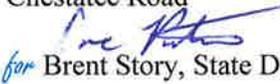


**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

**OFFICE OF DESIGN POLICY & SUPPORT
INTERDEPARTMENTAL CORRESPONDENCE**

FILE P.I. #0003626 **OFFICE** Design Policy & Support
STP00-0003-00(626)
GDOT District 1 - Gainesville
Hall County **DATE** 9/28/2011
Sardis Road Conn. from SR 60 to Sardis Road near
Chestatee Road

FROM  Brent Story, State Design Policy Engineer

TO SEE DISTRIBUTION

SUBJECT APPROVED CONCEPT REPORT

Attached is the approved Concept Report for the above subject project.

Attachment

DISTRIBUTION:

Genetha Rice-Singleton, Program Control Administrator
Bobby Hilliard, State Program Delivery Engineer
Cindy VanDyke, State Transportation Planning Administrator
Angela Robinson, Financial Management Administrator
Glenn Bowman, State Environmental Administrator
Kathy Zahul, State Traffic Engineer
Georgene Geary, State Materials & Research Engineer
Ron Wishon, State Project Review Engineer
Jeff Baker, State Utilities Engineer
Ken Thompson, Statewide Location Bureau Chief
Michael Henry, Systems & Classification Branch Chief
Todd McDuffie, District Engineer
Robert Mahoney, District Preconstruction Engineer
Allen Ferguson, District Utilities Engineer
Brandon Kirby, Project Manager
BOARD MEMBER - 9th Congressional District

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
District One**

PROJECT CONCEPT REPORT

Project Number: STP-0003-00(626)
County: Hall
P. I. Number: 0003626
GHMPO No. GH-016
Federal Route Number: N/A
State Route Number: N/A

Sardia Road Connector/A new roadway connecting S.R. 53 & 60
See Project Location Sketch, Page 2

Submitted for approval:

DATE 02/08/2011
DATE 2-11-11
DATE 2/12/11
DATE 2/17/11
DATE 2/17/11

PB Americas Inc. Geoffrey Donald
Design Consultant Name and Firm Name
Geo. W. ...
Hall County
William ...
District Preconstruction Engineer
Paul ...
Project Manager
Paul ...
District Engineer / District Utilities Engineer

Recommendation for approval:

DATE 5/17/2011
DATE 5/5/2011
DATE 4/7/2011
DATE 4/26/2011
DATE 5/11/2011
DATE _____

GENETHA RICE-SINGLETON *TJ
Program Control Administrator *TJ
GIRLL BOGIMAR
State Environmental Administrator *TJ
KATHY ZAHUL
State Traffic Engineer *TJ
KON WISHSON *TJ
Project Review Engineer
ALLEN FERGUSON *TJ
State Utilities Engineer

State Transportation Financial Management Administrator

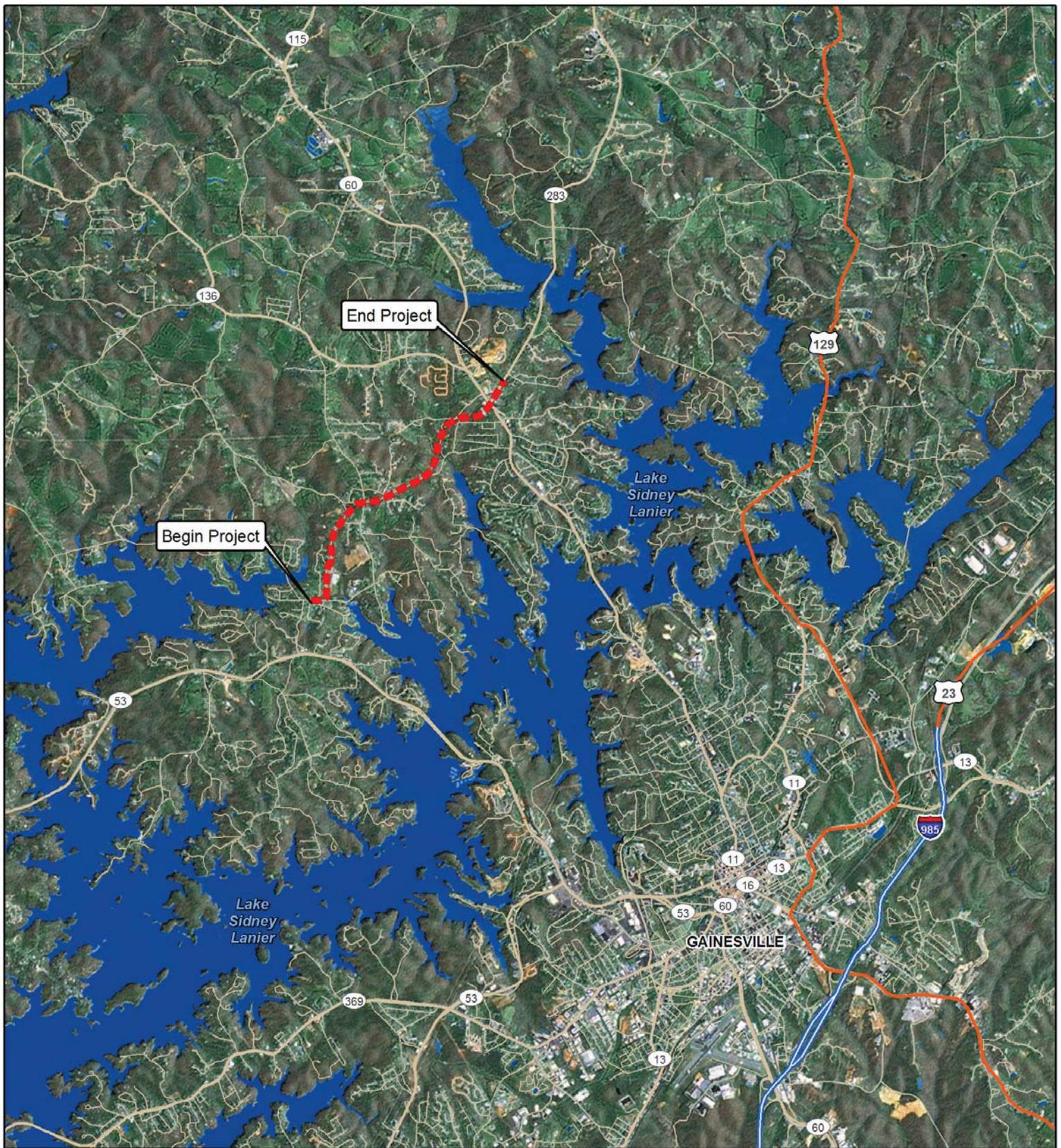
*** RECOMMENDATION ON FILE**

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

DATE 5-26-11

Christina ...
* State Transportation Planning Administrator

*** Project is consistent with Gamesville Plan.**



Sardis Road Connector Alternative

STP-0003-00 (626) PI 0003626



Proposed Alignment



Water Body



Miles

Creation Date: June 28, 2011

Need and Purpose: See attached Need & Purpose Statement.

Description of the proposed project: The proposed SARDIS ROAD CONNECTOR consists of the widening and reconstruction of several existing local roads and streets in addition to portions of the project requiring alignment on new location. The project is located in west central Hall County just west of Gainesville, Georgia. The project STP-0003-00(626) begins at the Sardis Road /Chestatee Road intersection and extends north to SR 60 in the vicinity of the intersection with Mt. Vernon Road/ SR-283. The alignment follows several existing local roads and will utilize portions of existing Fran Mar Drive, Brackett Road, Ledan Road, and Southers Road. Some of the roadway alignment will be on new location between these existing local roads. The total project length is approximately 3.55 miles and will provide a connector roadway between S.R. 53 to the south and S.R. 60 to the north. The proposed roadway will consist of a four lane curb and gutter divided roadway, 2 lanes in each direction separated with a 20 foot wide, 6 inch high curb and gutter median. Multi-use path will be provided on both sides of the road. The horizontal and vertical alignments will meet the requirements for a 35MPH and 45 MPH speed design. The intersections at Sardis Road and S.R. 60 are proposed to be signalized based on initial warrant studies. The intersection at SR-60 will require a modification of the existing signal.

Is the project located in a PM 2.5 Non-attainment area? X Yes _____ No

Is this project located in an Ozone Non-attainment area? X Yes _____ No

The proposed project design will add additional capacity, reduce the potential for traffic incidents, and mitigate traffic congestion along the local streets and roads in the project area. The existing local roads and streets have two thru lanes and the proposed roadway has four thru lanes. The project was evaluated for its consistency with state and federal air quality goals including CO, Ozone, PM 2.5, and MSATs. Results indicated that the project is consistent with the SIP for the attainment of clean air quality in Georgia and is in compliance with both state and federal air quality standards

PDP Classification: Major X Minor _____

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

Functional Classification: Urban Collector

U. S. Route Number(s): None

State Route Number(s): None

Traffic (AADT):

Build Year: 12,800 (2015)

Design Year: 18,800 (2035)

Existing design features:

- Typical Section: Two 12 ft. wide travel lanes, with 2 ft. shoulders (Existing local roads and streets at various locations along the project route)
- Posted speed Variable 25 to 35 mph Minimum radius: 2320 ft.
- Maximum grade: 15.0 % Mainline, and 25% Driveways
- Width of right of way: Varies 60 to 80 ft (maximum)
- Major structures: None
- Major interchanges or intersections along the project: S.R. 60 at S.R. 283

- No existing ITS systems

Proposed Design Features:

Design features assume rolling terrain conditions. Proposed typical section(s): (1) Mainline; Urban curb and gutter roadway with four travel lanes two in each direction separated by a 20 foot wide 6 inch high concrete curb and grass median, with proposed 16 foot wide graded outside shoulders providing a 10 foot paved multi use path on east side.(2) SR-283 Urban curb and gutter roadway providing two left turn lanes, two 11' SB thru lanes and single 11' NB thru lane, 4 foot sidewalks either side with passing spaces and transitions back to existing two 12' lanes with rural shoulders (3) Side Roads; Urban curb and gutter roadway with two 11' wide travel lanes one in each direction (see Attachments)

- Proposed Design Speed Mainline: 35 mph (at Begin Project tie in) & 45 mph
- Proposed Maximum grade Mainline: 8.0% Maximum grade allowable: 8.0%
- Proposed Maximum grade Side Street: 9.0% Maximum grade allowable: 9.0%
- Proposed Maximum grade driveway: 20%
- Proposed Minimum radius of curve: 418 ft./643 ft. Minimum radius allowable: 340 ft./643 ft
- Maximum allowable superelevation rate 4 %
- Proposed maximum superelevation rate *6 % *Based on Suburban Developing Area Table 4.9 GDOT Design Policy Manual
- Right of way
 - Width: Variable 100 to 150 feet of Right of Way with slope easements is anticipated.
 - Easements: Temporary (), Permanent (X), Utility (), Other ()
 - Type of access control: Full (), Partial (), By Permit (X), Other ()
 - Number of parcels: 137+/- Number of displacements: 30
 - Business: 1
 - Residences: 28
 - Mobile homes: 0
 - Other: 1
- Structures: Several Box Culvert Locations Anticipated
- Major intersections and interchanges. Redesigned existing signalized intersection at S.R. 60/S.R. 283 and new signalized intersection at Sardis Road Connector at Sardis Rd. A roundabout will not be feasible at the new signalized intersection due to environmentally sensitive areas.
- Traffic control during construction: The traffic will be maintained on some sections, however offsite detours on the existing roadway network will be required while the new alignment is constructed. The traffic will then be redirected to the new alignment.
- Transportation Management Plan Anticipated: Yes () No (x)
- No proposed ITS systems
- Design Exceptions to controlling criteria anticipated:

	<u>UNDETERMINED</u>	<u>YES</u>	<u>NO</u>
HORIZONTAL ALIGNMENT:	()	()	(X)
LANE WIDTH:	()	()	(X)
SHOULDER WIDTH:	()	()	(X)
VERTICAL GRADES:	()	()	(X)
CROSS SLOPES:	()	()	(X)

STOPPING SIGHT DISTANCE:	()	()	(X)
SUPERELEVATION RATES:	()	()	(X)
VERTICAL ALIGNMENT:	()	()	(X)
SPEED DESIGN:	()	()	(X)
VERTICAL CLEARANCE:	()	()	(X)
BRIDGE WIDTH:	()	()	(X)
BRIDGE STRUCTURAL CAPACITY:	()	()	(X)
LATERAL OFFSET TO OBSTRUCTION::	()	()	(X)

- Design Variances: Skewed Intersections less than 70 degrees,.
- Environmental concerns: Historic properties along the ROW, stream buffer variances, and wetland impacts (Section 404, and NOI NPDES permits required)
- Level of environmental analysis:
 - Are Time Savings Procedures appropriate? Yes (), No (X),
 - Categorical exclusion anticipated ()
 - Environmental Assessment/ Finding of No Significant Impact (FONSI) anticipated (X),
 - Environmental Impact Statement (EIS) ().

- Utility involvement: Yes, existing utilities to be relocated may include:

Atlanta Gas Light Co.; Atmos Energy; Bellsouth; Charter Communications; City of Flowery Branch; City of Gainesville; Ga. Power Co.(Distribution); Ga. Power Co. (Transmission); Ga. Transmission; City of Gainesville Public Utilities Dept; Jackson EMC; Sawnee EMC; Windstream Communications, Inc.

- VE Study Required Yes (x) No ()
- Benefit/Cost Ratio .78

Project Cost Estimate and Funding Responsibilities:

	PE	ROW	UTILITY	*CST	MITIGATION
By Whom	Hall Co.	Hall Co.	Hall Co.	Federal/State/Local	Hall Co.
\$ Amount	\$1,490,000	\$23,992,946	\$502,820	\$21,438,026	\$320,000

*CST Cost includes: Construction, Engineering and Inspection, Fuel Cost Adjustment, and Asphalt Cement Cost Adjustment

Project Activities Responsibilities:

- Design, Hall County
- Right of Way Acquisition, Hall County
- Right-of-Way Funding (real property) Hall County
- Relocation of Utilities, Reimbursable by Hall County
- Letting to contract, GDOT
- Supervision of construction, GDOT
- Providing material pits, Project Contractor
- Providing detours. Contractor/GDOT/Hall County
- Environmental Studies/Documents/Permits, Consultant/Hall County
- Environmental Mitigation. Hall County

Coordination

- Kickoff Meeting.9-8-2006 Minutes Attached

- Initial Concept Meeting date and brief summary. N/A
- Concept meeting.10-23-2007 Minutes Attached
- Meeting with FHWA 11-07-2007 Minutes attached
- PAR Report: Approved 8-27-2008 Attached
- FEMA, USCG, and/or TVA: EPD Individual Permit
- Public involvement: Public Information Meeting(Held on 5/1/07) and Public Hearing Anticipated PIOH Summary Attached
- Local government comments: Hall County has signed the PFA 2-10-2011
- Other projects in the area. STP00-0065-03(037), PI 121780 (connects to this project). SMBRO-M002-00(734), PI M002734, (Does not affect this project). CSSTP-M003-00(176), PI M003176, (Does not affect this project).STP00-0198-01(020), PI132610,(Does Not affect this project).
- VE Study held June 13-16 2011, VE Implementation Letter Attached.

Scheduling – Responsible Parties’ Estimate

- Time to complete the environmental process: Begin 5/2011 End 2/2012
- Time to complete preliminary construction plans: Begin 5/2011 End 3/2012
- Time to complete right of way plans: Begin 4/2012 End 7/2012
- Time to complete the Individual Permit: Begin 9/2014 End 3/2015
- Time to complete final construction plans: Begin 10/2012 End 6/2015
- Time to complete to purchase right of way: Begin 9/2012 End 6/2014
- List other major items that will affect the project schedule: N/A
- Time to construct project: Begin 7/2015 End 12/2016

OTHER ALTERNATES CONSIDERED:

SARDIS ROAD CONNECTOR (see pages 10 and 11 for Alternative Maps)

No-Build

The No-Build alternate would not construct a new roadway and would not provide a viable and direct roadway connection between S.R. 53 and S.R. 60 which as proposed would provide some relief to the traffic congestion in downtown Gainesville.

All Build Alternates

All of the build alternates include a common alignment in the center of the project. This common section follows Brackett Road for approximately 7500 feet from just past Chestatee Middle School to Ladd Drive where it goes on new location for approximately 1000 feet and then follows Ledan Road for approximately 3500 feet to just past the Windsor Forest subdivision.

There are two alternate alignments between the beginning of the project and the common alignment. There are 3 basic alternate alignments from the common alignment to the end of the project. With only minor changes, the alternates can be combined to create multiple alternates by switching alignments where the alternates cross

Alternate 1

Alternate 1 begins near the intersection of Sardis Road and Chestatee Road and turns to the south on a partial new alignment crossing Fran Mar near the intersection with existing Sardis Rd. It then follows along Brackett Drive to just past Chestatee Middle School where it ties into the common alignment. Alternate 1 continues along Ledan Road past the common alignment for approximately 2000 feet where it leaves Ledan Road to the north on new alignment and roughly parallels Greencrest Road and Garden Boulevard and forms a new intersection with S.R. 60 south of the existing SR 60 / SR 283 intersection. It then extends across SR 60 to connect to Mt. Vernon Road (S.R. 283) near the intersection with Corinth Drive.

Alternate 2

Alternate 2 begins near the intersection of Chestatee Road and extends to the north on new alignment and will cross Fran Mar Drive and Brackett Drive and then follows the common alignment. Alternate 2 leaves the common alignment to the north and continues on new alignment crossing Southers Road approximately 500 feet from the intersection with Ledan Road. From that point, it extends in a straight line across Greencrest Road and Garden Boulevard to the existing intersection with S.R. 60 and tie to the existing Mt. Vernon Road (S.R. 283). The SR 283 approach on the north side of SR 60 will be widened to match the proposed Sardis Road section. There will be a slight difference in approach angles between the Sardis Road and SR 283 approach to the SR 60 intersection.

Alternate 3

Alternate 3 has the same beginning alignment as Alternate 1 and the end alignment is similar to Alternate 2 except that the alignment is shifted slightly to eliminate the difference in the approach angles at the SR 60 intersection

Alternate 4

Alternate 4 has the same beginning as Alternate 1 but it diverges from the common alignment to the northwest near Hidden Hollow Road and crosses Hidden Hollow Road on new alignment. There it extends on new alignment following along the back property lines of several large tracts of undeveloped property, then crossing Southers Road and Greencrest Road near Woodlane Road to tie into the Alternate 1 alignment.

Alternate 5

Alternate 5 is the same as Alternate 4 except that the new alignment along the back property lines is shifted slightly to reduce the stream impacts.

Alternate 6

Alternate 6 is the same as Alternate 4 except that instead of turning south near Woodlane Road it continues to the north across Woodlane Road across a currently undeveloped tract and crosses SR 60 with a new intersection about 1200 feet northwest of the existing SR 60 and SR 283 intersection. From there it continues on new location to tie into SR 283 about 2000 feet from the existing SR 60 and SR 283 intersection.

Alternate 7

Alternate 7 has the same beginning alignment as alternate 1. From there it follows the common alignment. It leaves the common alignment and follows northeast along Southers Road. Then it leaves Southers Road and parallels Garden Boulevard before turning northeast and aligning with the intersection of SR 60 and SR 283 and follows the Alternate 3 alignment to the end of the project.

Comments:

Comparison Summary of Alternates

The “No-Build” Alternate was eliminated due to the fact that this will not provide for direct access between S.R. 53 and S.R. 60 which will provide some relief to traffic congestion to the downtown Gainesville area.

Alternate 1 (East end of project was eliminated due to the additional R/W impacts and the need of building a new intersection at S.R. 60 and Mt. Vernon Road.)

Alternate 2 (West end of project is not recommended due to the additional R/W impacts and Environmental concerns associated with splitting an existing neighborhood.) (East end of project was eliminated due to the additional R/W impacts to a large neighborhood and the difference in approach angles at the existing intersection S.R. 60 and Mt. Vernon Road.)

Alternate 3 (West end of project is not recommended due to the additional R/W impacts and Environmental concerns associated with splitting an existing neighborhood.) (East end of project was eliminated due to the additional R/W impacts to a large neighborhood.)

Alternate 4 was eliminated due to the additional R/W impacts and the need of building a new intersection at S.R. 60 and Mt. Vernon Road.) Also Alternate 4 alignment beginning near Hidden Hollow Drive impacted four multi family duplex homes.

Alternate 5 was eliminated due to longitudinal stream impacts between Hidden Hollow Road and Woodland Road. Also Alternate 5 was eliminated due to the additional R/W impacts and the need of building a new intersection at S.R. 60 and Mt. Vernon Road and impacting four multi family duplex homes near Hidden Hollow Drive.

Alternate 6 was eliminated due to creating a new intersection at S.R. 60 which required the profile to be lowered along S.R. 60 to provide adequate intersection sight distance. This alternate also required several additional horizontal curves to realign the Sardis Road Connector with S.R. 283 (Mt. Vernon Road) which provides connectivity to the logical termini.

Alternate 7 is the recommended alignment for this concept because it best fits the need and purpose of the project with the least amount of environmental, and right of way impacts. It was also a more preferable alignment by the public.

Note: Alternates 1, 2 and 3 were presented at the PIOH, Alternates 4, 5, 6, and 7 were studied as a response to the hearing comments.

