

D.O.T. 66

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE BRST-076-1(37) Columbia County **OFFICE** Preconstruction
P. I. No. 232305
SR 47 at Keg Creek **DATE** March 1, 2005
FROM *John Jumb*
Margaret B. Pirkle, P.E., Assistant Director of Preconstruction
TO *for* SEE DISTRIBUTION

SUBJECT PROJECT CONCEPT REPORT APPROVAL

Attached for your files is the approval for subject project.

MBP/cj

Attachment

DISTRIBUTION:

David Mulling
Harvey Keepler
Ken Thompson
Jamie Simpson
Michael Henry
Keith Golden
Joe Palladi (file copy)
Paul Liles
Babs Abubakari
Mike Thomas
BOARD MEMBER

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE BRST-076-1(37) Columbia County **OFFICE** Preconstruction
 P.I. No. 232305
 SR 47 at Keg Creek **DATE** January 25, 2005

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

TO Paul V. Mullins, Chief Engineer

SUBJECT PROJECT CONCEPT REPORT

This project is the replacement of a structurally deficient bridge on SR 47 over Keg Creek, 6.9 miles north of Appling, Georgia. The existing bridge, constructed in 1952 is load limited with a sufficiency rating of 54. The original design load capacity is H-15. In accordance with DOT MOG 2405-1, the existing bridge meets the established criteria for replacement. SR 47 at this location is a rural two lane roadway with 12' travel lanes with rural shoulders. This section of SR 47 is functionally classified as a rural minor arterial. Traffic is projected to be 6,250 VPD and 10,250 VPD in the years 2005 and 2025 respectively. The posted speed and the design speed are 55 MPH.

The construction proposes to construct a new 195' x 44' concrete bridge over Keg Creek at existing bridge site. The approaches will consist of two, 12' lanes with 10' shoulders (4' paved). Traffic will be maintained during construction utilizing an off-site detour.

Environmental concerns include requiring a COE 404 Permit; a Categorical Exclusion is anticipated; a public meeting is not required; time saving procedures are not appropriate.

This project will require split funding because the sufficiency rating exceeds 50. "BR" funding will cover the amount equal to the widening and the remainder will consist of "STP" funding.

The estimated costs for this project are:

	<u>PROPOSED</u>	<u>APPROVED</u>	<u>PROG DATE</u>	<u>LETDATE</u>
Construction (includes E&C and inflation)	BR \$1,466,000	BR \$816,000	Q10	2009
	STP \$ 165,000	STP \$815,000	Q24	
Right-of-Way	\$ 29,000	\$ 29,000		
Utilities*	LGPA	LGPA		

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENTAL CORRESPONDENCE

FILE: BRST-076-1(37) Columbia **OFFICE:** Engineering Services
P.I. Nos. 232305
S.R. 47 @ Keg Creek

DATE: January 21, 2005

FROM: David Mulling, Project Review Engineer *REW*

TO: Meg Pirkle, Assistant Director of Preconstruction

JAN 24 2005

SUBJECT: CONCEPT REPORT

We have reviewed the Concept Report submitted January 12, 2005 by the letter from Alan Smith dated January 6, 2005 and have no comments.

The costs for this project are:

	<u>Bridge Replacement</u>	<u>Bridge Widening</u>
Construction	\$1,280,531	\$1,151,173
Inflation	\$201,844	\$181,454
E&C	\$148,237	\$133,263
Reimbursable Utilities	\$27,000	\$27,000
Right of Way	\$28,625	\$28,625

NOTE: This project will require split funding since the bridge has a sufficiency rating above 50 and is to be replaced. The BR funding is the amount equal to the Bridge Widening costs. Other costs will have to come from other funding sources.

REW

c: Mike Thomas, Attn.: Alan Smith (Tennille)

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

District Two Design Office

Project Number: *BRST-076-1 (37)*

County: *Columbia*

P. I. Number: *232305*

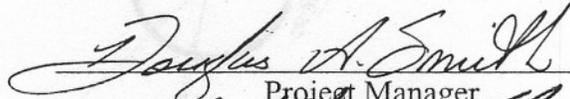
Federal Route Number: *None*

State Route Number: *47*

County Road Number: *None*

Recommendation for approval:

DATE *12-13-04*


Project Manager

DATE *1-7-05*


District Engineer

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

DATE _____

State Transportation Planning Administrator

DATE _____

State Transportation Programming Engineer

DATE _____

State Environmental/Location Engineer

DATE _____

State Traffic Safety and Design Engineer

DATE _____

Project Review Engineer

DATE _____

State Bridge & Structural Design Engineer

Project Concept Report page Two
Project Number: BRST-076-1 (37)
P. I. Number: 232305
County: Columbia

Need and Purpose: *See attached sheets.*

Description of the proposed project: *This project consists of a bridge replacement on S.R. 47 over Keg Creek.*

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

PDP Classification:

Full Oversight , Exempt , State Funded , or Other

Functional Classification: *Rural Minor Arterial*

U. S. Route Number(s): *None*

State Route Number(s): *47*

County Road Number(s): *None*

Traffic (AADT):

Current Year: *6250 (2005)*

Design Year: *10250 (2025)*

Existing design features:

- Typical Section: *2 - 12 foot Asphalt travel lanes with 6 foot grassed shoulders, 2 foot of each is paved.*
- Posted speed: *55 MPH* Maximum degree of curvature: *4^00'00"*
- Maximum grade: *5%*
- Width of right of way: *150 Feet existing*
- Major structures: *There is an existing 195' x 30' reinforced Concrete Bridge*
Sufficiency Rating: 54.4
- Major interchanges or intersections along the project: *None*
- Existing length of roadway: *0.47 Miles*

- Design Variances: *None Anticipated*
- Environmental concerns: *A "Detour Meeting" will be required since this project intends to use an off-site detour for the construction of the bridge. Also, the bridge will be considered historic and there could be minor wetland impacts to Lake Thurmond*
- Anticipated Level of environmental analysis:
 - Are Time Savings Procedures appropriate? Yes , No ,
 - Categorical exclusion ,
 - Environmental Assessment/Finding of No Significant Impact (FONSI) , or
 - Environmental Impact Statement (EIS) .
- Utility involvements:
 - Telephone - *BellSouth Telecommunications, Inc. (Asbestos conduit attached to bridge)*
 - Power – *Georgia Power Company*
 - Water – *Columbia County Water Department (12" D.I. attached to bridge)*
 - Sewer – *None*
 - Gas – *None*
 - Cable TV – *ComCast Communications, Inc.*

