

D.O.T. 66

DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

**FILE** BR-0000-00(688) Atkinson County **OFFICE** Preconstruction  
P. I. No. 0000688 **DATE** July 27, 2001  
**FROM**  C. Wayne Hutto, Assistant Director of Preconstruction  
**TO** SEE DISTRIBUTION

**SUBJECT** REVISED PROJECT CONCEPT REPORT APPROVAL

Attached for your files is the approval for subject project.

CWH/cj

Attachment

DISTRIBUTION:

Tom Turner  
David Mulling  
Harvey Keepler  
Jerry Hobbs  
Herman Griffin  
Michael Henry  
Marion Waters  
Marta Rosen  
Jimmy Chambers  
David Crim  
BOARD MEMBER

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA**

**INTERDEPARTMENT CORRESPONDENCE**

JUL 06 2001

**FILE** BR-0000-00(688) ATKINSON COUNTY  
SR 135 over Dark Bay Creek  
P.I. No. 0000688  
*K.R.C. for*

**OFFICE** Atlanta

**FROM** James R. Chambers, State Consultant Design Engineer

**DATE** July 5, 2001

**TO** Wayne Hutto, Assistant Director of Preconstruction

**SUBJECT** **REVISED PROJECT CONCEPT REPORT**

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

The original concept is changed from a bridge crossing Dark Bay Creek to a culvert crossing. Due to the drainage area of less than 20 square miles, a culvert option was studied and compared as an alternate.

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

DATE 7-12-01

  
\_\_\_\_\_  
State Transportation Planning Administrator

*Distribution:*

David Mulling, Project Review Engineer  
Harvey Keepler, State Environmental/Location Engineer  
Marion Waters, State Traffic Operations Engineer  
Marta Rosen, State Transportation Planning Administrator  
Herman Griffin, State Transportation Programming Engineer  
David Crim, District 4 Engineer  
Paul Liles, State Bridge Design Engineer  
Ted Cashin, Consultant Design Office

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA**

**REVISED PROJECT CONCEPT REPORT**

**Need & Purpose:** Bridge project BR-0000-00(688) will replace the structurally deficient bridge located on State Route (SR) 135 over Dark Bay Creek. The bridge's sufficiency rating is 33.3. The Office of Bridge Maintenance has determined that any structure with a sufficiency rating less than 50 should be replaced rather than improved. This project will replace the existing bridge with a bridge culvert.

This section of SR 135 is functionally classified as a rural minor arterial roadway. The bridge is located on a STAA truck route and has 7 percent trucks. The posted speed limit along this section of SR 135 is 55 mph. The bridge is located 4 miles north of the city of Willacoochee and was constructed in 1951. The Average Daily Traffic (ADT) along this section of roadway was 2,200 in 1998 with 16 percent trucks. The projected 2006 and 2026 ADT for this section of roadway is 2,600 and 4,300 respectively.

Replacing this bridge will bring it up to current design standards and in doing so will improve the operation and safety of this roadway.

**Project Location:** The project is located on SR 135 over Dark Bay Creek approximately 4 miles north of the city of Willacoochee. The project length is 2293.83 feet (0.43 miles). The project begins at M. P. 7.08 and ends at M. P. 7.52.

**Description of the approved concept:** The approved concept is to replace the existing two lane 81 foot long bridge with a 44 foot wide, 120 foot long bridge. The bridge center line is to be parallel and offset 28 feet to the east of the existing bridge centerline. Traffic will be maintained on the existing bridge during construction. The roadway typical section consists of two 12 foot travel lanes with 10 foot rural shoulders. An additional 80 feet of Right-of-way will be required on the east side of the roadway.

**PDP Classification:**

Full Oversight ( ), Exempt (X), SF ( ), Other ( )

**Functional Classification:** Rural Minor Arterial

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

**State Route Number(s):** 135

**Traffic (AADT) as shown in the approved concept:**

Current Year: (2006) - 2600

Design Year: (2026) - 4300

**Proposed features to be revised:** It is proposed to replace the existing bridge structure with a quadruple 10' x 7' bridge culvert for the following reasons: 1) the culvert option has a lower construction cost, 2) a lower maintenance cost, and 3) GDOT hydraulic criteria is satisfied. It is proposed to revise the alignment shift from the approved 28 feet to the east to 44 feet to the west. This will provide a more desirable alignment, and allow for phased construction of the culvert. It

is also proposed to revise the approved additional 80 feet of required right-of-way on east side of the roadway with an additional 100 feet of required right-of-way on the west side of the roadway. The 80 feet of required right-of-way is no longer needed on the east side of the project due to the alignment shift.