Attachments:

1. Cost Estimate including:
 - a. Construction
 - b. Right of Way
 - c. Utilities
 - d. Fuel Price Adjustments

Project Concept Report page 9
Project Number: STP-0003-00(626)
P. I. Number: 0003626
County: Hall

e. Mitigation Cost Estimate

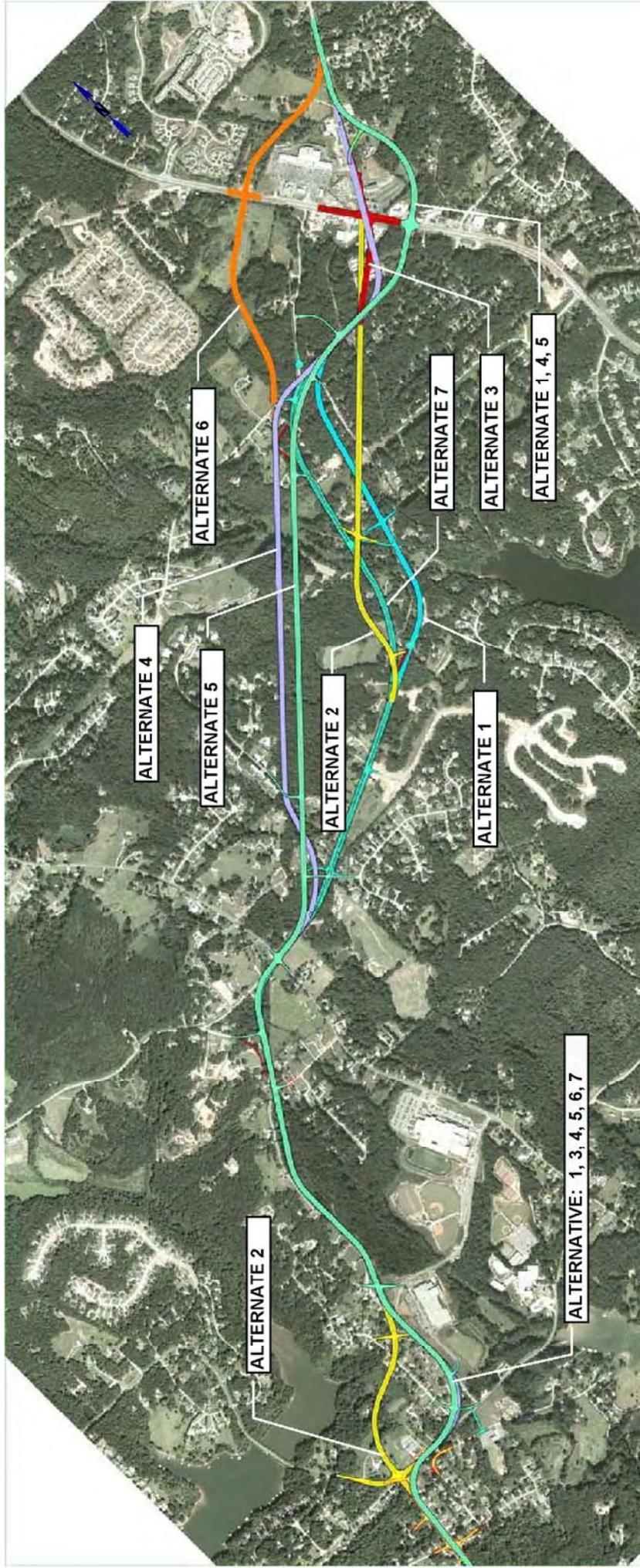
2. Typical sections
3. Minutes of Initial Concept and Concept meetings
4. Minutes of Meeting with FHWA 11-07-2007
5. PIOH Summary
6. VE Implementation Letter
7. Need and Purpose Statement
8. Traffic Diagrams
9. Traffic Forecasting Report(includes LOS capacity analysis, conforming plan network schematics)
10. Par Report
11. B-C Ratio Analysis Work Sheet
12. Project Framework Agreement

Exempt projects

Concur: Bill R. McManis
Director of Engineering

Approve: Dee m Per Date: 9-27-11
Chief Engineer

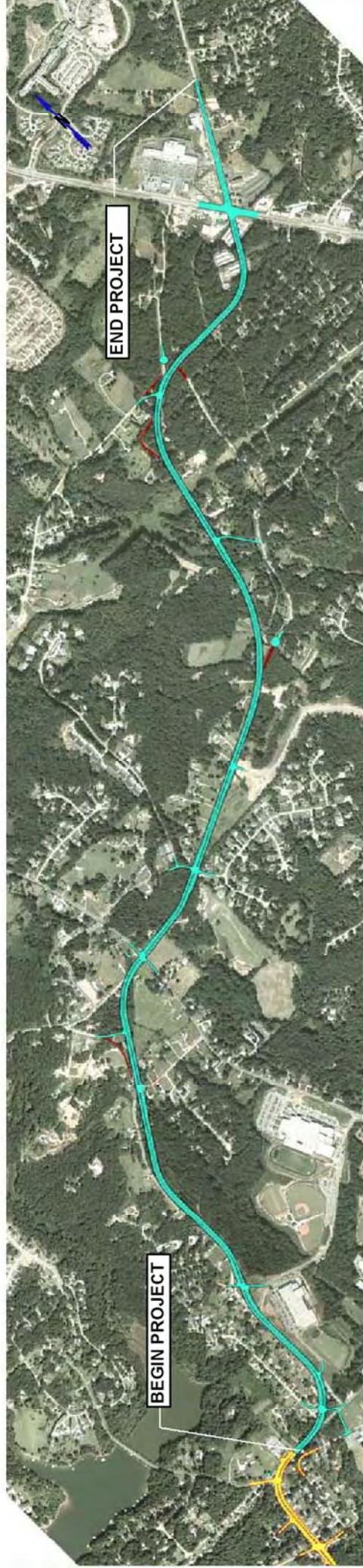
S.R. 53 / S.R. 60 SARDIS ROAD CONNECTOR ALTERNATES 1-7



GDOT PROJ. NO. STP-0003-00(626)
P.I. NO. 0003626
HALL COUNTY PROJ. NO. GHMPO NO. GH-016

Project Number: STP-0003-00(626)
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County: Hall
Project Concept Report page 10

S.R. 53 / S.R. 60 SARDIS ROAD CONNECTOR ALTERNATE 7



**GDOT PROJ. NO. STP-0003-00(626)
P.I. NO. 0003626
HALL COUNTY PROJ. NO. GHMPO NO. GH-016**

JOB ESTIMATE REPORT

JOB NUMBER : STP-0003-00(626) SPEC YEAR: 01
DESCRIPTION: SARDIS ROAD CONNECTOR/A NEW ROADWAY CONNECTING S.R. 53 & 60

ITEMS FOR JOB STP-0003-00(626)

LINE	ITEM	ALT	UNITS	DESCRIPTION	QUANTITY	PRICE	AMOUNT
0005	150-1000		LS	TRAFFIC CONTROL - 003626	1.000	140000.00	140000.00
0010	150-5010		EA	TRAF CTRL, PORTABLE IMPACT AITN	4.000	9470.37	37881.51
0015	153-1300		EA	FIELD ENGINEERS OFFICE TP 3	1.000	75511.58	75511.58
0020	201-1500		LS	CLEARING & GRUBBING - 003626	1.000	450000.00	450000.00
0025	205-0001		CY	UNCLASS EXCAV	654664.000	1.63	1069275.80
0030	207-0203		CY	FOUND BK FILL MATL, TP II	2000.000	35.04	70093.58
0035	310-1101		TN	GR AGGR BASE CRS, INCL MATL	121719.000	13.49	1642089.12
0040	402-3121		TN	RECYL AC 25MM SP, GP1/2, BM&HL	55327.000	48.68	2693662.49
0045	402-3130		TN	RECYL AC 12.5MM SP, GP2, BM&HL	72813.000	50.87	3704327.15
0050	402-3190		TN	RECYL AC 19 MM SP, GP 1 OR 2 , INC BM&HL	18442.000	54.38	1003005.61
0055	413-1000		GL	BITUM TACK COAT	20351.000	1.96	40027.97
0060	441-0018		SY	DRIVEWAY CONCRETE, 8 IN TK	9334.000	32.68	305098.68
0065	441-0104		SY	CONC SIDEWALK, 4 IN	37035.000	19.93	738260.87
0070	441-0754		SY	CONC MEDIAN, 7 1/2 IN	23906.000	40.60	970754.29
0075	441-4030		SY	CONC VALLEY GUTTER, 8 IN	3300.000	33.14	109385.69
0080	441-6222		LF	CONC CURB & GUTTER/ 8"X30"TP2	21440.000	10.10	216675.64
0085	446-1100		LF	PVMT REF FAB STRIPS, TP2, 18 INCH WIDTH	2000.000	4.44	8885.66
0090	620-0100		LF	TEMP BARRIER, METHOD NO. 1	3000.000	22.25	66770.01
0095	634-1200		EA	RIGHT OF WAY MARKERS	400.000	79.31	31724.23
0100	641-1200		LF	GUARDRAIL, TP W	3600.000	14.92	53714.77
0105	641-5001		EA	GUARDRAIL ANCHORAGE, TP 1	15.000	617.10	9256.56
0110	641-5012		EA	GUARDRAIL ANCHORAGE, TP 12	15.000	1816.61	27249.21
0115	643-0010		LF	FIELD FENCE WOVEN WIRE	1500.000	5.96	8954.27
0120	643-8000		EA	GATE, FIELD FENCE - 003626	6.000	496.20	2977.21
0125	643-8200		LF	BARRIER FENCE (ORANGE), 4 FT	5000.000	1.55	7774.30
0130	163-0232		AC	TEMPORARY GRASSING	15.000	295.87	4438.11
0135	163-0240		TN	MULCH	750.000	154.24	115681.89
0140	163-0300		EA	CONSTRUCTION EXIT	15.000	876.81	13152.18
0145	163-0520		LF	CONSTR AND REMOVE TEMP PIPE SLOPE DRAIN	1000.000	10.82	10823.97
0150	163-0522		EA	CONSTR AND REM TEMP DCH CK - TP A SLT FN	500.000	62.02	31011.44
0155	163-0523		EA	CONSTR AND REM TEMP DCH CK - TP C SLT FN	1000.000	141.17	141174.77
0160	163-0524		EA	CONST/REM TEMP DCH CK-STN PL RIPRAP/SN BG	175.000	260.52	45591.53
0165	163-0530		LF	CONSTR AND REMOVE BALED STRW EROSION CHK	3500.000	3.44	12052.25
0170	163-0531		EA	CONSTR & REM SEDIMENT BASIN, TP 1, STA NO- 003626	23.000	8459.81	194575.86
0175	163-0550		EA	CONS & REM INLET SEDIMENT TRAP	125.000	144.84	18105.03
0180	165-0030		LF	MAINT OF TEMP SILT FENCE, TP C	25000.000	0.53	13419.75
0185	165-0040		EA	MAINT OF EROSION CTRL CHKDAMS/DITCH CHKS	100.000	36.62	3662.21

STATE HIGHWAY AGENCY

JOB ESTIMATE REPORT

DATE : 04/11/2011
PAGE : 2

EA	165-0060	MAINT OF TEMP SEDIMENT BASIN, STA NO -	23.000	943.60	21702.95
EA	0190	MAINT OF BALED STRAW EROSION CHECK	3500.000	1.21	4257.51
EA	0200	MAINT OF SILT CONTROL GATE, TP 4	125.000	100.00	12500.00
EA	0205	MAINT OF CONST EXIT	15.000	426.04	6390.73
EA	0210	WATER QUALITY MONITORING AND SAMPLING	2.000	509.81	1019.62
MO	0215	WATER QUALITY INSPECTIONS	30.000	392.30	11769.00
LF	0220	TEMPORARY SILT FENCE, TYPE C	40000.000	2.62	105100.80
SY	0225	STN DUMPED RIP RAP, TP 1, 24"	500.000	40.36	20184.08
SY	0230	STN DUMPED RIP RAP, TP 3, 18"	500.000	27.86	13932.71
SY	0235	PLASTIC FILTER FABRIC	1000.000	3.27	3277.19
AC	0240	PERMANENT GRASSING	20.000	484.44	9688.80
TN	0245	AGRICULTURAL LIME	40.000	49.89	1995.98
GL	0250	LIQUID LIME	49.000	18.92	927.18
TN	0255	FERTILIZER MIXED GRADE	14.000	367.94	5151.21
LB	0260	FERTILIZER NITROGEN CONTENT	989.000	1.86	1844.15
SY	0265	PERM SOIL REINFORCING MAT	48400.000	3.11	150886.52
SY	0270	EROSION CONTROL MATS, SLOPES	50000.000	0.85	42566.50
CY	0275	FOUND BK FILL MATL, TP II	70.000	45.42	3179.96
EA	0280	CONC SPILLWAY, TP 2	4.000	2075.90	8303.64
CY	0285	CLASS A CONCRETE	200.000	473.92	94784.34
CY	0290	CL A CONC, INCL REINF STEEL	200.000	674.19	134838.05
LB	0295	BAR REINF STEEL	75000.000	0.62	46747.50
LF	0300	STM DR PIPE 18", H 1-10	5000.000	26.99	134997.80
LF	0305	STM DR PIPE 24", H 1-10	1000.000	35.56	35563.37
LF	0310	STM DR PIPE 30", H 1-10	500.000	44.44	22221.68
LF	0315	STM DR PIPE 36", H 1-10	500.000	53.52	26761.07
LF	0320	STM DR PIPE 42", H 1-10	400.000	61.40	24563.42
LF	0325	STM DR PIPE 48", H 1-10	200.000	63.51	12703.88
LF	0330	SIDE DR PIPE 18", H 1-10	500.000	24.94	12472.94
EA	0335	SAFETY END SECTION 18", STD, 6:1	8.000	729.81	5838.53
EA	0340	FLARED END SECT 18 IN, ST DR	15.000	473.30	7099.53
EA	0345	FLARED END SECT 24 IN, ST DR	5.000	534.82	2674.14
EA	0350	FLARED END SECT 30 IN, ST DR	5.000	661.90	3309.54
EA	0355	FLARED END SECT 36 IN, ST DR	5.000	939.44	4697.25
EA	0360	FLARED END SECT 42 IN, ST DR	2.000	1563.60	3127.20
EA	0365	FLARED END SECT 48 IN, ST DR	2.000	2114.71	4229.44
CY	0370	FLOWABLE FILL	10.000	178.09	1780.95
EA	0375	CATCH BASIN, GP 1	250.000	2045.28	511321.38
EA	0380	SAN SEW MANHOLE, TP 1	5.000	2035.00	10175.00
SF	0385	HWY SGN, TP1MAT, REFL SH TP3	300.000	13.41	4023.66
SF	0390	HWY SIGNS, TP1MAT, REFL SH TP 9	200.000	19.38	3877.89
LF	0395	GALV STEEL POSTS, TP 7	150.000	8.13	1219.75
LS	0400	TRAF SIGNAL INSTALLATION NO - 1	1.000	160950.00	160950.00
LS	0405	TRAF SIGNAL INSTALLATION NO - 2	1.000	124561.00	124561.00
LF	0410	SOLID TRAF STRIPE, 5 IN, WHITE	40000.000	0.06	2612.40
GLF	0415	SKIP TRAF STRIPE, 5 IN, WHITE	40000.000	0.04	1916.40
EA	0420	RAISED PVMT MARKERS TP 1	960.000	3.14	3022.45
EA	0425	RAISED PVMT MARKERS TP 2	240.000	3.01	724.05

ITEM TOTAL 15914538.31
INFLATED ITEM TOTAL 15914538.33

JOB ESTIMATE REPORT

TOTALS FOR JOB STP-0003-00 (626

ESTIMATED COST:

CONTINGENCY PERCENT (0.0):

ESTIMATED TOTAL:

15914538.33

0.00

15914538.33

E + I @ 5% 795,727

Fuel + Asphalt adjustment 4,727,761

21,438,026

Preliminary Right of Way Cost Estimate

Revision Date: 01/14/2011

Project: STP-0003-00(626) Hall County

P.I. Number: 0003626

Existing/Required R/W: Varies & Varies

No. Parcels: 137

Project Termini: Sardis Road east of SR-53 to 2,500' east of SR-60

Project Description: SR-53/SR-60 Sardis Road Connector 4-lanes w/ 20' median

Land:

Commercial

4 acres @ \$230,000/acre = \$920,000

Construction Easement

1 acres @ \$230,000/acre x 50% = \$115,000

Residential

31.6 acres @ \$35,000/acre = \$1,106,000

Construction Easement

20.5 acres @ \$35,000/acre x 50% = \$358,750

TOTAL

\$2,499,750

Site Improvements:

1 business, 24 houses, 4 mobile homes, 1 NPO (church)

including curbing, paving, signs, fencing \$6,660,500

2009 market depreciation -15% (-\$999,075)

TOTAL

\$5,661,425

Relocation:

Commercial 1 @ \$25,000/parcel = \$ 25,000

Residential 28 @ \$40,000/parcel = \$1,120,000

TOTAL

\$1,145,000

Damages:

Proximity 9 Parcels \$143,000

Consequential 17 Parcels \$200,400

Cost to Cure 1 Parcel \$ 25,000

TOTAL

\$368,400

SUB-TOTAL:

\$9,674,575

Net Cost

\$ 9,674,575.00

Scheduling Contingency 55 %

\$ 5,321,016.00

Adm/Court Cost (60%)

\$ 8,997,355.00

TOTAL

\$ 23,992,946.00

Total Cost

\$ 23,992,946.00

Prepared By:

PB Americas, Inc.

3340 Peachtree Rd, NE 2400 Tower Place 100

Reviewed / Approved:

Howard P. Copeland

R/W Administrator

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

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

Note: The estimate assumes 100% damages to Corinth Baptist Church improvements.

REVISED: 10-7-2010

Land Sales STP-0003-00 (626) Hall

<u>Highest & Best Use</u>	<u>Size/Acs.</u>	<u>Value/Ac.</u>	<u>Sales Price</u>
Res.	1.70	\$21,176	\$ 36,000
Res.	9.50	\$15,789	\$ 150,000
Res.	2.30	\$41,304	\$ 95,000
Res.	37.87	\$31,687	\$1,200,000
Res.	34.81	\$40,965	\$1,426,000
Com.	11.23	\$113,535	\$1,275,000
Com.	.96	\$369,791	\$ 355,000
Com.	1.07	\$156,074	\$ 167,000
Com.	.22	\$431,818	\$ 95,000
Com.	1.22	\$491,800	\$ 600,000

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE STP-0003-00(626) Hall County.
P.I. No. 0003626

OFFICE Gainesville

DATE February 1, 2011

FROM Geoffrey Donald
Consultant Design Engineer

TO Allen Ferguson
District Utilities Engineer

SUBJECT PRELIMINARY UTILITY COST (ESTIMATE)

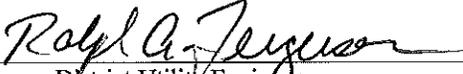
As required by PDP process, we are furnishing you with a Preliminary Utility Cost estimates for each utility with facilities potentially located within the project limits.

FACILITY OWNER	NON – REIMBURSABLE	REIMBURSABLE
Atlanta Gas Light	\$0.00	\$0.00
Telephone	\$55,524.00	\$37,016.00
Windstream	\$0.00	\$0.00
Cable TV	\$35,694.00	\$23,796.00
Georgia Power Co. (Dist.)	\$297,450.00	\$198,300.00
City of Gainesville Public Utilities Department (Water)	\$1,440,964.00	\$160,108.00
City of Gainesville Public Utilities Department (Sewer)	\$0.00	\$83,600.00
Totals	\$1,829,632.00	\$502,820.00
Total Non-Reimbursement Cost:	\$1,829,632.00	
Total Reimbursement Cost:		\$502,820.00

Total Preliminary Utility Cost Estimate \$2,232,452.00
Total reimbursable cost for the above project is \$502,820.00
Total non-reimbursable cost for the above project is \$1,829,632.00

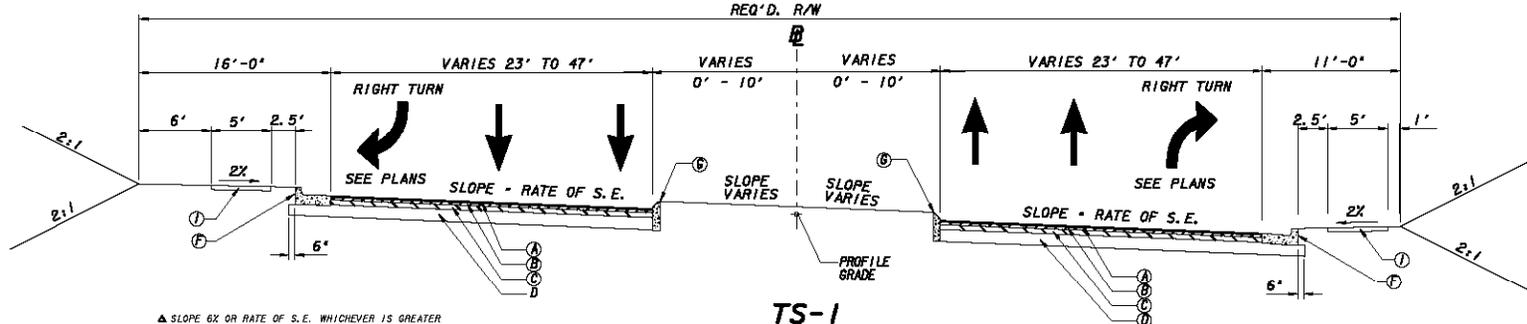
If you have any questions, please contact Geoffrey Donald at (404)364-2656.

Approvals,

Concur: 
District Utility Engineer

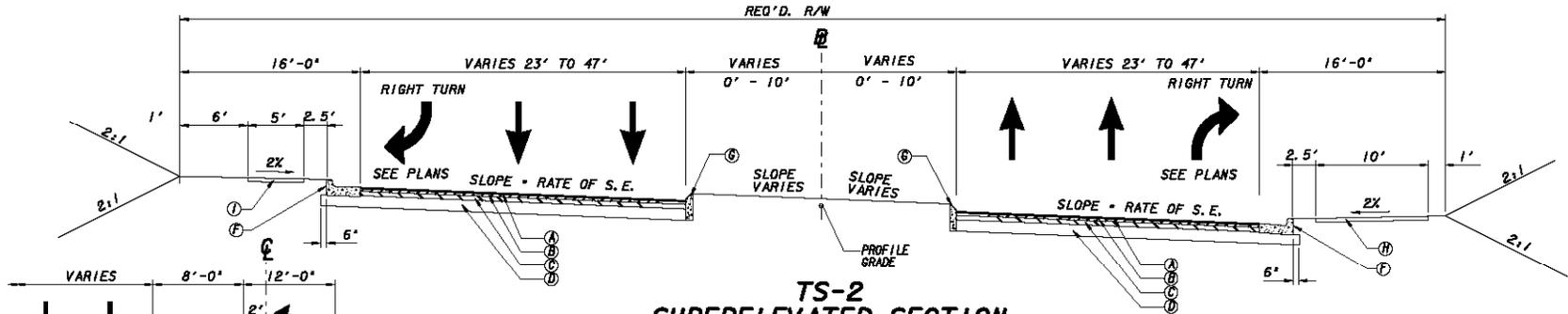
C: Jody Woodall, Hall County Project Engineer;
Neil Kantner, District Design Engineer;
Roger Palmer, PB Project Manager
File

TYPICAL SECTIONS

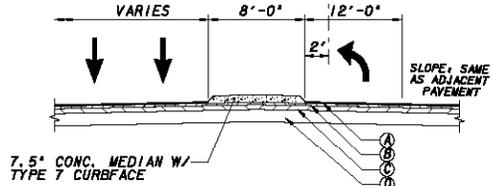


**TS-1
 SUPERELEVATED SECTION
 SARDIS ROAD CONNECTOR**
 APPLIES TO BEGIN PROJECT TO STA. 34+00
 SEE PLANS FOR SUPERELEVATION TRANSITIONS

- ▲ SLOPE 6X OR RATE OF S.E. WHICHEVER IS GREATER
- SLOPE AS FOLLOWS:
 S.E. RATE OF 2X OR LESS, USE 6X
 S.E. RATE OF 3X, USE 3X
 S.E. RATE OF 4X, USE 4X
 S.E. RATE OF 5X, USE 3X
 S.E. RATE OF 7X, USE 1X
- ALGEBRAIC DIFFERENCE IN PAVING AND SHOULDER SLOPES NOT TO EXCEED 6X



**TS-2
 SUPERELEVATED SECTION
 SARDIS ROAD CONNECTOR**
 APPLIES TO STA. 34+00 TO STA. 41+36.68
 STA. 46+02.51 TO STA. 52+73.29
 STA. 53+03.21 TO STA. 59+73.98
 STA. 63+47.28 TO STA. 72+06.63
 STA. 86+26.50 TO STA. 95+81.28
 STA. 100+59.83 TO STA. 107+11.60
 STA. 124+62.51 TO STA. 145+48.98
 STA. 156+26.34 TO STA. 174+53.81
 STA. 177+94.91 TO STA. 191+53.52
 SEE PLANS FOR SUPERELEVATION TRANSITIONS



DETAIL FOR MEDIAN TURN LANE
 SEE PLAN FOR LOCATION



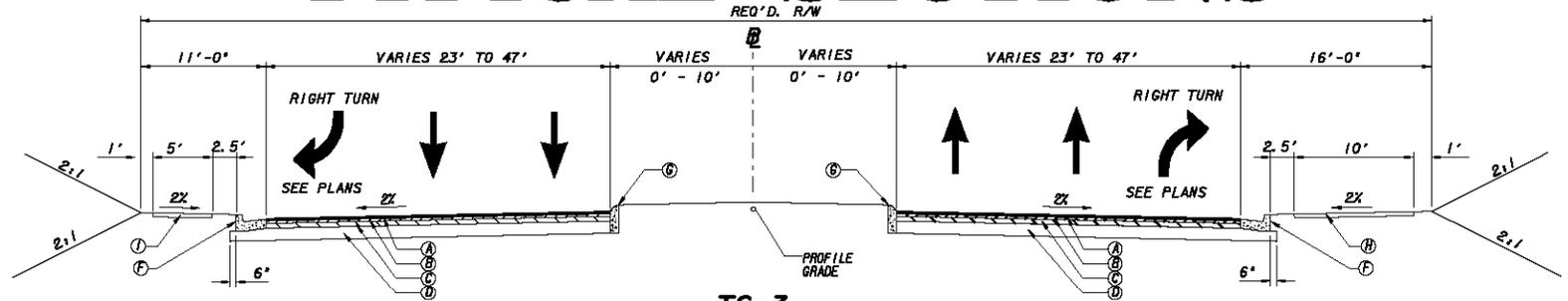
GEORGIA
 DEPARTMENT
 OF
 TRANSPORTATION

REVISION DATES	

STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION
 OFFICE:
TYPICAL SECTIONS
 SARDIS ROAD CONNECTOR
 HALL COUNTY

DRAWING NO.
5-01

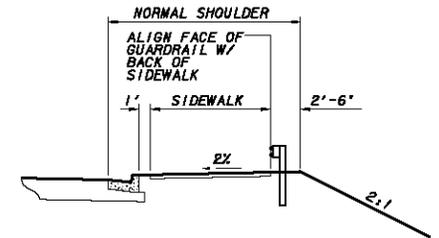
TYPICAL SECTIONS



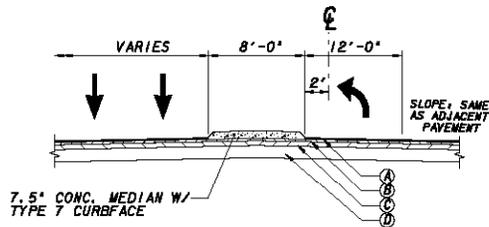
- ▲ SLOPE 6X OR RATE OF S.E. WHICHEVER IS GREATER
- SLOPE AS FOLLOWS:
 - S.E. RATE OF 2X OR LESS, USE 6X
 - S.E. RATE OF 3X, USE 3X
 - S.E. RATE OF 4X, USE 4X
 - S.E. RATE OF 5X, USE 3X
 - S.E. RATE OF 7X, USE 1X
- ALGEBRAIC DIFFERENCE IN PAVING AND SHOULDER SLOPES NOT TO EXCEED 6X