Project responsibilities:

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

Coordination

- Concept meeting date: *January 6, 2005*
- P. A. R. meetings: *None Required*
- FEMA, USCG, and/or TVA: *None Required*
- Public involvement: *None Required*
- Local government commitments: *The local government will be sent a LGPA asking them to participate in any utility relocation cost associated with this project.*
- Other projects in the area: *P.I. # 221800 Columbia County, P.I. # 231350 Columbia*

Scheduling – Responsible Parties' Estimate

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

Project Concept Report Page Five
Project Number: BRST-076-1 (37)
P. I. Number: 232305
County: Columbia

Other alternates considered:

1. *Alternate "B" - Realign existing SR 47 to the north and construct the new 195' x 44' reinforced concrete bridge while maintaining traffic on the existing alignment. This alternate was not chosen due to the additional environmental impacts to Lake Thurmond (Keg Creek) and significant costs generated by the rock embankment required to construct a new roadway.*
2. *This bridge has a sufficiency rating of 54.4 so costs have been compared to widening / rehabilitating the existing bridge as required per GDOT TOPPS 2405. It has been determined that the costs of rehabilitating the existing bridge will be higher than to replace the existing bridge completely. See attached estimate.*

Comments: *This office recommends approval of alternate "A" as written.*

Attachments:

1. Need & Purpose,
2. Traffic Data,
3. Cost Estimates:
 - a. Construction including E&C,
 - b. Utilities,
4. Typical sections,
5. Pavement Design,
6. Location and Design Notice,
7. LGPA
8. Off-Site Detour Layout
9. Existing Bridge Plans
10. Concept Team Meeting notes

NOTICE OF LOCATION AND DESIGN APPROVAL

BRST-076-1 (37) Columbia County

P.I. NUMBER 232305

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

The date of location and design approval was

March 1, 2005

Date of Approval

The project proposes to replace the structurally deficient bridge on S.R. 47 over Keg Creek (Lake Thurmond). This project will consist of closing S.R. 47 during construction and temporarily routing traffic along S.R. 150 from Pollard's Corner to CR 986 and back to S.R. 47. The existing bridge will then be demolished and a new bridge constructed in the same area as the old bridge. Once construction is complete, traffic will be returned to S.R. 47.

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

Scott Stephens

Scott.Stephens@dot.state.ga.us

4260 Frontage Road

Augusta, Georgia 30909

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

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

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

BRST-076-1 (37) Columbia County, P.I. # 232305

Bridge Widening / Rehabilitation on SR 47 over Keg Creek

Section Roadway

Item Number	Quantity	Units	Unit Price	Item Description	Cost
150-1000	1.00	LS	75000.00	TRAFFIC CONTROL - BRST-076-1 (37)	75000.00
201-1500	1.00	LS	50000.00	CLEARING & GRUBBING -	50000.00
205-0001	6300.00	CY	3.18	UNCLASS EXCAV	20034.00
206-0002	8300.00	CY	5.19	BORROW EXCAV, INCL MATL	43077.00
208-0200	2222.22	CY	22.14	ROCK EMBANKMENT	49199.95
310-1201	2440.00	TN	20.99	GR AGGR SUBBASE CRS, INCL MATL	51215.60
318-3000	500.00	TN	15.84	AGGR SURF CRS	7920.00
400-3101	491.00	TN	43.63	ASPH CONC 12.5 MM SUPERPAVE, GP 2 ONLY, INCL BITUM MATL,	21422.33
402-1812	150.00	TN	35.97	RECYCLED ASPH CONC LEVELING, INCL BITUM MATL & H LIME	5395.50
402-3111	493.00	TN	30.76	RECYCLED ASPH CONC 19 MM MIX, GP 1 OR 2, INCL BITUM MATL &	15164.68
402-3121	985.00	TN	34.63	RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM	34110.55
413-1000	465.00	GL	0.88	BITUM TACK COAT	409.20
433-1100	294.00	SY	107.71	REINF CONC APPROACH SLAB, INCL CURB	31666.73
436-1000	1000.00	LF	7.96	ASPHALTIC CONCRETE CURB - 6 inch	7960.00
500-3101	25.00	CY	411.37	CLASS A CONCRETE	10284.25
511-1000	1038.00	LB	0.61	BAR REINF STEEL	633.18
525-1000	2.00	EA	20240.25	COFFERDAM	40480.50
540-1201	1.00	LUMP	456300.00	WIDEN / REHABILITATE EXIST BRIDGE (195X26X90.00)	456300.00
540-1201	1.00	LS	128057.53	REMOVAL OF PARTS OF EXISTING BR, (195X12X55.00)	128057.53
603-2024	628.00	SY	39.38	STN DUMPED RIP RAP, TP 1, 24 IN	24730.64
603-7000	628.00	SY	3.14	PLASTIC FILTER FABRIC	1971.92
634-1200	16.00	EA	80.40	RIGHT OF WAY MARKERS	1286.40
641-1100	84.00	LF	41.57	GUARDRAIL, TP T	3491.88
641-1200	1200.00	LF	9.10	GUARDRAIL, TP W	10920.00
641-5001	2.00	EA	401.71	GUARDRAIL ANCHORAGE, TP 1	803.42
641-5012	2.00	EA	1263.48	GUARDRAIL ANCHORAGE, TP 12	2526.96

Section Sub Total: \$1,094,062.23

Section Erosion Control

Item Number	Quantity	Units	Unit Price	Item Description	Cost
163-0240	16.00	TN	213.84	MULCH	3421.44
700-6910	4.40	AC	749.98	PERMANENT GRASSING	3299.91
700-7000	1.00	TN	51.52	AGRICULTURAL LIME	51.52
700-7010	2.00	GL	18.43	LIQUID LIME	36.86
700-8000	1.00	TN	236.56	FERTILIZER MIXED GRADE	236.56

