

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

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

FILE P.I. # 122012-
BRF00-0012-01(080)
Forsyth/Hall Counties
GDOT District 1 - Gainesville
SR 369 @ Chattahoochee River/Lake Lanier

OFFICE Design Policy & Support

DATE 6/12/2013

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:

Bobby Hilliard, Program Control Administrator
Genetha Rice-Singleton, State Program Delivery Engineer
Glenn Bowman, State Environmental Administrator
Cindy VanDyke, State Transportation Planning Administrator
Ben Rabun, State Bridge Engineer
Kathy Zahul, State Traffic Engineer
Angela Robinson, Financial Management Administrator
Lisa Myers, State Project Review Engineer
Charles "Chuck" Hasty, State Materials Engineer
Mike Bolden, State Utilities Engineer
Paul Tanner, Asst. State Transportation Data Administrator
Attn: Systems & Classification Branch
Ken Thompson, Statewide Location Bureau Chief
Bayne Smith, District Engineer
Brent Cook, District Preconstruction Engineer
Neil Kantner, District Utilities Engineer
Steve Adewale, Project Manager
BOARD MEMBER - 9th Congressional District

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

Project Type: Bridge Replacement P.I. Number: 122012
 GDOT District: One County: Forsyth/Hall
 Federal Route Number: N/A State Route Number: 369

S.R. 369 at Chattahoochee River "Lake Lanier" Bridge Replacement

Submitted for approval:
[Signature] 4/5/2013
 Tyler McIntosh, P.E., Michael Baker Jr., Inc. DATE
 N/A
 Local Government (if applicable) DATE
[Signature] 4/15/2013
 Office Head (GDOT Project Manager's Office) DATE
[Signature] 4/12/2013
 GDOT Project Manager DATE

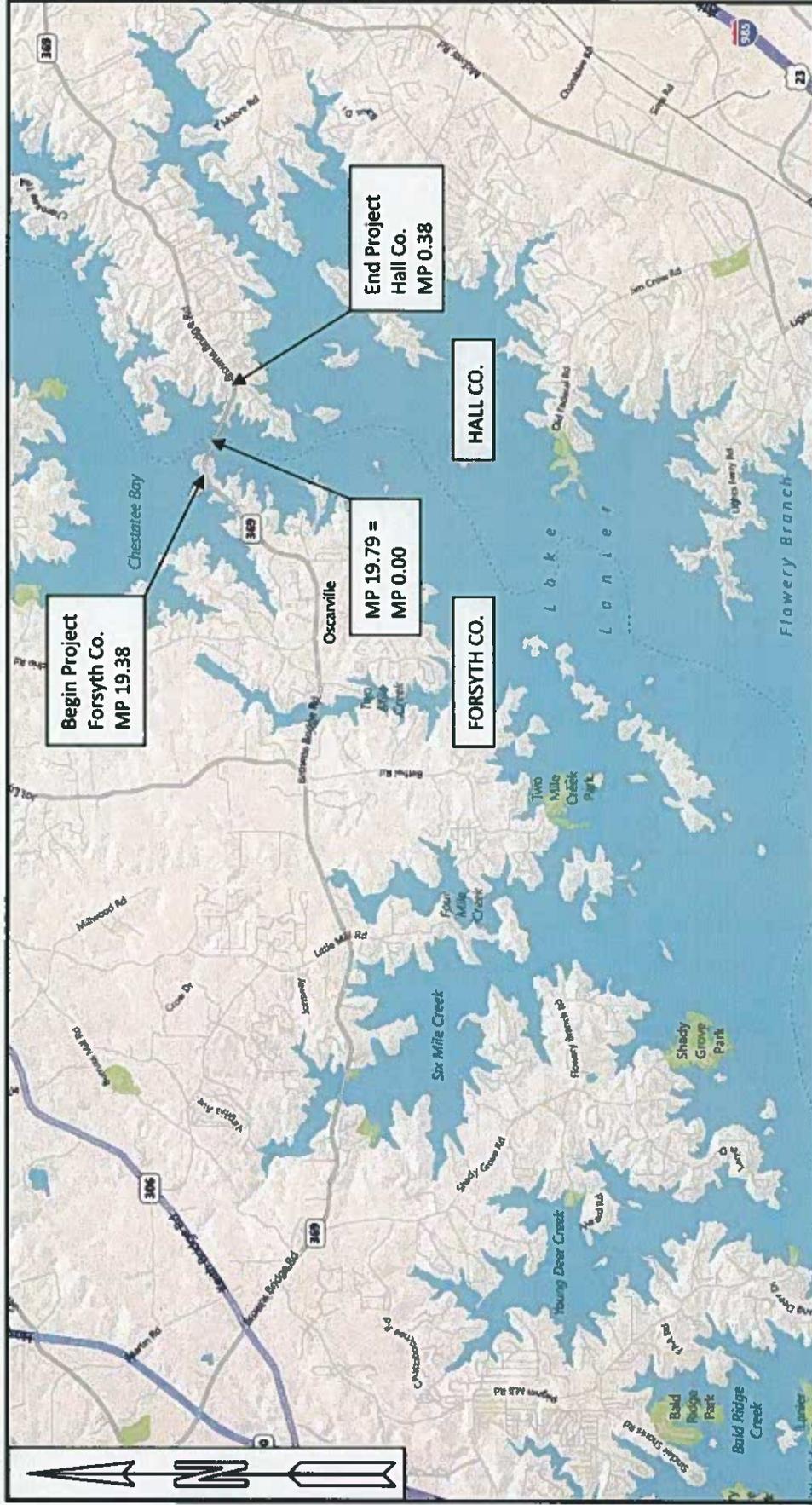
Recommendation for approval:

Program Control Administrator *T.J. DATE 4/19/13
GLENN BAUMANN
 State Environmental Administrator (recommendation required) DATE 4/19/13
 N/A KATHY ZAHUL *T.J.
 State Traffic Engineer (recommendation required for roundabout projects) DATE 4/23/13
LISA MYERS *T.J.
 Project Review Engineer DATE 4/30/13
PATRICK ALLEN *T.J.
 State Utilities Engineer DATE
 District Engineer (projects not originating in District Office) DATE 5/23/13
BEN RABUN *T.J.
 State Bridge Design Engineer (if applicable) DATE
 State Transportation Financial Management Administrator DATE

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).
[Signature] 4-23-13
 State Transportation Planning Administrator (recommendation required) DATE

** RECOMMENDATIONS ON FILE*

PROJECT LOCATION



P.I. No. 122012 – SR369 over Chattahoochee River (Lake Lanier), Forsyth County

PLANNING & BACKGROUND DATA

Project Justification Statement:

This bridge (Structure ID 117-0022-0; SR 369 over Chattahoochee River (Lake Lanier)) was built in 1955 and rehabilitated in 1999. The bridge superstructure consists of a 4 span through truss with 5 steel approach spans. The through truss spans contain fracture critical members. The substructure consists of concrete caps on steel piles and concrete caps on concrete columns. This bridge was designed using a truck configuration that weighs less than the current state legal truck weights. No rehabilitation work performed on the structure components would improve this bridge to current design standards. The overall condition of this bridge is fair. The deck is in fair condition due to concrete cracking and spalling. The superstructure is in fair condition due to section loss in the steel. The substructure is in fair condition due to concrete cracking and spalling of the caps. Due to the structural integrity of the bridge, based on the design, the fracture critical members, and that bridge members above the roadway are prone to being impacted by oversized loads, replacement of this bridge is recommended.

Description of the proposed project:

Project with P.I. No. 122012 at the Forsyth and Hall County border represents the construction of a new two lane bridge over the Chattahoochee River (Lake Lanier) approximately 11.5 miles northeast of the City of Cumming. The project will replace the existing steel truss bridge that currently exists at this location, which has a sufficiency rating of 39.45. The project will begin at a point approximately 0.41 miles west of the Chattahoochee River and extend to a point approximately 0.38 miles east of the Chattahoochee River. The project length is approximately 0.79 miles. The proposed bridge will consist of two 12-foot lanes with 8-foot shoulders. The roadway approaches will be reconstructed to provide two 12-foot lanes and 8-foot shoulders. The shoulder will include a 6.5-foot paved shoulder.

Federal Oversight: Full Oversight Exempt State Funded Other

MPO: N/A MPO - Atlanta Regional Commission (ARC)
MPO Project TIP # FT-062C
 N/A MPO - Gainesville - Hall MPO
MPO Project TIP # GH-057

Regional Commission: N/A RC – Georgia Mountains RC
RC Project ID # *None Assigned*

Congressional District(s): 9

Projected Traffic AADT:

Current Year (2010): 12,800 Open Year (2018): 14,700 Design Year (2038): 24,000
Traffic Projections Performed by: GDOT

Functional Classification (Mainline): Rural Minor Arterial

Is this project on a designated bike route? No YES

This section of SR 369 is not identified as a proposed multi-use path in the Forsyth County Bicycle Transportation and Pedestrian Walkways 2025 Plan however it is identified as a potential connection point to adjacent facilities in the Gainesville Hall Metropolitan Planning Organization Bicycle and Pedestrian Plan 2006. The Gainesville Hall Metropolitan Planning Organization Bicycle and Pedestrian Plan 2006 lists the portion of SR 369 located in Hall County as having Bike Lanes.

Is this project located on a pedestrian plan? No YES

Is this project located on or part of a transit network? No YES

CONTEXT SENSITIVE SOLUTIONS

Issues of Concern: None *Existing bridge is historic and eligible for NRHP. (AP)*

Context Sensitive Solutions: N/A

DESIGN AND STRUCTURAL DATA

Mainline Design Features:

Roadway Name/Identification: SR 369/Browns Bridge Rd.

Feature	Existing	Standard*	Proposed
Typical Section			
- Number of Lanes	2	2	2
- Lane Width(s)	12-ft	12-ft	12-ft
- Median Width & Type	None	None	None
- Outside Shoulder Width & Type	6-ft total 2-ft paved	8-ft total 6.5-ft paved	8-ft total 6.5-ft paved
- Outside Shoulder Slope	6.00%	6.00%	6.00%
- Inside Shoulder Width & Type	None	None	None
- Sidewalks	None	None	None
- Auxiliary Lanes	None	None	None
- Bike Lanes	None	None	None
Posted Speed	45 MPH		45 MPH
Design Speed	45 MPH	45 MPH	45 MPH
Min Horizontal Curve Radius	1030'	643'	930'
Superelevation Rate	8.6%	6.0%	5.6%
Grade	5.4%	5.0%	5.0%
Access Control	Permit	Permit	Permit
Right-of-Way Width	120-ft	N/A	160-ft
Maximum Grade – Crossroad	21.5%	14.0%	14.0%
Design Vehicle	SU	SU	SU
<i>Additional Items as needed</i>			

*According to current GDOT design policy if applicable

Major Structures:

Structure	Existing	Proposed
Browns Bridge	1372-ft long, 28-ft wide consisting of two 12-ft	1430-ft long, 43.25-ft wide

ID# 117-0022-0	lanes with brush curb, steel truss bridge Sufficiency Rating: 39.45	consisting of two 12-ft lanes with 8-ft shoulders, 8 span concrete girder
Retaining walls	None	Wall #1 consists of 970-ft long Tie-Back wall. Wall #2 consists of 100-ft long MSE wall according to GDOT Spec. Sect. 267. Wall #3 consists of 140-ft long Type 2 concrete side barrier.
Other	N/A	N/A

Major Interchanges/Intersections: N/A

Utility Involvements:

- Telecom – AT&T
- Cable TV – Comcast CATV
- Water & Sewer – Forsyth County Water and Sewer
- Overhead Electric – Sawnee EMC

Public Interest Determination Policy and Procedure recommended (Utilities)? YES NO

Per the District 1 Utilities Office, Public Interest Determination Policy and Procedures are not required for this project as discussed in the concept team meeting.

SUE Required: Yes No

Railroad Involvement: N/A

Complete Streets - Bicycle, Pedestrian, and/or Transit Warrants:

Warrants met: None Bicycle Pedestrian Transit

According to the Gainesville Hall Metropolitan Planning Organization Bicycle and Pedestrian Plan 2006, there is a proposed bicycle lane on Browns Bridge Road extending from McEver Road/SR 53 to the Chattahoochee River/Lake Lanier. The proposed bicycle lane meets the Bicycle Standard Warrant in the GDOT Design Policy Manual which states a warrant is met where a need is identified by a local government, MPO or regional commission through an adopted planning study.

Right-of-Way:

Required Right-of-Way anticipated: YES NO Undetermined
 Easements anticipated: Temporary Permanent Utility Other

Anticipated number of impacted parcels: 4
 Anticipated number of displacements (Total): 0
 Businesses: 0
 Residences: 0
 Other: 0

Location and Design approval: Not Required Required

Off-site Detours Anticipated: No Yes Undetermined

Transportation Management Plan Anticipated: YES NO

This federal-aid project requires a TMP as part of the federal Work Zone Safety and Mobility Rule. This projects falls under the 'non-significant' category per Appendix C of GDOT Policy 5240-1 and only a Temporary Traffic Control plan will be required.