TS-3 TANGENT SECTION SARDIS ROAD CONNECTOR

APPLIES TO STA. 41+36.68 TO STA. 46+02.51
 STA. 52+73.29 TO STA. 53+03.21
 STA. 59+73.98 TO STA. 63+47.26
 STA. 72+06.63 TO STA. 86+28.50
 STA. 95+81.28 TO STA. 100+59.03
 STA. 107+11.60 TO STA. 124+62.51
 STA. 145+48.98 TO STA. 156+28.34
 STA. 174+53.81 TO STA. 177+94.91



DETAIL FOR GUARDRAIL
PLACEMENT IN CURB &
GUTTER SECTION (FILLS OVER 10')



DETAIL FOR MEDIAN TURN LANE
SEE PLAN FOR LOCATION

7.5" CONC. MEDIAN W/
TYPE 7 CURBFACE



GEORGIA
DEPARTMENT
OF
TRANSPORTATION

REVISION DATES

NO.	DATE	DESCRIPTION

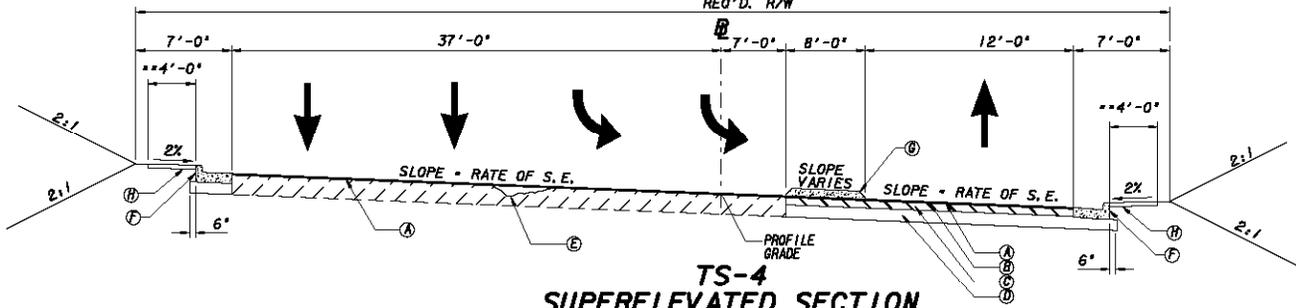
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE:

TYPICAL SECTIONS

SARDIS ROAD CONNECTOR
HALL COUNTY

DRAWING NO.
5-02

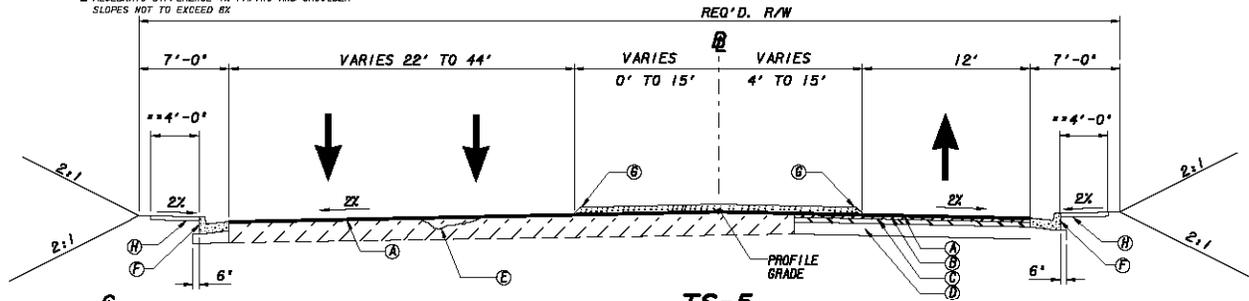
TYPICAL SECTIONS



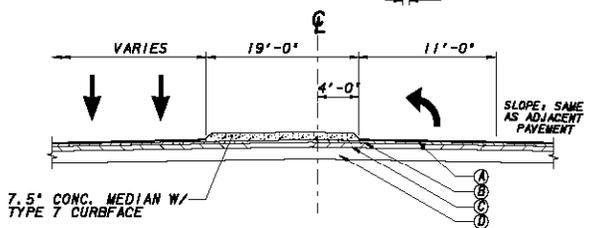
TS-4
SUPERELEVATED SECTION
SR-283 / MOUNT VERNON RD
 APPLIES TO STA. 192+63.73 TO STA. 194+34.00
 SEE PLANS FOR SUPERELEVATION TRANSITIONS

**NOTE: PROVIDE PASSING SPACES AT INTERVALS OF 200-FT. MAXIMUM.
 PEDESTRIAN ACCESS ROUTES AT PASSING SPACES SHALL BE
 5'-0" WIDE FOR A DISTANCE OF 5-FT

- ▲ SLOPE 6X OR RATE OF S.E. WHICHEVER IS GREATER
- SLOPE AS FOLLOWS:
 S.E. RATE OF 2X OR LESS, USE 6X
 S.E. RATE OF 3X, USE 3X
 S.E. RATE OF 4X, USE 4X
 S.E. RATE OF 5X, USE 5X
 S.E. RATE OF 7X, USE 1X
- ALGEBRAIC DIFFERENCE IN PAVING AND SHOULDER
 SLOPES NOT TO EXCEED 6X



TS-5
TANGENT SECTION
SR-283 / MOUNT VERNON RD
 APPLIES TO STA. 194+34.00 TO 197+69.06



DETAIL FOR MEDIAN TURN LANE
 SEE PLAN FOR LOCATION

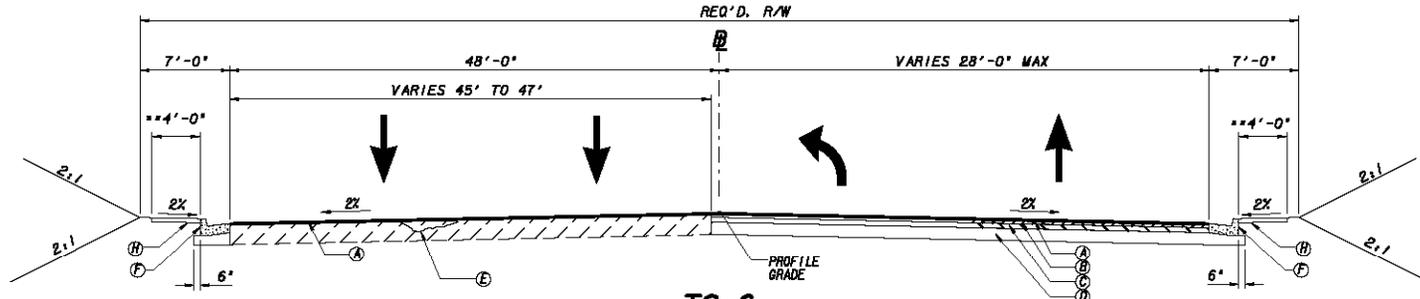


GEORGIA
 DEPARTMENT
 OF
 TRANSPORTATION

REVISION	DATE	DESCRIPTION

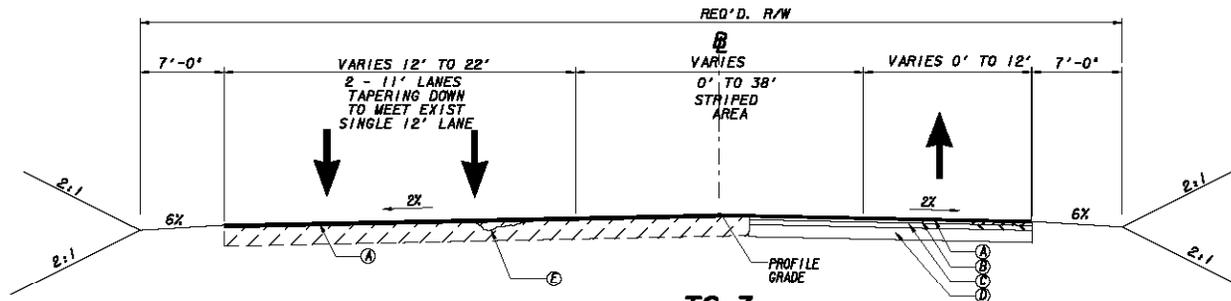
STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION
 OFFICE: **TYPICAL SECTIONS**
 SARDIS ROAD CONNECTOR
 HALL COUNTY
 DRAWING NO. **5-03**

TYPICAL SECTIONS



TS-6
TANGENT SECTION
SR-283 / MOUNT VERNON RD
 APPLIES TO STA. 197+69.06 TO 198+76.80

****NOTE:** PROVIDE PASSING SPACES AT INTERVALS OF 200-FT. MAXIMUM.
 PEDESTRIAN ACCESS ROUTES AT PASSING SPACES SHALL BE
 5'-0" WIDE FOR A DISTANCE OF 5-FT



TS-7
TANGENT SECTION
SR-283 / MOUNT VERNON RD
 APPLIES TO STA. 198+76.80 TO END PROJECT

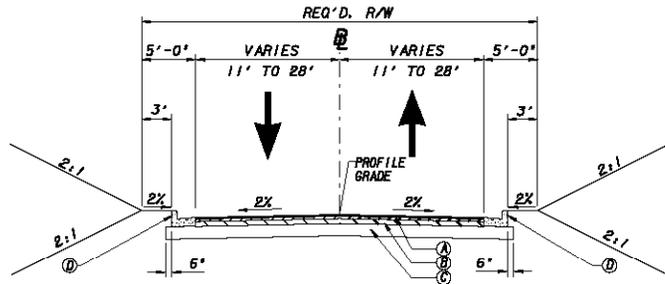


GEORGIA
 DEPARTMENT
 OF
 TRANSPORTATION

REVISION	DATE	DESCRIPTION

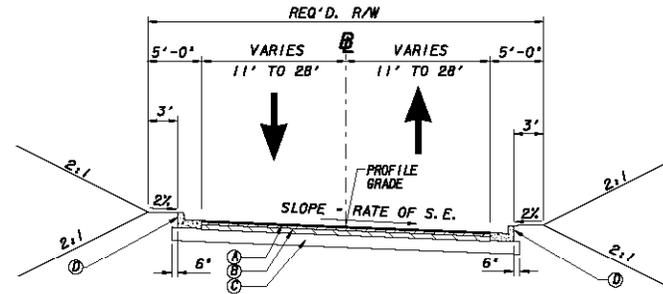
STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION
 OFFICE: **TYPICAL SECTIONS**
 SARDIS ROAD CONNECTOR
 HALL COUNTY
 DRAWING NO. **5-04**

TYPICAL SECTIONS



**TS-8
TANGENT SECTION**

SARDIS CHURCH ROAD 10+00 TO 11+50 +/-
 SARDIS ROAD 14+00 TO 15+12.69 +/-
 FRAN-MAR DR 18+65.97 TO 19+05.97 +/-
 21+00 TO 22+00 +/-
 FRAN-MAR DR 17+37.38 TO 18+93.47 +/-
 BRACKETT DR 12+06.80 TO 13+00.00 +/-
 LADD DR 10+47.00 TO 12+37.62 +/-
 14+15.53 TO 15+63.76 +/-
 SARDIS ROAD 11+17.51 TO 17+70.00 +/-
 18+80.00 TO 20+41.24 +/-
 HIDDEN HOLLOW DR 11+12.75 TO 13+50 +/-
 CHIMNEY ROCK LN 10+11 TO 10+90.02 +/-
 11+86.04 TO 13+18.80 +/-
 WINDSOR TRAIL 10+45.00 TO 10+90.21 +/-
 CUL-DE-SAC 10-45 TO 10+82.52 +/-
 12+07.37 TO 13+50 +/-



**TS-9
SUPERELEVATED SECTION**
SEE PLANS FOR SUPERELEVATION TRANSITIONS

SARDIS ROAD 15+12.69 TO 17+50 +/-
 FRAN-MAR DR 19+05.97 TO 21+00 +/-
 FRAN-MAR DR 16+27.37 TO 17+37.38 +/-
 BRACKETT DR 10+47.00 TO 12+06.80 +/-
 LADD DR 12+37.62 TO 14+15.53 +/-
 SARDIS ROAD 10+00 TO 11+17.51 +/-
 20+41.24 TO 23+00.00 +/-
 HIDDEN HOLLOW DR 10+45 TO 11+12.75 +/-
 CHIMNEY ROCK LN 10+90.02 TO 11+86.04 +/-
 SOUTHERS RD 10+45.00 TO 13+01.70 +/-
 CUL-DE-SAC 10+82.52 TO 12+07.37 +/-
 WOODLANE RD 10+87.33 TO 13+00 +/-

- ▲ SLOPE 6% OR RATE OF S.E. WHICHEVER IS GREATER
- SLOPE AS FOLLOWS:
 S.E. RATE OF 2% OR 1/8%, 1/8" 4X
 S.E. RATE OF 3%, USE 6X
 S.E. RATE OF 4%, USE 4X
 S.E. RATE OF 5%, USE 3X
 S.E. RATE OF 7%, USE 1X
- ALGEBRAIC DIFFERENCE IN PAVING AND SHOULDER SLOPES NOT TO EXCEED 6X



GEORGIA
DEPARTMENT
OF
TRANSPORTATION

REVISION DATES

NO.	DATE	DESCRIPTION

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE:

TYPICAL SECTIONS

SARDIS ROAD CONNECTOR
HALL COUNTY

DRAWING NO.
5-05

P.I. Number "0003236"

County Hall

Project Number STP-0003-00(626) Hall County

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

ENTER FPL DIESEL	3.254
ENTER FPM DIESEL	7.322

ENTER FPL UNLEADED	2.999
ENTER FPM UNLEADED	6.74775

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

INCREASE ADJUSTMENT
125.00%

INCREASE ADJUSTMENT
125.00%

ROADWAY ITEMS	QUANTITY	DIESEL FACTOR	GALLONS DIESEL	UNLEADED FACTOR	GALLONS UNLEADED	REMARKS
Excavations paid as specified by Sections 205 (CUBIC YARD)	654664.000	0.29	189852.56	0.15	98199.60	
Excavations paid as specified by Sections 206 (CUBIC YARD)		0.29		0.15		
GAB paid as specified by the ton under Section 310 (TON)	56700.000	0.29	16443.00	0.24	13608.00	
Hot Mix Asphalt paid as specified by the ton under Sections 400 (TON)		2.90		0.71		
Hot Mix Asphalt paid as specified by the ton under Sections 402 (TON)	86109.000	2.90	249716.10	0.71	61137.39	
PCC Pavement paid as specified by the square yard under Section 430 (SY)		0.25		0.20		

BRIDGE ITEMS	Quantity	Unit Price	QF/1000	Diesel Factor	Gallons Diesel	Unleaded Factor	Gallons Unleaded	REMARKS
Bridge Excavation (CY) Section 211				8.00		1.50		
Class __Concrete (CY) Section 500				8.00		1.50		
Class __Concrete (CY) Section 500				8.00		1.50		
Class __Concrete (CY) Section 500				8.00		1.50		
Superstru Con Class__(CY) Section 500				8.00		1.50		
Superstru Con Class__(CY) Section 500				8.00		1.50		
Superstru Con Class__(CY) Section 500				8.00		1.50		
Concrete Handrail (LF) Section 500				8.00		1.50		
Concrete Barrier (LF) Section 500				8.00		1.50		

BRIDGE ITEMS	Quantity	Unit Price	QF/1000	Diesel Factor	Gallons Diesel	Unleaded Factor	Gallons Unleaded	REMARKS
Stru Steel Plan Quantity (LB) Section 501				8.00		1.50		
Stru Steel Plan Quantity (LB) Section 501				8.00		1.50		
PSC Beams____ (LF) Section 507				8.00		1.50		
PSC Beams____ (LF) Section 507				8.00		1.50		
PSC Beams____ (LF) Section 507				8.00		1.50		
Stru Reinf Plan Quantity(LB) Section 511				8.00		1.50		
Stru Reinf Plan Quantity(LB) Section 511				8.00		1.50		
Bar Reinf Steel (LB) Section 511				8.00		1.50		
Piling____ inch (LF) Section 520				8.00		1.50		
Piling____ inch (LF) Section 520				8.00		1.50		
Piling____ inch (LF) Section 520				8.00		1.50		
Piling____ inch (LF) Section 520				8.00		1.50		
Piling____ inch (LF) Section 520				8.00		1.50		
Piling____ inch (LF) Section 520				8.00		1.50		
Drilled Caisson,____ (LF) Section 524				8.00		1.50		
Drilled Caisson,____ (LF) Section 524				8.00		1.50		
Drilled Caisson,____ (LF) Section 524				8.00		1.50		
Pile Encasement,____(LF) Section 547				8.00		1.50		
Pile Encasement,____(LF) Section 547				8.00		1.50		

SUM QF DIESEL=	456011.66	SUM QF UNLEADED=	172944.99
-----------------------	------------------	-------------------------	------------------

DIESEL PRICE ADJUSTMENT(\$)	\$1,706,441.23
UNLEADED PRICE ADJUSTMENT(\$)	\$596,461.33

ASPHALT CEMENT PRICE ADJUSTMENT (BITUMINOUS TACK COAT 125% MAX)

APPLICABLE TO CONTRACTS/PROJECTS CONTAINING THE 413 SPECIFICATION, SECTION 413.5.01 ADJUSTMENTS
ASPHALT PRICE ADJUSTMENT FOR BITUMINOUS TACK COAT

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

ENTER APL

ENTER APM

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

L.I.N.	TYPE	TACK (GALLONS)	TACK (TONS)	REMARKS
413-1000		20351	87.4096	
			TMT = <input style="width: 50px; text-align: center;" type="text" value="87.4096"/>	

PRICE ADJUSTMENT(\$)	\$48,250.09
-----------------------------	--------------------

400 / 402 ASPHALT CEMENT PRICE ADJUSTMENT 125% MAX

ENTER APL

ENTER APM

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

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

L.I.N. / Spec Number	MIX TYPE	HMA	JMF AC%	AC	REMARKS
402-3121	25 mm SP	55327	5.00	2766.35	
402-3130	12.5 mm SP	12340	5.00	617.00	
402-3190	19 mm SP	18442	5.00	922.10	
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			TMT =	<input style="width: 50px; text-align: center;" type="text" value="4305.45"/>	

PRICE ADJUSTMENT(\$)	\$2,376,608.40
-----------------------------	-----------------------

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

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

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

ENTER APL

ENTER APM

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

Use this side for Asphalt Emulsion Only

L.I.N.	TYPE	ASPHALT EMULSION (GALLONS)
TMT = <input style="width: 150px;" type="text"/>		
REMARKS: <input style="width: 90%; height: 20px;" type="text"/>		

Use this side for Asphalt Cement Only

L.I.N.	TYPE	TACK (GALLONS)
TMT = <input style="width: 150px;" type="text"/>		
REMARKS: <input style="width: 90%; height: 20px;" type="text"/>		

MONTHLY PRICE ADJUSTMENT(\$)	
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ADJUSTMENT SUMMARY

FUEL PRICE ADJUSTMENT (<i>ENGLISH 125% MAX</i>)	
DIESEL PRICE ADJUSTMENT(\$)	<u>\$1,706,441.23</u>
UNLEADED PRICE ADJUSTMENT(\$)	<u>\$596,461.33</u>
ASPHALT CEMENT PRICE ADJUSTMENT (<i>BITUMINOUS TACK COAT 125% MAX</i>)	<u>\$48,250.09</u>
400 / 402 ASPHALT CEMENT PRICE ADJUSTMENT <i>125% MAX</i>	<u>\$2,376,608.40</u>
ASPHALT CEMENT PRICE ADJUSTMENT FOR BITUMINOUS TACK COAT (<i>Surface Treatment 125% MAX</i>)	

REMARKS:	<input style="width: 90%; height: 40px;" type="text"/>
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TOTAL ADJUSTMENTS	\$4,727,761.05
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**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE STP-0003-00(626) Hall County.
P.I. No. 003626

OFFICE Gainesville

DATE April 12, 2011

FROM Jon Sell
Consultant Ecologist

TO Geoffrey Donald
Consultant Design Engineer

SUBJECT PRELIMINARY ENVIRONMENTAL MITIGATION COST (ESTIMATE)

As required by PDP process, we are furnishing you with a Preliminary Stream Mitigation cost estimate for current cost of linear stream impacts, acres of disturbed wetlands and any other potential IP or Stream BV costs.

Environmental Impact	Total/Units	Estimated Cost
linear stream impacts	1,190 lf	\$295,000.00
acres of disturbed wetlands	0.09 acres	\$25,000.00
		\$0.00
		\$0.00
		\$0.00
		\$0.00
		\$0.00
Totals		\$320,000.00
Total Mitigation Cost:		\$320,000.00
Total Preliminary mitigation Cost Estimate \$320,000.00		

If you have any questions, please contact Jon Sell at (404)364-2422.

C: Jody Woodall, Hall County Project Engineer;
Neil Kantner, District Design Engineer;
Roger Palmer, PB Project Manager
File

Sardis Road Connector---- Hall County
From Intersection of Chestatee Road to S.R. 60 at Mt. Vernon Road

VIII. Discuss Design Criteria

- A. Speed Design
- B. Level of Traffic Analysis
- C. Right of Way Limits
- D. Horizontal and vertical alignments
- E. Neighborhood Groups
- F. Pending Development Permits

IX. Brainstorming Ideas (Any thoughts not previously discussed)

X. All Others

ACTIONS ITEMS:



**Parsons
Brinckerhoff** 3340 Peachtree Road, NE
Suite 2400, Tower Place
Atlanta, GA 30326-1001
404-237-2115
Fax 404-237-3015

Memorandum of Meeting

Date: October 24, 2007

Dates of Meeting: October 23, 2007

Projects: Sardis Road Connector
S.R. 53 to S.R. 60
HOV Lanes I-75 from
STP-0003-00(626)GHMPO
P.I. No. 0003626

Purpose of Meeting: To review the scope of work associated with the project concept report.

Meeting Location: District One Office Georgia DOT

Attendees:

Jeff Jacques, GDOT
Douglas Fadool, GDOT
Robby Oliver, GDOT
Kim Coley, GDOT
Kim Byers, GDOT
Jason Dykes, GDOT
Brent Cook, GDOT
Dana Garrison, GDOT
Robert Mahoney, GDOT
Neil Kantner, GDOT
Jody Woodall, Hall County
Billy Powell, Hall County
Doug Derrer, Hall County
Kevin McInturff, Hall County
Scott Puckett, Hall County
David Fee, GHMPO
Brad Thomas, Charter Comm.
Ray Cortez, Charter Comm.
Jim Graybeal, PB
Jake Mitchell, PB
Benita Rivers, PB
Jonathan Reid, PB
Susan Wyant, PB
Jonathan Sell, PB

Distribution: Attendees
Jeff Jacques, GDOT



Minutes of Meeting
December 20, 2007
Page 2

Douglas Fadool, GDOT
Robby Oliver, GDOT
Kim Coley, GDOT
Kim Byers, GDOT
Jason Dykes, GDOT
Brent Cook, GDOT
Dana Garrison, GDOT
Robert Mahoney, GDOT
Neil Kantner, GDOT
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Brad Thomas, Charter Comm.
Ray Cortez, Charter Comm.
Jim Graybeal, PB
Jake Mitchell, PB
Benita Rivers, PB
Jonathan Reid, PB
Susan Wyant, PB
Jonathan Sell, PB

Discussion:

1. Jim Graybeal provided an overview of the status of the development of the scope of work for Sardis Road project concept report. He provided a handout of the document and displayed the alignment for Alternate 7.
2. A decision was made to remove Hall County Transportation Department from the cover sheet. Also change the signature from State Preconstruction Engineer to Office Head /District Engineer and remove Gainesville for District Engineer. The order of the project number will be revised. The description should have a space after Sardis Road Connector.
3. The Location Map title block will be revised to make GDOT the first lead.
4. The Need and Purpose was revised to reflect the 3.55 miles for the length of the project and the mileage will reflect the 35mph school zone. Information on the traffic volume,



growth pattern and the accident rate will be added to the report. Bike paths were also mentioned as a public concern. The project is consistent with the GHMIPO TIP/GRTP. And the PDP Classification was changed to Federal Oversight in bold print with Urban Collector as the functional classification. There are no State Route numbers for the new alignments. The minimum radius is 2320 ft. instead of the maximum.