Section Sub Total: \$7,046.29

Section Temporary Erosion Control

Item Number	Quantity	Units	Unit Price	Item Description	Cost
163-0232	4.40	AC	435.70	TEMPORARY GRASSING	1917.08
163-0240	44.00	TN	213.84	MULCH	9408.96
163-0300	2.00	EA	1074.69	CONSTRUCTION EXIT	2149.38
163-0520	500.00	LF	10.50	CONSTRUCT AND REMOVE TEMPORARY PIPE SLOPE DRAIN	5250.00
163-0530	600.00	LF	1.83	CONSTRUCT AND REMOVE BALED STRAW EROSION CHECK	1098.00
165-0010	650.00	LF	1.06	MAINTENANCE OF TEMPORARY SILT FENCE, TP A	689.00
165-0030	650.00	LF	1.29	MAINTENANCE OF TEMPORARY SILT	838.50



Department of Transportation State of Georgia

HAROLD E. LINNENKOHL
COMMISSIONER
(404) 656-5206

PAUL V. MULLINS
CHIEF ENGINEER
(404) 656-5277

LARRY E. DENT
DEPUTY COMMISSIONER
(404) 656-5212

EARL MAHFUZ
TREASURER
(404) 656-5224

INTERDEPARTMENT CORRESPONDENCE

December 10, 2004

FROM: Bryant Poole, State Maintenance Engineer

TO: Mike Thomas, P.E., District Engineer, Tennille
Attn: Alan Smith

SUBJECT: Bridge Recommendation

BRST-076-1 (37) Columbia County
P.I. No. 232305
Structure ID 073-0015-0-0
Location ID 073-00047D-004.29E
SR 47 over Keg Creek

This bridge was built in 1952 and consists of concrete bents, a steel beam superstructure and concrete deck. The original design load capacity is H-15 and the current load rating is less than HS-15. The sufficiency rating on the structure is 54.4, and the bridge is classified as Functionally Obsolete and requires widening. However, in accordance with DOT policy 2405-1, we recommend that this bridge be replaced though due to unacceptable load capacity. Due to this criteria, no additional cost analysis or coring by the lab will be required. This bridge does not currently qualify for federal replacement BR funding but does qualify for federal bridge widening funds, which can be used toward replacement up to the estimated cost of widening. The remaining funds would have to come from another funding source such as STP.

If further information is required, please contact Brian Summers at (404) 635-8179.

BP/BKS

cc: Jamie Simpson

Structure ID: 073-0015-0

Programming Data		Measurements		Ratings	
201 Project No.:	SP-1117 (4)	* 29 ADT:	004800 Year: 2002	65 Inventory Rating Method:	2
202 Plans Available:	4	109 % Trucks:	15	63 Operating Rating Method:	2
249 Prop. Proj. No.:	BRST-076-1 (37)	* 28 Lanes On:	02 Under: 00	66 Inventory Type:	2 Rating: 19
250 Approval Status:	0 0 0 0	210 No. Tracks On:	00 Under: 00	64 Operating Type:	2 Rating: 32
251 P.I. No.:	232305-	* 48 Max. Span Length:	0074	231 Calculated Loads	
252 Contract Date:	2/1/2006	* 49 Structure Length:	195	H-Modified:	20 0
260 Seismic No.:	00000	51 Br. Rwdy. Width:	23.70	HS-Modified:	25 0
75 Type Work:	34 1	52 Deck Width:	30.00	Type 3:	24 0
94 Bridge Imp. Cost:	\$210	* 47 Tot. Horiz. Cl:	23.70	Type 3s2:	39 0
95 Roadway Imp. Cost:	\$238	50 Curb / Sidewalk Width:	2.00 / 2.00	Timber:	32 0
96 Total Imp Cost:	\$558	32 Approach Rdwy. Width:	028	Piggyback:	40 0
76 Imp. Length:	001515	* 229 Shoulder Width:		261 H Inventory Rating:	15
97 Imp. Year:	1990	Rear Lt:	2.3 Type: 2 Rt: 2.3	262 H Operating Rating:	25
114 Future ADT:	007200 Year: 2022	Fwd Lt:	2.3 Type: 2 Rt: 2.3	67 Structural Evaluation:	4
		Pavement Width:		58 Deck Condition:	6
		Rear:	23.5 Type: 2	59 Superstructure Condition:	7
Hydraulic Data			23.5 Type: 2	* 227 Collision Damage:	0
215 Waterway Data		Intersection Rear:	0 Fwd: 0	60A Substructure Condition:	6
Highwater Elev.:	0335.0 Year: 1974	36 Safety Features Br. Rail:	2	60B Scour Condition:	8
Flood Elevation:	0335.0 Freq.: 050	Transition:	2	60C Underwater Condition:	6
Avg. Streambed Elev.:	0302.0	App. G. Rail:	2	71 Waterway Adequacy:	8
Drainage Area:	00007	App. Rail End:	2	61 Channel Protection Cond.:	8
Area of Opening:	003650	53 Minimum Cl. Over:	99' 99 "	68 Deck Geometry:	2
113 Scour Critical:	8	Under:	N 00' 00 "	69 UnderClr. Horz/Vert:	N
216 Water Depth:	16.0 Br. Height: 20.5	* 228 Minimum Vertical Cl		72 Appr. Alignment:	8
222 Slope Protection:	1	Act. Odm Dir.:	99' 99 "	62 Culvert:	N
221 Spur Dikes Rear:	0 Fwd: 0	Oppo. Dir:	99' 99 "		
219 Fender System:	0	Posted Odm. Dir:	00' 00 "	Posting Data	
220 Dolphin:	0	Oppo. Dir:	00' 00 "	70 Bridge Posting Required:	5
223 Culvert Cover:	000	55 Lateral Undercl. Rt:	N 99.9	41 Struct Open, Posted, CL:	A
Type:	0	56 Lateral Undercl. Lt:	0.0	* 103 Temporary Structure:	0
No. Barrels:	0	* 10 Max Min Vert Cl:	99' 99 " Dir: 0	232 Posted Loads	
* Width:	0.00 Height: 0.00	39 Nav Vert Cl:	000 Horiz: 0000	H-Modified:	00
* Length:	0 Apron: 0	116 Nav Vert Cl Closed:	000	HS-Modified:	00
265 U/W Insp. Area:	2 Diver: WSR	245 Deck Thickness Main:	6.50	Type 3:	00
		Deck Thick. Approach:	0.00	Type 3s2:	00
Location I.D. No.:	073-00047D-004.29E	246 Overlay Thickness:	0.00	Timber:	00
		212 Year Last Painted:	Sup: 1997 Sub: 0000	Piggyback:	00
				253 Notification Date:	2/1/1901
				258 Fed Notify Date:	2/1/1901

