity. However, as a resident of Butts County, he expressed his overall approval of the project, but that he had some concerns regarding the project termini. He expressed that the downtown businesses would be affected if SR 16 were brought into the bypass at 90 degrees. He also discussed that there is heavy traffic at SR 42 going Eastbound that needed to be addressed.

Mr. Hill responded to The Honorable Mac Collins and indicated that the SR 36 / Jackson from SR 16 to CR 289 Stark Road project would address the issue of heavy traffic at SR 42.

2. **Butts County**

Mr. Hazell, planning director of McIntosh Trail Regional Development Center, stated that the Butts County Commission is very interested in assisting the GDOT with the by-pass and all related efforts. They would especially like to work with the GDOT in planning for a possible northern addition to the by-pass: Many feel a need and purpose similar to the one behind the southern loop will also drive the need for a northern extension to Hwy. 36. To this end, the County would like to work with the GDOT in monitoring the traffic conditions and ensure future land use patterns and capital improvement projects will efficiently support any such extension in the future. Also, the Butts County Parks and Recreation Department is

actively working on a Trails and Pathways Plan and is extremely interested in seeing a bikeway established as part of the by-pass road. Much of the work for this Plan has been completed, and the preliminary hearings have shown a strong interest in using the route along the by-pass as a means for tying the community and various other bike paths together. He indicated that while he had not been made aware of a specific design or type of bike path desired by the Department, he had been instructed to indicate this desire to the GDOT and to start whatever process is necessary to see such a path become a reality.

Mr. Danchetz stated that Mr. Adam Hazell needed to send GDOT an official letter requesting that they take a look at providing bike paths and/or trails to the project. He also provided Mr. Hazell with other alternatives for funding.

b. **Engineering Services**

Mr. Mark Lawing of GDOT Engineering Services Office mentioned that all cross road alignments needed to cross the mainline road at 90 degrees, if possible; and that deceleration lanes need to be provided at all intersections. He also stated that the typical section for this project included 6.5' wide paved shoulders, which will accommodate bicycles. He also stated his concerns with the new road profile being able to get back down to the existing SR 16 elevation while accommodating tie-in's and railroad crossings at the eastside of the project.

c. **Programming** – No additional comments.

d. **Traffic Operations** – No additional comments.

e. **Environmental / Location** – No additional comments.

f. **Planning** – No additional comments.

g. **District**

Mr. Tom Queen, of the GDOT District Three Office mentioned that an earlier project alignment had been published in the paper and that his office had received several calls from the public requesting information on this project. He also stated that the District Office received many calls, particularly about sight distance concerns on the eastside of the project and that many local residents support widening SR 16, especially with the Caterpillar plant being located nearby.

h. **Right of Way** – None additional comments.

i. **Utilities** – No Comments.
   1. **Electrical**
   2. **Telephone**
   3. **Water / Sewer**
   4. **Gas**
   5. **Others**

XIX. Other Comments or Concerns – Open Discussion

The Honorable Mac Collins mentioned moving the project farther to the east so that the Vulcan Material's plans for a quarry and Butt's County's desire to accommodate the quarry could be carried out. The Honorable Mac Collins was under the impression the quarry would be located near the beginning of the project (west of Bert Road). It was agreed that this matter would be investigated.

Ms. Dodd stated that the Butts County Board of Commissioners were in the process of having Vulcan Materials Company open a quarry near the alignment route. The Commissioners want to make GDOT aware of the project so that the bypass alignment would accommodate them.

Mr. Frank Danchetz asked the Office of Programming representative to verify if DOT will be acquiring right of way for this project. It has been verified that GDOT will acquire the Right of Way for this project. He also stated that a review of the Need and Purpose for this project is should be completed before the Concept Report is submitted. He said with all of the new industries and traffic concerns that were discussed the Need and Purpose should be changed to address those concerns.

Mr. Calvin Harris stated that the concept report is scheduled to be sent to the Assistant Pre-Construction Director on November 12, 2001 and that all comments and cost estimates should be in before this date.

If there are any questions, comments, or revisions please call me at (404) 888-6921.