5. A width of 100' of Right of Way with 27 displacements throughout the entire report. The redesigned intersection is at S.R. 60/S.R. 283 and Sardis Road Connector.
6. The following items will be deleted from Project responsibilities: Consultant Design, District 1 Preconstruction (Right of Way Office), District 1 Utility Office – replace with Hall County, General Office (Office of Contract Administration) – replace with Georgia Department of Transportation, District 1 Construction Office – replace with Georgia Department of Transportation, and Hall County/Consultant Design (provided in project design) – replace with none anticipated.

The Coordination of FEMA, USCG, and/or TVA is for EPD individual permits. A VE study will also be included.

7. Consistency with the approximate length of the project as 3.55 miles and the mileage as 35-45 mph.
8. Include the missing pages of the Construction Cost Estimate, correct mileage and correct the year for current and projected ADT of traffic.
9. The Estimate Summary should be in the DTEST format. Take out the cost for 2 years of inflation at 5% and include the cost for R/W and reimbursable utilities cost.
10. The 8.5X11 black and white copy of Alternate 7 should be replaced with an 11X17 color copy.
11. It was noted that on the proposed typical section that a 10' sidewalk would make it difficult to construct and maintain utilities. One alternative is to buy more right of way for water and sewer and another alternative is to place the sidewalk on one side of the street and the utilities on the opposite. Or have a 20' shoulder instead.

Action Items:

1. PB will make correction to the concept report as noted above.



Minutes of Meeting
December 20, 2007
Page 4

2. Jeff will provide Jim Graybeal with the utility information of the property owners, utility location and
3. A later decision will be made for changes on the typical section by GDOT.
- 4.
- 5.
- 6.

The foregoing is my understanding of the topics discussed. If you have any corrections or comments, please email them to me at graybeal@pbworld.com or fax them to me at 404-237-8190.

Sincerely,
PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.

Jim Graybeal
Project Manager

Sardis Road Extension – Hall County

Meeting Minutes

February 21, 2007

Attendees: Hall County - Kevin Mcinturff, Jody Woodall,
PB - Jim Graybeal, Jake Mitchell, John Sell

- Need geo-referenced photography
- Sycamore Engineering to handle all public information (Spanish and English radio ads, re-usable signs. Public information meeting to be held at Chestatee High School on a Tuesday or Thursday
- All public comments to be forwarded to Jody Woodall (Hall County)
- PB handles the responses to these comments
- Rochester to conduct the survey/mapping 6 weeks after the aerial photography is done, which is to be done prior to March 8th.
- Letters need to be mailed out to property owners stating the presence of survey teams in the area.
- The public displays (roll plots) need to be cleaned up. Do we want a roll plot with all 3 alternates overlaid on top of the photography? Property owners need to be shown. PB does not have this data; to be obtained via GIS files from Mark Lane. Median openings and driveway ties need to be shown.
- Cost Estimate was given to Hall County
- We looked at all 3 alternates (plan, profile and cross section)
- Alternate 1 (the preferred alternate) – has the least amount of R/W impact
- John Sell discussed the environmental impacts of all 3 alternates; splitting the subdivisions, stream impacts, history, mitigation
- R/W acquisition was discussed on all 3 alternates
- Earthwork calculations need to be prepared for all 3 alternates
- Capacity analysis on intersections needs to be prepared.
-

GDOT Project STP-0003-00(626), Hall County
P.I. No. 0003626
Sardis Road
November 1, 2007
FHWA Meeting

Attendees:

Robert Mahoney – GDOT District One Engineer
Jody Woodall – Hall County
Christa Wilkinson – GDOT OEL
Glenn Bowman – GDOT OEL
Jenny Coursey – GDOT OEL
Susan Wyant – PB
Jennifer Dudley – PB
Jon Sell – PB
Jim Graybeal – PB
Michele Lindberg – FHWA

Meeting Minutes:

- Discussed Purpose and Need of project
 - Logical Termini
 - Traffic
 - System linkage
 - Safety
 - Project is in MPO Long-Range Transportation Plan – part of TIP
 - Access Management
- Discussed Alternatives
- Discussed PIOH in May
- Discussed environmental issues
- Discussed impact matrix – items need to be added to the matrix
 - Individual 404 Permits
 - Right-of-Way/Acreage
 - Cost Estimates of each alternative
 - Zoning
 - Access Management
- Determined level of document – EA due to right-of-way impacts
 - Draft EA to be submitted by April 2008
- Determined no Section 4(f) was involved – no write up is involved only a determination of non-applicability
- PAR and VE would be completed concurrently with EA
 - PAR to be completed by February 2008
- A PHOH will be held after EA is approved
- Action Items:

Action Items:

- Jim Graybeal – complete right-of-way (acreage) and cost estimates for all alternatives by December 1, 2007
- Jody Woodall
 - Find out number of homes to be constructed in the proposed Windsor Forest Subdivision
 - What is the status with the Villyard Farm?

MAJOR CONCERNS:

The majority of the comments received were in favor of the project. Comments received in favor of the project were to relieve traffic congestion and improve safety. Comments received in favor of the project, but under conditions were primarily requesting the development of a northern alternate that would connect with Southers Road. Additional comments received in favor, but under conditions included the development of bike lanes, using a combination of the two alternates, and avoiding the Corinth Baptist Church property. Comments received opposing the project were due to the displacements of homes, concern for children's safety, increased traffic and noise levels, and concerns that the project would decrease property values.

OFFICIALS:

Officials attending included the following:

Tom Oliver - Commission Chairman

Deborah Mack – Commissioner, District 4

Jim Schuler – County Administrator

DISPOSITION OF COMMENTS:

PB will be responsible for responding to all comments.

Attached is a complete transcript of the comments received during the comment period and a copy of the public information open house handout.

If you have any questions about the comments, please either email or call Kim Coley at (770) 532-5582.

HDK/kc

Attachments

DISTRIBUTION:

Neil Kantner, P.E. w/attachments

Robert Mahoney, P.E. w/attachments

Howard (Phil) Copeland w/attachments

Keith Golden, P.E. w/attachments

Russell McMurry w/attachments

Angela T. Alexander w/attachments

Susan Knudson

Jim Graybeal w/attachments

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

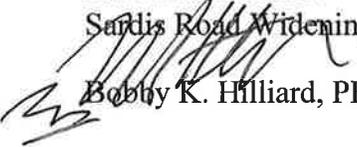
INTERDEPARTMENT CORRESPONDENCE



FILE: STP00-0003-00(626), Hall
P.I. No.: 0003626
Sardis Road Widening

OFFICE: Program Delivery

DATE: August 26, 2011

FROM:  Bobby K. Hilliard, PE, State Program Delivery Engineer

TO: Ronald E. Wishon, State Project Review Engineer
Attn.: Lisa Myers

SUBJECT: RESPONSE TO VALUE ENGINEERING STUDY ALTERNATIVES

Attached are the responses for the Value Engineering Study. This office concurs with the responses.

If you have any questions, please contact Brandon Kirby, Project Manager at (678)343-0816.

BKH:MAH:BWK

cc: Russell McMurry, Director of Engineering



**DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION
HALL COUNTY, GEORGIA**

KEVIN J. McINTURFF, P.E.
County Engineer

POST OFFICE DRAWER 1435
GAINESVILLE, GEORGIA 30503
Phone: 770/531-6800
Fax: 770/531-3945

August 25, 2011

Brandon Kirby, PE
Project Manager
Georgia Department of Transportation
P.O. Box 1057
Gainesville, Georgia 30503-1057

Re: STP00-0003-00(626) Hall County, PI No. 0003626 – Sardis Connector

Dear Mr. Kirby:

Thank you for participating in the value engineering study for the above referenced project with Hall County. Hall County considered all of the recommendations presented in the value engineering study report and has provided a response to each recommendation. Hall County concurs with the attached responses.

Please forward this to the appropriate divisions within the Department of Transportation for concurrence.

Please advise if any additional information is necessary or if I can be of further assistance in this matter.

Sincerely,

Jody B. Woodall, PE, CPESC
Civil Engineer III

Enclosure



PB Americas Inc.

3340 Peachtree Road, NE
Suite 2400, Tower Place
Atlanta, Georgia 30326
404-237-2115
Fax: 404-237-3015

FILE: STP00 – 0003-00(626) Hall County
Sardis Road Connector
P.I. No. 0003626

OFFICE: District 1

DATE: August 23, 2011

FROM: Geoffrey Donald, P.E., Project Manager

TO: Jody Woodall, P.E., Hall County Engineering

SUBJECT: Value Engineering Study-Responses

Reference is made to the recommendations that were contained in the Value Engineering Report- Sardis Road Connector dated June 24 2011 for the above referenced project. Our responses are as follows:

1. **Value Engineering Recommendation Idea # A-1:** Roll / lower the vertical profile between Station 163 and Station 187 to lower the large embankment, reduce the culvert length at stream #7 & reduce R/W impacts. Initial Cost Savings (\$507,000).

- *VE Recommendation Idea # A-1 is not acceptable and will not be implemented.*

The recommendation to roll the profile was a great impact saving idea but the cost analysis failed to recognize a key factor in the overall project. The original design shows that the project earthwork numbers did not balance and actually indicate that the total earthwork volumes will generate 183,000 cubic yards of waste material. The earthwork volume for the proposed profile change will generate an additional 171,000 cubic yards of waste material for the project. Our calculations attached show that for the proposed profile change to be more economical it would require the haul cost of the waste material to a suitable land fill site to be lower than \$3.58 a cubic yard. A more realistic cost would be around \$6 to \$12 a cubic yard depending on the total haul distance. After discussions with county engineers, it was determined that they could not locate a suitable site that needs fill material and would be within a mile and half of the project. Also, the proposed profile change would introduce a 7.8% uphill grade just prior to a major signalized intersection, as traffic numbers grow and queuing lengths increase a potential for trucks to be caught on the steep slope exists, and this would decrease the operational efficiency of the intersection. Therefore, based on reasons above, the profile change is not recommended. The existing design has the greatest

initial cost savings and there will be long range savings realized in fuel consumption, reduced emissions, and operational efficiencies.

2. **Value Engineering Recommendation Idea # A-1.1: Alternative to Idea A-1:** Roll / lower the vertical profile between Station 163 and Station 187 and construct MSE walls to further reduce embankment, R/W, and stream impacts. Initial Cost Savings (\$1,493,000).
 - *VE Recommendation Idea # A-1.1 is not acceptable and will not be implemented.*
The estimate in the VE report for site improvement savings shows a savings of \$1,651,803, but after researching the Hall County Tax Assessors GIS database, PB determined this value to be over estimated. Base on the Tax records the total assessed value for the 3 sites only comes to \$294,696 (see page 3 of 3 of Alt A-1.1 attachment). Also, based on reasons as stated above for Idea # A-1 and the additional cost for earthwork waste as a result of the proposed profile change and MSE wall, the cost to the project would actually increase by \$624,431 (see attached calculations).

3. **Value Engineering Recommendation Idea # B-1 – Eliminate the asphalt pavement section from under the raised concrete median and replace with 6-inches GAB. Initial Cost Savings (\$776,000).**
 - *VE Recommendation Idea # B-1 is not acceptable because Idea # E-1.1 will be implemented instead.*

4. **Value Engineering Recommendation Idea # B-1.1: Alternative to Idea B-1** Reduce the thickness of the asphalt pavement section under the raised concrete median. Initial Cost Savings (\$1,345,000).
 - *VE Recommendation Idea # B-1.1 is not acceptable because Idea # E-1.1 will be implemented instead.*

5. **Value Engineering Recommendation Idea # B-3 – Reduce the thickness of the asphalt pavement for the right and left turn lanes & side roads to 4 inches of asphalt over 6 inches of GAB course. Initial Cost Savings (\$459,000).**
 - *VE Recommendation Idea # B-3 is partially acceptable and will be implemented on the side roads.*
The proposed reduced pavement thickness at the turn lane sections is not recommended because having the different subgrade levels introduces two problems which can lead to reduced service life and increased maintenance cost. One problem the variable subgrade levels creates is improper drainage of the gravel base layers, in areas where the pavement is superelevated, the reduced turn lane section will

block the subbase drainage of the mainline pavement. This leads to joint seepage and potential joint failures, especially in freeze thaw cycles. The other problem associated with the variable subgrade levels is maintaining proper subgrade compaction, since the differing materials will be placed at different times, the interface of the joint will lead to quality control issues with compaction and can lead to joint failure in the future.

Although traffic volumes are significantly less in the turn lanes, the load repetitions are more severe due to deceleration and turning of the vehicles. The more severe loadings in the turn lanes cause rutting and slippage cracking of the pavement thus leading to future repair maintenance cost. Ultimately, the Office of Materials and Research will have the final approval on the pavement design thickness. The Office of Materials and Research was consulted on this issue and they recommended that full depth asphalt be utilized on this project.

It was also recommended to reduce the cross road pavement thickness to 4 inches of asphalt and 6 inches of GAB; this recommendation will be implemented if approved by OMR. The Initial Cost Savings for implementing only the cross road reduced pavement thickness will be reduced to (\$232,220).

6. Value Engineering Recommendation Idea # B-4 – Reduce the width of the through traffic lanes on Sardis Road Connector from 12 feet to 11 feet. Initial Cost Savings (\$440,000).

- *VE Recommendation Idea # B-4 is acceptable with modification. AASHTO recommends 12-ft lanes due to operational issues, comfort of driving and desirable clearances between vehicles where potential right of way impacts and environmental constraints are not a factor. AASHTO guidance also indicates that 11-ft lanes are acceptable in urban areas where pedestrian crossings, right of way or existing development become stringent controls. “GDOT Design Policy Manual” desires 12 foot lanes as a standard travelway width with a minimum width of 11-ft for an urban facility with speed design less than 45 MPH. Therefore 11-ft lanes are allowed, however for larger vehicles AASHTO recommends pavement widening in tight radius curves such as those found on this proposed facility. Because truck traffic may be heavier in the future, it is recommended to keep the outside lanes at 12-ft. Therefore, reducing only the inside lanes to 11-ft the initial cost savings will be reduced to about half or (\$220,000).*

7. Value Engineering Recommendation Idea # B-5 – Construct a 5-lane roadway consisting of four, 12-foot lanes and a 14-foot center lane in-lieu-of the current 4-lane divided roadway. Initial Cost Savings (\$1,618,000).

- *VE Recommendation Idea # B-5 is not acceptable and will not be implemented.*

The purpose of a separated divided arterial roadway is control of access, increased driver comfort and ease of operation .The County's immediate need for this type of facility is for a new connective arterial between two major radial roadways that join up in the City of Gainesville, with a future need and tie to a northern bypass around the City. Since most of this section of roadway lies mainly within residential development, there will be many residential driveways that tie directly to the facility. A 5 lane facility would be less desirable in this situation especially since the proposed alignment has numerous horizontal and vertical curves with potential sight distance issues. The proposed alignment geometry is controlled in large by the local rolling topography and existing developments. A 5 lane facility with this many residential driveway ties will introduce to many potential head-on conflicts that would not be as likely in a raised median situation. Therefore, since a 5 lane facility does not meet the County's future need and purpose of the project and has operational and geometric concerns as well, it is not recommended to implement this idea.

8. **Value Engineering Recommendation Idea # B-5.1** – Alternative to Idea B-5 Construct a 5-lane roadway consisting of four, 11-foot lanes, a 16-foot center turn lane, and dual 4-foot bike lanes. Initial Cost Savings (\$1,340,000).

- *VE Recommendation Idea # B-5.1 is not acceptable and will not be implemented.*

The purpose of a separated divided arterial roadway is control of access, increased driver comfort and ease of operation .The County's immediate need for this type of facility is for a new connective arterial between two major radial roadways that join up in the City of Gainesville, with a future need and tie to a northern bypass around the City. Since most of this section of roadway lies mainly within residential development, there will be many residential driveways that tie directly to the facility. A 5 lane facility would be less desirable in this situation especially since the proposed alignment has numerous horizontal and vertical curves with potential sight distance issues. The proposed alignment geometry is controlled in large by the local rolling topography and existing developments. A 5 lane facility with this many residential driveway ties will introduce to many potential head-on conflicts that would not be as likely in a raised median situation. Therefore, since a 5 lane facility does not meet the County's future need and purpose of the project and has operational and geometric concerns as well, it is not recommended to implement this idea.

9. **Value Engineering Recommendation Idea # B-8** – Revise / modify the Mount Vernon Road approach to SR 60. Initial Cost Savings (\$385,000).

- *VE Recommendation Idea # B-8 is acceptable and will be implemented.*

10. **Value Engineering Recommendation Idea # B-9** – Construct a 4-Lane / 2-Lane Sardis Road Connector based on project traffic volumes. Initial Cost Savings (\$5,246,000).

- *VE Recommendation Idea # B-9 is not acceptable and will not be implemented.*

The purpose of a separated divided arterial roadway is control of access, increased driver comfort and ease of operation. The County's immediate need for this type of facility is for a new connective arterial between two major radial roadways that join up in the City of Gainesville, with a future need and tie to a northern bypass around the City. Since most of the VE proposed 2-lane section of roadway lies mainly within developed residential areas, there will not be much potential for proposed future development within the VE recommended 2 lane section of the corridor. Therefore, the VE suggestion to collect Right of Way and roadway improvements from future developers is not viable and thus there will be limited potential future funds available from developers to build the remainder of the corridor. Therefore, since a 2 lane facility does not meet the County's future need and purpose of the project and because of operational and geometric concerns as mentioned in B-5.1 it is not recommended to implement this idea

11. **Value Engineering Recommendation Idea # E-1** – Construct a 16-foot raised concrete median in-lieu-of a 20-foot raised concrete median. Initial Cost Savings (\$743,000).

- *VE Recommendation Idea # E-1 is not acceptable and will not be implemented Idea # E-1.1 will be implemented instead.*

12. **Value Engineering Recommendation Idea # E-1.1 – Alternative to Idea E-1** Construct a raised grass median in-lieu-of a raised concrete median in areas where the median is 20 feet wide. Initial Cost Savings (\$682,000).

- *VE Recommendation Idea # E-1.1 is acceptable and will be implemented.*

13. **Value Engineering Recommendation Idea # G-1** – Construct a single 10-foot concrete multi-use path on one side and a 5-foot concrete sidewalk on the other side. Initial Cost Savings (\$184,000).
 - *VE Recommendation Idea # G-1 is acceptable and will be implemented.*

14. **Value Engineering Recommendation Idea # G-1.1 – Alternative to Idea G-1** Construct dual 8-foot concrete multi-use paths in lieu-of dual 10-foot concrete multi-use paths. Initial Cost Savings (\$148,000).
 - *VE Recommendation Idea # G-1.1 is not acceptable and will not be implemented Idea # G-1 is being implemented instead.*

15. **Value Engineering Recommendation No. Idea # G-1.2 – Alternative to Idea G-1** Construct a single 8-foot concrete multi-use path on one side and a 5-foot concrete sidewalk on the other side. Initial Cost Savings (\$258,000).
 - *VE Recommendation Idea # G-1.2 is not acceptable and will not be implemented Idea # G-1 is being implemented instead.*

Need and Purpose Statement
Sardis Road Connector from SR 60 to Sardis Rd near Chestatee Rd
New Alignment and Widening
STP00-0003-00(626), Hall County
P.I. No: 0003626

Background

The proposed project was added to the Department's Construction Work Program in 2001. As identified in the planning process, the proposed improvements entails creating a new alignment roadway while widening portions of Sardis Road, Fan Marr Drive, and Ledan Road between Chestatee Road and SR 60 in Northwestern Hall County. The length of the proposed project would be approximately 3.4 miles. For the location map, see Attachment A.

Existing Travel Conditions

The existing roadways on this corridor between SR 53 and SR 60 are Sardis Road and Ledan Road. Both Sardis Road and Ledan Road currently have posted speed limit of 35 mph. The functional classification of Sardis Road from Chestatee Road to Ledan Road is an Urban Minor Arterial. The functional classification of Ledan Road from Sardis Road to SR 60 is an Urban Collector Street. There is no available truck data on these two existing off-system roadways. However, the amount of truck traffic on the adjacent state routes of SR 53 and SR 60 is currently estimated to be approximately 6 percent of Average Annual Daily Traffic (AADT). The two existing roadways have 11 foot travel lanes with no paved shoulders or sidewalks. Sardis Road and Ledan Road are designated school bus route and provide the primary access to Chestatee High School, Chestatee Middle School, and Sardis Elementary Schools which are located immediately adjacent to the project corridor.

Logical Termini

For the proposed Sardis Road Connector, the proposed southern logical terminus of the project would be on Sardis Road at the Chestatee Road intersection where the project would tie into an existing five lane typical section. At this intersection, the 2011 and the 2035 ADT traffic volumes on Sardis Road split, with approximately 33 percent of the traffic traveling northwest on Chestatee Road and the remaining 67 percent of the traffic continuing through the intersection along Sardis Road to SR 53.

The logical northern terminus is at the existing intersection of SR 60 and SR 283 where the proposed new Sardis Road Connector alignment would create a new four-way intersection. The

northern terminus of this project is logical because the project corridor ties into an existing 4 lane section of SR 60. At this intersection with SR 60 and SR 283, the 2011 and the 2035 ADT traffic volumes on the proposed Sardis Road Connector split, with approximately 53 percent of the estimated traffic continuing to travel northeast on SR 283/ Mount Vernon Road and the remaining 47 percent of the traffic will diverge onto SR 60. Of that 47 percent traffic diverging onto SR 60, approximately 37 percent of that traffic diverges north on SR 60 towards Dahlonega and the remaining 63 percent traveling south on SR 60 towards Gainesville. The preferred four lane Sardis Road Connector alternative would extend approximately 2,000 feet northeast of the SR 60 intersection and taper down into the existing two lane section of SR 283 / Mount Vernon Road.

Existing and Projected Traffic Conditions

The AADT for two-way traffic along the existing and proposed new alignment corridor was evaluated to determine the level of service (LOS). The LOS is a qualitative measure of the operational efficiency of a roadway under peak hour conditions as they are seen from the driver’s perspective. There are a total of six (6) different LOS designations, from A to F, with LOS A representing the best case operational conditions with no delays in traffic and LOS F representing a complete breakdown in traffic flow. The LOS was evaluated for the existing conditions (2011), and the design year under the no-build condition (2035).

The AADT on the Sardis Road Connector Corridor for Year 2011 is estimated at 11,200 or a LOS of D. The AADT for the No-Build Alternative for the design year (2035) is 18,800 or a LOS of E. The increase in AADT on the existing roadway links that are utilized to form the Sardis Road Connector alignment demonstrates the need for additional road capacity in this area. The average daily traffic (ADT) volumes for the proposed project for the analysis periods are shown in Table 1 below.

Table 1 – Existing and Future AADT and LOS - Sardis Road Connector

	Average Daily Traffic			
	Current Year 2011 AADT	No build 2011 LOS	Design Year 2035 AADT	No build 2035 LOS
Sardis Road Connector between SR 53 and SR 60	11,200	D	18,800	E

Projects in the Area

GHMPO is in the process of preparing a new 2040 LRTP (Long Range Transportation Plan) and FY 2012-2015 TIP (Transportation Improvement Plan). The draft LRTP and TIP have been published but has not been adopted. This project is included in the Draft LRTP and Draft TIP and currently has a three locally funded ROW phases in FY 2013, 2014, and 2015. Additional projects identified in the GHMPO Draft TIP and Draft LRTP are listed in Table 2 below.