Design Exceptions to FHWA/AASHTO controlling criteria anticipated:

FHWA/AASHTO Controlling Criteria	YES	Appvl Date (if applicable)	NO	Undetermined
1. Design Speed	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Lane Width	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Shoulder Width	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Bridge Width	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Horizontal Alignment	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
6. Superelevation	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
7. Vertical Alignment	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
8. Grade	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
9. Stopping Sight Distance	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
10. Cross Slope	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
11. Vertical Clearance	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
12. Lateral Offset to Obstruction	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
13. Bridge Structural Capacity	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>

Design Variances to GDOT standard criteria anticipated:

GDOT Standard Criteria	Reviewing Office	YES	Appvl Date (if applicable)	NO	Undetermined
1. Access Control - Median Opening Spacing	DP&S	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Median Usage & Width	DP&S	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Intersection Skew Angle	DP&S	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Lateral Offset to Obstruction	DP&S	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Intersection Sight Distance	DP&S	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
6. Bike & Pedestrian Accommodations	DP&S	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
7. GDOT Drainage Manual	DP&S	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
8. Georgia Standard Drawings	DP&S	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
9. GDOT Bridge & Structural Manual	Bridge Design	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
10. Roundabout Illumination	DP&S	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>

11. Rumble Strips	DP&S	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
12. Safety Edge	DP&S	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

VE Study anticipated: No Yes Completed – Date: 10/4/12

ENVIRONMENTAL DATA

Anticipated Environmental Document:

GEPA: NEPA: Categorical Exclusion EA/FONSI EIS

Air Quality:

Is the project located in a PM 2.5 Non-attainment area? No Yes
 Is the project located in an Ozone Non-attainment area? No Yes

This project is exempt from CO modeling and PM 2.5 hotspot requirements since it is a bridge replacement project and no modifications to existing lane capacity will be made.

MS4 Compliance – Is the project located in an MS4 area? No Yes

Environmental Permits/Variations/Commitments/Coordination anticipated:

Permit/ Variance/ Commitment/ Coordination Anticipated	YES	NO	Remarks
1. U.S. Coast Guard Permit	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2. Forest Service/Corps Land	<input checked="" type="checkbox"/>	<input type="checkbox"/>	USACE Land
3. CWA Section 404 Permit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Regional Permit 96
4. Tennessee Valley Authority Permit	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
5. Buffer Variance	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
6. Coastal Zone Management Coordination	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
7. NPDES	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
8. FEMA	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
9. Cemetery Permit	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
10. Other Permits	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
11. Other Commitments	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Flood storage capacity needs to be net zero; environmental stewardship program; special projects
12. Other Coordination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Upper Chattahoochee River Keepers, local stakeholders

Is a PAR required? No Yes Completed – Date:

NEPA/GEPA: A Categorical Exclusion will be prepared. One 4(f) resource has been identified within the project corridor, the existing Browns Bridge over the Chattahoochee River.

Ecology: The ecology resource survey has been approved by GDOT. Special Provisions will be required for the protection of migratory birds, the Indiana bat, and the bald eagle. Lake Lanier is a water of the

U.S., therefore impacts will require a section 404 permit; Lake Lanier is a buffered state water, non-exempt impacts would require a Stream Buffer Variance (SBV) from GDNR-EPD.

History: The existing bridge was previously identified as a historical resource eligible for the National Register of Historic Places and SHPO concurrence was received. No other potential resources were identified in the most recent historic survey; SHPO concurrence was received April 11, 2012. The existing bridge will be removed; thus an adverse effect is assumed.

Archeology: The field survey for potential archeology resources and a GDOT Archaeological Short Form for Negative Findings have been completed.

Air & Noise: A Type III noise assessment with no modeling has been approved. The project would be exempt from PM2.5 hotspot requirements and the draft air quality assessment does not require any carbon monoxide modeling.

Public Involvement: A Public Information Open House (PIOH) was held on May 22, 2012. Up to three stakeholder meetings are anticipated for the project. The replacement of the bridge was also discussed at a PIOH in March 2007 when the bridge was to be replaced concurrent with the SR 369 widening project.

Major stakeholders: In addition to the traveling public, the major stakeholders for this project include the US Army Corps of Engineers, Forsyth County and Hall County.

CONSTRUCTION

Issues potentially affecting constructability/construction schedule: None

Early Completion Incentives recommended for consideration: No Yes

PROJECT RESPONSIBILITIES

Project Activities:

Project Activity	Party Responsible for Performing Task(s)
Concept Development	Michael Baker Jr., Inc.
Design	Michael Baker Jr., Inc.
Right-of-Way Acquisition	GDOT
Utility Relocation	Utility Owners
Letting to Contract	GDOT
Construction Supervision	GDOT
Providing Material Pits	GDOT
Providing Detours	N/A
Environmental Studies, Documents, & Permits	Michael Baker Jr., Inc.
Environmental Mitigation	GDOT
Construction Inspection & Materials Testing	GDOT

Lighting required: No Yes

Initial Concept Meeting: N/A

Concept Meeting: March 7, 2013

Other projects in the area:

- PI No. 122017 – S.R. 369 at Two Mile Creek Bridge Replacement
- PI No. 150200 – S.R. 53 from S.R. 369/Browns Bridge Rd. to S.R. 53 Connector
- PI No. 0010211 – S.R. 369 at Six Mile Creek Bridge Replacement
- PI No. 0000811 – S.R. 369 at Six Intersections between Waldrip Rd. and Doc Bramblett Rd.

Other coordination to date:

Early Coordination – USACOE, March 7, 2012

Project Cost Estimate and Funding Responsibilities:

	Breakdown of PE	ROW	Utility	CST*	Environmental Mitigation	Total Cost
By Whom	GDOT	GDOT	GDOT	GDOT	GDOT	
\$ Amount	\$1,474,120.53	\$2,015,000.00	\$0.00	\$13,295,136.10	\$59,380.00	\$16,843,663.63
Date of Estimate	03/23/2012	08/16/2012	06/20/2012	01/04/2013	5/07/2012	

*CST Cost includes: Construction, Engineering and Inspection, and Liquid AC Cost Adjustment.

ALTERNATIVES DISCUSSION

Alternative selection:

Preferred Alternative: SR 369 Bridge Replacement to the South of the Existing Bridge			
Estimated Property Impacts:	4 Parcels	Estimated Total Cost:	\$16,843,663.63
Estimated ROW Cost:	\$2,015,000.00	Estimated CST Time:	36 Months
Rationale: This alternative consists of building the replacement bridge to the south side of the existing bridge. This alternative was selected because the right of way impacts to the properties along Peninsula Dr. were eliminated. There is additional existing right of way to the south side of the existing centerline than there is to the north side, thus reducing the amount of required Right-of-Way needed to construct the project. Constructing the proposed bridge to the south shortens the project length and simplifies the geometry required to keep super-elevation off the proposed bridge.			

No-Build Alternative: SR 369 Existing Bridge			
Estimated Property Impacts:	0	Estimated Total Cost:	0
Estimated ROW Cost:	0	Estimated CST Time:	N/A
Rationale: This alternative was not selected because it does not satisfy the requirements of the project need and purpose. The existing bridge has structural rating of 39.45 and is recommended for replacement.			

Alternative 1: SR 369 Bridge Replacement to the North of the Existing Bridge			
Estimated Property Impacts:	4 Parcels	Estimated Total Cost:	\$17,101,285.16

Estimated ROW Cost:	\$2,015,000.00	Estimated CST Time:	36 Months
<p>Rationale: This alternative consists of building the replacement bridge to the north side of the existing bridge. This alternative was not selected due to the increase in right of way impacts. There is less existing Right-of-Way to the north of the existing bridge. Additional tie-back walls will likely be needed to retain Peninsula Dr. located on the north side of the existing road, Peninsula Dr. would also need to be shifted in order to keep the road open during construction of the proposed walls. This alternative would also be more difficult to stage construct while maintaining traffic on the existing alignment. Overall, there are more right of way impacts and higher costs for the construction of additional walls if this alternative were chosen.</p>			

Alternative 2: SR 369 Bridge Replacement on existing alignment			
Estimated Property Impacts:	4	Estimated Total Cost:	\$15,903,663.63
Estimated ROW Cost:	\$1,075,000.00	Estimated CST Time:	27 Months
<p>Rationale: This alternative was not selected because there are no suitable detour routes while the proposed bridge is being constructed</p>			

Comments: None

Attachments:

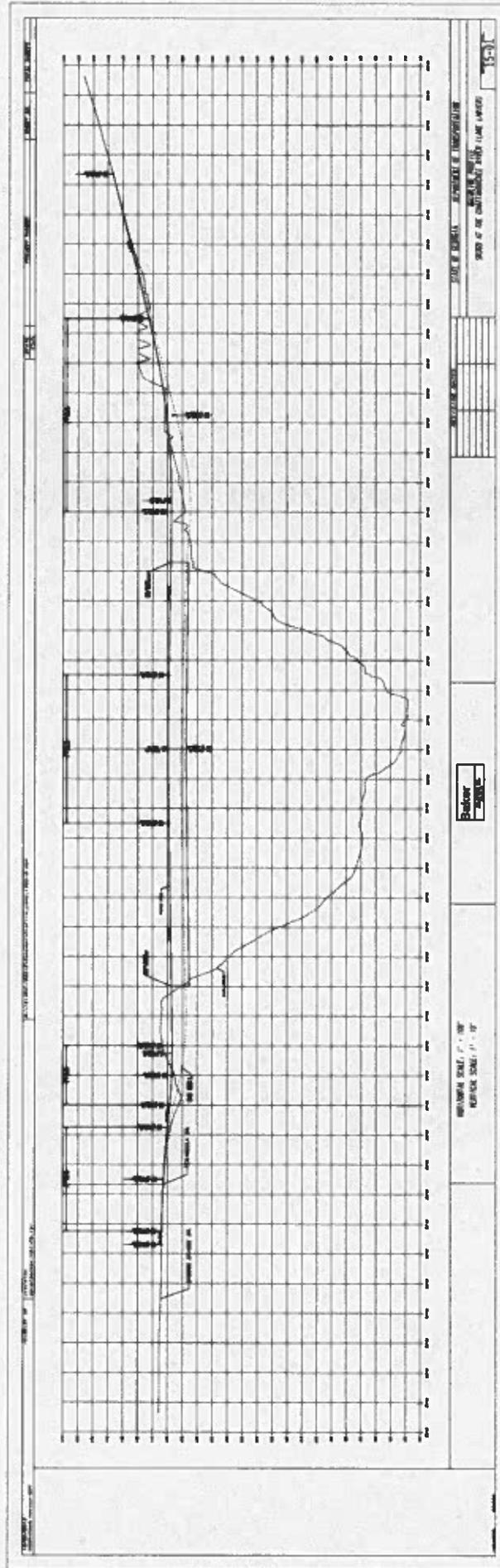
1. Concept Layout
2. Typical sections
3. Detailed Cost Estimates:
 - a. Construction including Engineering and Inspection
 - b. Completed Fuel & Asphalt Price Adjustment forms
 - c. Right-of-Way
 - d. Utilities
 - e. Environmental Mitigation (EPD, etc)
4. Traffic diagrams
5. MS4 Concept-Level Hydrology Study
6. Bridge inventory
7. Minutes of Concept meetings
8. Minutes of any meetings that shows support or objection to the concept (e.g. PIOH, PHOH, Detour Meeting, Town Hall Meeting, etc.)
9. VE implementation Letter

APPROVALS

Concur: K. J. Carpenter 5/28/13
 Director of Engineering

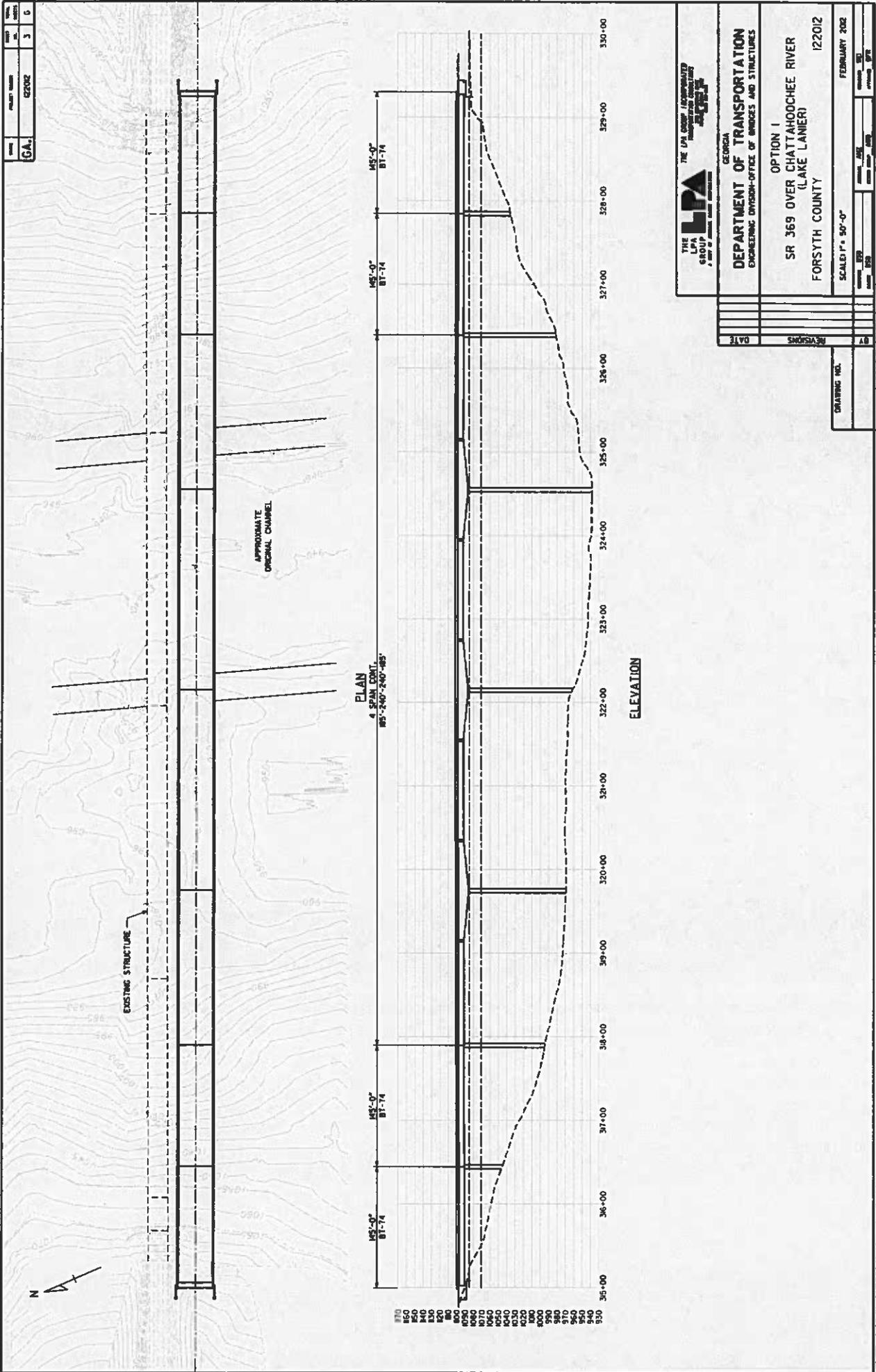
Approve: Allen M. Miller
 Chief Engineer

6/10/13
 Date



CONCEPT PROFILE - P.I. No. 122012

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	62902	3	6



PLAN
4 SPAN CONCR.
85'-2" x 240'-2" x 85'

ELEVATION

LPA
THE LPA GROUP (INCORPORATED)
LPA GROUP
A DIVISION OF LPA GROUP, INC.