Sincerely,

Shannon M. Dodd
Rosser International, Inc.
Transportation Director

cc: Attendees

4. CAPACITY ANALYSIS

The *Synchro Program* was used to conduct capacity analysis. *Synchro* implements the capacity methods of the *1997 Highway Capacity Manual* (HCM) Chapters 9 and 10 for performing the industry standard evaluation of intersection performance. The Webster delays used in the reports follow the procedure as recommended by the HCM.

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

The levels of service definitions for both stop controlled and signal controlled intersections are provided in Table 3.

Table 3 - LEVEL OF SERVICE CRITERIA

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

Source: Highway Capacity Manual

Capacity Analysis Results, Unsignalized Intersections

Table 6 contains the results of the capacity analysis of projected volumes for the construction year. All intersections were initially evaluated with stop sign control to determine the level of service expected without traffic signals.

The values shown in parenthesis indicate the estimated delay in seconds per vehicle. Synchro printouts are provided in Appendix A for the Construction Year (2005) and in Appendix B for the Design year (2025).

Table 4 – RESULTS OF CAPACITY ANALYSIS, UNSIGNALIZED INTERSECTIONS

SR 16 (West) at South Bypass

MOVEMENT	AM PEAK HOUR		PM PEAK HOUR	
	YEAR 2005	YEAR 2025	YEAR 2005	YEAR 2025
WB Left Turn From SR 16 to Bypass	A (8.2)	A (8.6)	A (8.8)	F (*)
NB Left Turn From Bypass to SR 16	B (12.9)	D(32.3	C (16.1)	A (8.2)

SR 36 at South Bypass

MOVEMENT	AM PEAK HOUR		PM PEAK HOUR	
	YEAR 2005	YEAR 2025	YEAR 2005	YEAR 2025
EB From Bypass (Total Approach)	B (11.7)	C (22.8)	C (17.5)	F (152.5)
WB From Bypass (Total Approach)	B (11.3)	C (18.2)	B (13.9)	F (1649.1)
NB Left Turn From SR 36	A (7.4)	A (7.6)	A (7.7)	A (8.1)
SB Left Turn From SR 36	A (7.5)	A (7.9)	A (7.7)	A (8.2)

Brownlee Road at South Bypass

MOVEMENT	AM PEAK HOUR		PM PEAK HOUR	
	YEAR 2005	YEAR 2025	YEAR 2005	YEAR 2025
EB Left Turn From Bypass to Brownlee Rd	A (7.6)	A (7.9)	A (7.6)	A (8.0)
WB Left Turn From Bypass to Brownlee Rd	A (7.7)	A (8.0)	A (8.0)	A (8.2)
NB From Brownlee Rd (Total Approach)	B (11.1)	C (15.1)	B (12.2)	C (15.8)
SB From Brownlee Rd (Total Approach)	B (11.6)	B (14.9)	B (13.8)	C (17.1)

Table 4 (Continued)

SR 42/87 at South Bypass

MOVEMENT	AM PEAK HOUR		PM PEAK HOUR	
	YEAR 2005	YEAR 2025	YEAR 2005	YEAR 2025
EB From Bypass (Total Approach)	C (16.6)	F (141.6)	B (14.5)	F (1296.6)
WB From Bypass (Total Approach)	C (19.0)	F (*)	C (17.4)	F (*)
NB Left Turn From SR 36	A (3.0)	A (8.1)	A (7.9)	A (8.3)
SB Left Turn From SR 36	A (2.6)	A (8.3)	A (7.9)	A (8.5)

SR 16 (East) at South Bypass

MOVEMENT	AM PEAK HOUR		PM PEAK HOUR	
	YEAR 2005	YEAR 2025	YEAR 2005	YEAR 2025
EB Left Turn From Bypass to SR 16	A (7.6)	A (9.1)	A (7.9)	A (9.6)
SB Left Turn From SR 16 to SR EB	B (10.9)	C (19.5)	B (11.6)	C (23.3)

The results summarized in the tables above indicate that all intersections will operate with levels of service 'C' or better during the construction year. However, during the design year, traffic signals will be required at the following intersections:

- SR 16 (West) at South Bypass,
- SR 36 at South Bypass, and
- SR 42/87 at South Bypass.

