

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE BRS-0910(8) Barrow-Jackson Counties OFFICE Preconstruction
P.I. No. 130900 DATE March 31, 1988

FROM *R. L. Alston*
R. L. Alston, P.E., Assistant Director of Preconstruction

TO SEE DISTRIBUTION

SUBJECT REVISED PROJECT CONCEPT REPORT APPROVAL - Bridge Replacement on SR 124 at Mulberry River

Attached for your files is the approval for subject project.

RLA/cj

Attachment

DISTRIBUTION:

- Alton L. Dowd, Jr.
- Robert E. Humphrey
- Frank Danchetz
- Gene Skeen
- Walker Scott
- Charles Lewis
- Hugh Tyner

TIME SAVING
PROCEDURES

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE BRS-0910(8) Barrow/Jackson Counties **OFFICE** Preconstruction
P.I. No. 130900 **DATE** March 25, 1988

FROM Alton D. Dowd, Jr., Director of Preconstruction

TO Hal Rives, Commissioner

SUBJECT BRIDGE REPLACEMENT ON SR 124 @ MULBERRY RIVER - PROJECT CONCEPT REPORT

This project is the replacement of a narrow and functionally obsolete bridge on SR 124 at Mulberry River. The existing bridge is 22'x245' with an H-10 Loading Design. Approaches have 22' of pavement with variable width shoulders. Current and future traffic is 500 VPD (1985) and 800 VPD (2005).

The proposed replacement structure will be a 38'x220' concrete bridge on existing alignment. Approaches will be retained at 22' with flares and tapers for new bridge width. The road will be closed during construction with traffic using local roads and I-85 as detours. Using a detour bridge or staged construction were considered alternates but were eliminated due to higher costs (\$100,000+). The estimated cost of the project is:

	<u>PROPOSED</u>	<u>APPROVED</u>	<u>PROG. DATE</u>
Constr(Infl&E/C)	\$448,000	\$338,000	FY 88
Right-of-way	0	0	
Utilities	LGPA	LGPA	

I recommend that we approve this project concept report for implementation. Time saving procedures are appropriate for this project.

ALD:WLP/se

CONCUR: Alva R. Byrom
Alva R. Byrom, State Highway Engineer

APPROVED: Hal Rives
Hal Rives, Commissioner

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

WHS
BRS

FILE BHS-0910 (8) Barrow - Jackson Counties **OFFICE** Atlanta, Georgia
P.I. No. 130900
Bridge Replacement SR 124 at Mulberry River **DATE** March 22, 1988

FROM Robert E. Humphrey, P.E., Project Review Engineer

TO Alton L. Dowd, Jr., P.E., Director of Preconstruction

SUBJECT PROJECT CONCEPT REPORT - REVISED

We have reviewed the attached revised Concept Report for this Minor project and have the following comments:

Since this project has been changed from a bridge widening to a bridge replacement, the prefix should be changed from "BHS" to "BRS".

We noted that this State Route is to be closed during construction. With the low traffic volume and the proximity of I-85, we concur in this concept.

We have received signed cover sheets from the following office:

Traffic and Safety

This report is satisfactory for approval subject to the above comments.

The estimated costs of this project are as follows:

Construction	\$407,500
Inflation (5% per year)	0
E & C (10%)	40,750
Preliminary Engineering (5%)	20,375
Right of Way	0
Utilities	LGPA