Table 2: Hall County Area Projects

Project Number	Project Description	Project Schedule
CSBRG-0007-00(021), PI 0007021, GH-063	SR 53 at <u>Chestatee River</u> Bridge Replacement	ROW 2013 CST 2015
STP00-0198-01(020), PI 132610, GH-038	Widen SR 60 from SR 136 to CR 158/Yellow Creek Road in Murrayville	ROW 2013 CST LR
GH-066	Northern Connector – Connection Between SR 60/Thompson Bridge road and SR 365	Long Range Tier 3

Land Use

The existing land use in the proposed project area is primarily a mixture of suburban single and multi-family residential and undeveloped land. Small percentages of the total land uses along the project corridor are comprised of retail commercial, public/institutional, vacant, and park/recreation/conservation land uses. Land uses within the project corridor initially consisted of agricultural and low-density residential development. However, over the past 10 to 15 years, this area has transformed to more low-density and suburban residential use with some commercial and institutional land uses scattered throughout.

Bike and Pedestrian Facilities

The proposed Sardis Road Connector project is currently listed as a bicycle route in the Gainesville MPO's Bicycle and Pedestrian plan that was adopted in 2006. The project corridor is not designated as a state bicycle route. The corridor currently does not have sidewalks or paved shoulder.

Crash Data

Increased traffic on Sardis Road and Ledan Road has brought about a corresponding increase in crashes. From 2007 to 2009, using the latest available data, the proposed project area experienced a total of 129 crashes (averaging 43 crashes per year) with a total of 56 injuries

(averaging 19 injuries per year). The historical crash data for the existing corridor includes no fatalities during this time period.

In comparison to statewide crash rates for similar roadway facilities, crash rates for the project area were substantially higher and exceeded the statewide averages for all three years from 2007 to 2009. Refer to Table 3 below for the Crash, Injury, and Fatality figures for the Sardis Road Connector corridor for 2007, 2008, and 2009. Refer to Table 3A and 3B below for the Statewide vs Project Crash, Injury, and Fatality Rates for the two existing roadway segments (Sardis Road and Ledan Road). The two existing roadway segments are separated into two tables due to their different functional classifications. The statewide crash, injury, and fatality averages are determined separately by each functional classification.

**Table 3: Crash, Injury, and Fatality Rates
Sardis Road / Ledan Road – between Chestatee Road and SR 60**

Year	Crashes	Injuries	Fatalities
2007	46	31	0
2008	41	29	0
2009	42	26	0
Totals	129	86	0

**Table 3A: Statewide vs Project Crash, Injury, and Fatality Rates – Sardis Road
Functional Classification: Urban Minor Arterial**

Year	Crash Rate		Injury Rate		Fatalities	
	Sardis Road	Statewide Average	Sardis Road	Statewide Average	Sardis Road	Statewide Average
2007	743	513	531	126	0	1.34
2008	610	469	292	117	0	1.33
2009	739	463	301	115	0	1.08

Source: Georgia Department of Transportation, Office of Traffic Operations
Note: All Rates are crashes, injuries, or fatalities per 100 million travel miles.

**Table 3B: Statewide vs Project Crash, Injury, and Fatality Rates – Ledan Road
Functional Classification: Urban Collector Street**

Year	Crash Rate		Injury Rate		Fatalities	
	Ledan Road	Statewide Average	Ledan Road	Statewide Average	Ledan Road	Statewide Average
2007	1,468	475	897	114	0	1.25
2008	1,468	443	1,468	105	0	1.08
2009	1,262	431	1,262	101	0	1.11

Source: Georgia Department of Transportation, Office of Traffic Operations
Note: All Rates are crashes, injuries, or fatalities per 100 million travel miles.

Many of the crashes along the existing Sardis Road/Ledan Road corridor were rear-end and angle crashes. These types of crashes may have occurred due to the limited passing opportunities or lack of turning lanes. Table 4 below displays the crash types on existing routes for the Sardis Road Connector project corridor over a three year period between 2007 and 2009.

**Table 4: Crash Type for existing facilities (2007-2009)
Sardis Road and Ledan Road
From Chestatee Road to SR 60**

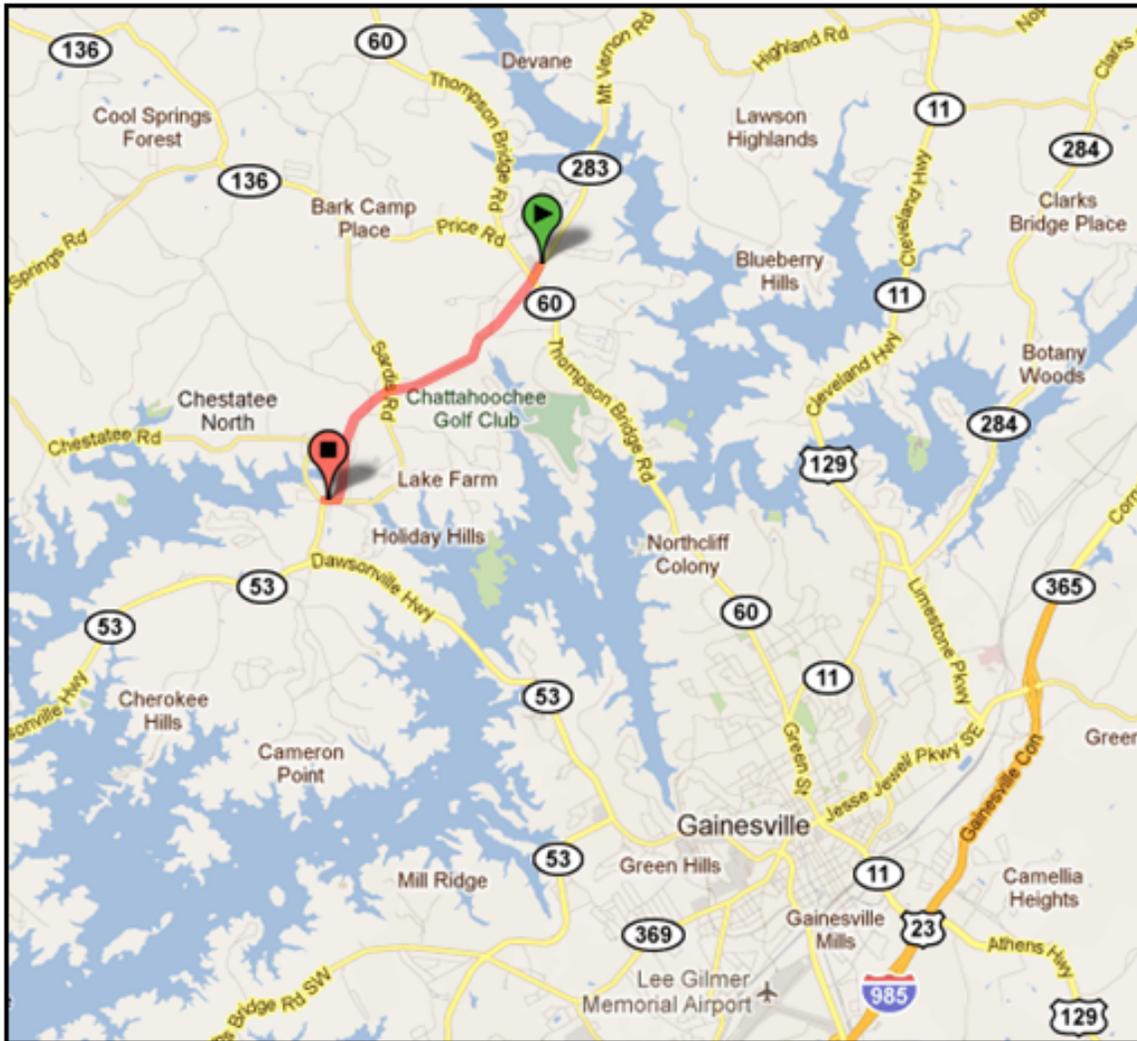
	Total Crashes (3 years) 2007-2009	Perecent of total
Angle	25	19%
Rear End	56	43%
Side Swipe	10	8%
Head On	5	4%
Not a collision w/ a vehicle	33	26%
Total Crashes	129	100%

Need and Purpose

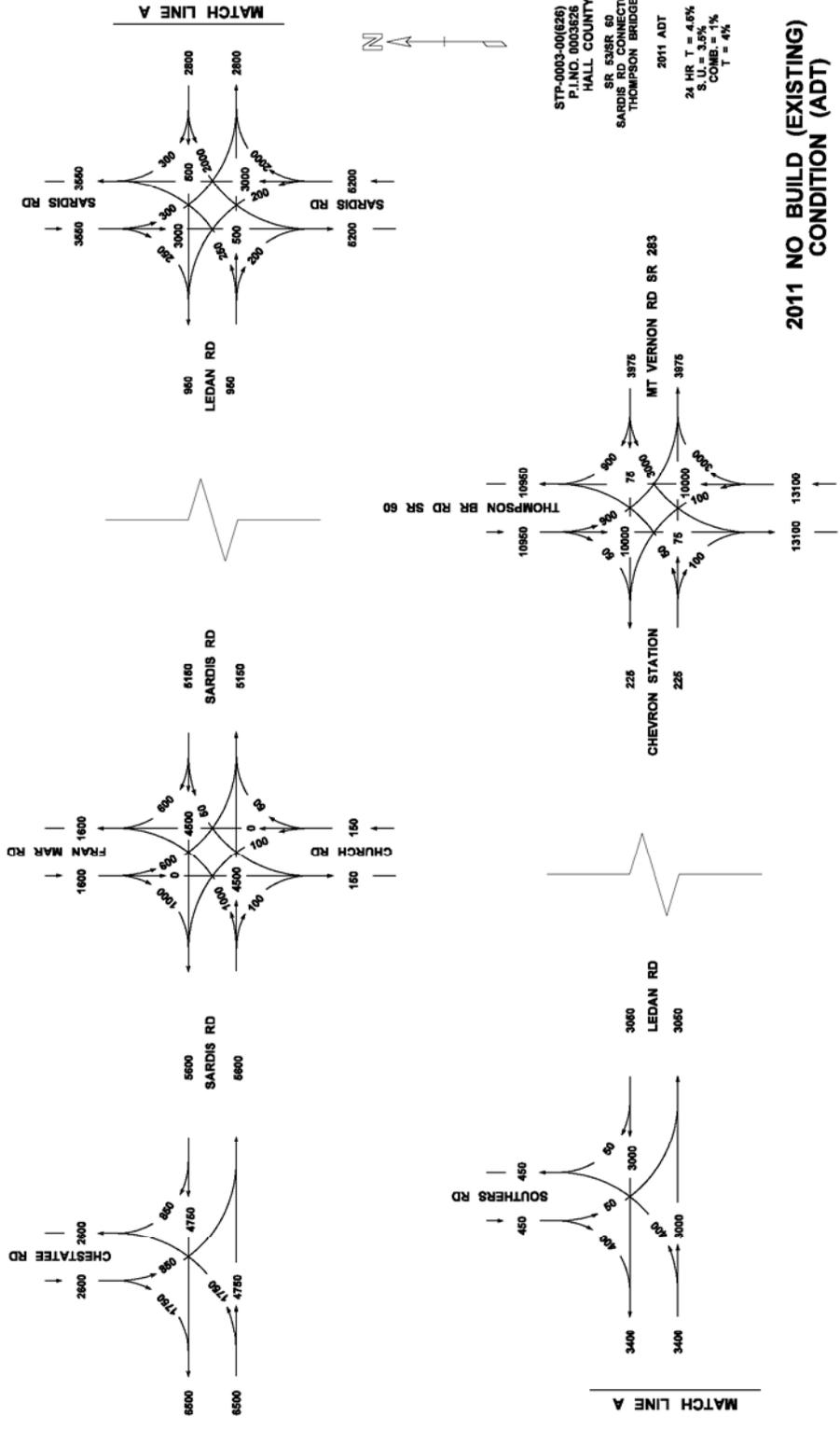
The need and purpose of the proposed project is to satisfactorily accommodate the existing and future traffic demands along the roadway. Additional benefits of the project are to help reduce crash frequency and severity along the Sardis Road Connector corridor.

ATTACHMENT A

Sardis Road Connector fm SR 60 to Sardis Rd near Chestatee Rd STP00-0003-00(626), Hall County P.I. No: 0003626

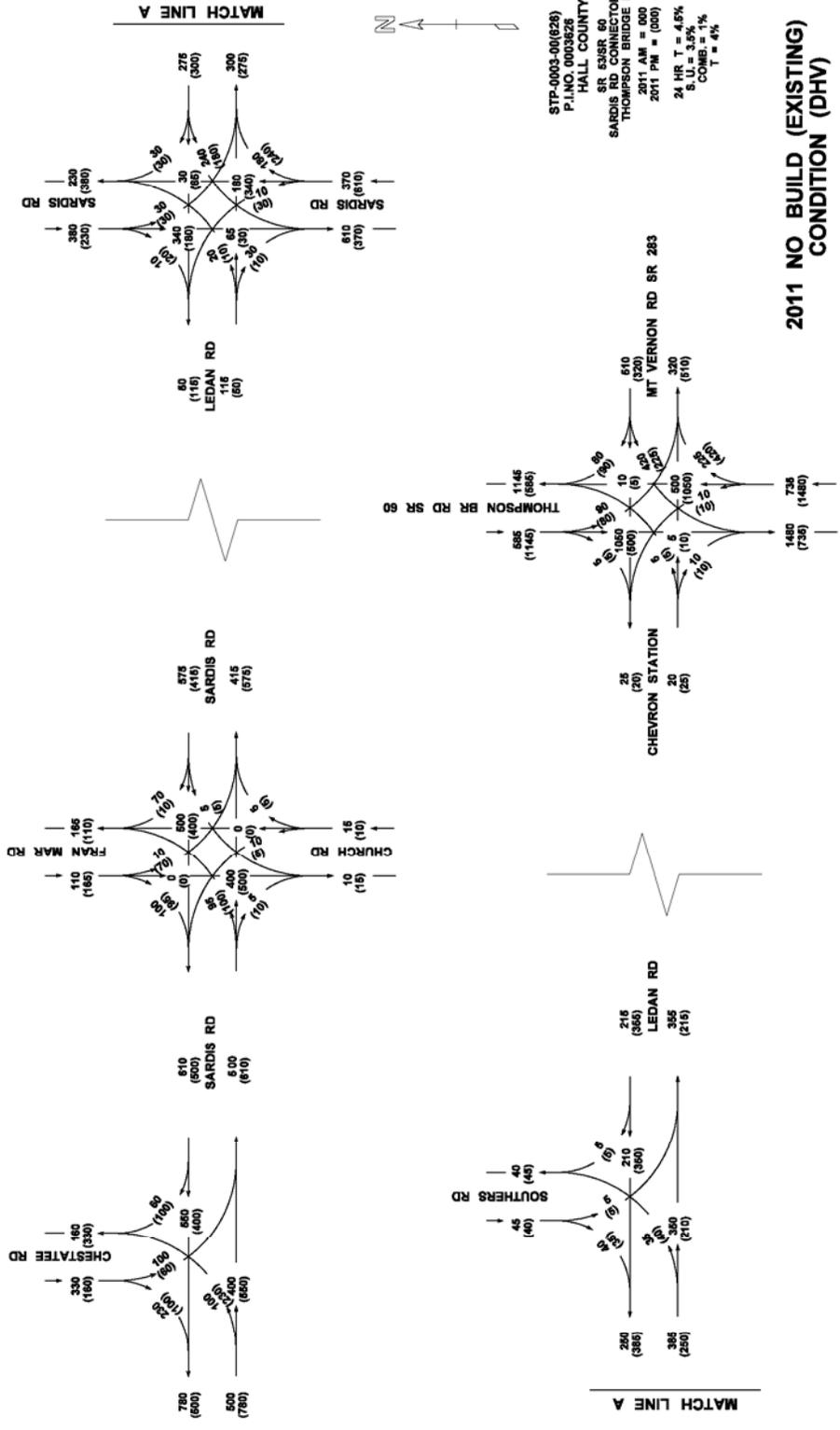


HALL COUNTY



<p>THE ENGINEERS AT STATE ROAD, TERRY PLACE 100 ATLANTA, GA 30331-1001</p>	<p>REVISION DATES</p>	<p>STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION</p>
		<p>OFFICE: TRAFFIC DIAGRAM</p> <p>SARDIS ROAD CONNECTOR HALL COUNTY</p>

HALL COUNTY

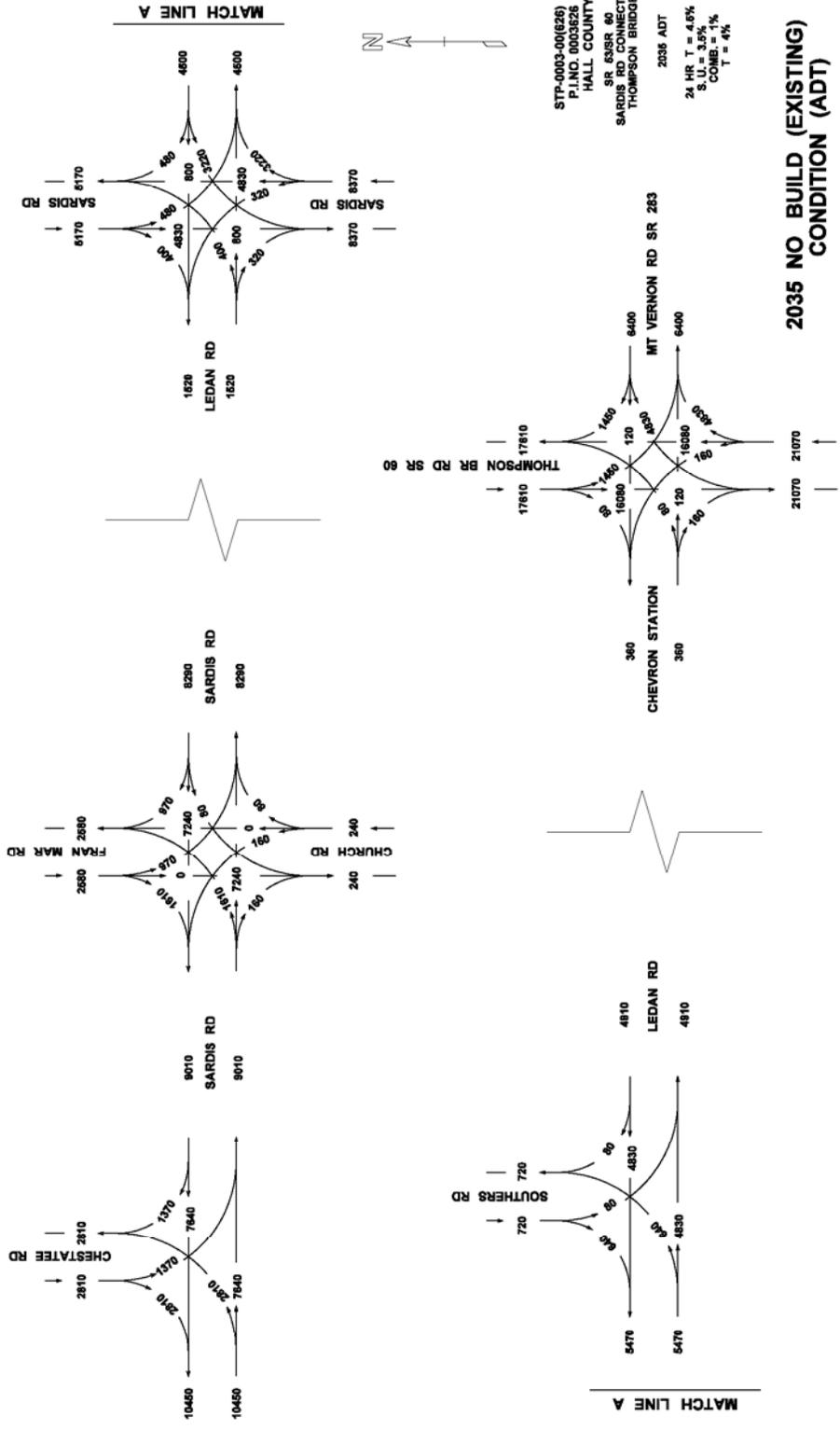


REVISION DATES	STATE OF GEORGIA
	DEPARTMENT OF TRANSPORTATION
	OFFICE: TRAFFIC DIAGRAM
	SARDIS ROAD CONNECTOR
	HALL COUNTY
	DATE PLOTTED: 10-02



GEORGIA
 DEPARTMENT
 OF
 TRANSPORTATION

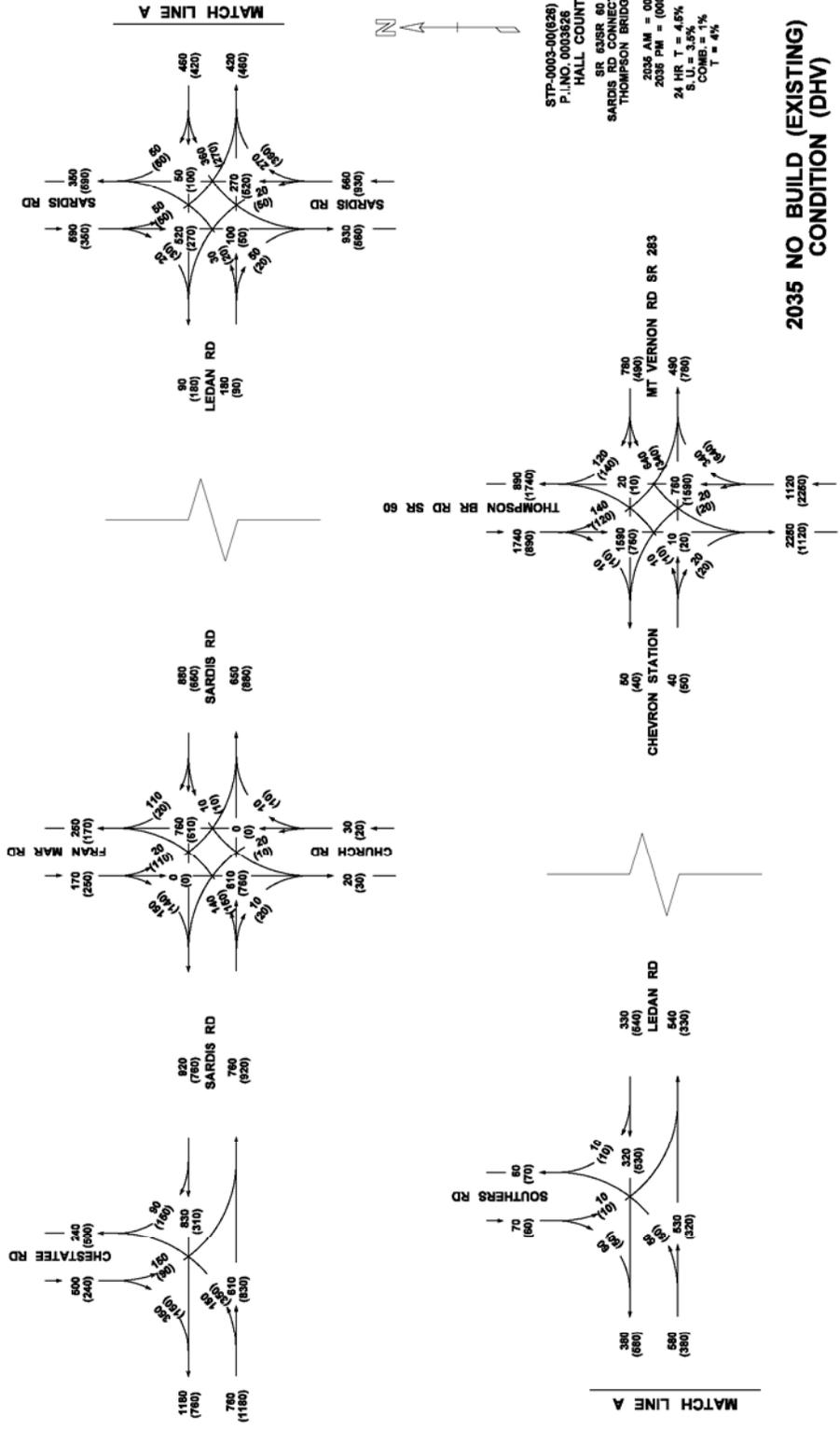
HALL COUNTY



<p>THE ENGINEERS, P.C. SUITE 2000, TOWER PLACE III ATLANTA, GA 30331-1801</p>	REVISION DATES	STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION OFFICE: TRAFFIC DIAGRAM
	GEORGIA DEPARTMENT OF TRANSPORTATION	SARDIS ROAD CONNECTOR HALL COUNTY

DATE PLOTTED: 10-05

HALL COUNTY



**2035 NO BUILD (EXISTING)
 CONDITION (DHV)**

<p>1925 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025</p>	GEORGIA DEPARTMENT OF TRANSPORTATION	REVISION DATES	STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION OFFICE: TRAFFIC DIAGRAM SARDIS ROAD CONNECTOR HALL COUNTY
	2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025	10-06	



To: Jody Woodall
CC: Roger Palmer, Jonathan Reid
From: John Palm
Date: March 15, 2010
Subject: Sardis Road Traffic Forecasts – Dawsonville Highway to Thompson Bridge Road

The Sardis Road traffic forecasts have been completed. This memorandum documents the process and results of the forecasts.