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

OPTION I
SR 369 OVER CHATTAHOOCHEE RIVER
(LAKE LANIER)
FORSYTH COUNTY
122012

SCALE: 1" = 50'-0"
DATE: FEBRUARY 2002

DATE	REVISIONS	DRAWING NO.

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE PROJECT No. ,

OFFICE

S.R. 369 AT CHATTAHOOCHEE RIVER "LAKE LANIER" BRIDGE REPLACEMENT

DATE

P.I. No.

FROM

TO Lisa L. Myers, Project Review Engineer

SUBJECT REVISIONS TO PROGRAMMED COSTS

MNGT LET DATE

PROJECT MANAGER

MNGT R/W DATE

PROGRAMMED COST (TPro W/OUT INFLATION)

LAST ESTIMATE UPDATE

CONSTRUCTION \$

DATE

RIGHT OF WAY \$

DATE

UTILITIES \$

DATE

REVISED COST ESTIMATES

CONSTRUCTION* \$

RIGHT OF WAY \$

UTILITIES \$

* Costs contain % Engineering and Inspection

REASON FOR COST INCREASE

Adjusted Asphalt and Fuel Index.

CONTINGENCY SUMMARY

Construction Cost Estimate:	\$ 12,587,449.46	(Base Estimate)
Engineering and Inspection:	\$ 629,372.47	(Base Estimate x 5 %)
Total Liquid AC Adjustment	\$ 78,176.29	(From attached worksheet)
Construction Total:	\$ 13,294,998.212	

REIMBURSABLE UTILITY COST

Utility Owner

Reimbursable Cost

AT&T	0.00
Comcast CATV	0.00
Forsyth County Water & Sewer	0.00
Sawnee EMC	0.00

Attachments

Concept Cost Estimate
STATE HIGHWAY AGENCY

DATE : 01/04/2013
PAGE : 1

JOB ESTIMATE REPORT

JOB NUMBER : 122012 SPEC YEAR: 01
DESCRIPTION: BRIDGE REPLACEMENT ON SR 369 @ CHATTAHOOCHEE RIVER

COST GROUPS FOR JOB 122012

COST GROUP	DESCRIPTION	QUANTITY	PRICE	AMOUNT	ACTIVE?
STRO	BRIDGE	1.000	7964487.00000	7964487.00	Y

ACTIVE COST GROUP TOTAL 7964487.00
INFLATED COST GROUP TOTAL 7964487.00

ITEMS FOR JOB 122012

LINE	ITEM	ALT	UNITS	DESCRIPTION	QUANTITY	PRICE	AMOUNT
0005	150-1000		LS	TRAFFIC CONTROL - 122012	1.000	75000.00	75000.00
0010	153-1100		EA	FIELD ENGINEERS OFFICE TP 1	1.000	56882.21	56882.21
0015	208-0200		CY	ROCK EMBANKMENT	500.000	38.79	19398.97
0020	210-0100		LS	GRADING COMPLETE - 122012	1.000	496567.00	496567.00
0025	310-1101		TN	GR AGGR BASE CRS, INCL MATL	5210.000	20.62	107479.64
0030	402-1812		TN	RECYL AC LEVELING, INC BM&HL	350.000	77.97	27291.86
0035	402-3113		TN	RECYL AC 12.5MM SP, GP1/2, BM&HL	820.000	65.98	54103.60
0040	402-3121		TN	RECYL AC 25MM SP, GP1/2, BM&HL	2360.000	64.75	152819.75
0045	402-3190		TN	RECYL AC 19 MM SP, GP 1 OR 2, INC BM&HL	980.000	71.84	70407.88
0050	413-1000		GL	BITUM TACK COAT	1000.000	2.89	2897.99
0055	433-1000		SY	REINF CONC APPROACH SLAB	100.000	153.42	15342.81
0060	456-2012		GLM	INTENT. RUMB. STRIPS - GRND-IN-PL (CONT)	2.000	1260.21	2520.42
0065	522-1000		LS	SHORING	1.000	195000.00	195000.00
0070	620-0100		LF	TEMP BARRIER, METHOD NO. 1	1500.000	27.74	41612.19
0085	634-1200		EA	RIGHT OF WAY MARKERS	30.000	110.16	3304.98
0090	641-1100		LF	GUARDRAIL, TP T	70.000	69.52	4866.44
0095	641-1200		LF	GUARDRAIL, TP W	670.000	18.16	12169.10
0100	641-5001		EA	GUARDRAIL ANCHORAGE, TP 1	2.000	687.87	1375.75
0105	641-5012		EA	GUARDRAIL ANCHORAGE, TP 12	2.000	1797.75	3595.52
0110	441-0301		EA	CONC SPILLWAY, TP 1	3.000	1488.92	4466.77
0115	500-3101		CY	CLASS A CONCRETE	3.000	577.71	1733.16
0120	500-1180		LF	STM DR PIPE 18", H 1-10	1400.000	35.95	50342.71
0140	550-4218		EA	FLARED END SECT 18 IN, ST DR	4.000	511.94	2047.77
0150	576-1010		LF	SLOPE DRAIN PIPE, 10 IN	150.000	35.50	5326.00
0155	603-2012		SY	STN DUMPED RIP RAP, TP 1, 12"	100.000	58.90	5890.00
0159	603-7000		SY	PLASTIC FILTER FABRIC	100.000	3.67	367.58
0160	668-2100		EA	DROP INLET, GP 1	10.000	1335.91	13359.17
0165	668-2110		LF	DROP INLET, GP 1, ADDL DEPTH	10.000	170.25	1702.59
0170	163-0232		AC	TEMPORARY GRASSING	7.000	399.11	2793.78
0175	163-0240		TN	MULCH	220.000	271.46	59723.18
0180	163-0300		EA	CONSTRUCTION EXIT	4.000	1163.81	4655.24
0185	163-0503		EA	CONSTR AND REMOVE SILT CONTROL GATE, TP 3	3.000	414.68	1244.06
0190	163-0520		LF	CONSTR AND REMOVE TEMP PIPE SLOPE DRAIN	1000.000	12.31	12313.83

ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL
0195	CONSTR AND REM FAB CK DAM -TP C SLT FN	EA	1200.000	3.05	3663.05
0200	CONSTR & REM ROCK FILTER DAMS	EA	8.000	337.28	2698.32
0205	CONS & REM INLET SEDIMENT TRAP	EA	5.000	134.50	672.53
0210	MAINT OF TEMP SILT FENCE, TP A	LF	1400.000	0.86	1216.88
0215	MAINT OF TEMP SILT FENCE, TP C	LF	8300.000	0.74	6208.65
0220	MAINT OF CHECK DAMS - ALL TYPES	LF	1200.000	1.31	1577.77
0225	MAINT OF SILT CONTROL GATE, TP 3	EA	3.000	104.13	312.41
0230	MAINT OF CONST EXIT	EA	4.000	572.96	2291.88
0235	MAINT OF INLET SEDIMENT TRAP	EA	10.000	54.75	547.56
0240	MAINT OF INLET FILTER DAM	EA	8.000	97.14	777.20
0245	WATER QUALITY MONITORING AND SAMPLING	EA	2.000	295.10	590.20
0250	WATER QUALITY INSPECTIONS	MO	24.000	403.37	9681.11
0255	TEMPORARY SILT FENCE, TYPE A	LF	1400.000	1.44	2027.23
0260	TEMPORARY SILT FENCE, TYPE C	LF	8300.000	2.61	21699.85
0265	PERMANENT GRASSING	AC	14.000	630.82	8831.57
0270	AGRICULTURAL LIME	TN	50.000	75.31	3765.79
0275	FERTILIZER MIXED GRADE	TN	10.000	443.86	4438.66
0280	FERTILIZER NITROGEN CONTENT	LB	700.000	1.74	1220.11
0285	EROSION CONTROL MATS, SLOPES	SY	4000.000	0.91	3667.52
0290	HMY SGN, TPLMAT, REFL SH TP3	SF	100.000	14.59	1459.92
0295	GALV STEEL POSTS, TP 7	LF	100.000	8.73	873.85
0300	THERMO SOLID TRAF ST 5 IN, WHI	LF	9300.000	0.54	5048.41
0305	THERMO SOLID TRAF ST, 5 IN, YEL	LF	8400.000	0.54	4541.12
0310	THERMO SKIP TRAF ST, 5 IN, WHI	GLF	400.000	0.44	179.70
0315	RAISED PYMT MARKERS TP 1	EA	110.000	4.79	527.91
0319	REM OF EX BR, STA NO - 122012	LS	1.000	1000000.00	1000000.00
0320	PERMANENTLY ANCHORED WALL NO - TIE-BACK WALL	LS	1.000	1835000.00	1835000.00
0329	CONCRETE SIDE BARRIER, TY 2	LF	140.000	242.80	33993.02
0330	CONC SIDE BARRIER, TP 7MS	LF	720.000	57.41	41335.20
0334	CONC SIDE BARRIER, TP 7-RS	LF	20.000	188.50	3770.00
0335	MSE WALL FACE, 0 - 10 FT HT	SF	300.000	62.23	18669.95
0340	MSE WALL FACE, 10 - 20 FT HT	SF	150.000	64.31	9646.94
0345	COPING A	LF	970.000	77.38	75058.89
0350	COPING B	LF	40.000	209.18	8367.31
ITEM TOTAL					4622962.45
INFLATED ITEM TOTAL					4622962.45

TOTALS FOR JOB 122012
 ESTIMATED COST: 12587449.46
 CONTINGENCY PERCENT (0.0): 0.00
 ESTIMATED TOTAL: 12587449.46

PROJ. NO. BRF00-0012-01(080)
P.I. NO. 122012
DATE 12/19/2012

CALL NO.

BITUMINOUS TACK COAT (surface treatment)

Price Adjustment (PA) 0 \$
 Monthly Asphalt Cement Price month placed (APM) 907.20 \$
 Monthly Asphalt Cement Price month project let (APL) 567.00 \$
 Total Monthly Tonnage of asphalt cement (TMT) 0 \$

Bitum Tack	SY	Gals/SY	Gals	gals/ton	tons
Single Surf. Trmt.		0.20	0	232.8234	0
Double Surf. Trmt.		0.44	0	232.8234	0
Triple Surf. Trmt		0.71	0	232.8234	0
					0

TOTAL LIQUID AC ADJUSTMENT \$ **78,176.29**

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE **BHF00-0012-01(060) Forsyth/Hall Co.**
 P.I. No. 122012
 SR 369 Over Chattahoochee River

OFFICE **Gainesville**
DATE **June 20, 2012**

AP

FROM **Allen Ferguson**
 District Utilities Engineer

TO **Steve Adewale, Project Manager**

SUBJECT **PRELIMINARY UTILITY COST (ESTIMATE)**

As requested by your office, we are furnishing you with a Preliminary Utility Cost estimate for the subject project.

FACILITY OWNER	NON-REIMBURSABLE	REIMBURSABLE
AT&T	\$27,000.00	\$0.00
Forsyth County Water/Sewer	\$64,500.00	\$0.00
Sawnee EMC	\$54,000.00	\$0.00
TOTAL	\$145,500.00	\$0.00

If you have any questions, please contact Allen Ferguson at 770-532-5510.

RAF

C: Jeff Baker, P.E., State Utilities Engineer (email only)
Angie Robinson, Office of Financial Management (email only)
Matt Needham, Area Engineer (email only)
File

SR 369 Environmental Mitigation Cost Estimate

P.I. Number	Project Name	Section 404 Credits Needed	Section 404 Cost Estimate*	Environmental Stewardship Program (ESP) Credits Needed	ESP Cost Estimate**	Total Estimated Mitigation Cost
122012	Chattahoochee River/Lake Lanier	0.75	\$9,000	25.19	\$50,380	\$59,380
<p>*Note: Wetland/Open Water credits in the Upper Chattahoochee Watershed were estimated at approximately \$12,000 per credit. Due to the variability of the number of wetland mitigation credits available and of the cost per credit associated with commercial mitigation banks, the Section 404 mitigation costs could be lower or higher depending upon the market.</p> <p>**Note: Credits in the ESP model equal approximately \$2,000 each. The cash buyout option is no longer an available option; therefore, mitigation must be provided in the form of special projects that equal the dollar value calculated in the model.</p>						

Department of Transportation State of Georgia

INTERDEPARTMENT CORRESPONDENCE

FILE BRF00-0012-01(080)
Forsyth & Hall Counties
P.I. # 122012

OFFICE Planning

DATE August 2, 2012

FROM Cynthia L. VanDyke, State Transportation Planning Administrator

TO Genetha Rice-Singleton, State Program Delivery Engineer
Attention: Steve Adewale

SUBJECT **Estimated Traffic Assignments for SR 369 @ CHATTAHOOCHEE RIVER
"LAKE LANIER".**

We are furnishing estimated traffic assignments for the above project as follows:

	NO BUILD	BUILD
	BRIDGE ID 117-0022-0	BRIDGE ID 117-0022-0
2010 ADT	12800	12800
2018 ADT	14700	14700
2038 ADT	21900	24000
2010 DHV	1345	1345
2018 DHV	1545	1545
2038 DHV	2300	2520
D	53%	53%
K	10.5%	10.5%
T	10.00%	10.00%
S.U.	5.75%	5.75%
COMB.	4.25%	4.25%
24 HR. T.	11.00%	11.00%
S.U.	7.00%	7.00%
COMB.	4.00%	4.00%

If you have any questions concerning this information please contact
Andre Washington at (404) 631-1925.