Capacity Analysis Results, Signalized Intersections

The above intersections were evaluated under signal control to determine the levels of service that would be expected with the projected volumes. The results are summarized in Table 5. Synchro printouts are in Appendix C for 2005 volumes and Appendix D for 2025 volumes.

Table 5 – RESULTS OF CAPACITY ANALYSIS, YEAR 2005, SIGNALIZED INTERSECTIONS

INTERSECTION	AM PEAK HOUR		PM PEAK HOUR	
	YEAR 2005	YEAR 2025	YEAR 2005	YEAR 2025
SR 16 (West) at South Bypass	A (5.0)	A (4.8)	A (7.1)	A (8.2)
SR 36 at South Bypass	A (5.0)	A (5.7)	A (5.5)	A (6.8)
SR 42/87 at South Bypass	A (4.1)	A (3.9)	A (5.3)	A (5.5)

The capacity analysis indicates that traffic signals will be required at the three intersections shown in Table 5 at some time prior to the design year. With signal operation, these intersections will all operate at level of service 'A'.

5. SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

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

1. The basic two-lane section proposed for the South Jackson Bypass is adequate and will provide good levels of service for the design year.
2. A change is recommended for the tie-in on the western terminus of the project. The bypass should 'T-in' to SR 16.
3. All intersections will operate at level of service 'C' or better during the construction year while operated with stop sign control.
4. Without traffic signals, several intersections will operate at very poor levels of service 'F' during the design year. These intersections include the western terminus at SR 16, The South Bypass at SR 36, and the South Bypass at SR 42/87. With traffic signals, these intersections will all operate at level 'A'.
5. Figure 13 illustrates the recommended lane configuration and traffic control (for the construction year) at each intersection along the project.
6. Table 6 summarizes the recommended lengths of full-width storage for turn lanes at each intersection.

Table 6 – RECOMMENDED TURN LANE STORAGE LENGTHS

SR 16 (West) at South Bypass

MOVEMENT	DHV	FULL WIDTH STORAGE, FT
EB Right Turn From SR 16 to Bypass	270	290
WB Left Turn From SR 16 to Bypass	50	150
NB Left Turn From Bypass to SR 16	250	150
NB Right Turn From Bypass to SR 16	40	150

SR 36 at South Bypass

MOVEMENT	DHV	FULL WIDTH STORAGE, FT
EB Left Turn From Bypass	100	150
EB Right Turn From Bypass	30	150
WB Left Turn From Bypass	50	150
WB Right Turn From Bypass	50	150
NB Left Turn From SR 36	30	150
NB Right Turn From SR 36	80	150
SB Left Turn From SR 36	50	150
SB Right Turn From SR 36	50	150

Table 6 (Continued)