Executive Summary

The Sardis Road realignment/widening was tested using the Gainesville/Hall County transportation model in cooperation with GDOT. The alignment was tested as a 2-lane and a 4-lane facility. The 2-lane facility has a very short service life, operating below LOS D from Dawsonville Highway (SR 53) to Southers Road by 2020. The segment from Southers to Thompson Bridge Road (SR 60) operates at a 2035 LOS C in the model; however there are parallel facilities that could also operate at LOS D or below based on the model's difficulty in assigning traffic to these facilities. The 4-lane facility operates at an acceptable LOS through the year 2030. The traffic forecasts from the model support the construction of a 4-lane facility from Dawsonville Highway (SR 53) to Thompson Bridge Road (SR 60).

Transportation Modeling

The modeling was done collaboratively by PB and Habte Kassa at the Georgia Department of Transportation. PB provided the roadway alignment and coding information as a "bare network" file. GDOT loaded the new alignment into the Gainesville Hall County Model 2005 Existing and 2035 Build (Tier 1-3) networks and ran the model with the 2005 and 2035 Socio-Economic Data (Z-data). The GHMPO Transportation Model does not have interim year data or network.

Minor changes were made in the centroid (TAZ) connectors to reflect the new alignment of Sardis Road. A total of four model runs were completed, two runs on the 2005 network/Z-data with 2-lane and 4-lane cross sections, and two runs on the 2035 network/Z-data with 2-lane and 4-lane cross sections. See Figures 1-4 attached.

Level of Service Analysis

Hall County is interested in a determination of the number of lanes required on the Sardis Road realignment and if a 4-lane facility is required, if there is some value in constructing a 2-lane facility initially and phasing to 4 lanes in the future from a traffic volume standpoint.



In using the results of a travel model it is important to understand the manner in which the model assigns traffic to the network and the overall confidence that should be placed in the ADT values generated by the GHMPO model.

The GHMPO model is a countywide model, the traffic analysis zone structure was not refined for corridor analysis purposes. Generally this means that the ADT values developed are suitable for determining the number of lanes required, however these values should not be used for intersection analysis. The model must be further refined for use in detailed planning or design work.

It should be noted that current economic conditions may render the forecasts used to develop the model as "optimistic" at best. The volumes the model generates should be considered high estimates by year.

The model assigns traffic to the roadway network through productions and attractions based on information in the TAZ data. These assignments are sensitive to travel time; therefore speed and distance are critical elements in assigning trips to the network. The model will keep assigning trips to the network link as long as the overall trip time is favorable. The model has some difficulty in assigning traffic to parallel facilities. Traffic assignments to roadways with parallel facilities should be used cautiously. All other things being equal, the model will always favor the shorter distance due to the reduced travel time it affords.

When added capacity or realignments are introduced to a roadway system the revised facility will often draw traffic from other roadways based on the better speed/travel time the new facility affords to trips on the network. It is important to review these differences to ensure that the model is not making assignments that are illogical. The model network is an interconnected system and it is important to understand the direction and nature of these changes and their impact on the balance of the network. For Sardis Road this is less critical because the new alignment and capacity are called for in the MPO's Long Range Transportation Plan and Transportation Improvement Program. This means that these changes should have been taken into account in the development of the regional/county transportation plan.

The forecast model volumes under each scenario were then summarized by link and roadway section (2 or 4 lane) and Average Daily Traffic (ADT) values for 2005 and 2035 were prepared. The segments for Sardis Road were:

- Segment A – Dawsonville Highway (SR 53) to Chestatee Road
- Segment B – Chestatee Road to Ledan Road
- Segment C - Ledan Road to Southers Road
- Segment D - Southers Road to Thompson Bridge Road (SR 63)

The link volumes were averaged for each segment by year (2005 and 2035) and laneage (2 or 4 travel lanes).

ADT was then interpolated using a linear method between the 2005 and 2035 forecasts to create ADT for each year between 2005 and 2035 for each segment and each lane configuration (Table 1).



It is clear from the difference in values between 2005 and 2035 that growth in traffic on the new Sardis Road alignment is highly sensitive to the amount of growth forecast in the area. Volumes are three times larger in 2035 than in 2005 on all four segments.

Level of Service Analysis

The Level of Service (LOS) analysis was performed using the FDOT HIGHPLAN 2009 software. HIGHPLAN provides an easy tool to evaluate highway segment LOS using the 2000 Highway Capacity Manual standards and techniques. It was specifically designed for this type of analysis.

For both the 2 and 4-lane analysis the following assumptions were made on traffic characteristics (these are typically used default values).

- $K = 0.10$
- $D = 0.55$
- $PHF = 0.92$
- Heavy Vehicles = 2%

The 2-lane analysis assumed no passing prohibitions based on the number of potential conflicts along each segment of Sardis Road requiring passing restrictions. No median was assumed for the 2-lane section and for those segments where driveway access was significant the left turn impact factor was included in the analysis. Speed limit was assumed to be 35 mph, and design speed as 40 mph.

The 4-lane analysis assumed a median turn lane. The provision of the turn lane eliminates left turn conflicts. Speed was assumed to be 35 mph.

The LOS is indicated in Table 1. The detailed analysis is included in the attached Appendix by segment and lane count.

Corridor Analysis

LOS D was assumed to be the minimum LOS acceptable in the corridor.

Based on a 2-lane roadway:

- Segment A falls below LOS D in 2005, and falls below LOS E in 2010,
- Segment B falls below LOS D in 2009, and falls below LOS E in 2016,
- Segment C falls below LOS D in 2019, and falls below LOS E in 2027,
- Segment D never falls below LOS C.

Based on a 4-lane roadway:

- Segment A falls below LOS D in 2030, and never falls below LOS E,
- Segment B operates at LOS C in 2035
- Segment C operates at LOS B in 2035
- Segment D operates at LOS A in 2035



The forecasts and analysis should be used with some caution for Segments A and D. Segment A is heavily influenced by Chestatee Road and Lake Lanier. Major water features have a tendency to focus traffic in unusual ways, traffic volumes may be overstated to some extent on Segment A, but the volumes should still exceed those found on Segment B. Segment D is impacted by 2 parallel facilities. The model is likely splitting traffic to and from the north and south to those roadways, leaving the volume on the new Sardis Road as only the through volume to Mount Vernon Road. The ADT volumes are likely to be higher, but somewhat less than Segment C.

Clearly Segments A and B should be constructed as 4-lane roadways; the need is significant and will only continue to get worse. Segment C only has a 9 year life as a 2-lane roadway. Even assuming some delay on need owing to economic conditions it is unlikely to have a 20 year life as a 2-lane roadway.

Segment D is more difficult to predict. It never reaches LOS D as a 2-lane roadway and operates at LOS A as a 4-lane roadway in 2035; there are parallel facilities which likely influence traffic sufficiently to reduce the LOS by one level.

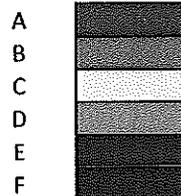
It may be appropriate to coordinate with the County Planning office to determine the future land use in the area. The intersection area of Thompson Bridge Road/Sardis Road/Mount Vernon Road may be the appropriate location for major retail facilities. These facilities may benefit from a 4-lane facility for localized traffic.

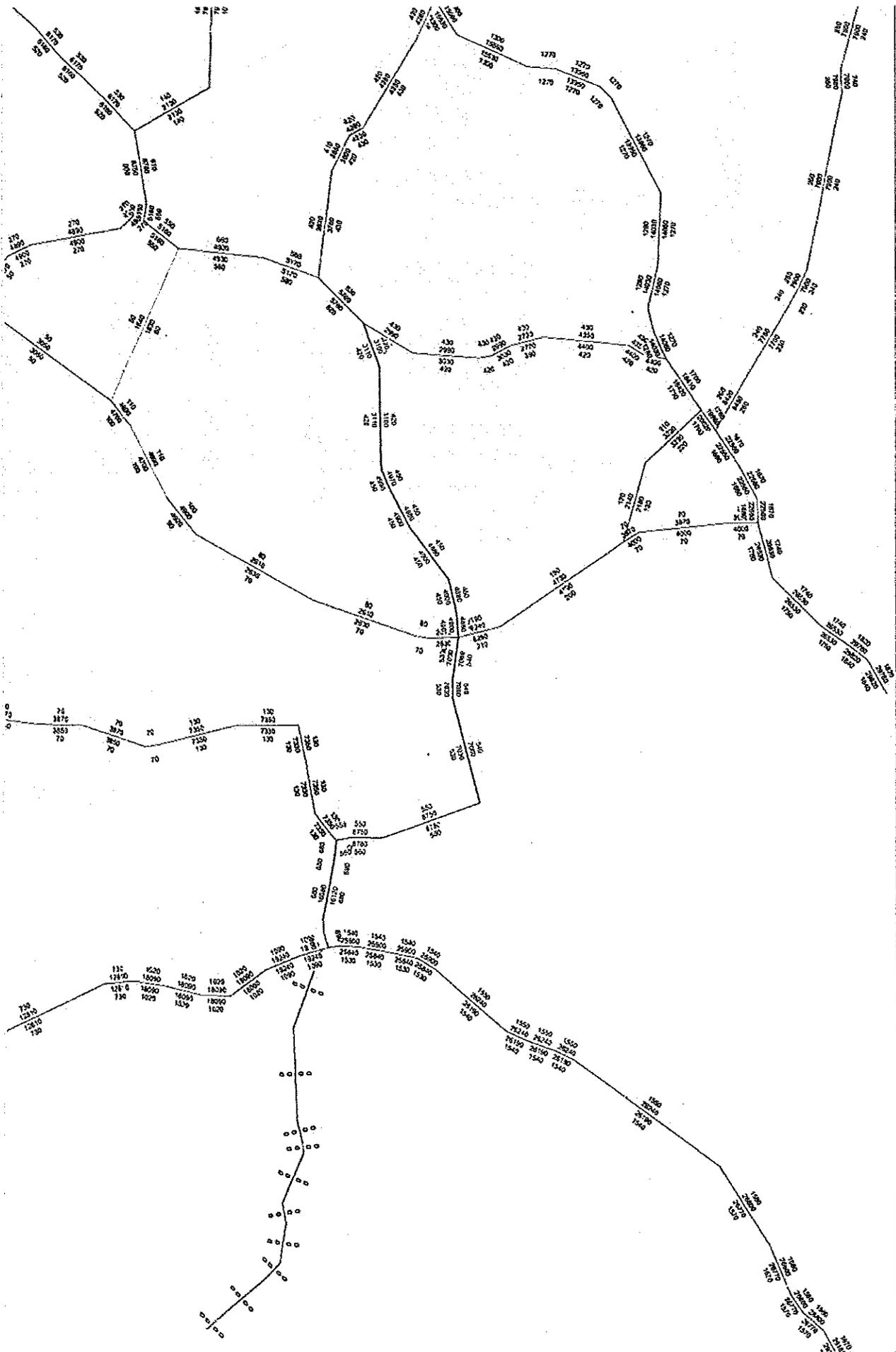
Table 1 - Sardis Road Traffic Forecasts

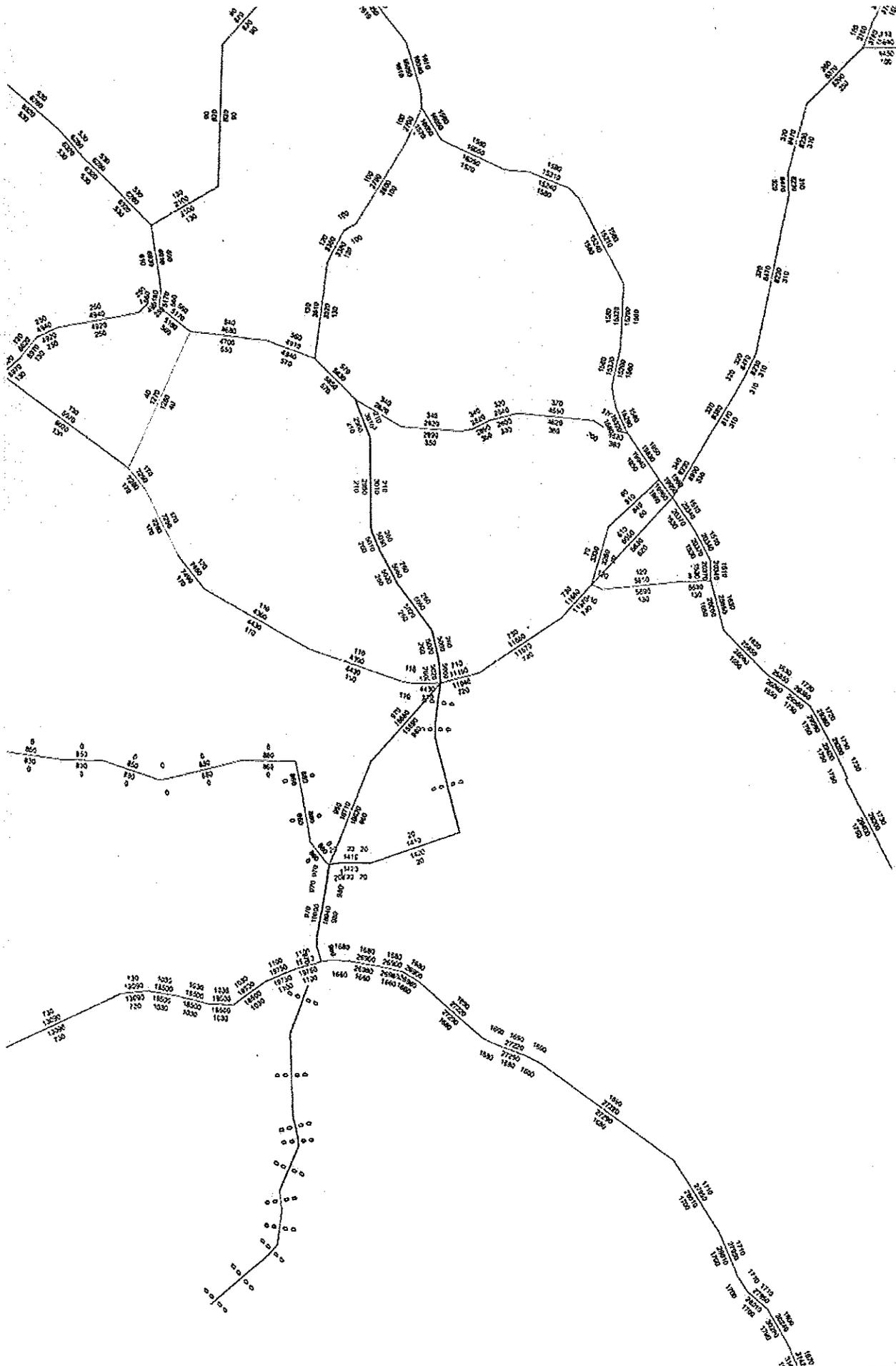
Year	2-lane				4-lane			
	A	B	C	D	A	B	C	D
2005	11040	8865	6213	3360	11010	8750	6127	3300
2006	11908	9371	6624	3576	11908	9385	6586	3625
2007	12776	9876	7035	3792	12805	10390	7245	3909
2008	13644	10382	7446	4008	13703	11105	7804	4194
2009	14512	10888	7857	4224	14601	11890	8363	4479
2010	15380	11393	8268	4440	15498	12675	8922	4763
2011	16248	11899	8679	4656	16396	13460	9481	5048
2012	17116	12405	9090	4872	17294	14245	10040	5333
2013	17984	12910	9501	5088	18191	15030	10599	5617
2014	18852	13415	9912	5304	19089	15815	11158	5902
2015	19720	13922	10323	5520	19987	16600	11717	6187
2016	20588	14427	10734	5736	20884	17385	12276	6471
2017	21456	14933	11145	5952	21782	18170	12835	6756
2018	22324	15439	11556	6168	22680	18955	13394	7041
2019	23192	15944	11967	6384	23577	19740	13953	7325
2020	24060	16450	12378	6600	24475	20525	14512	7610
2021	24928	16956	12789	6816	25373	21310	15071	7895
2022	25796	17461	13200	7032	26270	22095	15630	8179
2023	26664	17967	13611	7248	27168	22880	16189	8464
2024	27532	18473	14022	7464	28066	23665	16748	8749
2025	28400	18978	14433	7680	28963	24450	17307	9033
2026	29268	19484	14844	7896	29861	25235	17866	9318
2027	30136	19990	15255	8112	30759	26020	18425	9603
2028	31004	20495	15666	8328	31656	26805	18984	9887
2029	31872	21001	16077	8544	32554	27590	19543	10172
2030	32740	21507	16488	8760	33452	28375	20102	10457
2031	33608	22012	16899	8976	34349	29160	20661	10741
2032	34476	22518	17310	9192	35247	29945	21220	11026
2033	35344	23024	17721	9408	36145	30730	21779	11311
2034	36212	23529	18132	9624	37042	31515	22338	11595
2035	37080	24035	18543	9840	37940	32300	22897	11880

Segment A - Dawsonville Hwy (SR 53) to Chestatee Rd
 Segment B - Chestatee Rd to Ledan Rd
 Segment C - Ledan Rd to Southers Rd
 Segment D - Southers Rd to Thompson Bridge Rd

LOS







HIGHPLAN 2009 Conceptual Planning Analysis

Project Information

Analyst	Palm	Highway Name	Sardis Road	Study Period	K100
Date Prepared	3/12/2010 8:56:08 AM	From	Dawsonville Hwy	Program	HIGHPLAN 2009
Agency	PB Americas	To	Chestatee Rd	Version Date	12/28/09
Area Type	Transitioning/Urban	Peak Direction	Southbound		
File Name	C:\Documents and Settings\Palm\Local Settings\Temp\preview.xml				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Area Type	Transitioning/Urban	Segment Length	0.6	AADT	37080	PHF	0.920
# Thru Lanes	2	Median	No	K	0.100	% Heavy Vehicles	2.0
Terrain	Level	Left Turn Impact	Yes	D	0.550	Base Capacity	1700
Posted Speed	35	Pass Lane Spacing	N/A	Peak Dir. Hrly. Vol.	2039	Local Adj. Factor	1.00
Free Flow Speed	40	% NPZ	90	Off Peak Dir. Hrly. Vol.	1669	Adjusted Capacity	1262

LOS Results

v/c Ratio	1.63	Density	N/A	PTSF	100.00	ATS	0.0	% PFS	0.00
PFS Delay	Infinity	LOS Thresh. Delay	Infinity	Service Measure	vcRatio	LOS	F		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1600 veh/h/ln.

	A	B	C	D	E
Lanes	Hourly Volume In Peak Direction				
1	50	150	390	610	810
2					
3					
4					
Lanes	Hourly Volume In Both Directions				
2	100	280	710	1110	1480
4					
6					
8					
Lanes	Annual Average Daily Traffic				
2	1000	2800	7200	11200	14800
4					
6					
8					

* Cannot be achieved based on input data provided.

Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to

HIGHPLAN 2009 Conceptual Planning Analysis

Project Information

Analyst	Palm	Highway Name	Sardis Road	Study Period	K100
Date Prepared	3/12/2010 8:56:08 AM	From	Chestatee Rd	Program	HIGHPLAN 2009
Agency	PB Americas	To	Ledan Rd	Version Date	12/28/09
Area Type	Transitioning/Urban	Peak Direction	Southbound		
File Name	C:\Documents and Settings\Palm\Local Settings\Temp\preview.xml				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Area Type	Transitioning/Urban	Segment Length	1.5	AADT	24035	PHF	0.920
# Thru Lanes	2	Median	No	K	0.100	% Heavy Vehicles	2.0
Terrain	Level	Left Turn Impact	Yes	D	0.550	Base Capacity	1700
Posted Speed	35	Pass Lane Spacing	N/A	Peak Dir. Hrly. Vol.	1322	Local Adj. Factor	1.00
Free Flow Speed	40	% NPZ	90	Off Peak Dir. Hrly. Vol.	1082	Adjusted Capacity	1262

LOS Results

v/c Ratio	1.06	Density	N/A	PTSF	100.00	ATS	0.0	% FFS	0.00
FFS Delay	Infinity	LOS Thresh. Delay	Infinity	Service Measure	vcRatio	LOS	F		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1600 veh/h/ln.

	A	B	C	D	E
Lanes	Hourly Volume In Peak Direction				
1	50	150	390	610	810
2					
3					
4					
Lanes	Hourly Volume In Both Directions				
2	100	280	710	1110	1480
4					
6					
8					
Lanes	Annual Average Daily Traffic				
2	1000	2800	7200	11200	14800
4					
6					
8					

* Cannot be achieved based on input data provided.

Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

2035 Segment C - 2 lanes

HIGHPLAN 2009 Conceptual Planning Analysis

Project Information

Analyst	Palm	Highway Name	Sardis Road	Study Period	K100
Date Prepared	3/12/2010 8:56:08 AM	From	Ledan Rd	Program	HIGHPLAN 2009
Agency	PB Americas	To	Souther Rd	Version Date	12/28/09
Area Type	Transitioning/Urban	Peak Direction	Southbound		
File Name	C:\Documents and Settings\Palm\Local Settings\Temp\preview.xml				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Area Type	Transitioning/Urban	Segment Length	1.5	AADT	18540	PHF	0.920
# Thru Lanes	2	Medlan	No	K	0.100	% Heavy Vehicles	2.0
Terrain	Level	Left Turn Impact	Yes	D	0.550	Base Capacity	1700
Posted Speed	35	Pass Lane Spacing	N/A	Peak Dir. Hrly. Vol.	1020	Local Adj. Factor	1.00
Free Flow Speed	40	% NPZ	50	Off Peak Dir. Hrly. Vol.	834	Adjusted Capacity	1262

LOS Results

v/c Ratio	0.82	Density	N/A	PTSF	92.81	ATS	20.0	% FFS	49.89
FFS Delay	135.57	LOS Thresh. Delay	162.57	Service Measure	PctFFS	LOS	F		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1600 veh/h/ln.

	A	B	C	D	E
Hourly Volume In Peak Direction					
Lanes					
1	100	240	470	660	840
2					
3					
4					
Hourly Volume In Both Directions					
Lanes					
2	190	440	860	1200	1530
4					
6					
8					
Annual Average Daily Traffic					
Lanes					
2	2000	4400	8600	12000	15400
4					
6					
8					

* Cannot be achieved based on input data provided.

Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2009 Conceptual Planning Analysis

Project Information

Analyst	Palm	Highway Name	Sardis Road	Study Period	K100
Date Prepared	3/12/2010 8:56:08 AM	From	Souther Rd	Program	HIGHPLAN 2009
Agency	PB Americas	To	Thompson Bridge Road	Version Date	12/28/09
Area Type	Transitoning/Urban	Peak Direction	Southbound		
File Name	C:\Documents and Settings\Palm\Local Settings\Temp\preview.xml				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Area Type	Transitoning/Urban	Segment Length	0.7	AADT	9840	PHF	0.920
# Thru Lanes	2	Medlan	No	K	0.100	% Heavy Vehicles	2.0
Terrain	Level	Left Turn Impact	No	D	0.550	Base Capacity	1700
Posted Speed	35	Pass Lane Spacing	N/A	Peak Dir. Hrly. Vol.	541	Local Adj. Factor	1.00
Free Flow Speed	40	% NPZ	20	Off Peak Dir. Hrly. Vol.	443	Adjusted Capacity	1599

LOS Results

v/c Ratio	0.35	Density	N/A	PTSF	70.64	ATS	31.0	% FFS	77.44
FFS Delay	18.35	LOS Thresh. Delay	30.95	Service Measure	PctFFS	LOS	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1600 veh/h/ln.