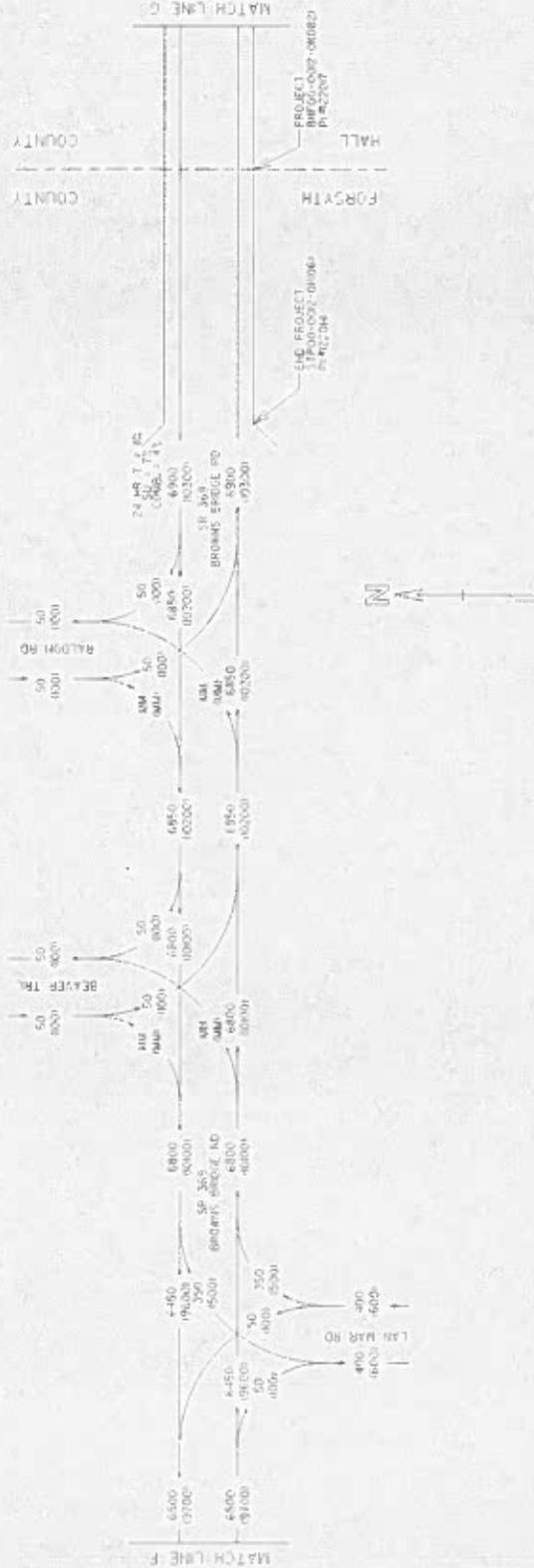
CLV/AMW



375 NORTHSIDE PARKWAY, NW
400 NORTHCREEK, SUITE 600
ATLANTA, GEORGIA 30327

2015/2035 ADT NO-BUILD

SHEET 4 OF 8



51700-002-010791 - 01064
89600-002-010801
81600-002-010821
P# 122010, 122015, 122014, 122017
FORSYTH AND HALL
COUNTIES
SR 363 FROM
W OF SR 97 FORSYTH CO.
TO E OF
SR 53 HALL COUNTY
2015 ADT = 4500
2035 ADT = 6000



Bridge Inventory Data Listing

Processed Date: 12/16/2011
 Parameters: Bridge Serial Num

Structure ID: 117-0022-0

Forsyth

SUFF. RATING: 39.45

Location & Geography

Structure ID:	117-0022-0	*104 Highway System:	0	Signs & Attachments	
200 Bridge Information:	06	*26 Functional Classification:	06	235 Expansion Joint Type:	06
*7A Feature Int:	CHATT RIVER(LAKE LANIER)	*204 Federal Route Type:	F No: 00121	242 Deck Drains:	1
*7B Critical Bridge:	0	105 Federal Lands Highway:	0	243 Parapet Location:	0
*7A Route No Carried:	SR00368	*110 Truck Route:	0	Height:	0
*7B Facility Carried:	BROWNS BRIDGE RD	2006 School Bus Route:	0	Width:	0
9 Location:	11.5 MI NE OF CUMMING	217 Benchmark Elevation:	0000.00	238 Curb Height:	1
2 Det District:	1	218 District:	0	Curb Material:	5
207 Year Photo:	2011	*19 Bypass Length:	12	239 Handrail:	5 5
*81 Inspection Frequency:	24 Date: 08/28/2011	*20 Toll:	3	*240 Medium Barrier Rail:	0
92A Field Crit Insp Freq:	1 Date: 08/29/2011	*21 Maintenance:	01	241 Bridge Median Height:	0
92B Underwater Insp Freq:	2 Date: 08/21/2007	*22 Owner:	01	* Bridge Median Width:	0
92C Other Spec Insp Freq:	0 Date: 10/01/2008	*31 Design Load:	2	230 Guardrail Loc. Dir. Rear:	3
*4 Place Code:	00000	37 Historical Significance:	5	Fwrd:	3
*5 Inventory Route(OU):	1	205 Congressional District:	09	Oppo. Dir. Rear:	0
Type:	3	27 Year Constructed:	1955	Oppo. Fwrd:	0
Designation:	1	106 Year Reconstructed:	1999	244 Approach Slab:	3
Number:	00368	33 Bridge Median:	0	224 Retaining Wall:	0
Direction:	0	34 Skew:	00	233 Posted Speed Limit:	45
*16 Latitude:	34 15.7052 HAMS Prefic:SR	35 Structure Filter:	0	236 Warning Sign:	1.00
*17 Longitude:	83 -87.0518 HAMS Suffic:00 MP:19.32	38 Navigation Control:	0	234 Detractor:	1.00
98 Border Bridge:	000% Shared:00	211 Special Sect Design:	9	236 Hazard Boards:	1
99 ID Number:	0000000000000000	267 Type of Post:	5	237 Utilities Gas:	00
*100 STRAHNET:	0	*42 Type of Service On:	1	Water:	00
12 Base Highway Network:	1	Type of Service Under:	5	Electric:	00
13A LRS Inventory Route:	1171038900	214 Movable Bridge:	0	Telephone:	00
13B Sub Inventory Route:	0	203 Type Bridge:	0	Sewer:	00
101 parallel Structure:	N	258 Pile Encasement:	2	247 Lighting Street:	0
*102 Direction of Traffic:	2	*43 Structure Type Main:	4 10	Navigation:	0
*264 Road Inventory Mile Post:	019.72	45 No Spans Main:	005	Aerial:	0
*208 Inspection Area:	1	44 Structure Type Appr:	3 02	*248 County Continuity No.:	00
Engineer's Initials:	epm	48 No Spans Appr:	0004		
Location ID No:	117-00368D-019.32E	228 Bridge Curve Horz	0 Vert: 1		
		111 pier Protection:	0		
		107 Deck Structure Type:	1		
		108 Wearing Structure Type:	6		
		Membrane Type:	0		
		Deck Protection:	8		



Bridge Inventory Data Listing

Processed Date: 12/16/2011

Parameters: Bridge Serial Num

Structure ID: 117-0022-0

Programming Data

CORP OF ENGINEERS

201 Project No: 4

202 Plans Available: BRF-012-1 (60)

249 Prop Proj No: 0000

250 Approval Status: 0201/2007

251 PI Number: 00000

252 Contract Date: 31 1

260 Scismic No: \$11,344

75 Type Work: 635

94 Bridge Imp Cost: 13225

95 Roadway Imp Cost: 001501

96 Total Imp Cost: 1990

114 Future ADT: 018650 Year: 2030

Measurements:

*39 ADT 013100 Year: 2010

109% Tracks: 0

*28 Lanes On: 02 Under: 00

210 No. Tracks On: 00 Under: 00

*48 Max. Span Length: 0327

*48 Structure Length: 1372

51 Br. Rwy. Width: 23.90

52 Deck Width: 27.70

*47 Tot. Horiz. Cl: 24

50 Cutb / Sidewalk Width: 1.50 / 1.50

32 Approach Rwy. Width: 027

*229 Shoulder Width: 2.00 Type: 2 RE: 2.00

Rear LI: 2.50 Type: 2 RI: 1.70

Fwd. LI:

Permanent Width:

Rear: 23.10 Type: 2

24.90 Type: 2

Inaccession Rear: 0 Fwd: 0

365 Safety Features Br. Rail: 2

Transition: 2

App. G. Rail: 2

App. Rail End: 2

53 Minimum Cl. Over: 15' 10"

Under:

*228 Minimum Vertical Cl

Aut. Odor Dir.: 15' 10"

Oppo. Dir: 99' 99"

Posted Odor Dir: 00' 00"

Oppo. Dir: 00' 00"

55 Lateral Undercl. Rt: N 0 0

56 Lateral Undercl. Lt: 0.00

*10 Max Min Vert Cl: 15' 10' Dir: 3

39 Nav Vert Cl: 000 Horiz: 0000

116 Nav Vert Cl Closed: 000

245 Deck Thickness Main Deck Thk: 5.70

246 Overlay Thickness: 7.50

212 Year Last Painted: 2.50

Sup: 1998 Sub: 0000

65 Inventory Rating Method: 2

63 Operating Rating Method: 2

66 Inventory Type: 2 Rating: 22

64 Operating Type: 2 Rating: 22

231 Calculated Loads:

H-Modified: 20 0

HS-Modified: 25 0

Type 3: 26 0

Type 32: 36 0

Timber: 36 0

Rigback: 40 0

261 H Inventory Rating: 15

262 H Operating Rating: 24

67 Structural Evaluation: 5

58 Deck Condition: 5

59 Superstructure Condition: 5

*227 Collision Damage: 0

80A Substructure Condition: 5

80B Scour Condition: 7

60C Underwater Condition: 5

71 Waterway Adequacy: 9

61 Channel Protection Cond.: 8

88 Deck Geometry: 2

68 UnderCl. Horiz/Vert: N

72 Appr. Alignment: 6

62 Culvert: N

Posting Data

70 Bridge Posting Required: 5

41 Struct Open, Posted, CL: A

*103 Temporary Structure: 0

232 Posted Loads

H-Modified: 00

HS-Modified: 00

Type 3: 00

Type 32: 00

Timber: 00

Pigback: 00

253 Notification Date: 02/01/1901

256 Fed Notify Date: 2/1/1901 12:00:00AM

Hydraulic Data

215 Waterway Data:

High Water Elev: 0000.0 Year: 1900

Flood Elev: 0000.0 Freq: 00

Avg Streambed Elev: 0000.0

Drainage Area: 00000

Area of Opening: 000000

113 Scour Critical: U

216 Water Depth: 99.9 Br-Height: 34

222 Slope Protection: 1

221 Slope Protection: 0 Fwd: 0

219 Footer System: 0

220 Dolphin: 0

223 Current Cover: 000

Type: 0

No. Bannels: 0

Width: 0.00 Height: 0.00

Length: 0 Apron: 0

263 U/W Insp Area: 1 Driver: WSR

Location ID No: 117-00398D-019.32E

Concept Team Meeting Minutes
GDOT Project BRF00-0012-01(080), BHF00-0012-01(082)
P.I. Number 122012, 122017, 0010211, Forsyth/Hall County
SR 369 Bridge Replacement over Chattahoochee River (Lake Lanier), Two Mile Creek,
and Six Mile Creek
GDOT District 1 Office – Gainesville, GA
March 7, 2013

Attendees:

Steve Adewale – GDOT (Office of Program Delivery)
Justin Lott – GDOT (Traffic Operations)
Jason Dykes – GDOT (Area 1 Construction)
Bobby Dollar – GDOT (OES)
Kim Coley – GDOT (District 1 Planning)
Andy Casey – GDOT (Roadway)
Brent Cook – GDOT (Preconstruction)
Cory Payne – GDOT (Right of Way)
Neil Kantner – GDOT (Utilities)
Tim Allen – Forsyth County
Al Bowman – Baker (Structures)
Tyler McIntosh – Baker (Project Manager)
Chad Havens – Baker (Project Engineer)
Christine Quinn – KEA Group (Environmental)
Lenor Bromberg – KEA Group (Environmental)
Karl Ledford – Georgia Transmission
Mike Souther – Windstream
Lorie Short – AT&T
Chris Bates – Comcast
Johnny Millwood – Forsyth County Water and Sewer
Greg Farr – Sawnee EMC
Matt Henderson – GPUD
Tommy Evans – Jackson EMC

Attendees via teleconference:

Lynn Clements – GDOT (Bridge Office)
Ben Rabun – GDOT (Bridge Office)
Bill Duvall – GDOT (Bridge Office)

Introduction

The meeting began with introductions. Steve Adewale, the GDOT project manager, gave a brief overview of the project along with going over the meeting agenda and then Tyler McIntosh, the Baker project manager, was introduced.