MJB/jmf

Attachments

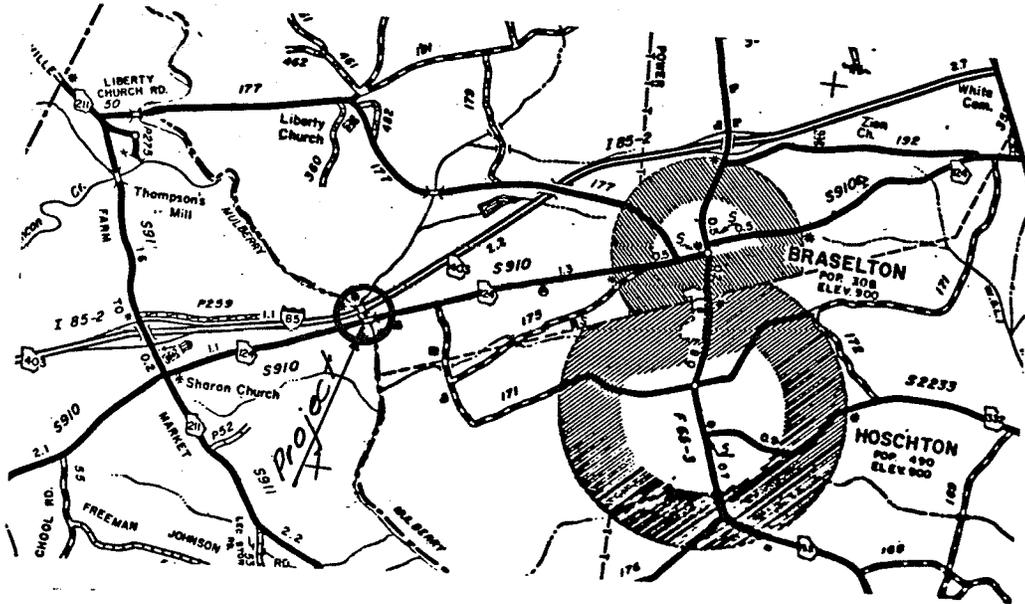
c: Hugh Tyner

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

PROJECT CONCEPT REPORT

BHS-0910 (8), BARROW-JACKSON COUNTIES

Federal Route No:
State Route No: SR 124
GaDOT P. I. No: 130900



Dec. 28, 1987
Date of Report: Oct. 17, 1986

RECOMMENDATION FOR APPROVAL

10-22-86
Date

John H. Turner
Project Manager (District Engineer or Office Head)

Date

State Environmental Engineer

Date

State Engineer

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE



FILE BHS-0910 (8) Barrow & Jackson Co. **OFFICE** Atlanta, Ga.
P.I. No. 130900 **DATE** January 26, 1988

FROM Archie C. Burnham, Jr., P.E., State Traffic & Safety Engineer *ACB*

TO Robert E. Humphrey, P.E., Project Review Engineer

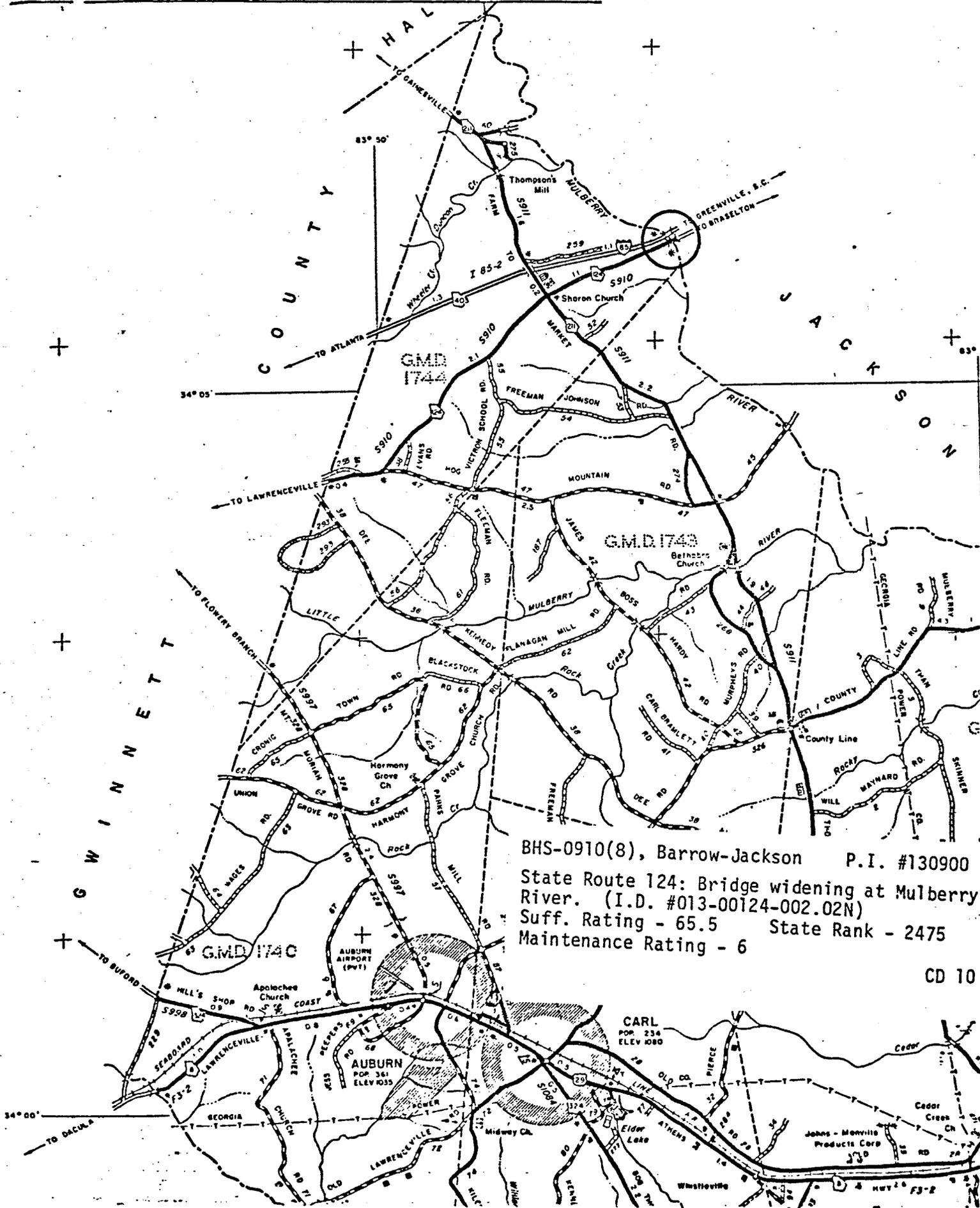
SUBJECT Revised Project Concept Report Review