	A	B	C	D	E
Lanes	Hourly Volume In Peak Direction				
1	170	370	610	840	1060
2					
3					
4					
Lanes	Hourly Volume In Both Directions				
2	310	680	1110	1530	1930
4					
6					
8					
Lanes	Annual Average Daily Traffic				
2	3200	6800	11200	15400	19400
4					
6					
8					

* Cannot be achieved based on input data provided.

Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to

HIGHPLAN 2009 Conceptual Planning Analysis

Project Information

Analyst	Palm	Highway Name	Sardis Road	Study Period	K100
Date Prepared	3/12/2010 8:56:08 AM	From	Dawsonville Hwy	Program	HIGHPLAN 2009
Agency	PB Americas	To	Chestatee Rd	Version Date	12/28/09
Area Type	Transitioning/Urban	Peak Direction	Southbound		
File Name	C:\Documents and Settings\Palm\Local Settings\Temp\preview.xml				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Area Type	Transitioning/Urban	Segment Length	0.6	AADT	37940	PHF	0.920
# Thru Lanes	4	Medlan	Yes	K	0.100	% Heavy Vehicles	2.0
Terrain	Level	Left Turn Impact	No	D	0.550	Base Capacity	0
Posted Speed	35	Pass Lane Spacing	N/A	Peak Dir. Hrly. Vol.	2087	Local Adj. Factor	1.00
Free Flow Speed	40	% NPZ	N/A	Off Peak Dir. Hrly. Vol.	1707	Adjusted Capacity	0

LOS Results

v/c Ratio	Infinity	Density	28.6	PTSF	N/A	ATS	40.0	% FFS	100.00
FFS Delay	0.00	LOS Thresh. Delay	18.00	Service Measure	Density	LOS	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1600 veh/h/ln.

	A	B	C	D	E
Lanes	Hourly Volume In Peak Direction				
1					
2	800	1310	1890	2550	2550
3	1200	1960	2840	3820	3820
4	1600	2620	3780	5100	5100
Lanes	Hourly Volume In Both Directions				
2					
4	1460	2390	3440	4640	4640
6	2190	3570	5170	6950	6950
8	2910	4770	6880	9280	9280
Lanes	Annual Average Daily Traffic				
2					
4	14600	24000	34400	46400	46400
6	22000	35800	51800	69600	69600
8	29200	47800	68800	92800	92800

* Cannot be achieved based on input data provided.

Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to

HIGHPLAN 2009 Conceptual Planning Analysis

Project Information

Analyst	Palm	Highway Name	Sardis Road	Study Period	K100
Date Prepared	3/12/2010 8:56:08 AM	From	Chestatee Rd	Program	HIGHPLAN 2009
Agency	PB Americas	To	Ledan Rd	Version Date	12/28/09
Area Type	Translting/Urban	Peak Direction	Southbound		
File Name	C:\Documents and Settings\Palm\Local Settings\Temp\preview.xml				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Area Type	Translting/Urban	Segment Length	1.5	AADT	32300	PHF	0.920
# Thru Lanes	4	Median	Yes	K	0.100	% Heavy Vehicles	2.0
Terrain	Level	Left Turn Impact	No	D	0.550	Base Capacity	0
Posted Speed	35	Pass Lane Spacing	N/A	Peak Dir. Hrly. Vol.	1777	Local Adj. Factor	1.00
Free Flow Speed	40	% NPZ	N/A	Off Peak Dir. Hrly. Vol.	1454	Adjusted Capacity	0

LOS Results

v/c Ratio	Infinity	Density	24.4	PTSF	N/A	ATS	40.0	% FFS	100.00
FFS Delay	0.00	LOS Thresh. Delay	45.00	Service Measure	Density	LOS	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1600 veh/h/ln.

	A	B	C	D	E
Lanes	Hourly Volume In Peak Direction				
1					
2	800	1310	1890	2550	2550
3	1200	1960	2840	3820	3820
4	1600	2620	3780	5100	5100
Lanes	Hourly Volume In Both Directions				
2					
4	1460	2390	3440	4640	4640
6	2190	3570	5170	6950	6950
8	2910	4770	6880	9280	9280
Lanes	Annual Average Daily Traffic				
2					
4	14600	24000	34400	46400	46400
6	22000	35800	51800	69600	69600
8	29200	47800	68800	92800	92800

* Cannot be achieved based on input data provided.

Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2009 Conceptual Planning Analysis

Project Information

Analyst	Palm	Highway Name	Sardis Road	Study Period	K100
Date Prepared	3/12/2010 8:56:08 AM	From	Ledan Rd	Program	HIGHPLAN 2009
Agency	PB Americas	To	Souther Rd	Version Date	12/28/09
Area Type	Transitioning/Urban	Peak Direction	Southbound		
File Name	C:\Documents and Settings\Palm\Local Settings\Temp\preview.xml				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Area Type	Transitioning/Urban	Segment Length	1.5	AADT	22897	PHF	0.920
# Thru Lanes	4	Median	Yes	K	0.100	% Heavy Vehicles	2.0
Terrain	Level	Left Turn Impact	No	D	0.550	Base Capacity	0
Posted Speed	35	Pass Lane Spacing	N/A	Peak Dir. Hrly. Vol.	1259	Local Adj. Factor	1.00
Free Flow Speed	40	% NPZ	N/A	Off Peak Dir. Hrly. Vol.	1030	Adjusted Capacity	0

LOS Results

v/c Ratio	Infinity	Density	17.3	PTSF	N/A	ATS	40.0	% FFS	100.00
FFS Delay	0.00	LOS Thrsh. Delay	45.00	Service Measure	Density	LOS	B		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1600 veh/h/ln.

	A	B	C	D	E
Lanes	Hourly Volume In Peak Direction				
1					
2	800	1310	1890	2550	2550
3	1200	1960	2840	3820	3820
4	1600	2620	3780	5100	5100
Lanes	Hourly Volume In Both Directions				
2					
4	1460	2390	3440	4640	4640
6	2190	3570	5170	6950	6950
8	2910	4770	6880	9280	9280
Lanes	Annual Average Daily Traffic				
2					
4	14600	24000	34400	46400	46400
6	22000	35800	51800	69600	69600
8	29200	47800	68800	92800	92800

* Cannot be achieved based on input data provided.

Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2009 Conceptual Planning Analysis

Project Information

Analyst	Palm	Highway Name	Sardis Road	Study Period	K100
Date Prepared	3/12/2010 8:56:08 AM	From	Souther Rd	Program	HIGHPLAN 2009
Agency	PB Americas	To	Thompson Bridge Road	Version Date	12/28/09
Area Type	Transitioning/Urban	Peak Direction	Southbound		
File Name	C:\Documents and Settings\Palm\Local Settings\Temp\preview.xml				
User Notes					

Highway Data

Roadway Variables				Traffic Variables			
Area Type	Transitioning/Urban	Segment Length	0.7	AADT	11880	PHP	0.920
# Thru Lanes	4	Median	Yes	K	0.100	% Heavy Vehicles	2.0
Terrain	Level	Left Turn Impact	No	D	0.550	Base Capacity	0
Posted Speed	35	Pass Lane Spacing	N/A	Peak Dir. Hrly. Vol.	653	Local Adj. Factor	1.00
Free Flow Speed	40	% NPZ	N/A	Off Peak Dir. Hrly. Vol.	535	Adjusted Capacity	0

LOS Results

v/c Ratio	Infinity	Density	9.0	PTSF	N/A	ATS	40.0	% FFS	100.00
FFS Delay	0.00	LOS Thresh. Delay	21.00	Service Measure	Density	LOS	A		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1600 veh/h/ln.

	A	B	C	D	E
Lanes	Hourly Volume In Peak Direction				
1					
2	800	1310	1890	2550	2550
3	1200	1960	2840	3820	3820
4	1600	2620	3780	5100	5100
Lanes	Hourly Volume In Both Directions				
2					
4	1460	2390	3440	4640	4640
6	2190	3570	5170	6950	6950
8	2910	4770	6880	9280	9280
Lanes	Annual Average Daily Traffic				
2					
4	14600	24000	34400	46400	46400
6	22000	35800	51800	69600	69600
8	29200	47800	68800	92800	92800

* Cannot be achieved based on Input data provided.

Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
OFFICE OF ENVIRONMENT/LOCATION**

PRACTICAL ALTERNATIVES REPORT

Sardis Road Connector between SR 53 & SR 60

STP-0003-00(626)

PI # 0003626

Hall County

July, 2008

General Project Description

This report consists of STP-0003-00(626) in Hall County. This project proposes to construct a connector roadway in Hall County between State Route (SR) 53 to the south and SR 60/Thompson Bridge Road to the north. The proposed project begins at the Sardis Road/Chestatee Road intersection and extends north to SR 60/Thompson Bridge Road in the vicinity of the intersection with Mt. Vernon Road. The proposed alignment follows several existing local roads with some of the roadway on new location. The total project length is approximately 3.55 miles. The proposed roadway will consist of a 4 lane curb and gutter divided roadway, two lanes in each direction separated with a 20 foot wide, six inch high curb and gutter median. Sidewalks will be provided on both sides of the road. The project will utilize portions of the existing Fran Mar Drive, Brackett Road and Ledan Road. The horizontal and vertical alignments will meet the requirements for a 35-45 miles per hour (MPH) speed design. The intersections at Chestatee Road, Ledan Road and SR 60/Thompson Bridge Road will be designed as signalized intersections. The right-of-way limits will vary from 100 to 200 feet depending on the limits of construction. Also, temporary easements will be utilized where required to minimize impacts to the property owners adjacent to the proposed alignments.

Need and Purpose

Hall County is located northeast of the Atlanta Metropolitan Area. The population has been growing rapidly over the past 15 years and this growth is expected to continue in the future. According to the US Census, the 1990 population was 95,428. By the year 2000, the population had grown by approximately 46 percent to 139,277. The Atlanta Regional Commission (ARC) estimates the population will grow to 166,481 in 2010 and 242,077 in 2030. Respectively, this is a 19 percent and 74 percent growth in population since the year 2000. This increase in population will result in an increase in travel demand throughout Hall County. Without improvements to the transportation infrastructure, traffic congestion will increase and safety along the roadways will decrease.

The purpose of this project is to provide a safe, viable, cost effective, environmentally sensitive, and user friendly transportation facility for the citizens of Hall County and the traveling public. The proposed project would construct a roadway between SR 53/Dawsonville Highway and SR 60/Thompson

Hall County
STP-0000-00(626)
July, 2008
Page 2

Bridge Road that would adequately handle future traffic needs, provide for pedestrian mobility, and provide/enhance the connection between SR 53 and SR 60/Thompson Bridge Road. This connection would help to alleviate congestion in downtown Gainesville, Georgia.

Distribution:

Georgia Environmental Protection Division
US Federal Highway Administration
US Army Corps of Engineers
US Fish & Wildlife Service
US Environmental Protection Agency

EXISTING ROADWAY DESCRIPTION

Current Posted Speed	Existing Typical Section	Existing R/W Width
Varies 25 to 35 MPH	Two 12 ft. wide travel lanes, with 2 ft. shoulders (Existing local roads and streets at various locations along the project route)	Varies 60 to 80 ft.

EXISTING MAJOR STRUCTURES

Features Intersected/Type	Length	Width	Suff. Rating
N/A	N/A	N/A	N/A

EXISTING MAJOR INTERCHANGES or INTERSECTIONS

Features Intersected/Type	Existing R/W Width
Interchanges – N/A	N/A
Intersection – SR 60 at SR 283	N/A

PROPOSED ROADWAY

Proposed Design Speed	Proposed Typical Section	Proposed R/W Width
Varies 35 to 45 MPH	Four 12 ft lanes with 20 ft raised median and curb and gutter drainages	100 to 150 ft

PROPOSED ROADWAY – INTERSECTION – SR 60/SR 283 and SARDIS ROAD CONNECTOR

Proposed Design Speed	Proposed Typical Section	Proposed R/W Width
45 MPH	Four 12 ft lanes with 20 ft raised median, left and right turn lanes, and curb and gutter drainages	115 ft.

PROPOSED MAJOR STRUCTURES

Features Intersected Type	Length (ft)	Width (ft)
N/A	N/A	N/A

ALTERNATIVES CONSIDERED

Alternative I (Preferred/Best Fit/Wetland Minimization/All Criteria Considered Alternative)

The preferred alternative would begin at the eastern terminus of GDOT Project STP-0065-03(037) along SR 53, which is currently under construction. This is located at the intersection of Sardis Road and Chestatee Road. The preferred alternative would end at the intersection of SR 60/Thompson Bridge Road and Mount Vernon Road. The preferred alternative would extend approximately 200 feet east of the intersection along Mount Vernon Road in order to tie the proposed four-lane roadway into two-lanes, which is the typical section for Mount Vernon Road. The total project length is approximately 3.55 miles.

The preferred alternative would construct a four-lane connector roadway. The proposed typical section would contain four 12-foot travel lanes (two in each direction) divided by a 20-foot raised concrete median. The roadway would contain 16-foot wide graded outside shoulders with six inch high curb and gutter and five-foot sidewalks on both sides of the roadway. The preferred alternative would also include a bike path. The proposed right-of-way would vary from 100 feet to 150 feet.

The alignment would follow several existing local roads with some of the proposed alignment on new location. The preferred alternative would widen the existing local roads: Sardis Road, Fran Mar Drive, Brackett Road, Ladd Drive, and Ledan Road. These roads currently contain two 12-foot travel lanes with two-foot grassed shoulders. The existing rights-of-way for the roadways range from 60 to 80 feet.

The preferred alternative would also be constructed on new location. The new location would begin approximately 1,100 feet east of Windsor Trail. The length of the preferred alternative on new location is approximately 6,000 feet (1.14 miles).

The preferred alternative is being designed to incorporate as many of the existing roads (Brackett Drive and Ledan Road) contained within the proposed project corridor to minimize impacts to Waters of the U.S. as well as undisturbed environmental communities. The preferred alternative is also being designed to limit impacts to Waters of the U.S by crossing all streams perpendicularly. Bridge structures and bottomless culverts were also evaluated to reduce impacts to Waters of the U.S.

Table 1: ECOLOGICAL IMPACTS – STP-0003-00(626) P.I. # 0003626				
Site Number		Wetland Area (acres)	Open Water Area (acres)	Stream Length (linear feet)
Stream	1			0.0
Stream	2			307
W/L	3	0.09		
Stream	4			105
Stream	5			160
Stream	6			70
Stream	7			548
TOTAL:		Wetland Area 0.09 acres	Open Water Area 0.0 acres	Streams 1190 lf

Alternatives No Longer Under Consideration

Project STP-0003-00(626) begins near the intersection of Sardis Road and Chestatee Road and ties to SR 283/Mt. Vernon Road near the intersection of SR 60/Thompson Bridge Road and SR 283/Mt. Vernon Road. A stub portion of Sardis Road has been reconstructed to a 4 lane divided section as part of the SR 53 reconstruction project. The project begins at this stub. The alignment follows several existing local roads with some of the roadway on new location. The total project length is approximately 3.55 miles and will provide a connector roadway between SR 53 to the south and SR 60/Thompson Bridge Road to the north.

The proposed roadway will consist of a four lane curb and gutter divided roadway, two lanes in each direction separated with a 20-foot wide, six inch high median. A multi-use path will be provided on both sides of the road. The horizontal and vertical alignments will meet the requirements for a 35 MPH and 45 MPH speed design. The project will utilize portions of existing Fran Mar Drive, Brackett Road and Ledan Road. The intersections at Chestatee Road and SR 60/Thompson Bridge Road will be designed as signalized intersections. The intersection at Ledan Road will be evaluated to determine if a traffic signal is warranted. The Right of Way limits will vary from 100 to 150 feet depending on the limits of construction. Also, temporary easements will be utilized where required to minimize impacts to the property owners adjacent to the proposed alignments.

All Alternates

All of the alternates include a common alignment in the center of the project. This common section follows Brackett Road for approximately 7500 feet from just past Chestatee Middle School to Ladd Drive where it goes on new location for approximately 1000 ft. and then follows Ledan Road for approximately 3500 feet to just past the Windsor Forests Subdivision.

Alternate 1

Alternate 1 begins near the intersection of Sardis Road and Chestatee Road and turns to the south on a partial new alignment crossing Fran Mar near the intersection with existing Sardis Rd. It then follows along Brackett Drive to just past Chestatee Middle School where it ties into the common alignment. Alternate 1 continues along Ledan Road past the common alignment for approximately 2000 feet where it leaves Ledan Road to the north on new alignment and roughly parallels Greencrest Road and Garden Boulevard and forms a new intersection with SR 60/Thompson Bridge Road south of the existing SR 60/Thompson Bridge Road and SR 283/Mt. Vernon Road intersection. It then extends across SR 60/Thompson Bridge Road to connect to SR 283/Mt. Vernon Road near the intersection with Corinth Drive.

Alternate 2

Alternate 2 begins near the intersection of Chestatee Road and extends to the north on new alignment and will cross Fran Mar Drive and Brackett Drive and then follows the common alignment. Alternate 2 leaves the common alignment to the north and continues on new alignment crossing Southers Road approximately 500 feet from the intersection with Ledan Road. From that point, it extends in a straight line across Greencrest Road and Garden Boulevard to the existing intersection with SR 60/Thompson Bridge Road and ties into the existing SR 283/Mt. Vernon Road. The SR 283/Mt. Vernon Road approach on the north side of SR 60/Thompson Bridge Road will be widened to match the proposed Sardis Road section. There will be a slight difference in approach angles between the Sardis Road and SR 283/Mt. Vernon Road approach to the SR 60/Thompson Bridge Road intersection.

Alternate 3

Alternate 3 begins near the intersection of Chestatee Road and extends to the north on new alignment and will cross Fran Mar Drive and Brackett Drive and then follows the common alignment. Alternate 3 leaves the common alignment to the north and continues on new alignment crossing Southers Road approximately 500 feet from the intersection with Ledan Road. From that point, it extends in a straight line across Greencrest Road and Garden Boulevard to the existing intersection with SR 60/Thompson Bridge Road and ties into the existing SR 283/Mt. Vernon Road. The SR 283/Mt. Vernon Road approach on the north side of SR 60/Thompson Bridge Road will be widened to match the proposed Sardis Road section. Alternate 3 will be shifted slightly to eliminate the difference in approach angles at the SR 60/Thompson Bridge Road intersection.

Alternate 4

Alternate 4 begins near the intersection of Sardis Road and Chestatee Road and turns to the south on a partial new alignment crossing Fran Mar near the intersection with existing Sardis Road. It then follows along Brackett Drive to just past Chestatee Middle School where it ties into the common alignment, but it diverges from the common alignment to the northwest near Hidden Hollow Road on new alignment. There it extends on new alignment following along back property lines of several large tracts of undeveloped property, then crossing Southers Road and Greencrest Road near Woodlane Road. It then turns east and parallels Garden Boulevard and forms a new intersection with SR 60/Thompson Bridge Road south of the existing SR 60/Thompson Bridge Road and SR 283/Mt. Vernon Road intersection. It then extends across SR 60/Thompson Bridge Road to connect to SR 283/Mt. Vernon Road near the intersection of Corinth Drive.

Alternate 5

Alternate 5 is the same as Alternate 4 except that the new alignment along the back property lines is shifted slightly to reduce the stream impacts.

Alternate 6

Alternate 6 begins near the intersection of Sardis Road and Chestatee Road and turns to the south on a partial new alignment crossing Fran Mar near the intersection with existing Sardis Road. It then follows along Brackett Drive to just past Chestatee Middle School where it ties into the common alignment, but it diverges from the common alignment to the northwest near Hidden Hollow Road on new alignment. There it extends on new alignment following along back property lines of several large tracts of undeveloped property, then crossing Southers Road, Greencrest Road, and Woodlane Rd across a currently undeveloped tract and crosses SR 60/Thompson Bridge Road with a new intersection about 1200 feet northwest of the existing SR 60/Thompson Bridge Road and SR 283/Mt. Vernon Road intersection. From there it continues on new location to tie into SR 283/Mt. Vernon Road about 2000 feet from the existing SR 60/Thompson Bridge Road and SR 283/Mt. Vernon Road intersection.

These alternatives no longer under consideration would not significantly reduce impacts to Jurisdictional Waters of the U.S. (Table 2).

Table 2: ALTERNATIVE IMPACTS SUMMARY TABLE		
Preferred Alternative		
Length	PI Number 0003626 is approximately 3.55 miles	
Typical Section & Design Speed		
		Four 12 ft lanes with 20 ft raised median and curb and gutter drainages (35/45 MPH)
Displacements		
	Residential	28 (approx.)
	Businesses	1 (approx.)
	Institutional	1 (approx.)
Streams		
	# of Impacts	5
	Total Length Impacted	1190 linear feet
Wetlands		
	# of Impacts	1
	Total Area Impacted	0.09 acres
Open Waters		
	# of Impacts	0
	Total Area Impacted	0.0 acres
Alternatives No Longer Under Consideration		
Alternative 1		
Displacements		
	Residential	33 (approx.)
	Businesses	0 (approx.)
	Institutional	0 (approx.)
Streams		
	# of Impacts	5
	Total Length Impacted	1,340 linear feet
Wetlands		
	# of Impacts	1
	Total Area Impacted	0.09 acres
Open Waters		
	# of Impacts	0
	Total Area Impacted	0.0 acres

Alternative 2		
Displacements		
Residential		37 (approx.)
Businesses		2 (approx.)
Institutional		1 (approx.)
Streams		
# of Impacts		5
Total Length Impacted		887 linear feet
Wetlands		
# of Impacts		1
Total Area Impacted		0.09 acres
Open Waters		
# of Impacts		0
Total Area Impacted		0.0 acres
Alternative 3		
Displacements		
Residential		34 (approx.)
Businesses		2 (approx.)
Commercial		1 (approx.)
Streams		
# of Impacts		5
Total Length Impacted		887 linear feet
Wetlands		
# of Impacts		1
Total Area Impacted		0.09 acres
Open Waters		
# of Impacts		0
Total Area Impacted		0.0 acres
Alternative 4		
Displacements		
Residential		29 (approx.)
Businesses		2 (approx.)
Commercial		1 (approx.)
Streams		
# of Impacts		5
Total Length Impacted		2,039 linear feet

Wetlands		
	# of Impacts	1
	Total Area Impacted	0.09 acres
Open Waters		
	# of Impacts	0
	Total Area Impacted	0.0 acres
Alternative 5		
Displacements		
	Residential	35 (approx.)
	Businesses	2 (approx.)
	Commercial	1 (approx.)
Streams		
	# of Impacts	5
	Total Length Impacted	1,657 linear feet
Wetlands		
	# of Impacts	1
	Total Area Impacted	0.09 acres
Open Waters		
	# of Impacts	0
	Total Area Impacted	0.0 acres
Alternative 6		
Displacements		
	Residential	33 (approx.)
	Businesses	2 (approx.)
	Commercial	1 (approx.)
Streams		
	# of Impacts	5
	Total Length Impacted	1,425 linear feet
Wetlands		
	# of Impacts	1
	Total Area Impacted	0.09 acres
Open Waters		
	# of Impacts	0
	Total Area Impacted	0.0 acres

RECOMMENDATIONS: The Currently Proposed "Preferred" Alternative is recommended because it provides for a safe, efficient roadway while minimizing impacts to water resources, residences, businesses and the overall environment.