Draft Concept Report

Mr. McIntosh introduced himself as the consultant project manager and then began to review the draft concept report of the bridge replacement of SR 369 over Six Mile Creek and Two Mile Creek because they are similar in nature. The project's need and purpose was provided along with a few points justifying the need to replace the old bridge. The justification points for both Six Mile and Two Mile included: the existing bridges were designed using a truck configuration less than the current state legal

truck weight, no rehabilitation would meet current design load standards, and both projects have low sufficiency ratings.

After reviewing the Complete Streets section, the question was asked if the bridge replacements provide for bicycle lanes. Since the Forsyth County Bicycle Transportation and Pedestrian Walkways 2025 Plan updated in 2008 proposes an 8'-10' multi-use path, there was worry that the bridges would have to be widened 5-15 years from now to accommodate the multi-use path. The proposed bridges have 8' shoulders on both sides and therefore meet the requirement for bicycle lanes.

Mr. McIntosh then moved on to the concept layout for the bridge replacements over Six Mile Creek and Two Mile Creek which continues in the Concept Layout section below.

After reviewing the concept layout of the SR 369 bridge replacements over Six Mile Creek and Two Mile Creek, Mr. McIntosh reviewed the draft concept report of SR 369 bridge replacement over the Chattahoochee River (Lake Lanier). The need and purpose of this bridge replacement was the same as the previous bridge replacements over Six Mile Creek and Two Mile Creek. Mr. McIntosh pointed out that a Transportation Management Plan is anticipated on all three projects, therefore would need to be checked "YES." There were no other comments on the draft concept report. Mr. McIntosh then went on to review the concept layout.

Concept Layout

Mr. McIntosh first presented the concept layouts of SR 369 bridge replacements over Six Mile Creek and Two Mile Creek prepared by Michael Baker. There are no GDOT-acceptable detours available at these crossings of Lake Lanier. The existing bridges would need to remain in place during construction, therefore, the conceptual plan is to maintain traffic on the existing bridge and build the new bridge on parallel alignment 44 feet to the north (centerline to centerline) for both projects. This allows the bridge to be constructed in a single stage reducing construction time for bridge and the impacts to users of Lake Lanier. Construction on the north side of Six Mile Creek was chosen to avoid the boat ramp which is considered a 4(f) resource. Going to the north also avoids the overhead utility facilities located on the south side of the existing roadway. Construction on the north side of Two Mile Creek was chosen due to the lesser environmental, utility and right of way impacts along the existing roadway. Going to the north of the existing bridge also reduces the impacts to Lake Lanier.

Mr. McIntosh was asked about existing utilities attached to the bridges and was determined that water lines and telecoms are attached to these two bridges and that they would have to be reattached to the proposed bridges. Tim Allen of Forsyth County asked that right turn lanes be provided at any county roads including Floyd Lane, Bennett Lane and Six Mile Cove Road within the project limits. It was determined that these improvements will be investigated and provided if possible without extending limits of construction significantly or requiring additional right-of-way along the side streets due to steep existing grades.

Mr. Bowman then presented the bridge plans for Six Mile Creek and Two Mile Creek. At Six Mile, the proposed bridge was sized to clear the emergency full pool elevation of 1085, while maintaining the flood storage capacity in the lake. Therefore, the existing 425 ft long steel beam bridge would be replaced with a higher and longer concrete beam bridge. The additional length is justified by the long term savings realized in not having to paint a steel structure. The proposed bridge length is 600 ft and is achieved with 4 spans of 150 ft long Bulb-T girders. The proposed bridge would have 3 piers in the lake, one of them in deep water (approximately 65 ft deep) near the center of the channel. This pier could be built with either drilled caissons or a traditional cofferdam/seal footing. The exact substructure type would be determined in conjunction with a Bridge Foundation Investigation during final design. The proposed bridge would utilize an MSE abutment that wraps around the north side of the approaches as a measure towards

preserving the flood storage capacity of the lake mentioned earlier. The top of the leveling pad for this wall would be set at elevation 1073, two feet above the normal pool elevation of the lake (1071).

At Two Mile, the proposed bridge was sized to clear the emergency full pool elevation of 1085, while maintaining the flood storage capacity in the lake. Therefore, the existing 306 ft long steel beam bridge would be replaced with a higher and longer concrete beam bridge. The additional length is justified by the long term savings realized in not having to paint a steel structure. The proposed bridge length is 560 ft and is achieved with 4 spans of 140 ft long Bulb-T girders. The proposed bridge would have 3 piers in the lake, one of them in deep water (approximately 45 ft deep) near the center of the channel. This pier could be built with either drilled caissons or a traditional cofferdam/seal footing. The exact substructure type would be determined in conjunction with a Bridge Foundation Investigation during final design. The proposed bridge would utilize an MSE abutment that wraps around the north side of the approaches as a measure towards preserving the flood storage capacity of the lake mentioned earlier. The top of the leveling pad for this wall would be set at elevation 1073, two feet above the normal pool elevation of the lake (1071).

After reviewing the draft concept report of SR 369 bridge replacement over the Chattahoochee River, Mr. McIntosh reviewed the concept layout of this project. There are no GDOT-acceptable detours available at this crossing of Lake Lanier. The existing bridge would need to remain in place during construction, therefore, the conceptual plan is to maintain traffic on the existing bridge and build the new bridge on parallel alignment 44 feet to the south (centerline to centerline). Construction on the south side of the existing bridge was chosen to avoid right of way impacts along Peninsula Drive. If the bridge was constructed to the north, this would result in having to build an overpass to connect Browns Bridge Drive and Peninsula Drive as Peninsula Drive cannot remain open to traffic with an option that is constructed to the north. There is additional existing right of way available for use on the south side of the existing roadway as well. Constructing the proposed bridge to the south shortens the project length and simplifies the roadway geometry. There were no comments or questions during the review of the concept layout.

Mr. Bowman then gave an overview of the bridge concepts for the main lake crossing at the Chattahoochee River. Due to the long length of the structure (1400 ft) and the very deep water (110 ft) in this section of the lake, LPA/Baker prepared a structure type study in which the pros and cons of six superstructure alternates, and three substructure alternates were studied in terms of maintenance, constructability, and overall cost to arrive at the most appropriate alternate for the crossing. Mr. Bowman mentioned that only beam type bridges were considered viable alternates because structures such as cable stays, suspension, and arches were not warranted in a crossing of this type and would require specialized construction methods not practiced by most local contractors and would limit bid competition.

During early coordination meetings with the United State Army Corps of Engineers (USACOE), it was determined that the replacement bridge at this location shall provide at least the same vertical clearance and approximately the same main channel horizontal clearance as the existing bridge. The existing through truss bridge has very little structure depth below the deck and provides approximately 17 feet of minimum vertical clearance above normal pool elevation of 1071. In order to accommodate this minimum vertical clearance with a beam type bridge, the profile of the roadway needed to be raised approximately 12 feet. This raise of grade causes the proposed bridge to touch down slightly further up the bluffs on either side of the lake, resulting in a proposed bridge length of 1430 feet, just slightly longer than existing.

Mr. Bowman commented that due to the deep water in the lake, the construction of the substructure represented a substantial proportion of the total cost of the bridge, therefore the strategy used in determining alternates was to use the least costly substructure type and also minimize the number of substructure units required.

Therefore, three substructure types were considered. Option A consisted of traditional spread footings on rock. This type of foundation would require cofferdams, and would cost nearly \$1,000,000 each. Option

B would use two large diameter drilled caissons tied together with a waterline footing, and the cost would be approximately \$900,000 for each unit. Option C would use 4 smaller diameter caissons with steel braces added at various locations along each shaft for additional support at a slightly lower cost of \$800,000 for each unit. It was noted that the structure type study recommended using the braced caisson due to the lowest cost.

Derek Wade with GDOT Construction asked how well each of these proposed substructure pier options would hold up structurally if subjected to a collision with a large vessel such as an 80-foot party barge. Mr. Bowman responded that the proposed piers for each of the build options (varying from 5 to 8 feet in diameter depending on the build option) would easily handle an impact from a vessel that size. Ben Rabun with the GDOT bridge office asked about the horizontal clearance of the proposed substructure, and if the USACE was accepting of the proposed substructure during the pre-concept meeting. Mr. Bowman explained that the existing bridge is a 3-span continuous structure with 2 piers within the lake and approximately 280 feet of horizontal clearance. He added that the USACE would like to see something close to the existing 280 feet of horizontal clearance provided by the new bridge.

Mr. Bowman then presented the superstructure options considered in the structure type study.

Option A proposes a simple-span beam structure with six 150-foot spans plus four spans at 133 feet with 9 piers for support. This alternative would be constructed using conventional prestressed concrete (PSC) beams and would require one pier to be located within the main channel. This alternative would cost approximately \$152 per square foot, or \$9.4 million for construction. This alternative was rejected due to not being lowest cost or meeting channel clearance requirements specified by USACOE.

(Mr. Bowman deferred discussing Option B to the end)

Option C proposes a segmented concrete box girder. The continuous box girder only requires four spans and minimizes the number substructure units. The 295'-420'-420'-295' span arrangement would satisfy the main channel clearance requirements, but at great cost due to the specialized construction methods required. The cost of this alternative would be approximately \$192 per square foot or \$12.2 million dollars for construction. This alternative was rejected due to the high cost.

Option D proposes a steel plate girder with two sub options. Option D1 features a four span continuous plate girder main unit (200'-260'-260'-200') flanked by prestressed concrete approach spans at 128 feet each. Option D2 features longer spans in the continuous main unit (235'-330'-330'-235') flanked by prestressed concrete approach spans at 150ft each. Both alternatives would satisfy the main channel clearance requirements. The idea behind using the longer spans in D2 is that it required two less substructure units than D1 and may reduce cost. However, the larger steel beams needed for D2 actually increased the costs of D2 over D1. The cost of D1 would be approximately \$176 per square foot or \$10.8 million for construction. And the cost of D2 would be approximately \$202 per square foot and \$12.4 million for construction. Both of these alternatives were rejected due to high cost.

Option B proposes a post-tensioned concrete spliced girder. The idea behind this alternative is that by using post-tensioning to make a concrete beam continuous, longer spans can be achieved while keeping cost low. The main span of this alternative would feature a four span continuous unit (185'-240'240'-185') flanked by simple span prestressed concrete spans of 145 feet each. The 240' span across the main channel is less than the 327' existing, but was deemed acceptable by the USACOE in early coordination. This alternative costs approximately \$138 per square foot or \$8.5 million for construction. This alternative was selected due to lowest cost while meeting USACOE requirements. Since this was the preferred alternative, Mr. Bowman gave an overview of the construction sequence for those in the meeting not familiar with Spliced Girders. Ben Rabun said his office would like to further discuss the design of the substructure and spliced girders at a later meeting. There were no other comments.

Other Discussion

Ms. Bromberg from KEA Group discussed the environmental concerns on all three bridge replacements. She mentioned how all three existing bridges are now considered historical resources. Since the existing bridges will be removed during construction, the projects would require a programmatic 4(f) and coordination with SHPO is required to determine mitigation requirements. GDOT is currently preparing bridge management plans for all three projects which will be included as part of the HABS/HAER documentation. All three projects could potentially have impacts to the Indiana Bat. Baker is in the process of coordinating requirements for field observations, including mist netting and echo soundings, to be completed this summer. It was determined that the design team will set up the environmental survey to conclude its environmental impacts.

Mr. Adewale then asked the representatives of the GDOT offices to comment on the three projects. The Office of Utilities requested a PDF of the concept layouts. Representatives from Forsyth Water and Sewer and District 1 Utilities discussed the addition of a water line on Brown's Bridge to connect Forsyth and Hall County. It was determined that this would be decided during the utility coordination process for these projects. Georgia Transmission mentioned that they have proposed transmission lines along SR 369 over Six Mile and Two Mile Creek.

The Office of Traffic Operations requested to see if the design team can post and stripe all three bridges for passing. The design team will investigate further.

As part of an email comment on the concept report, the Office of Policy and Support doesn't think these projects should be classified as 'minor' projects. Mr. McIntosh re-iterated that while the bridge projects appear larger in nature, there is relatively minor environmental, right-of-way, and utility impacts.

Neil Kantner from District Utility Office said Public Interest Determination would not be required for these projects.

Forsyth County re-iterated their previous comment requesting right turn lanes on all county roads within each project and that they are looking forward to completing the projects.

Mr. Adewale stated that there were no other items to be covered on the agenda and then adjourned the meeting.

Action Items

1. Meeting between Baker and the GDOT Bridge Office to discuss the design of the bridge substructure.
2. Investigate right turn lanes at side streets
3. Investigate passing sight distance across bridges

Prepared by: Chad Havens
Michael Baker Jr., Inc.
March 21, 2013

MEETING MINUTES

Date/Time: March 7, 2012; 10:00 am

Location: US Army Corps of Engineers, Lanier Project Management Office

Subject: PI # 122012, 122017, and 0020211
Forsyth and Hall Counties

SR 369 Bridge Replacement Projects at Chattahoochee River/Lake Lanier,
Two Mile Creek and Six Mile Creek

Attendees:

Mary Dills, USACE, Savannah	678-422-2727	mary.e.dills@usace.army.mil
Jeff Emmert, USACE	770-945-9531	jeffrey.g.emmert@usace.army.mil
Myles Barton, USACE	770-945-9531	myles.a.barton@usace.army.mil
Bobby Dollar, GDOT	404-631-1920	rdollar@dot.ga.gov
Al Bowman, LPA Group	770-263-9118	abowman@lpagroup.com
Paul F. Condit, LPA Group	770-263-9118	pfcondit@mbakercorp.com
Mary Best, LPA Group	770-263-9118	mdbest@mbakercorp.com
Chad Havens, LPA Group	770-263-9118	chad.havens@lpagroup.com
Lenor Bromberg, KEA Group	678-904-8591 x27	lbromberg@keagroup.com
Christine Quinn, KEA Group	678-904-8591 x29	cvquinn@keagroup.com
Claire Ike, KEA Group	678-904-8591 x 28	jcike@keagroup.com

Topics of Discussion:

1) Introductions/ Point of Contact

- a) Al Bowman started off introductions and noted that Tyler McIntosh, LPA Group, is serving as the Project Manager, but was unable to attend the meeting today. Mr. Bowman then gave a brief summary of how the previous project, the widening of SR 369 from SR 306 to SR 53 was stopped and the three bridges at Six Mile Creek, Two Mile Creek, and the Chattahoochee River were

pulled out as three separate bridge replacement projects. The purpose of this meeting is to present concept layouts for the three projects.