Brownlee Road at South Bypass

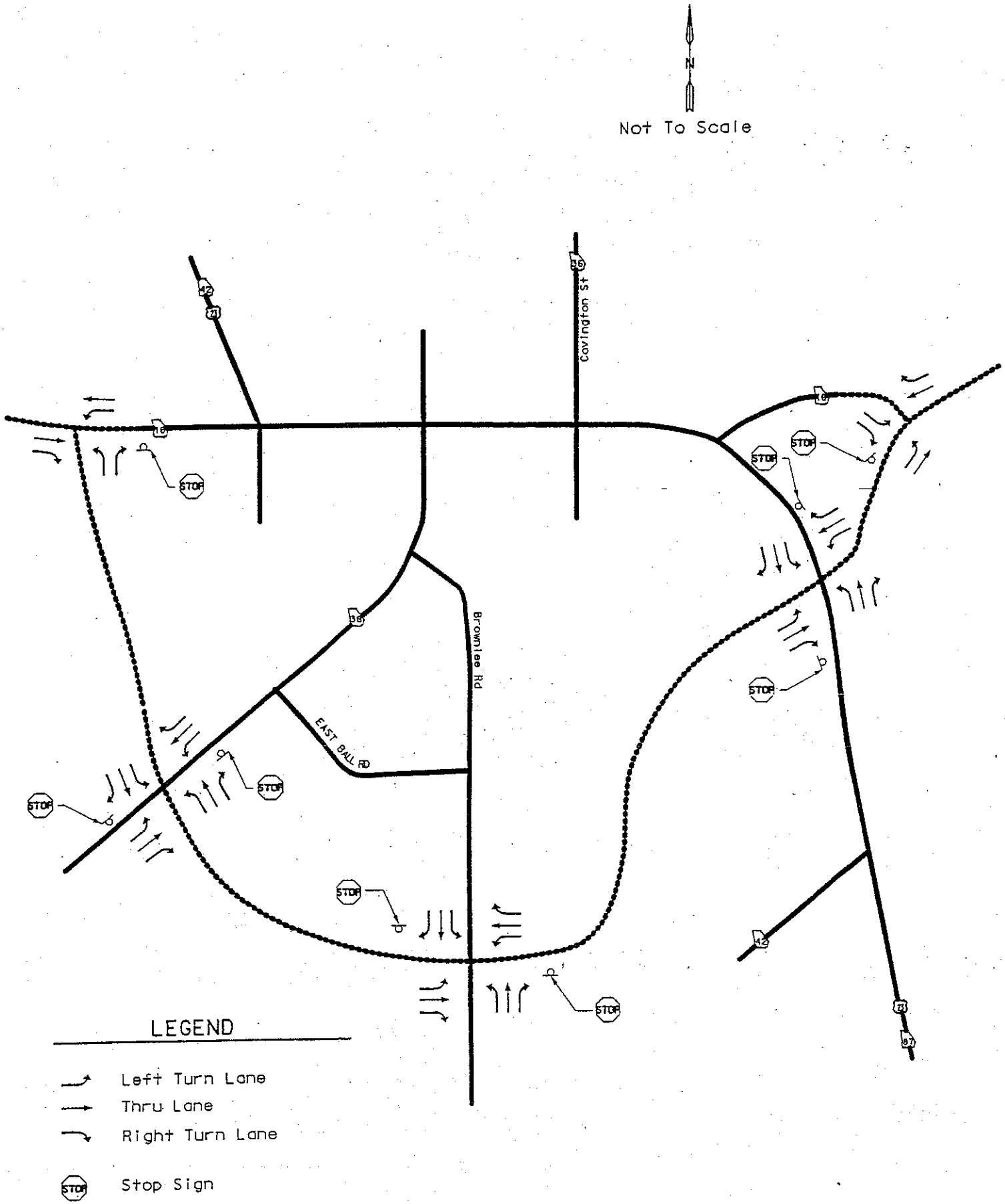
MOVEMENT	DHV	FULL WIDTH STORAGE, FT
EB Left Turn From Bypass	30	150
EB Right Turn From Bypass	20	150
WB Left Turn From Bypass	20	150
WB Right Turn From Bypass	30	150
NB Left Turn From Brownlee Rd	30	150
NB Right Turn From Brownlee Rd	50	150
SB Left Turn From Brownlee Rd	30	150
SB Right Turn From Brownlee Rd	30	150

SR 42/87 at South Bypass

MOVEMENT	DHV	FULL WIDTH STORAGE, FT
EB Left Turn From Bypass	50	150
EB Right Turn From Bypass	230	150
WB Left Turn From Bypass	110	150
WB Right Turn From Bypass	275	150
NB Left Turn From SR 42/87	170	150
NB Right Turn From SR 42/87	80	150
SB Left Turn From SR 42/87	230	150
SB Right Turn From SR 42/87	50	150

SR 16 (East) at South Bypass

MOVEMENT	DHV	FULL WIDTH STORAGE, FT
EB Left Turn From Bypass	50	150
WB Right Turn From Bypass	250	150
SB Left Turn From SR 16	100	150
SB Right Turn From SR 16	50	150



Wolverton & Associates INCORPORATED

RECOMMENDED LANE GEOMETRICS

FIGURE 13

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
OFFICE OF ROAD AND AIRPORT DESIGN

Project Number: STP-3003 (1)
County: Butts
P. I. Number: 343440

Federal Route Number: None
State Route Number: None

Recommendation for approval

DATE 8/9/02 _____ Project Manager

DATE 9/3/02 _____ Office Head/District 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 9/6/02 _____ State Transportation Planning Administrator