ATTACHMENTS: Typical Sections, Ecology Report

PREPARED BY: Travis Garnto, Assistant Environmental Engineer

*** NOTE: PB, in its representations of preliminary concepts, strives to show as nearly as possible the route and right-of-way requirements of projects. Because of the preliminary nature of these location studies, certain information cannot be finalized until completion of the design stage of GDOT's project development process. In areas where existing facilities are to be improved and are in need of vertical and/or horizontal realignment, the Department tries to present a "worst case" of impacts, in anticipation of a reduction of these impacts and right-of-way requirements at the detailed design stage.**

**Benefit Cost Analysis Work Sheet
CONGESTION Projects**

STP-0003-00(626)

0003626

Hall County

Sardis Road Connector from SR 53 to SR 60

Congestion Benefit = Tb + CMb + Fb

Person Time Savings Benefit (Tb)

*Db (hrs)	0.0385
ADT	18,800.00
Tb (\$s)	\$24,880,625.00

Commercial or Truck Time Savings Benefit (CMb)

Db (hrs)	0.0385
% Truck Traffic	0.04
ADT	18,800.00
CMb	\$5,258,407.00

Fuel Savings Benefit (Fb)

ADT	18,800.00
Fb (\$s)	\$8,670,520.83

Total Congestion Benefit	\$38,809,552.83
Total Project Cost	\$49,473,424.00
B/C Ratio	0.78

*Reduction in delay or **Delay Benefit (D_b)** can be defined as the difference between the peak hour travel time through the corridor without the proposed improvement and the peak hour travel time through the corridor with the proposed improvement.

	No-Build		Build
Normal Travel Time in Min	6.96		4.57
Intersection Delay in Min	1.55		1.63
Total Travel Time including Delay	8.51		6.2
Diff in Travel Time in Min		2.31	
Diff in Travel Time in Hours		0.0385	
	Intersection Delay Calculation		
	No-Build		Build
	50		5
	33		4
	10		10
2.31			22
0.0385			5
			1
			1
			8
			7
			35
Delay in Sec	93		98
Delay in Min	1.55		1.6333333

**AGREEMENT
BETWEEN
DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
AND
HALL COUNTY
FOR
SARDIS ROAD CONNECTOR FROM SR 60 TO SARDIS ROAD NEAR
CHESTATEE ROAD**

This Framework Agreement is made and entered into this ____ day of _____, 20__, by and between the DEPARTMENT OF TRANSPORTATION, an agency of the State of Georgia, hereinafter called the "DEPARTMENT", and Hall County, acting by and through its Mayor and City Council or Board of Commissioners, hereinafter called the "LOCAL GOVERNMENT".

WHEREAS, the LOCAL GOVERNMENT has represented to the DEPARTMENT a desire to improve the transportation facility described in Attachment A, attached and incorporated herein by reference and hereinafter referred to as the "PROJECT"; and

WHEREAS, the LOCAL GOVERNMENT has represented to the DEPARTMENT a desire to participate in certain activities including the funding of certain portions of the PROJECT and the DEPARTMENT has relied upon such representations; and

WHEREAS, the DEPARTMENT has expressed a willingness to participate in certain activities of the PROJECT as set forth in this Agreement; and

WHEREAS, the Constitution authorizes intergovernmental agreements whereby state and local entities may contract with one another "for joint services, for the provision of services, or for the joint or separate use of facilities or equipment; but such contracts must deal with activities, services or facilities which the parties are authorized by law to undertake or provide." Ga. Constitution Article IX, §III, ¶I(a).

NOW THEREFORE, in consideration of the mutual promises made and of the benefits to flow from one to the other, the DEPARTMENT and the LOCAL GOVERNMENT hereby agree each with the other as follows:

1. The LOCAL GOVERNMENT has applied for and received "Qualification Certification" to administer federal-aid projects. The GDOT Certification Committee has reviewed, confirmed and approved the certification for the Local Government to develop federal project(s) within the scope of its certification using the DEPARTMENT'S Local Administered Project Manual procedures. The Local Government shall contribute to the PROJECT by funding all or certain portions of the PROJECT costs for the preconstruction engineering (design) activities, hereinafter referred to as "PE", all reimburseable utility relocations, all non-reimburseable utilities owned by the LOCAL GOVERNMENT, railroad costs, right of way acquisitions and construction, as specified in Attachment A, attached hereto and incorporated herein by reference. Expenditures incurred by the LOCAL GOVERNMENT prior to the execution of this AGREEMENT or subsequent funding agreements shall not be considered for reimbursement by the DEPARTMENT. PE expenditures incurred by the LOCAL GOVERNMENT after execution of this

AGREEMENT shall be reimbursed by the DEPARTMENT once a written notice to proceed is given by the DEPARTMENT.

2. The DEPARTMENT shall contribute to the PROJECT by funding all or certain portions of the PROJECT costs for the PE, right of way acquisitions, reimbursable utility relocations, railroad costs, or construction as specified in Attachment A.

3. It is understood and agreed by the DEPARTMENT and the LOCAL GOVERNMENT that the funding portion as identified in Attachment "A" of this Agreement only applies to the PE. The Right of Way and Construction funding estimate levels as specified in Attachment "A" are provided herein for planning purposes and do not constitute a funding commitment for right of way and construction. The DEPARTMENT will prepare LOCAL GOVERNMENT Specific Activity Agreements for funding applicable to Right of Way or Construction when appropriate.

Further, the LOCAL GOVERNMENT shall be responsible for repayment of any expended federal funds if the PROJECT does not proceed forward to completion due to a lack of available funding in future PROJECT phases, changes in local priorities or cancellation of the PROJECT by the LOCAL GOVERNMENT without concurrence by the DEPARTMENT.

4. The LOCAL GOVERNMENT shall be responsible for all costs for the continual maintenance and operations of any and all sidewalks and the grass strip between the curb and sidewalk within the PROJECT limits.

5. Both the LOCAL GOVERNMENT and the DEPARTMENT hereby acknowledge that Time is of the Essence. It is agreed that both parties shall adhere to the schedule of activities currently established in the approved Transportation Improvement Program/State Transportation Improvement Program, hereinafter referred to as "TIP/STIP". Furthermore, all parties shall adhere to the detailed project schedule as approved by the DEPARTMENT, attached as Attachment B and incorporated herein by reference. In the completion of respective commitments contained herein, if a change in the schedule is needed, the LOCAL GOVERNMENT shall notify the DEPARTMENT in writing of the proposed schedule change and the DEPARTMENT shall acknowledge the change through written response letter; provided that the DEPARTMENT shall have final authority for approving any change.

If, for any reason, the LOCAL GOVERNMENT does not produce acceptable deliverables in accordance with the approved schedule, the DEPARTMENT reserves the right to delay the PROJECT's implementation until funds can be re-identified for right of way or construction, as applicable.

6. The LOCAL GOVERNMENT shall certify that the regulations for "CERTIFICATION OF COMPLIANCES WITH FEDERAL PROCUREMENT REQUIREMENTS, STATE AUDIT REQUIREMENTS, and FEDERAL AUDIT REQUIREMENTS" are understood and will comply in full with said provisions.

7. The LOCAL GOVERNMENT shall accomplish the PE activities for the PROJECT. The PE activities shall be accomplished in accordance with the DEPARTMENT's Plan Development Process hereinafter referred to as "PDP", the applicable guidelines of the American Association of State Highway and Transportation Officials, hereinafter referred to as "AASHTO", the DEPARTMENT's Standard Specifications Construction of Transportation Systems, and all applicable design guidelines and policies of the DEPARTMENT to produce a cost effective PROJECT. Failure to follow the PDP and all applicable guidelines and policies will jeopardize the use of Federal Funds in some or all categories outlined in this agreement, and it shall be the responsibility of the LOCAL GOVERNMENT to make up the loss of that funding. The LOCAL GOVERNMENT's responsibility for PE activities shall include, but is not limited to the following items:

a. Prepare the PROJECT Concept Report and Design Data Book in accordance with the format used by the DEPARTMENT. The concept for the PROJECT shall be developed to accommodate the future traffic volumes as generated by the LOCAL GOVERNMENT as provided for in paragraph 7b and approved by the DEPARTMENT. The concept report shall be approved by the DEPARTMENT prior to the LOCAL GOVERNMENT beginning further development of the PROJECT plans. It is recognized by the parties that the approved concept may be updated or modified by the LOCAL GOVERNMENT as required by the DEPARTMENT and re-approved by the DEPARTMENT during the course of PE due to updated guidelines, public input, environmental requirements, Value Engineering recommendations,

Public Interest Determination (PID) for utilities, utility/railroad conflicts, or right of way considerations.

b. Prepare a Traffic Study for the PROJECT that includes Average Daily Traffic, hereinafter referred to as "ADT", volumes for the base year (year the PROJECT is expected to be open to traffic) and design year (base year plus 20 years) along with Design Hour Volumes, hereinafter referred to as "DHV", for the design year. DHV includes morning (AM) and evening (PM) peaks and other significant peak times. The Study shall show all through and turning movement volumes at intersections for the ADT and DHV volumes and shall indicate the percentage of trucks on the facility. The Study shall also include signal warrant evaluations for any additional proposed signals on the PROJECT.

c. Prepare environmental studies, documentation, reports and complete Environmental Document for the PROJECT along with all environmental re-evaluations required that show the PROJECT is in compliance with the provisions of the National Environmental Policy Act or the Georgia Environmental Policy Act as per the DEPARTMENT's Environmental Procedures Manual, as appropriate to the PROJECT funding. This shall include any and all archaeological, historical, ecological, air, noise, community involvement, environmental justice, flood plains, underground storage tanks, and hazardous waste site studies required. The completed Environmental Document approval shall occur prior to Right of Way funding authorization. A re-evaluation is required for any design change as described in Chapter 7 of the Environmental Procedures Manual. In addition, a re-

evaluation document approval shall occur prior to any Federal funding authorizations if the latest approved document is more than 6 months old. The LOCAL GOVERNMENT shall submit to the DEPARTMENT all studies, documents and reports for review and approval by the DEPARTMENT, the FHWA and other environmental resource agencies. The LOCAL GOVERNMENT shall provide Environmental staff to attend all PROJECT related meetings where Environmental issues are discussed. Meetings include, but are not limited to, concept, field plan reviews and value engineering studies.

d. Prepare all PROJECT public hearing and public information displays and conduct all required public hearings and public information meetings with appropriate staff in accordance with DEPARTMENT practice.

e. Perform all surveys, mapping, soil investigations and pavement evaluations needed for design of the PROJECT as per the appropriate DEPARTMENT Manual.

f. Perform all work required to obtain all applicable PROJECT permits, including, but not limited to, Cemetery, TVA and US Army Corps of Engineers permits, Stream Buffer Variances and Federal Emergency Management Agency (FEMA) approvals. The LOCAL GOVERNMENT shall provide all mitigation required for the project, including but not limited to permit related mitigation. All mitigation costs are considered PE costs. PROJECT permits and non-construction related mitigation must be obtained and completed 3 months prior to the scheduled let date. These efforts shall be coordinated with the DEPARTMENT.

g. Prepare the stormwater drainage design for the PROJECT and any required hydraulic studies for FEMA Floodways within the PROJECT limits. Acquire of all necessary permits associated with the Hydraulic Study or drainage design.

h. Prepare utility relocation plans for the PROJECT following the DEPARTMENT's policies and procedures for identification, coordination and conflict resolution of existing and proposed utility facilities on the PROJECT. These policies and procedures, in part, require the Local Government to submit all requests for existing, proposed, and relocated facilities to each utility owner within the project area. Copies of all such correspondence, including executed agreements for reimbursable utility/railroad relocations, shall be forwarded to the DEPARTMENT's Project Manager and the District Utilities Engineer and require that any conflicts with the PROJECT be resolved by the LOCAL GOVERNMENT. If it is determined that the PROJECT is located on an on-system route or is a DEPARTMENT LET PROJECT, the LOCAL GOVERNMENT and the District Utilities Engineer shall ensure that permit applications are approved for each utility company in conflict with the project. If it is determined through the DEPARTMENT's Project Manager and State Utilities Office during the concept or design phases the need to utilize Overhead/Subsurface Utility Engineering, hereinafter referred to as "SUE", to obtain the existing utilities, the LOCAL GOVERNMENT shall be responsible for acquiring those services. SUE costs are considered PE costs.

i. Prepare, in English units, Preliminary Construction plans, Right of Way plans and Final Construction plans that include the appropriate sections listed in the Plan Presentation Guide, hereinafter referred to as "PPG", for all phases of the PDP. All drafting and design work performed on the project shall be done utilizing Microstation and CAiCE software respectively using the DEPARTMENT's Electronic Data Guidelines. The LOCAL GOVERNMENT shall further be responsible for making all revisions to the final right of way plans and construction plans, as deemed necessary by the DEPARTMENT, for whatever reason, as needed to acquire the right of way and construct the PROJECT.

j. Prepare PROJECT cost estimates for construction, Right of Way and Utility/railroad relocation along with a Benefit Cost, hereinafter referred to as "B/C ratio" at the following project stages: Concept, Preliminary Field Plan Review, Right of Way plan approval (Right of Way cost only), Final Field Plan Review and Final Plan submission using the applicable method approved by the DEPARTMENT. The cost estimates and B/C ratio shall also be updated yearly if the noted project stages occur at a longer frequency. Failure of the LOCAL GOVERNMENT to provide timely and accurate cost estimates and B/C ratio may delay the PROJECT's implementation until additional funds can be identified for right of way or construction, as applicable.

k. Provide certification, by a Georgia Registered Professional Engineer, that the Design and Construction plans have been prepared under the guidance of the professional engineer and are in accordance with AASHTO and DEPARTMENT Design Policies.

l. Provide certification, by a Level II Certified Design Professional that the Erosion Control Plans have been prepared under the guidance of the certified professional in accordance with the current Georgia National Pollutant Discharge Elimination System.

m. Provide a written certification that all appropriate staff (employees and consultants) involved in the PROJECT have attended or are scheduled to attend the Department's PDP Training Course and Local Administered Project Training. The written certification shall be received by the Department no later than the first day of February of every calendar year until all phases have been completed.

8. The Primary Consultant firm or subconsultants hired by the LOCAL GOVERNMENT to provide services on the PROJECT shall be prequalified with the DEPARTMENT in the appropriate area-classes. The DEPARTMENT shall, on request, furnish the LOCAL GOVERNMENT with a list of prequalified consultant firms in the appropriate area-classes. The LOCAL GOVERNMENT shall comply with all applicable state and federal regulations for the procurement of design services and in accordance with the Brooks Architect-Engineers Act of 1972, better known as the Brooks Act, for any consultant hired to perform work on the PROJECT.

9. The DEPARTMENT shall review and has approval authority for all aspects of the PROJECT provided however this review and approval does not relieve the LOCAL GOVERNMENT of its responsibilities under the terms of this agreement. The DEPARTMENT will work with the FHWA to obtain all needed approvals as deemed necessary with information furnished by the LOCAL GOVERNMENT.

10. The LOCAL GOVERNMENT shall be responsible for the design of all bridge(s) and preparation of any required hydraulic and hydrological studies within the limits of this PROJECT in accordance with the DEPARTMENT's policies and guidelines. The LOCAL GOVERNMENT shall perform all necessary survey efforts in order to complete the hydraulic and hydrological studies and the design of the bridge(s). The final bridge plans shall be incorporated into this PROJECT as a part of this Agreement.

11. The LOCAL GOVERNMENT unless otherwise noted in attachment "A" shall be responsible for funding all LOCAL GOVERNMENT owned utility relocations and all other reimbursable utility/railroad costs. The costs include but are not limited to PE, easement acquisition, and construction activities necessary for the utility/railroad to accommodate the PROJECT. The terms for any such reimbursable relocations shall be laid out in an agreement that is supported by plans, specifications, and itemized costs of the work agreed upon and shall be executed prior to certification by the DEPARTMENT. The LOCAL GOVERNMENT shall certify via written letter to the DEPARTMENT's Project Manager and District Utilities Engineer that all Utility owners' existing and proposed facilities are shown on the

plans with no conflicts 3 months prior to advertising the PROJECT for bids and that any required agreements for reimbursable utility/railroad costs have been fully executed. Further, this certification letter shall state that the LOCAL GOVERNMENT understands that it is responsible for the costs of any additional reimbursable utility/railroad conflicts that arise on construction.

12. The DEPARTMENT will be responsible for all railroad coordination on DEPARTMENT Let and/or State Route (On-System) projects; the LOCAL GOVERNMENT shall address concerns, comments, and requirements to the satisfaction of the Railroad and the DEPARTMENT. If the LOCAL GOVERNMENT is shown to LET the construction in Attachment "A" on off-system routes, the LOCAL GOVERNMENT shall be responsible for all railroad coordination and addressing concerns, comments, and requirements to the satisfaction of the Railroad and the DEPARTMENT for PROJECT.

13. The LOCAL GOVERNMENT shall be responsible for acquiring a Value Engineering Consultant for the DEPARTMENT to conduct a Value Engineering Study if the total estimated PROJECT cost is \$10 million or more. The Value Engineering Study cost is considered a PE cost. The LOCAL GOVERNMENT shall provide project related design data and plans to be evaluated in the study along with appropriate staff to present and answer questions about the PROJECT to the study team. The LOCAL GOVERNMENT shall provide responses to the study recommendations indicating whether they will be implemented or not. If not, a valid

response for not implementing shall be provided. Total project costs include PE, right of way, and construction, reimbursable utility/railroad costs.

14. The LOCAL GOVERNMENT, unless shown otherwise on Attachment A, shall acquire the Right of way in accordance with the law and the rules and regulations of the FHWA including, but not limited to, Title 23, United States Code; 23 CFR 710, et. Seq., and 49 CFR Part 24 and the rules and regulations of the DEPARTMENT. Upon the DEPARTMENT's approval of the PROJECT right of way plans, verification that the approved environmental document is valid and current, a written notice to proceed will be provided by the DEPARTMENT for the LOCAL GOVERNMENT to stake the right of way and proceed with all pre-acquisition right of way activities. The LOCAL GOVERNMENT shall not proceed to property negotiation and acquisition whether or not the right of way funding is Federal, State or Local, until the right of way agreement named "Contract for the Acquisition of Right of Way" prepared by the DEPARTMENT's Office of Right of Way is executed between the LOCAL GOVERNMENT and the DEPARTMENT. Failure of the LOCAL GOVERNMENT to adhere to the provisions and requirements specified in the acquisition contract may result in the loss of Federal funding for the PROJECT and it will be the responsibility of the LOCAL GOVERNMENT to make up the loss of that funding. Right of way costs eligible for reimbursement include land and improvement costs, property damage values, relocation assistance expenses and contracted property management costs. Non reimbursable right of way costs include administrative expenses such as appraisal, consultant, attorney fees and any in-house property management or staff expenses. The LOCAL GOVERNMENT shall

certify that all required right of way is obtained and cleared of obstructions, including underground storage tanks, 3 months prior to advertising the PROJECT for bids.

15. The DEPARTMENT unless otherwise shown in Attachment "A" shall be responsible for Letting the PROJECT to construction, solely responsible for executing any agreements with all applicable utility/railroad companies and securing and awarding the construction contract for the PROJECT when the following items have been completed and submitted by the LOCAL GOVERNMENT:

a. Submittal of acceptable PROJECT PE activity deliverables noted in this agreement.

b. Certification that all needed rights of way have been obtained and cleared of obstructions.

c. Certification that the environmental document is current and all needed permits and mitigation for the PROJECT have been obtained.

d. Certification that all Utility/Railroad facilities, existing and proposed, within the PROJECT limits are shown, any conflicts have been resolved and reimbursable agreements, if applicable, are executed.

If the LOCAL GOVERNMENT is shown to LET the construction in Attachment "A", the LOCAL GOVERNMENT shall provide the above deliverables and certifications and shall follow the requirements stated in Chapter 10 of the DEPARTMENT's Local Administered Project Manual.

16. The LOCAL GOVERNMENT shall provide a review and recommendation by the engineer of record concerning all shop drawings prior to the DEPARTMENT

review and approval. The DEPARTMENT shall have final authority concerning all shop drawings.

17. The LOCAL GOVERNMENT agrees that all reports, plans, drawings, studies, specifications, estimates, maps, computations, computer files and printouts, and any other data prepared under the terms of this Agreement shall become the property of the DEPARTMENT if the PROJECT is being let by the DEPARTMENT. This data shall be organized, indexed, bound, and delivered to the DEPARTMENT no later than the advertisement of the PROJECT for letting. The DEPARTMENT shall have the right to use this material without restriction or limitation and without compensation to the LOCAL GOVERNMENT.

18. The LOCAL GOVERNMENT shall be responsible for the professional quality, technical accuracy, and the coordination of all reports, designs, drawings, specifications, and other services furnished by or on behalf of the LOCAL GOVERNMENT pursuant to this Agreement. The LOCAL GOVERNMENT shall correct or revise, or cause to be corrected or revised, any errors or deficiencies in the reports, designs, drawings, specifications, and other services furnished for this PROJECT. Failure by the LOCAL GOVERNMENT to address the errors or deficiencies within 30 days of notification shall cause the LOCAL GOVERNMENT to assume all responsibility for construction delays caused by the errors and deficiencies. All revisions shall be coordinated with the DEPARTMENT prior to issuance. The LOCAL GOVERNMENT shall also be responsible for any claim, damage, loss or expense, to the extent allowed by law that is attributable to errors,

omissions, or negligent acts related to the designs, drawings, specifications, and other services furnished by or on behalf of the LOCAL GOVERNMENT pursuant to this Agreement.

This Agreement is made and entered into in FULTON COUNTY, GEORGIA, and shall be governed and construed under the laws of the State of Georgia.

The covenants herein contained shall, except as otherwise provided, accrue to the benefit of and be binding upon the successors and assigns of the parties hereto.

IN WITNESS WHEREOF, the DEPARTMENT and the LOCAL GOVERNMENT have caused these presents to be executed under seal by their duly authorized representatives.

DEPARTMENT OF TRANSPORTATION

LOCAL GOVERNMENT NAME

BY: _____
Commissioner

BY: [Signature]
Tom Oliver
Commission Chair

ATTEST:

Treasurer

Signed, sealed and delivered this 10th day of February, 2011, in the presence of:



Jessica D York
Witness

Tania T Gallman
Notary Public

This Agreement approved by Local Government, the 10th day of February, 2011.

Attest Heather B. Coggins
Heather B. Coggins, Commission Clerk
Name and Title

FEIN: 58-6000836

ATTACHMENT "A"
PI No. 0003626, Hall County

Project (PI#, Project #, Description)	Preliminary Engineering		Right of Way		Construction		Utility Relocation		
	Funding	PE Activity by	*Funding of Real Property	Acq. by	Acq. Fund by	*Funding by	Letting by	Utility Funding by	Railroad Funding by
PI No. 0003626, STP00-0003- 00(626), Sardis Road Connector from SR 60 to Sardis Road near Chestatee Road	L200 (80%)Federal (\$41,600.00) (20%) State (\$10,400.00) (0%) LCL GOV (\$0) (GDOT Review) > (\$52,000.00) 100% Local	Local Gov.	(100%) LCL GOV	Local Gov.	Local Gov.	(\$0%) Federal (\$45,181,344.99) (20%)State (\$11,295,336.25) (0%) LCL GOV (\$0) >(\$56,476,681.24) 100% Local Gov.	GDOT	100% Local Gov.	100% Local Gov.

Note: Maximum allowable GDOT participating amounts for PE category shall be shown above. Local Government will only be reimbursed the percentage of the accrued invoiced amounts up to but not to exceed the maximum amount indicated. *R/W and Construction amounts shown are estimates for budget planning purposes only.

ATTACHMENT "B"
PI No. 0003626, Hall County

Proposed Project Schedule

Environmental Phase	[Redacted]			September/2012 (Authorize Right of Way funds)	July/2015 (Authorize Const. funds)
	[Redacted]				
Concept Phase	[Redacted]			March/2012 (Approve Env. Document)	February/2011 (Approve Concept)
	[Redacted]				
Preliminary Plan Phase	[Redacted]			September/2012 (Authorize Right of Way funds)	July/2015 (Authorize Const. funds)
	[Redacted]				
Right of Way Phase	[Redacted]			September/2012 (Authorize Right of Way funds)	July/2015 (Authorize Const. funds)
	[Redacted]				

Deadlines for Responsible Parties **Execute Agreement** **February/2011 (Approve Concept)** **March/2012 (Approve Env. Document)** **September/2012 (Authorize Right of Way funds)** **July/2015 (Authorize Const. funds)**

Annual Reporting Requirements

The Local Government shall provide a written status report to the Department's Project Manager with the actual phase completion date(s) and the percent complete/proposed completion date of incomplete phases. The written status report shall be received by the Department no later than the first day of February of every calendar year until all phases have been completed.