2) Project Layouts/ Bridge Information/Impacts

a) Six Mile Creek

- Chad Havens described the existing bridge typical section with two 12-foot travel lanes
- Proposed typical section includes two 12-foot lanes with 8-foot shoulders on the bridge and 10-foot shoulders (with 4 foot paved) on the roadway; the design speed is 55 mph
- There are no side road intersections for this concept layout
- The proposed profile has been set by tying back in to the existing profile as quickly as possible based on stopping sight distance design criteria
- The bridge is 600 feet long and includes four 150-foot spans
- The proposed bridge alignment is 44 feet north of the existing bridge; this offset allows for the possible four-lane widening of SR 369 in the future. This alignment would avoid impacts to the existing boat ramp south of SR 369 and would avoid utilities that parallel the south side of the existing roadway.
- The bridge is designed to be above the 1085-foot elevation for all spans
- MSE walls are being used to reduce impacts to the flood storage capacity; currently there is net zero impact to the flood storage volume below 1071-foot elevation and between the 1071-foot and 1085-foot elevation
- The proposed right-of-way was noted on the layouts
- Lenor Bromberg asked if the new MS4 permitting requirements could affect the right-of-way needs.
- Al Bowman noted that the bridge was designed so that all stormwater would run along the bridge profile and off the bridge to land before flowing back towards the creek; i.e. there are no drains on the bridge.
- Al continued on to show more details of the bridge plan and profile view. The bridge is a 4 span Bulb T standard concrete bridge. The existing bridge provides a 10-foot clearance above the 1071-foot elevation; the proposed bridge provides a 17-foot clearance above the 1071-foot elevation.
- MSE walls would be utilized to minimize fills in the lake. These would be constructed with the wall bottoms at 1073-foot elevation to keep them out of the normal pool. Fill slopes would be graded at the bottom of the walls to match existing ground. The balance of fill would be removed from the south side of the existing road alignment to result in net zero impact to the flood storage capacity.

- Jeff Emmert noted that the USACE would require net zero impact to the flood storage capacity, but would also be concerned about other environmental impacts, such as impacts to the existing vegetation.
- It was noted that the existing boat ramp is associated with park property that has recently been leased to Forsyth County Parks and Recreation Department through a 5-year permit. At the end of the five years, the County will have the option to negotiate a new lease. In the meantime the County will be preparing a master plan. Any change to the existing access to the boat ramp parking should be coordinated with the County. Myles Barton and Jeff Emmert need to confirm the area of the lease. The park will be listed in the NEPA document as a 4(f) resource, however no effect is anticipated.
- Mary Dills asked if traffic will be maintained on the existing bridge until after completion of the new bridge. This is correct, and the existing bridge will be removed after traffic is moved on to the new bridge. Existing fill south of the existing bridge would also be removed to provide the net zero impact to the flood storage capacity.
- Ms. Dills recommended that a side sonar scan be completed prior to the start of construction through a special provision so that the items to be removed that are the contractor's responsibility will be clearly documented. She also noted that blasting is discouraged and requires a public notification period.
- Environmental Special Studies:
 - Archaeology – ARPA permit has been requested, but not yet received. Myles Barton suggested that the archaeologist forward the request to him and he would look into it. Archeology field surveys will be completed upon receipt of the permit.
 - History – there were no eligible resources from the approved 2008 Historic Resource Survey Report (HRSR) in the Six Mile Creek project area of potential effect (APE). No new resources were found during the field survey. The new HRSR will be submitted this week.
 - Ecology – field work has been completed; report being drafted

b) Two Mile Creek

- There are three intersections within the project concept limits: Pleasant Grove Circle, Bennett Lane, and Floyd Lane.
- The existing and proposed typical sections are the same as those presented for Six Mile Creek.
- The proposed bridge alignment is 44-feet north of the existing alignment.
- The current concept will remove fill from the existing roadway south of the proposed alignment and west of the creek. It is currently proposed to grade this area flat at an elevation of 1068-feet. A discussion about the USACE's preferences concluded that a contoured slope

at 4 to 1 or 6 to 1 would be preferred over the flat slope due to concerns about boat and swimmers/waders in the water.

- The proposed right-of-way was described. The amount of required right-of-way will most likely be reduced as the design progresses. LPA Group will coordinate this with the USACE.
- Myles Barton noted that the plans should show the staging areas; the USACE would issue construction licenses for these areas for use during construction.
- There was a discussion about the concepts fill slopes appearing to impact a dock north of the proposed bridge on the east bank of the creek. Although there is some information in the dock permit application, there is most likely not enough to assist in the design. It is recommended that the dock be observed in the field to determine if an impact is possible. Each dock has a USACE permit/tag posted near the approved dock location. A review of the pathway to the dock will assist in determining the normal dock location. There are dock spacing and offset requirements of 50-feet. The dock owner will be concerned about the water depth under and around the dock.
- Al Bowman reviewed the bridge plan and profile details. This is a 4-span bridge with 150-foot spans and is proposed to be a Bulb T standard concrete bridge. The profile has been set to keep all spans above the 1071-foot elevation. There would be some walls.
- Environmental Special Studies:
 - Archaeology – ARPA permit has been requested, but not yet received.
 - History – there were two eligible resources from the approved 2008 Historic Resource Survey Report (HRSR) in the Six Mile Creek project area, but they are outside the APE. Six new resources were found during the field survey; but none are determined to be eligible for the National Register of Historic Places. The new HRSR will be submitted this week.
 - Ecology – field work has been completed; report being drafted
- An existing ditch located along the north side of the alignment and east of the bridge was discussed and the impact to right-of-way noted.

c) Chattahoochee River/Lake Lanier

- The existing and proposed typical sections are the same as those presented for Six Mile Creek.
- The proposed bridge alignment is 44-feet south of the existing alignment. This was based on avoiding impacts to Peninsula Road, a side road that runs parallel and very close to the north side of the existing road alignment. It is believed that access and traffic flow would be difficult to maintain.
- A tie-back wall would be utilized on the south side of the proposed road and west of the river. Fill slopes would be used on the Hall County (east) side of the river.

- The limits of construction along the side roads is based on the profile grade tie-ins and stopping sight distance. The alignment and length of construction in the area of the Browns Bridge Trucking Company was discussed.
- If the alignment were shifted north of the existing bridge, there would be impacts to the lake in an area west of the river crossing where the lake edge comes close to the north side of the existing roadway.
- It was noted that the USACE land use designation for the shores along the Chattahoochee River crossing are recreation. It is believed that the land use at Six Mile Creek and Two Mile Creek is protected zoning, but this needs to be confirmed. The recreational land use would result in a 4(f) use, but should continue to fall under the Programmatic 4(f).
- The proposed profile grade for the Chattahoochee River crossing is 12 feet above the existing profile. The existing structure type results in a shallow deck depth. Replacing the existing bridge with concrete beams will result in a deeper depth that will require raising the profile grade in order to maintain the clearance above the 1085-foot elevation.
- There are no impacts to the flood storage capacity (1071-foot elevation) or the 1071 to 1085 elevation area on the east side of the river. There are minor impacts to the area on the west side of the river.
- Bridge details were presented: the proposed bridge is approximately 1400 feet long with a four span main unit consisting of two 240-foot spans with 185-foot side spans. The pier locations match the existing piers as much as possible. The main channel of the river is nearly clear-spanned, but is short by approximately 50 feet. The changes in pier location between the existing bridge and proposed bridge may result in some issues during construction, but these are not anticipated to be a major problem.
- Construction is anticipated to last 18 months.
- There is high boat traffic in the area that results in bottle necks at the current bridge. Need to make sure that there is plenty of clearance, but Jeffery Emmert thinks it will be ultimately be okay.
- Jeff Emmert asked if CAD files or PDFs could be provided of the three proposed bridge layouts. LPA Group will provide these files.

3) Permitting

- Al Bowman asked if there were any special permit requirements.
- There was discussion about the NW 25, RP 96 and RP 1 and which one(s) would be most applicable for the bridge replacement projects.

This is our understanding of the items discussed. Please contact us if there are any changes or additions.

Submitted by: Lenor Bromberg, KEA Group

Project PI 122012, 122017, 0010211, Forsyth/Hall County
 SR 369 Bridge Replacements at Chattahoochee River, Two Mile Creek and Six Mile Creek
 USACE Coordination Meeting
 USACE Lanier Project Management Office
 March 07, 2012 10:00 AM



SIGN IN SHEET
 Please Print

Name	Company	Phone	E-Mail
Paul F. Condit	LPA Group	(770) 263-9118	pfcondit@mbakercorp.com
Mary D. Best	LPA	(770) 263-9118	mdbest@mbakercorp.com
Lenox Bromberg	KEA Group	678 904 8591 x27	lbromberg@keagroup.com
Christine Quinn	KEA Group	678/904-8591 x 29	cquinn@keagroup.com
MYLES BARTON	USACE	(770) 945-9531	MYLES.A.BARTON@USACE.ARMY.MIL
Jeff Emmert	USACE	770-945-9531	jeff.y.g.emmert@usace.army.mil
Claire Ike	KEA Group	678-904-8591 x28	jcike@keagroup.com
Bobby Dollar	GDOT - OES	404-631-1920	rdollar@dot.ga.gov
A Bowmer	LPA Group	770 263-9118	A.Bowmer@LPA690P.COM
Chad Havens	LPA Group	7/263-9118	chad.havens@lpagroup.com
Mary Dilks	USACE, Savannah	678-422-2727	mary.e.dilks@usace.army.mil



December 6, 2012

Mr. James McCabe
9195 Ponderosa Trail
Gainesville, GA 30506

Re: Project BRF00-0012-01(080), Forsyth and Hall Counties, P.I. No. 122012
SR 369/Browns Bridge Road at the Chattahoochee River/Lake Lanier Bridge Replacement
Responses to Open House Comments

Dear Mr. McCabe:

Thank you for your comments concerning the proposed project referenced above. We appreciate your participation and all of the input that was received as a result of the May 22, 2012 Public Information Open House (PIOH). Every written comment received and verbal comment given to the court reporter at the PIOH has been made part of the official record of the project. On the behalf of the Georgia Department of Transportation, please accept our sincere apologies for the extreme delay in sending this response.

A total of 100 people attended the PIOH. For the three bridge replacement projects that were shown at the meeting, 27 comments were received. This letter responds only to comments received for the above referenced project. Separate response letters are being mailed for the other two projects. Of the 14 respondents who formally commented on this project, four were in support of the project, 10 were uncommitted, and four expressed conditional support.

The attendees of the PIOH and those persons sending in comments afterwards raised the following questions and concerns. The Georgia Department of Transportation (GDOT) has prepared this one response letter that addresses all comments received so that everyone can be aware of the concerns raised and the responses given. Please find the comments summarized below (*in italics*) followed by our response.

- *Why is a new bridge required, as the existing bridge seems to handle current loads?*

The Chattahoochee River/Lane Lanier bridge warrants replacement based on its low sufficiency rating. GDOT uses sufficiency rating as a measure of a bridge's structural integrity. On a scale of 1 to 100, a sufficiency rating of 1 denotes a bridge in serious need of replacement, while a rating of 100 indicates a bridge without any deficiencies. A rating of 50 points or less signifies the bridge is a candidate for replacement. The existing bridge on SR 369 at Six Mile Creek has a sufficiency rating of 39.45, making it a strong candidate for replacement.

- *The new bridge should have an additional 6 feet of boat clearance.*
- *The new bridge should have at least 40-foot full pool clearance to accommodate sailboats; a suspension bridge was suggested as a solution.*

The proposed new structure would maintain the existing vertical clearance of 17 feet above the currently approved full pool elevation (1071 feet). Any additional height over the lake surface would require significant re-engineering of the roadway approaches and increase the project length, which would require using more land

on the sides of the lake and increased construction cost of the project. The U.S. Army Corps of Engineers has jurisdiction over the bridge type and clearance above the waterway and has approved the preliminary design.

- *The new bridge should have shoulders on both sides.*

The proposed bridge would have 8-foot shoulders on both sides.

- *The replacement bridge should be attractive. Suggestions were made to utilize a steel truss bridge similar in design to the existing, to utilize a suspension bridge, or to enhance the proposed design with the use of colored concrete.*

Neither a steel truss bridge similar to the existing bridge nor a suspension bridge would be a cost effective solution at this location as both require more costly materials and are more complicated to construct over an active waterway. The bridge's design has been considered in consultation with the U.S. Army Corps of Engineers (USACE), which has jurisdiction over the proposed bridge type and has indicated a preference for a low profile bridge that would not obstruct views across the lake from either the adjacent land or from the water. The currently proposed design includes concrete beams that will have shallow parabolic arches, rather than flat arches. GDOT and the USACE may consider other cost-effective aesthetic elements during the bridge design process.