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
PROJECT CONCEPT REPORT

District Two Design Office

Project Number: BRST-076-1 (37)

County: Columbia

P. I. Number: 232305

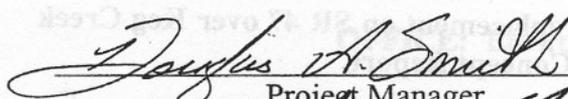
Federal Route Number: None

State Route Number: 47

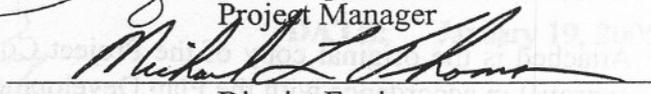
County Road Number: None

Recommendation for approval:

DATE 12-13-04


Project Manager

DATE 1-7-05

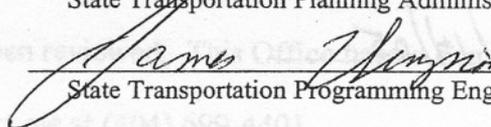

District Engineer

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

DATE _____

State Transportation Planning Administrator

DATE 1-14-05


State Transportation Programming Engineer

DATE _____

State Environmental/Location Engineer

DATE _____

State Traffic Safety and Design Engineer

DATE _____

Project Review Engineer

DATE _____

State Bridge & Structural Design Engineer

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

District Two Design Office

Project Number: *BRST-076-1 (37)*

County: *Columbia*

P. I. Number: *232305*

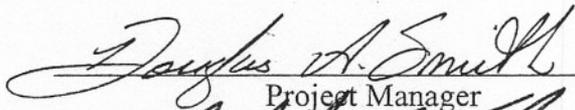
Federal Route Number: *None*

State Route Number: *47*

County Road Number: *None*

Recommendation for approval:

DATE *12-13-04*


Project Manager

DATE *1-7-05*


District Engineer

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

DATE _____

State Transportation Planning Administrator

DATE _____

State Transportation Programming Engineer

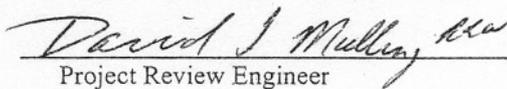
DATE _____

State Environmental/Location Engineer

DATE _____

State Traffic Safety and Design Engineer

DATE *1/21/05*


Project Review Engineer

DATE _____

State Bridge & Structural Design Engineer

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
PROJECT CONCEPT REPORT

District Two Design Office

Project Number: BRST-076-1 (37)

County: Columbia

P. I. Number: 232305

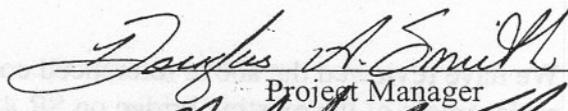
Federal Route Number: None

State Route Number: 47

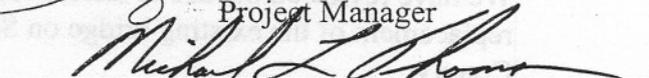
County Road Number: None

Recommendation for approval:

DATE 12-13-04


Project Manager

DATE 1-7-05


District Engineer

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

DATE _____

State Transportation Planning Administrator

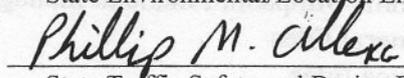
DATE _____

State Transportation Programming Engineer

DATE _____

State Environmental/Location Engineer

DATE 1-18-05


State Traffic Safety and Design Engineer

DATE _____

Project Review Engineer

DATE _____

State Bridge & Structural Design Engineer

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
PROJECT CONCEPT REPORT

District Two Design Office

Project Number: BRST-217-1 (1)

County: Columbia

P. I. Number: 232306

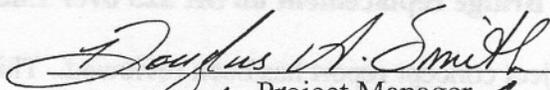
Federal Route Number: None

State Route Number: 223

County Road Number: None

Recommendation for approval:

DATE 1-7-05


Project Manager

DATE 1-7-05


District Engineer

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

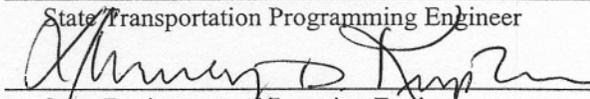
DATE _____

State Transportation Planning Administrator

DATE _____

State Transportation Programming Engineer

DATE 1.19.05


State Environmental/Location Engineer

DATE _____

State Traffic Safety and Design Engineer

DATE _____

Project Review Engineer

DATE _____

State Bridge & Structural Design Engineer

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

RECEIVED
JAN 12 2005

INTERDEPARTMENT CORRESPONDENCE

DATE January 6, 2005

FROM Alan Smith, ^{DAS} District Design Engineer

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

SUBJECT BRST-076-1 (37) Columbia County, P.I. # 232305
Bridge replacement on SR 47 over Keg Creek
Project Concept Report

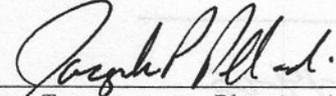
JAN 20 2005

Attached is the original copy of the Project Concept Report for your further handling for approval in accordance with the Plan Development Process (PDP).

The above mentioned project consists of a bridge replacement on SR 47 over Keg Creek northwest of Pollard's Corner in Columbia County.

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

DATE 1/14/05


State Transportation Planning Administrator

Distribution:

- David Mulling
- Harvey Keeper
- Phillip Allen
- Joe Palladi
- Jamie Simpson

ROUTING	
<input type="checkbox"/>	Joe
<input checked="" type="checkbox"/>	Chamice
<input checked="" type="checkbox"/>	Meg
<input type="checkbox"/>	
<input type="checkbox"/>	

CONCEPT TEAM MEETING MINUTES

Project Number: BRST-076-1 (37)
P.I. Number: 232305
County: Columbia

Date of Meeting:

January 6, 2005

Personnel Present:

Alan Smith	District Design Engineer (GDOT)	478-552-4642
Jimmy Smith	Assist. Construction Engineer (GDOT)	478-553-2331
Larry Rodgers	Assist. Area Engr. (GDOT)	706-855-3466
Warren Geitgey	BellSouth	706-210-8283
Jason Brown	Design Engineer I (GDOT)	478-552-4645
Jamie Lindsey	Assist. District Utilities Engineer	478-552-4637
Scott Stephens	Area Engineer (GDOT)	706-855-3466
Scott Wade	CPM2 (GDOT)	706-855-3466

Utilities:

Georgia Power Company has a power line located on the south side of SR 47 with BellSouth and ComCast facilities attached to it. Columbia County water has a 12" D.I. water main on the north side of SR 47 that is also attached to the existing bridge. BellSouth has an old asbestos conduit attached to the bridge on the north side of SR 47 that they will have to remove.