DATE _____ State Financial Management Administrator

DATE _____ State Environmental/Location Engineer

DATE _____ State Traffic Operations Engineer

DATE _____ District Engineer

DATE _____ Project Review Engineer

DATE _____ State Bridge & Structural Design Engineer

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

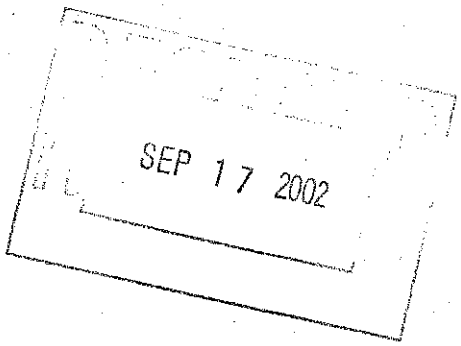
FILE: **P.I. No. 343440**

OFFICE: Environment/Location

DATE: September 16, 2002

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

TO: Meg Pirkle, Assistant Director of Preconstruction



SUBJECT: **PROJECT CONCEPT REPORT**
STP-3003(1) - BUTTS COUNTY

The above subject concept report has been reviewed. New location – need to consider more bridges and at a minimum bottomless culverts. Stream impacts will be substantial. This project will likely require an Individual permit and a PAR. PAR should be held as soon as alternative alignments are developed.

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

HDK/rtt

Attachment

cc: David Mulling, P.E.
Gerald M. Ross, P.E.

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
OFFICE OF ROAD AND AIRPORT DESIGN

Project Number: STP-3003 (1)
County: Butts
P. I. Number: 343440

Federal Route Number: None
State Route Number: None

Recommendation for approval

DATE 8/9/02 _____ Project Manager

DATE 9/3/02 _____ Office Head/District Engineer

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

DATE _____ State Transportation Planning Administrator

DATE _____ State Financial Management Administrator

DATE 9/9/02 _____ State Environmental/Location Engineer

DATE _____ State Traffic Operations Engineer

DATE _____ District Engineer

DATE _____ Project Review Engineer

DATE _____ State Bridge & Structural Design Engineer

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
OFFICE OF ROAD AND AIRPORT DESIGN

Project Number: STP-3003 (1)
County: Butts
P. I. Number: 343440

Federal Route Number: None
State Route Number: None

Recommendation for approval

DATE 8/9/02 _____ Project Manager

DATE 9/3/02 _____ Office Head/District Engineer

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

DATE _____ State Transportation Planning Administrator

DATE 9/5/02 _____ State Financial Management Administrator

DATE _____ State Environmental/Location Engineer

DATE _____ State Traffic Operations Engineer

DATE _____ District Engineer

DATE _____ Project Review Engineer

DATE _____ State Bridge & Structural Design Engineer

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
OFFICE OF ROAD AND AIRPORT DESIGN

Project Number: STP-3003 (1)
County: Butts
P. I. Number: 343440

Federal Route Number: None
State Route Number: None

Recommendation for approval

DATE 8/9/02 _____ Project Manager

DATE 9/3/02 _____ Office Head/District Engineer

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

DATE _____ State Transportation Planning Administrator

DATE _____ State Financial Management Administrator

DATE _____ State Environmental/Location Engineer

DATE _____ State Traffic Operations Engineer

DATE _____ District Engineer

DATE 9-19-02 David J Mulling for REW Project Review Engineer

DATE _____ State Bridge & Structural Design Engineer

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
OFFICE OF ROAD AND AIRPORT DESIGN

Project Number: STP-3003 (1)
County: Butts
P. I. Number: 343440

Federal Route Number: None
State Route Number: None

Recommendation for approval

DATE 8/9/02 _____ Project Manager

DATE 9/3/02 _____ Office Head/District Engineer

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

DATE _____ State Transportation Planning Administrator

DATE _____ State Financial Management Administrator

DATE _____ State Environmental/Location Engineer

DATE _____ State Traffic Operations Engineer

DATE _____ District Engineer

DATE _____ Project Review Engineer

DATE 9/21/02 _____ State Bridge & Structural Design Engineer