- *Start the project sooner.*

GDOT would certainly like to begin this project as soon as possible; however, the project is not programmed for construction until Fiscal Year 2016 in Metro Atlanta's Transportation Improvement Plan (TIP). The TIP, which is compiled by the Atlanta Regional Commission (ARC), allocates funds and establishes project schedules based on the priorities of metro-Atlanta governments. Since the need for transportation improvements always exceeds the availability of transportation dollars, the TIP serves as a necessary guide to project scheduling.

- *SR 369 should have been four lanes from Gainesville to Cartersville 20 years ago.*
- *The roadway should be expanded to four lanes as soon as possible.*
- *The new bridge should be completed, and the existing bridge should be maintained to accommodate four lanes of traffic on SR 369.*
- *Replacing the existing two-lane bridge with another two-lane bridge does not make economic sense, as a four-lane bridge will probably be required in the future. I would like to see the cost benefit ratios to do it all at one time.*

The need for widening the SR 369 roadway is recognized; however funding for these improvements has been programmed as a long range (2018 – 2030) priority. Due to the poor structural integrity of the existing bridge and insufficient vertical clearance between the existing roadway and the steel truss support system above the roadway, the bridge replacement project needs to move forward rather than wait on the future roadway widening project. The existing bridge is not able to be modified to improve the structural integrity or increase the vertical clearance above the roadway. The future SR 369 roadway widening project proposes to construct a four-lane roadway with a 44-foot wide grassed median; this typical section would require two parallel bridges, rather than one single bridge. For this reason, it is proposed to construct one new bridge parallel to the existing

bridge and retain the existing alignment and right-of-way so that a second new bridge could easily be constructed in the future when SR 369 is widened to four lanes. There would be no cost savings if both bridges were built now; rather the second new bridge would sit un-used for 6 to 12 years until the SR 369 roadway widening would be completed.

- *Concerns were expressed about impacts to the Browns Bridge Dock Company. The proposed layout would apparently remove one of two access driveways, would impact the employee parking area, and would limit property access. In addition, the right-of-way and parcel information appeared to be incorrect.*

Based on the concerns raised at the PIOH, as well as a result of the Value Engineering Study completed for this project, GDOT is considering shortening the project limits to avoid these impacts and the draft plans are currently under review. GDOT will notify the interested property owners once a final decision is reached. The right-of-way and parcel information will also be updated to make sure the correct information is included in the construction plans

- *Traffic control is a concern; it would be best if pavement is done last.*

GDOT requires the design engineers and contractors to develop traffic control plans. For this project access along SR 369 and to side roads and driveways within the construction limits will be maintained for the duration of construction. The final pavement surface is one of the last steps in the construction sequence.

- *Concern was expressed about increased noise and the lack of aesthetic sound barrier to replace removed trees and create a buffer for residents along North Cove Road.*

The proposed project has been evaluated for possible traffic noise impacts. The proposed project would not substantially change the location of the bridge crossing and it would not provide additional travel lanes or any other change that would noticeably affect current traffic noise levels. In the vicinity of North Cove Road, the residences are approximately 440 feet to 760 feet south of the existing roadway location. These residences will be approximately 400 feet to 700 feet south of the proposed roadway location which represents a six to eight percent reduction in the mostly wooded buffer.

- *The new bridge will require a higher number of piers than the existing bridge, which may create hazardous conditions and traffic delays for boaters.*

The proposed bridge design and pier placement have considered boat traffic and match the existing pier locations as much as possible; the nine span existing bridge will be replaced with an eight span bridge, thus actually eliminating one pier location. The main channel of the river is nearly clear-spanned. The Department is aware of the high volume of boat traffic in the area and will continue to consider this during the design development to make sure acceptable clearance is provided for boat traffic during and after construction.

- *Tractor trailer traffic should be banned on SR 369 between SR 400 and McEver Road to increase safety along the corridor.*

SR 369/Browns Bridge Road is a direct route between the City of Cumming and the City of Gainesville. The portion of SR 369/Browns Bridge Road between SR 400 and McEver Road is also designated as a state truck

December 6, 2012

Page 4 of 4

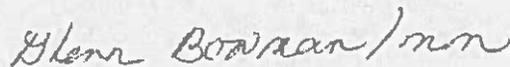
route and is utilized as an alternative to SR 53 to the north and SR 20 to the south. Closing SR 369 between SR 400 and McEver Road to tractor trailer traffic would cause undue inconvenience and expense to the companies that use the corridor for shipping and would cause excessive tractor trailer traffic on the above-referenced alternate roads. Although there may be tractor trailer related crashes elsewhere on the SR 369 corridor, a review of recent crash history in the proposed bridge replacement project area does not indicate a significant crash rate that would need to be addressed through eliminating tractor trailer access.

- *Environmental sensitivity to wildlife and landscaping is requested. There are nesting ospreys on Brown's Bridge.*

The proposed project would be constructed in accordance with all environmental laws, rules and regulations. The ospreys are known to the project team, and precautions will be taken to avoid disturbing, harming, or harassing the ospreys during construction.

Again, thank you for your comments concerning this project. Should you have any further questions, comments, or concerns, please call the project manager, Steve Adewale, at (404) 631-1578 or the environmental analyst, Bobby Dollar, at (404) 631-1920.

Sincerely,



Glenn Bowman, P.E.
State Environmental Administrator

GB/bd

cc: Steve Adewale, GDOT Project Manager
Bobby Dollar, GDOT NEPA Specialist

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE: BRF00-0012-01(080) Hall & Forsyth Co. **OFFICE:** Engineering Services
P.I. No.: 122012-
SR 369 Bridge Replacement **DATE:** December 5, 2012

FROM: Lisa L. Myers, State Project Review Engineer *LLM*

TO: Genetha Rice-Singleton, State Program Delivery Engineer
Attn.: Steve (Adesoji) Adewale

SUBJECT: IMPLEMENTATION OF VALUE ENGINEERING STUDY ALTERNATIVES

The VE Study for the above project was held October 1-4, 2012. Responses were received on November 19, 2012. Recommendations for implementation of the Value Engineering Study Alternatives are indicated in the table below. The Project Manager shall incorporate the VE alternatives recommended for implementation to the extent reasonable in the design of the project. Please note, if the implementation of a VE recommendation requires a Design Exception and/or Design Variance, the DE or DV must be requested separately.

ALT #	Description	Potential Savings/ LCC	Implement	Comments
B-4.0	Reduce the number of beams in the end spans from seven (7) BT-74's, to six (6).	\$69,263	Yes	This will be done.
R-1.0	Shorten approach roadway on West side of project to tie into SR 369 East of Brown Bridge Drive.	Proposed = \$638,609 Actual = \$481,306	Yes, with modifications	This will be done, but the cost savings were revised to include some additional shoring, pavement, and wall quantities which have to be accounted for to fully implement this recommendation.
R-1.4	Construct new bridge on North side of existing structure in lieu of South side and shorten approach length on West side of the bridge.	\$1,906,311	No	R-1.4 will not be implemented because R-1.0 was selected instead.
R-5.0	Construct retaining wall from Sta. 341+00 left to Sta. 343+50 left to reduce right of way impacts to parcel 7 (U.S. Army Corps of Engineers).	Proposed = \$172,737 Actual = \$181,787	Yes, with modifications	The cost savings were modified to include some additional reductions to earthwork and wall quantities.

R-7.0	Reduce width of shoulder from 10 feet to 8 feet.	Proposed = \$42,359 Actual = \$36,988	Yes, with modifications	The cost savings were modified to include additional earthwork for the shoulder along the tie-back wall.
R-8.0	Split traffic during construction to reduce or eliminate the need for temporary shoring.	\$97,500	No	This option would require the contractor to construct the second stage of the approaches between traffic. Earth moving operations would require haul trucks to enter/exit the existing traffic flow, twice the amount of temporary barrier, portable impact attenuators, and temporary drainage features. In addition, this staging method would add an additional MOT phase increasing the total construction duration of the project and delay removal of the existing structure.
R-9.0	Utilize permanent easement in lieu of required Right of Way wherever possible.	\$358,875	No	Based on discussions with GDOT's Right of Way Office permanent easement costs more than what was calculated for this recommendation and if utilities are to be located in the permanent easement, the appraised value of the land must also include the use for utilities.
R-11.0	Reduce project length on East approach of the roadway by 100 linear feet to eliminate Right of Way acquisition on parcel #8.	Proposed = \$17,057 Actual = \$19,685	Yes, with modifications	The costs were modified to include additional savings of guardrail that will no longer be needed.
R-12.0	Use reduced depth asphalt shoulders in lieu of full depth.	\$35,191	No	The Office of Materials concurs that the shoulder pavement remains full depth to match the travel lanes. This alternative is not being implemented because the truck volumes along this corridor exceed 10% and the shoulder will be utilized during staging of the construction.

The Office of Engineering Services concurs with the Project Manager's responses.

Approved:



Gerald M. Ross, PE, Chief Engineer

Date: 12-12-12

**BRF00-0012-01(080) Hall & Forsyth Co.
Implementation of Value Engineering Study Alternatives**

**P.I. No. 122012-
Page 3**

LLM/MJS

Attachments

c: Russell McMurry/Paul Liles
Genetha Rice-Singleton/Albert Shelby/Steve (Adesoji) Adewale
Ben Rabun/Bill Duvall/Ted Cashin
Bobby Dollar
Harold Mull/Matt Needham/Bruce Nicholson
Ken Werho
Matt Sanders

McIntosh, D Tyler

From: Bowman, Al
Sent: Thursday, November 15, 2012 3:11 PM
To: McIntosh, D Tyler
Subject: FW: SR 369 over Chattahoochee River (lake lanier) VE Study

From: DuVall, Bill [mailto:bduvall@dot.ga.gov]
Sent: Thursday, November 15, 2012 3:10 PM
To: Bowman, Al
Cc: Adewale, Steve (Adesoji); Sanders, Matt
Subject: RE: SR 369 over Chattahoochee River (lake lanier) VE Study

BRF00-0012-01(080), Forsyth/Hall Counties
SR 369 over Chattahoochee River (Lake Lanier)
P.I. No. 122012

Al,

As stated, the only bridge related VE alternative was Idea 4.0 which proposes to "Reduce Number of Beams in End Spans from Seven (7) BT-74's to Six (6)". The Bridge Office agrees that this idea should be IMPLEMENTED. Please included a copy of this concurrence along with the formal responses to the VE recommendations. Should you have any additional comments or concerns please let me know.

Thanks,
Bill

Bill DuVall, PE, MSCE
Assistant State Bridge Engineer
Office of Bridge Design
(404) 631-1883 work
(404) 895-4943 mobile

From: Bowman, Al [mailto:ABowman@mbakercorp.com]
Sent: Thursday, November 15, 2012 1:30 PM

To: DuVall, Bill
Subject: SR 369 over Chattahoochee River (lake lanier) VE Study

Bill,

The VE study only identified one bridge related item. We agree with making this change. Would you give your concurrence with this item?

Thanks,
Al

Albert W. Bowman, P.E. | Assistant Vice President/Transportation Operations Manager | Michael Baker Jr., Inc.
3595 Engineering Drive | Norcross, GA 30092 | 770.263.9118 (ofc) | 678.642.0455 (mobile)
abowman@mbakercorp.com | www.mbakercorp.com



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McIntosh, D Tyler

Subject: FW: PI 122012 Value Engineering Proposal - ROW vs. Perm. Easement

From: Byers, Troy [mailto:tbyers@dot.ga.gov]

Sent: Tuesday, October 23, 2012 1:53 PM

To: Adewale, Steve (Adesoji)

Cc: Anderson, Katrina; McIntosh, D Tyler

Subject: RE: PI 122012 Value Engineering Proposal - ROW vs. Perm. Easement

Steve, setting up permanent easement and cutting back on required ROW is a Design question and decision. We will appraise, negotiate, close or condemn accordingly and to whatever is sent to us. We do not define the project's ROW footprint layout.

Having said this, there are Memos on this from Director of Preconstruction (at that time). I would talk to Brent Story on this before making any changes.

One thing to be considered is that if Design goes with a permanent easement instead of ROW, it ends up costing us about the same anyway with the property owner counter offers they make us, when they know it is permanent and they can really do anything with it. Also to be considered is that if it is shown as required ROW, utilities can go on the back of it by permit, whereas if it is shown as permanent easement, then the note "for construction and maintenance of slopes and utilities" must be placed on the plans throughout, "when" the perm. easement is needed for utilities relocation, then the appraised value must include the use for utilities when that is determined as well, which runs the value of the perm. easement even more.

These question of utilities relocations is very important and should be considered.

THANKS

Troy Byers

Asst. State R/W Administrator

Georgia Dept. of Transportation

One Georgia Center

600 West Peachtree Street

Room 1432

Atlanta, Georgia 30308

Office (404) 347-0179

BlackBerry (404) 326-7427

From: Adewale, Steve (Adesoji)

Sent: Tuesday, October 23, 2012 11:53 AM

To: Byers, Troy

Cc: Anderson, Katrina; McIntosh, D Tyler <DTMcIntosh@mbakercorp.com> (DTMcIntosh@mbakercorp.com)
Subject: PI 122012 Value Engineering Proposal - ROW vs. Perm. Easement

Troy/Katrina, please help make the determination on the Right-of-Way vs. Permanent Easement proposal from the VE study. At the moment, we are responding to the VE Study comments of this mentioned project.

Based on a value engineering study held for the subject project, a proposal was recommended to substitute permanent easement for right-of-way outside of an established 80-foot ROW corridor. I have included the VE proposal and the PIOH concept layout for the proposed bridge replacement project across Lake Lanier. We would like to have GDOT's determination on this proposal for inclusion in the VE response letter.