Traffic Operations:

No Comments

Construction:

The construction office recommends a 6 month intermediate completion date for the bridge to limit the amount of time that a off-site detour will be utilized.

Local Government Comments:

No representatives from the local government were present.

Environmental:

The existing bridge is historic and there will may be minor impacts to Lake Thurmond because of the need to utilize cofferdams on the intermediate bents.

Design:

No Comments.

Bridge Inventory Data Listing
Georgia Department of Transportation.

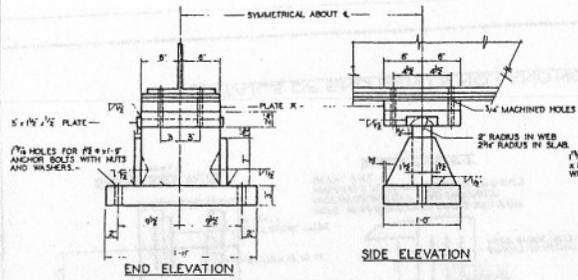
Structure ID: 073-0015-0

Columbia

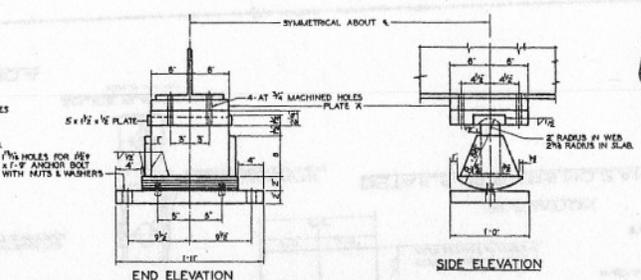
SUFF. RATING: 54.47

Location & Geography		Signs & Attachements	
* Structure ID:	073-0015-0	* 104 Highway System:	0
200 Bridge Information:	06	* 26 Functional Classification:	06
* 6A Feature Int:	KEG CREEK	* 204 Federal Route Type:	F No. 00761
* 6B Critical Bridge:	0	105 Federal Lands Highway:	0
* 7A Route Number Carried:	SR00047	* 110 Truck Route:	0
* 7B Facility Carried:	SR 47	206 School Bus Route:	1
* 9 Location:	6.9 MI N OF APPLING	217 Benchmark Elevation:	0000.00
2 DOT District:	2	218 Datum:	0
207 Year Photo:	2001	* 19 Bypass Length:	03
* 91 Inspection Frequency:	24 Date: 6/25/2003	* 20 Toll:	3
92A Fract Crit Insp Freq:	00 Date: 2/1/1901	* 21 Maintenance:	01
92B Underwater Insp Freq:	60 Date: 9/26/2001	* 22 Owner:	01
92C Other Spc. Insp Freq:	00 Date: 2/1/1901	* 31 Design Load:	2
* 4 Place Code:	00000	37 Historical Significance:	5
* 5 Inventory Route (O/U):	1	205 Congressional District:	09
Type:	3	27 Year Constructed:	1952
Designation:	1	106 Year Reconstructed:	0000
Number:	00047	33 Bridge Median:	0
Direction:	0	34 Skew:	00
* 16 Latitude:	33 - 38.4 HMMS Prefix: SR	35 Structure Flared:	0
* 17 Longitude:	82 - 18.4 HMMS Suffix: 00 MP:4.29	38 Navigation Control:	0
98 Border Bridge:	000 % Shared: 00	213 Special Steel Design:	0
99 ID Number:	0000000000000000	267 Type of Paint:	2
* 100 STRAHNET:	0	* 42 Type of Service on:	1
12 Base Highway Network:	1	Type of Service under:	5
13A LRS Inventory Route:	731004700	214 Movable Bridge:	0
13B Sub Inventory Route:	0	203 Type Bridge:	A O M O
101 Parallel Structure:	N	259 Pile Encasement:	3
* 102 Direction of Traffic:	2	* 43 Structure Type Main:	4 02
* 264 Road Inventory Mile Post:	004.29	45 No. Spans Main:	003
* 208 Inspection Area:	02 Initials: JTB	44 Structure Type Appr:	0 00
Engineer's Initial:	jal	46 No. Spans Appr:	0000
		226 Bridge Curve Horz:	0 Vert: 0
		111 Pier Protection:	0
		107 Deck Structure Type:	1
* Location I.D. No.:	073-00047D-004.29E	108 Wearing Surface Type:	1
		Membrane Type:	8
		Deck Protection:	8
		225 Expansion Joint Type:	15
		242 Deck Drains:	1
		243 Parapet Location:	0.00
		Height:	0.00
		Width:	0.00
		238 Curb Height:	1.2
		Curb Material:	1
		239 Handrail:	1 1
		* 240 Median Barrier Rail:	0
		241 Bridge Median Height:	0.0
		* Bridge Median Width:	0.0
		230 Guardrail Loc. Dir. Rear:	3
		Fwd:	3
		Oppo. Dir. Rear:	0
		Oppo. Fwd:	0
		244 Approach Slab:	3
		224 Retaining Wall:	0
		233 Posted Speed Limit:	55
		236 Warning Sign:	1
		234 Delineator:	1
		235 Hazzard Boards:	1
		237 Utilities - Gas:	00
		Water:	31
		Electric:	00
		Telephone:	31
		Sewer:	00
		247 Lighting - Street:	0
		Navigation:	0
		Aerial:	0
		* 248 County Continuity No.:	00