**Describe the revised feature(s) to be approved:** The revised features to be approved are: 1) construct a quadruple 10 ft by 7 ft bridge culvert, 2) Realign proposed road to a 44 foot permanent offset to the west, and 3) Acquire 100 feet of right-of-way from the existing right-of-way line on the west side of the roadway.

**Updated Traffic Data (AADT):** No change from approved concept

**Programmed/Schedule:**

P.E. 2001

R/W 2002

Construction After 2003

**Revised cost estimates:**

1.	Construction cost including inflation and E&C,	-	\$ 782,000
2.	Right-of-way, and	-	\$ 80,000
3.	Utilities	-	\$ 10,000

**Is the project located in a non-attainment area?**        Yes   X   No

**Recommendation:** The Consultant Design Office recommends that the proposed revision to the concept be approved for implementation.

**Attachments:**

1. Cost Estimate,

**Concur:** Thomas P. Linn  
Director of Preconstruction

**Approve:** H. L. Darity  
Chief Engineer

# PROJECT COSTS CULVERT OPTION

07/05/01 DETAILED COST ESTIMATE FOR PROJECT NO. 0000688 - BR-0000-00688 IN ATKINSON COUNTY  
SR 135 OVER DARK BAY CREEK, 4 MI NORTH OF WILLACOOCHEE

ITEM NO.	ITEM	UNIT	UNIT COST	QUANT	TOTAL
<b>ROADWAY</b>					
210-0100	GRADING COMPLETE -	LS	\$124,736.50	1	\$124,736.50
310-5060	GR AGGR BASE CRS, 6 INCH, INCL MATL	SY	\$6.25	7467	\$46,666.67
318-3000	AGGR SURF CRS	TN	\$14.38	50	\$719.00
402-3112	RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2, INCL BITUM	TN	\$32.25	857	\$27,631.80
402-3121	RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM	TN	\$32.09	857	\$27,494.71
402-3113	RECYCLED ASPH CONC 12.5 MM SUPERPAVE, GP 1 OR 2, INCL BITUM	TN	\$33.20	643	\$21,334.32
402-1812	RECYCLED ASPH CONC LEVELING, INCL BITUM MATL & H LIME	TN	\$36.29	20	\$725.80
413-1000	BITUM TACK COAT	GL	\$0.84	523	\$439.04
550-2180	SIDE DRAIN PIPE, 18 IN, H 1-10	LF	\$19.80	300	\$5,940.00
550-1300	STORM DRAIN PIPE, 30 IN, H 1-10	LF	\$42.44	104	\$4,413.76
550-2300	SIDE DRAIN PIPE, 30 IN, H 1-10	LF	\$35.33	56	\$1,978.48
550-4218	FLARED END SECTION 18 IN, STORM DRAIN	EA	\$356.29	12	\$4,275.48
550-4130	FLARED END SECTION 30 IN, SIDE DRAIN	EA	\$457.59	4	\$1,830.36
<b>SUBTOTAL</b>					<b>\$268,185.92</b>
161-1000	EROSION CONTROL -	LS	\$20,000.00	1	\$20,000.00
<b>SUBTOTAL</b>					<b>\$20,000.00</b>
<b>Culvert</b>					
207-0203	FOUND BK FILL MATL, TP II	CY	\$32.11	270	\$8,669.70
500-3101	CLASS A CONCRETE	CY	\$334.22	610	\$203,874.20
511-1000	BAR REINF STEEL	LB	\$0.49	72600	\$35,574.00
540-1102	REMOVAL OF EXISTING BR, BR NO -	LS	\$30,000.00	1	\$30,000.00
603-2024	STN DUMPED RIP RAP, TP 1, 24 IN	SY	\$35.67	1400	\$49,938.00
<b>SUBTOTAL</b>					<b>\$319,386.20</b>
<b>TRAFFIC SIGN &amp; MARKING</b>					
000-0000	TRAFFIC SIGNING & MARKING	LS	\$10,000.00	1	\$10,000.00
<b>SUBTOTAL</b>					<b>\$10,000.00</b>
<b>TRAFFIC CONTROL - STAGED CONSTRUCTION</b>					
150-1000	TRAFFIC CONTROL -	LS	\$20,000.00	1	\$20,000.00
622-1032	PRECAST CONCRETE MEDIAN BARRIER, METHOD 2	LF	\$24.65	500	\$12,325.00
<b>SUBTOTAL</b>					<b>\$32,325.00</b>
<b>CONSTRUCTION COST</b>					<b>\$649,897.12</b>

**CONSTRUCTION:** \$649,897

**RIGHT OF WAY:** \$80,000.00

**E & C (10%):** \$64,990

**ACQUIRED BY:** DOT

**INFLATION:** \$66,614

**UTILITIES:** \$10,000

(2 yrs. @ 5% per yr)

**TOTAL CONS'T COSTS \$781,501**