A few items to consider on this proposal:

1. It is our understanding that permanent easement is typically 80% of the ROW value, which would result in savings of \$143,550 for this proposal as opposed to \$358,875.
2. This project will have to comply with the new MS4 permit. There could be the need for water quality and water detention facilities at the toe of slope which will require regular maintenance for clean out.
3. An 80-foot ROW corridor would encompass the clear zone for this project, however since vehicles tend to continue to the bottom of the slope prior to recovery, it is recommended that obstacles be placed outside the toe of slope or be shielded with protective barrier even if located outside the clear zone. Easements would need to restrict placement of obstacles within this area or additional cost would need to be added for placement of protective barrier.

Thank you for your assistance in this matter.

Adesoji (Steve) Adewale, CPEng, P.E.
Senior Project Manager
Georgia Department Of Transportation
Office of Program Delivery
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Over the past decade, Georgia DOT has provided nearly \$860 million to assist cities and counties with the maintenance and improvement of local roads. For more information on our current Local Maintenance and Improvement Grant (LMIG) program.

Visit us at <http://www.dot.ga.gov/LMIG>; or follow us on <http://www.facebook.com/GeorgiaDOT> and <http://twitter.com/gadepthofrans>

McIntosh, D Tyler

From: Jubran, Abdallah (A.J) <ajubran@dot.ga.gov>
Sent: Wednesday, October 17, 2012 4:54 PM
To: Adewale, Steve (Adesoji); McIntosh, D Tyler
Cc: Turner, James; Foster, Glen
Subject: RE: PI 122012 Value Engineering Proposal - Reduced Depth Asphalt Shoulder

Steve,

The Office of Materials recommends that the shoulder pavement be full depth to match the mainline. Therefore, OM recommends to 'to not implement' this VE proposal. Thanks. AJ

From: Adewale, Steve (Adesoji)
Sent: Wednesday, October 17, 2012 4:06 PM
To: 'McIntosh, D Tyler'; Jubran, Abdallah (AJ)
Subject: RE: PI 122012 Value Engineering Proposal - Reduced Depth Asphalt Shoulder

Thanks, Tyler for asking for the expertise of the Pavement Bureau in responding to THE Value Engineering comments, I am sure the bureau is looking at it and will get back to us as soon as possible.

A.J.

We will appreciate your urgent response to this request as we are itching to submit our responses to the Office of Engineering Services with **dispatch**.

Thanks for your usual cooperation.

Adesoji (Steve) Adewale, CPEng, P.E.
Senior Project Manager
Georgia Department Of Transportation
Office of Program Delivery
600 West PeachTree Street, 25th Floor
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E-mail: sadewale@dot.ga.gov

From: McIntosh, D Tyler [mailto:DIIMcIntosh@mbakercorp.com]
Sent: Wednesday, October 17, 2012 3:05 PM
To: Jubran, Abdallah (AJ)
Cc: Adewale, Steve (Adesoji)
Subject: PI 122012 Value Engineering Proposal - Reduced Depth Asphalt Shoulder

Mr. Jubran, based on a value engineering study held for the subject project, a proposal was recommended to include reduced depth asphalt shoulders for the 4' paved shoulders that are currently proposed at full depth. I have included the VE proposal, traffic data, and the PIOH concept layout for the proposed bridge replacement project across Lake Lanier. We would like to have GDOT's concurrence 'to not implement' this proposal for inclusion in the response letter.

Our reasoning for not implementing this proposal:

1. The paved shoulder will be used to carry traffic during construction staging of the project.
2. Greater than 10% Truck traffic
3. There is a 960' radius curve at the beginning of the project that has potential for tractor-trailer rear wheel off-tracking.

Thank you for your assistance in this matter.

Tyler McIntosh, P.E.
Project Manager
THE LPA GROUP INCORPORATED
A Unit of *Michael Baker Corporation*
3595 Engineering Dr.
Norcross, GA 30092

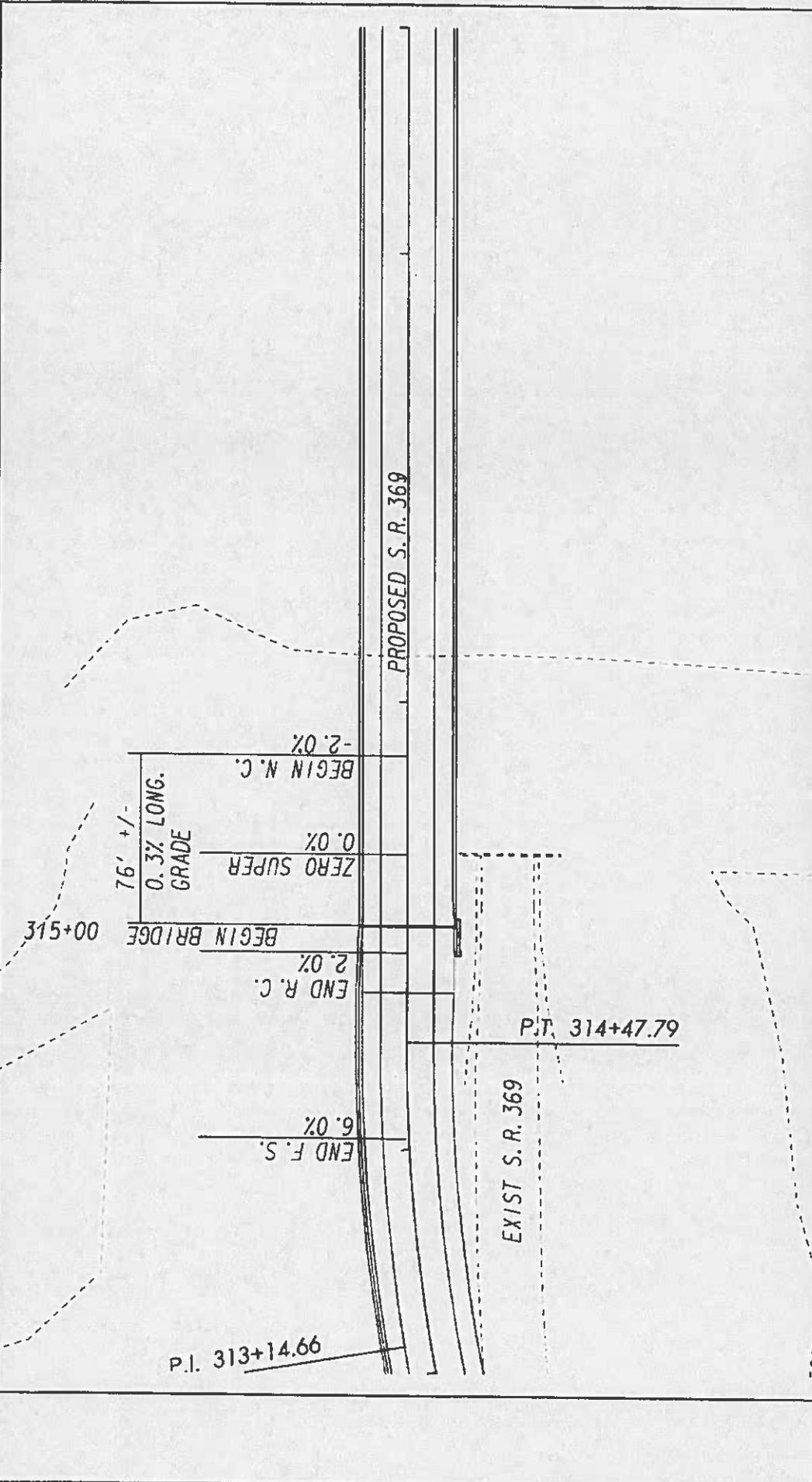
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13-01
 STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION
 OFFICE



Baker
 CIVIL ENGINEERING, INC.
 1775 N. W. 107th Ave., Miami, FL 33177
 (305) 833-1100

PROPERTY AND EXISTING AND LINE
 ACQUIRED AND LINE
 CONSTRUCTION LIMITS
 EXISTING AND PROPOSED
 EXISTING AND PROPOSED
 EXISTING AND PROPOSED

BEGIN LIMIT OF ACCESS
 END LIMIT OF ACCESS
 LIMIT OF ACCESS
 BEGIN AND END LIMIT OF ACCESS

REVISION DATES

STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION
 OFFICE

PROGRAM DELIVERY
 MAINLINE PLAN

13-01

PRECONSTRUCTION STATUS REPORT FOR PI:122012-

SR 369 @ CIATTAHOOCHEE RIVER "LAKE LANIER"
 COUNTY: Forsyth, Ital
 LENGTH (MI): 0.40
 PROJ NO.: BRF00-0012-01(080)
 PROJ MGR: Adevaite, Steve
 ACID Initials: AVS
 OFFICE: Program Delivery
 CONSULTANT: Consultant Design (DOT contract)
 SPONSOR: GDOT
 DESIGN FIRM: The LPA Group Incorporated

MPO: Atlanta TMA, Gainesville
TIP #:
MODEL YR: Bridges
TYPE WORK: BRIDGE
CONCEPT: Replacement
PROG TYPE: N
Prov. for ITS:
BOND PROJ.:

PRIORITY CODE:
DOT DIST: 1
CONG. DIST: 9
BIKE: N
MEASURE: E
NEEDS SCORE: 6
BRIDGE SUFF: 10.45

MGMT LET DATE: 01/15/2015
MGMT ROW DATE: 01/15/2014
BASELINE LET DATE: 01/01/2015
SCHED LET DATE: 7/16/2015
WHO LETS?: GDOT Let
LET WITH:

BASE START	BASE FINISH	LATE START	LATE FINISH	TASKS	ACTUAL START	ACTUAL FINISH	%	PROGRAMMED FUNDS				STIP AMOUNTS				
								Activity	Approved	Proposed	Cost	Activity	Cost	Activity	Cost	
8/1/2012	8/1/2012	2/13/2013	4/10/2013	Concept Development	4/10/2006		33	PE	1997	1997	1,786,377.53	PE	0.00	Q10	0.00	
8/15/2012	8/15/2012	2/27/2013	2/27/2013	Concept Meeting			0	KOW	2014	2014	2,055,300.00	ROW	1,591,812.00	M240	0.00	
8/16/2012	9/26/2012	2/28/2013	4/10/2013	PM Submit Concept Report			0	UTL	2016	2016	40,100.21	UTL	0.00	M240	0.00	
9/26/2012	9/26/2012	4/10/2013	4/10/2013	Concept Report Review and Comments	6/29/2012	12/12/2012	100	CST	2016	2016	13,026,487.51	CST	0.00	M240	0.00	
7/9/2012	12/7/2012			Management Concept Approval Complete	2/1/2007	2/1/2007	100									
12/10/2012	9/6/2013	4/11/2013	1/22/2014	Public Information Open House Held			0									
9/28/2012	1/18/2013	4/12/2013	5/23/2014	Environmental Approval			0									
11/23/2012	8/22/2013	6/7/2013	3/6/2014	Field Surveys/SDF			0									
1/4/2013	8/22/2013	7/19/2013	3/6/2014	Preliminary Plans			0									
5/20/2011	1/30/2013	12/28/2012	8/14/2013	Preliminary Bridge Design			0									
3/31/2014	7/11/2014	7/31/2014	11/12/2014	Underground Storage Tanks			0									
10/21/2013	10/21/2013	4/23/2014	4/23/2014	404 Permit Obtainment			0									
10/22/2013	11/4/2013	4/24/2014	5/7/2014	PHPR Inspection			0									
11/5/2013	1/3/2014	5/8/2014	7/8/2014	R/W Plans Preparation			0									
11/27/2013	11/29/2013	5/30/2014	6/3/2014	R/W Plans Final Approval			0									
12/10/2013	1/6/2014	6/12/2014	7/9/2014	L & D Approval			0									
4/15/2014	4/28/2014	10/16/2014	10/29/2014	R/W Authorization			0									
12/7/2012	9/17/2013	6/14/2013	1/28/2014	Snake R/W			0									
8/23/2013	3/11/2014	3/7/2014	9/23/2014	Soil Survey			0									
12/2/2013	6/17/2014	6/4/2014	12/30/2014	Bridge Foundation Investigation			0									
2/12/2014	5/27/2014	8/27/2014	12/9/2014	Final Design			0									
7/16/2014	7/16/2014	12/8/2015	1/28/2015	Final Bridge Plans Preparation			0									
7/21/2014	8/6/2014	2/5/2015	2/18/2015	PHPR Inspection			0									
				Submit PHPR Responses (OES)			0									

PD: Reviewed 6/25/2010. Need revised concept and scope for just replacing bridge. Need schedule. Need RW plus

Bridge: BRIDGE REQUIRED

EIS: CE/NEA/Appro/On Schedule 9.6 (3 Baseline) Dollar 9.26.12

LGPA: HALL SGN 5-13-91 AND FORSYTH SGN 8-26-91 FOR UTILITIES/RESCISSION LETTER SENT TO FORSYTH & HALL 5-7-08.

Planning: PR20-8-20-96/16-05/2 2-46/43 9-20/11/4 7-20/12/CONFIRMED EXEMPT PER FHWA 9-7-2012/45

Programming: 10-2012

Railroad: NO

Traffic Op: CALLER REPR. PRCT W/122015-FORSYTH CURBEN PLNS N/R/03/6015

Utility: OGD SUF 9/2005 Turnkey; NEED 2ND SUB 10/13/04

EMG: BRIDGE REPLACEMENT

Engr Services: VT Implementation Approved 12/1/12

Pre/Parcel CT: Total Parcel in ROW System: Cond. Filled: DOT

Under Review: Options - Pending: Reflections: Acquisition MGR: R/W Cert Date: 10.45

Refused: Condemnation- Pend: Acquired: R/W Cert Date: 10.45

District Comments: SA: LPA -Initial Conc Team meeting held.2/1/07
 DESIGN Project separated as a STANDALONE BRIDGE REPLACEMENT PROJECT.
 Project going thru PKC procurement process and PE authorized in Nov. 2011. Schedule approv.ed. July. 2012
 VE Study scheduled for October 1, 2012