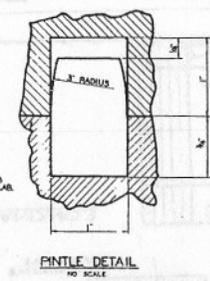
NO. OF SHEETS	3	NO. OF SHEETS	6A	DATE OF PREP.	11/17/50	DATE OF REV.	NO	NO. OF SHEETS	10	NO. OF SHEETS	25
---------------	---	---------------	----	---------------	----------	--------------	----	---------------	----	---------------	----



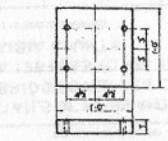
DETAILS OF FIXED ROCKERS: PIER 2
SCALE 1/4" = 1'-0"



DETAILS OF EXPANSION ROCKERS: BENTS 1 & 4, PIER 3
SCALE 1/4" = 1'-0"

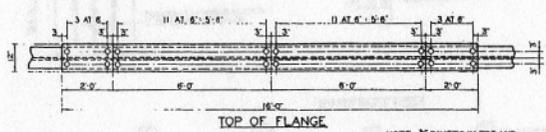


PINTLE DETAIL
NO SCALE



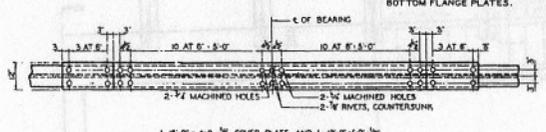
VARIABLE T	
POINT	THICKNESS T
BENT 1	1/2
PIER 2	1/2
PIER 3	1/2
BENT 4	1/2

DETAILS OF PLATE X
NO SCALE



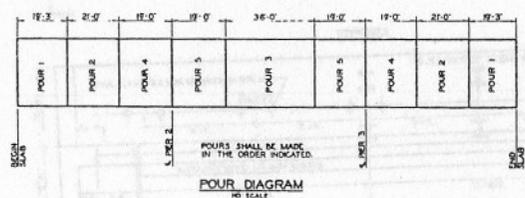
TOP OF FLANGE

NOTE: 3/4" RIVETS IN TOP AND BOTTOM FLANGE PLATES.

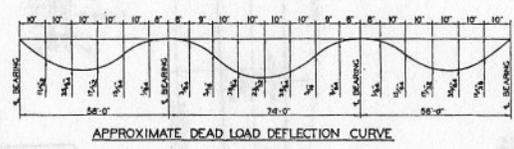


BOTTOM OF FLANGE

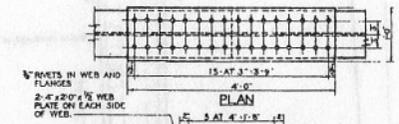
DETAILS OF COVER PLATES AT PIERS 2 & 3
NO SCALE



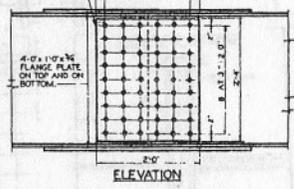
POUR DIAGRAM
NO SCALE



APPROXIMATE DEAD LOAD DEFLECTION CURVE

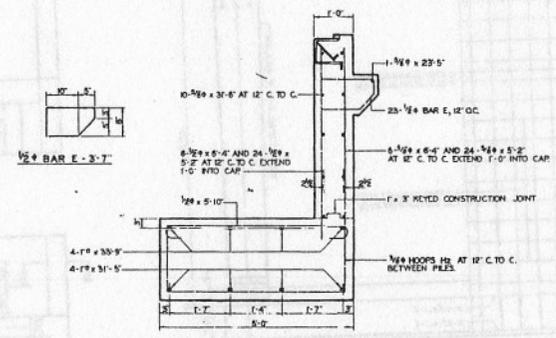


PLAN



ELEVATION

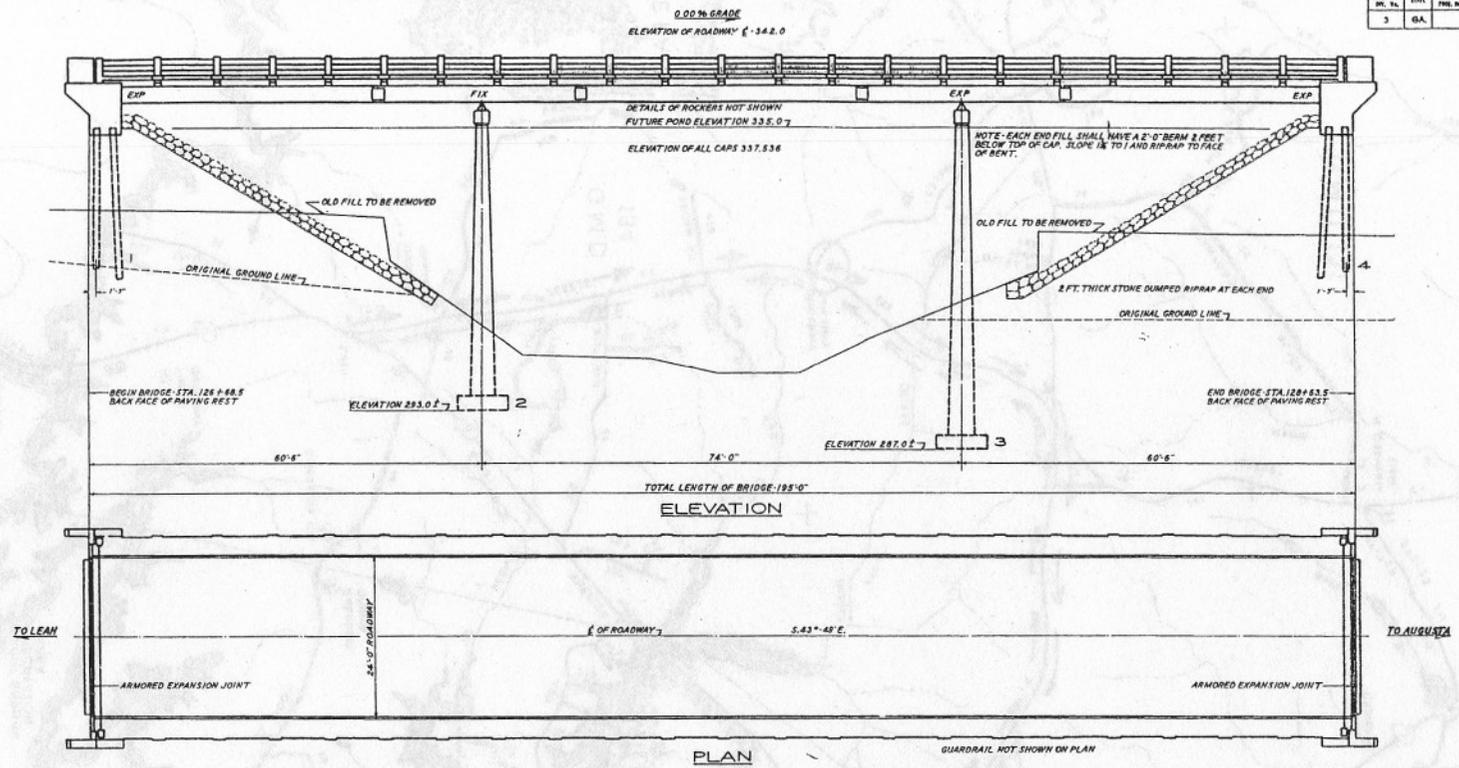
DETAILS OF BEAM SPLICE
SCALE 1/4" = 1'-0"



DETAILS OF BENT CAP AND END WALL
SCALE 1/4" = 1'-0"

STATE HIGHWAY DEPARTMENT OF GEORGIA			
BRIDGE DEPARTMENT			
MISCELLANEOUS DETAILS			
BRIDGE OVER KEG CREEK			
STA. 126+66.5 TO STA. 128+63.5			
COLUMBIA CO S P-117			
SCALE: AS NOTED			
OCTOBER 1950			
DESIGNED	J.E.S.	CHECKED	J.E.C.
DRAWN	J.E.S.	APPROVED	C.A.M.

DES. NO.	DATE	DES. BY	CHKD. BY	DATE	NO.	REV.
3	GA.	WJG	SD	7	2	



BRIDGE CONSISTS OF

- 1- 58'-74'-58" I-BEAM CONTINUOUS UNIT
- 2- STEEL H-PILE END BENTS
- 2- CONCRETE PIERS
- CONCRETE HANDRAILING — GEORGIA STANDARD NO. 3612 (MODIFIED)

SPECIAL DESIGN

GENERAL NOTES

SPECIFICATIONS - GEORGIA STANDARD.
 CONCRETE - ALL CONCRETE TO BE CLASS "A".
 ESTIMATED LENGTH OF PILES AT BENT 1, 80 FT.
 STRUCTURAL STEEL - THIS ITEM SHALL INCLUDE FURNISHING, FABRICATION, PLACING & PAINTING (WITH PROTECTIVE) BEAMS, END DAMS, CROSSWALLS STRAPS, BEARING ASSEMBLIES, COVER PLATES AND ANCHOR BOLTS.
 PAINT - CROSSWALL STRAPS SHALL NOT BE PAINTED. ALL SUPERSTRUCTURE STEEL AND EXPOSED PORTIONS OF ANCHOR BOLTS SHALL BE PAINTED AS FOLLOWS: SHOP COAT NO. 1A (ZINC LEAD); TOUCH-UP FIELD COAT NO. 8A OR 8B (ZINC LEAD); FIRST FIELD COAT NO. 2D (WHITE LEAD-ZINC OXIDE); SECOND FIELD COAT NO. 3B (WHITE LEAD-ZINC OXIDE); OR FIRST AND SECOND FIELD COATS NO. 3C (ALUMINUM); END BENT PILES SHALL NOT BE PAINTED.
 FINISH - ENTIRE CURBS, ARCHES, AND HANDRAILING INCLUDING END POST AND END BENTS AND EXPOSED PORTIONS OF WINGS SHALL HAVE A RUBBED FINISH. FOR FINISH ON ROADWAY SURFACE AND BEARING AREAS SEE STANDARD SPECIFICATIONS.
 WELDING SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR WELDED HIGHWAY AND RAILWAY BRIDGES OF THE AMERICAN WELDING SOCIETY DATED 1947.
 COST OF COPPER FLASHING, TAP PAPER, DECK DRAINS, AND EXPANSION MATERIAL SHALL BE INCLUDED IN PRICES BID FOR CONTRACT ITEMS.
 FILL AT END BENTS SHALL BE IN PLACE AND COMPACTED TO BOTTOM OF END BENT CAP BEFORE DRIVING END BENT PILES.
 CHAMFER ALL EXPOSED EDGES 3/8" UNLESS OTHERWISE NOTED.
 COST OF ANY EXCAVATION NECESSARY FOR END BENT CAPS AND WINGS SHALL BE INCLUDED IN PRICE BID FOR CLASS "A" CONCRETE.
 CHANNEL EXCAVATION CONSIST OF REMOVAL OF OLD FILL TO INDICATED RIPRAP LINE.
 FOR OTHER GENERAL NOTES SEE GEORGIA STANDARD NO. 3612.

SUMMARY OF QUANTITIES

- 315 CU. YDS. CLASS "A" CONCRETE
- 59,590 LBS. BAR REINFORCEMENT STEEL
- 702 LIN. FT. CONCRETE HANDRAILING
- 1200 LIN. FT. STEEL H-PIILING (10" X 42 LBS.)
- LUMP STRUCTURAL STEEL 28,900 LBS.
- 2.57 CU. YDS. BRIDGE EXCAVATION NO. 1
- 0.575 ACRES CLEARING AND GRUBBING (LUMP SUM)
- 7800 SQ. YDS. STONE DUMPED RIPRAP
- 2.65 CU. YDS. CHANNEL EXCAVATION
- LUMP REMOVAL OF EXISTING BRIDGE

DESIGN DATA

SPECIFICATIONS - A. A. S. N. O. 1944
 TYPICAL H-15 LOADING - IMPACT ALLOWED
 FUTURE PAVING ALLOWANCE 15 LBS. PER SQ. FT.

DRAINAGE DATA

DRAINAGE AREA — 4200 ACRES
 AREA OF OPENING UNDER HIGHWATER — 3650 SQUARE FEET

STATE HIGHWAY DEPARTMENT OF GEORGIA			
BRIDGE DEPARTMENT			
PLAN AND ELEVATION			
BRIDGE OVER KEG CREEK			
STA. 126+68.5 TO STA. 128+63.5			
COLUMBIA COUNTY - S.P. 1117			
SCALE - 1/4" = 1'-0" NOVEMBER 1950			
DESIGNED BY	CHECKED BY	APPROVED BY	REVIEWED BY
WJG	SD	WJG	CAM
DATE	DATE	DATE	DATE

165-0070	300.00	LF	1.17	FENCE, TP C	
				MAINTENANCE OF BALED STRAW	351.0
165-0101	2.00	EA	336.19	EROSION CHECK	
				MAINTENANCE OF CONSTRUCTION EXIT	672.38
167-1000	2.00	EA	3742.84	WATER QUALITY MONITORING AND SAMPLING	7485.68
167-1500	12.00	MO	594.20	WATER QUALITY INSPECTIONS	7130.40
171-0010	1300.00	LF	1.76	TEMPORARY SILT FENCE, TYPE A	2288.0
171-0030	1300.00	LF	3.06	TEMPORARY SILT FENCE, TYPE C	3978.0
700-7000	1.00	TN	51.52	AGRICULTURAL LIME	51.52
700-7010	1.00	GL	18.43	LIQUID LIME	18.43
700-8000	1.00	TN	236.56	FERTILIZER MIXED GRADE	236.56
Section Sub Total:					\$43,562.89

Section SIGNING AND MARKING

Item Number	Quantity	Units	Unit Price	Item Description	Cost
636-1020	36.00	SF	14.82	HIGHWAY SIGNS, TP 1 MATL, REFL SHEETING, TP 3	533.52
636-1031	36.00	SF	17.19	HIGHWAY SIGNS, TP 1 MATL, REFL SHEETING TP 6	618.84
636-2080	64.00	LF	8.15	GALV STEEL POSTS, TP 8	521.6
653-1501	5000.00	LF	0.24	THERMOPLASTIC SOLID TRAF STRIPE, 5 IN, WHITE	1200.0
653-1502	5000.00	LF	0.23	THERMOPLASTIC SOLID TRAF STRIPE, 5 IN, YELLOW	1150.0
654-1001	30.00	EA	3.39	RAISED PVMT MARKERS TP 1	101.7
657-3054	400.00	GLF	1.97	PREFORMED PLASTIC SKIP PVMT MKG, 5 IN, WHITE, TP PB	788.0
657-6054	400.00	LF	3.97	PREFORMED PLASTIC SOLID PVMT MKG, 5 IN, YELLOW, TP PB	1588.0
Section Sub Total:					\$6,501.66

Total Estimated Cost: \$1,151,173.07

Subtotal Construction Cost \$1,151,173.07

E&C Rate 10.0 % \$115,117.31

Inflation Rate 5.0 % @ 3.0 Years \$199,599.02

Total Construction Cost \$1,465,889.40

Right Of Way \$28,625.00

ReImb. Utilities \$27,000.00

Grand Total Project Cost \$1,521,514.40

165-0070	300.00	LF	1.17	MAINTENANCE OF BALED STRAW EROSION CHECK	351.0
165-0101	2.00	EA	336.19	MAINTENANCE OF CONSTRUCTION EXIT	672.38
167-1000	2.00	EA	3742.84	WATER QUALITY MONITORING AND SAMPLING	7485.68
167-1500	12.00	MO	594.20	WATER QUALITY INSPECTIONS	7130.40
171-0010	1300.00	LF	1.76	TEMPORARY SILT FENCE, TYPE A	2288.0
171-0030	1300.00	LF	3.06	TEMPORARY SILT FENCE, TYPE C	3978.0
700-7000	1.00	TN	51.52	AGRICULTURAL LIME	51.52
700-7010	1.00	GL	18.43	LIQUID LIME	18.43
700-8000	1.00	TN	236.56	FERTILIZER MIXED GRADE	236.56

Section Sub Total: \$43,562.89

Section SIGNING AND MARKING

Item Number	Quantity	Units	Unit Price	Item Description	Cost
636-1020	36.00	SF	14.82	HIGHWAY SIGNS, TP 1 MATL, REFL SHEETING, TP 3	533.52
636-1031	36.00	SF	17.19	HIGHWAY SIGNS, TP 1 MATL, REFL SHEETING TP 6	618.84
636-2080	64.00	LF	8.15	GALV STEEL POSTS, TP 8	521.6
653-1501	5000.00	LF	0.24	THERMOPLASTIC SOLID TRAF STRIPE, 5 IN, WHITE	1200.0
653-1502	5000.00	LF	0.23	THERMOPLASTIC SOLID TRAF STRIPE, 5 IN, YELLOW	1150.0
654-1001	30.00	EA	3.39	RAISED PVMT MARKERS TP 1	101.7
657-3054	400.00	GLF	1.97	PREFORMED PLASTIC SKIP PVMT MKG, 5 IN, WHITE, TP PB	788.0
657-6054	400.00	LF	3.97	PREFORMED PLASTIC SOLID PVMT MKG, 5 IN, YELLOW, TP PB	1588.0

Section Sub Total: \$6,501.66

Total Estimated Cost: \$1,280,531.19

Subtotal Construction Cost \$1,280,531.19

E&C Rate 10.0 % \$128,053.12

Inflation Rate 5.0 % @ 3.0 Years \$222,028.10

Total Construction Cost \$1,630,612.41

Right Of Way \$28,625.00

ReImb. Utilities \$27,000.00

Grand Total Project Cost \$1,686,237.41

SCORING RESULTS AS PER MOG 2440-2

Project Number: BRST-076-1(37)		County: Columbia		PI No.: 232305	
Report Date: January 7, 2005		Concept By: DOT Office: District 2			
<input checked="" type="checkbox"/> Concept Stage		Consultant: N/A			
Project Type: Choose One From Each Column		<input type="checkbox"/> Major <input checked="" type="checkbox"/> Minor	<input type="checkbox"/> Urban <input checked="" type="checkbox"/> Rural	<input type="checkbox"/> ATMS <input checked="" type="checkbox"/> Bridge Replacement <input type="checkbox"/> Building <input type="checkbox"/> Interchange Reconstruction <input type="checkbox"/> Intersection Improvement <input type="checkbox"/> Interstate <input type="checkbox"/> New Location <input type="checkbox"/> Widening & Reconstruction <input type="checkbox"/> Miscellaneous	
FOCUS AREAS	SCORE	RESULTS			
Presentation	100				
Judgement	100				
Environmental	100				
Right of Way	100				
Utility	100				
Constructability	100				
Schedule	100				

c: Mike Thomas, Alan Smith (Tennille)