We have reviewed the revised concept report on the above project for the proposed replacement of a narrow substandard bridge on S.R. 124 over the Mulberry River with a 38' x 220' bridge structure. Due to the substandard condition of the existing structure, we believe this concept will improve safety for the traveling public and, therefore, concur with the attached concept.

JJD:CKE:kt
Attachment (signature page)
cc: Hugh Tynes, District Engineer - Gainesville

ROW

013-00124-002.02N



BHS-0910(8), Barrow-Jackson P.I. #130900
 State Route 124: Bridge widening at Mulberry River. (I.D. #013-00124-002.02N)
 Suff. Rating - 65.5 State Rank - 2475
 Maintenance Rating - 6

CD 10

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA



INTERDEPARTMENT CORRESPONDENCE

FILE BHS-0910(8) Barrow-Jackson Counties
P.I. No. 130900

OFFICE Preconstruction

DATE January 6, 1988

FROM *RLA* R. L. Alston, P.E., Assistant Director of Preconstruction

TO SEE DISTRIBUTION

SUBJECT REVISED PROJECT CONCEPT REPORT - SR 124 at Mullberry River

Attached is a revised concept report for subject project, recently submitted directly to this office. Please review this revised report and submit your comments to the Office of Engineering Services for the normal review process. Your prompt attention is requested and appreciated.

RLA:WLP/cj

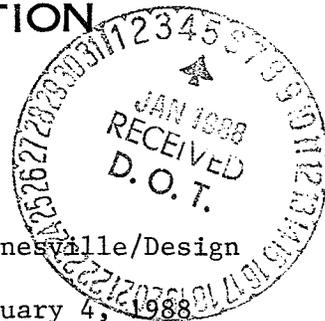
Attachment

DISTRIBUTION:

- Robert E. Humphrey
- Charles Lewis
- Archie Burnham, Jr.
- Frank Danchetz

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE



FILE BHS-0910 (8), Barrow-Jackson Counties
P. I. No. 130900

OFFICE Gainesville/Design

DATE January 4, 1988

FROM Hugh L. Tyner, P. E., District Engineer *HT*

TO Bob Alston, Assistant Director of Preconstruction

ATTENTION: BILL PURCELL

SUBJECT REVISED CONCEPT REPORT

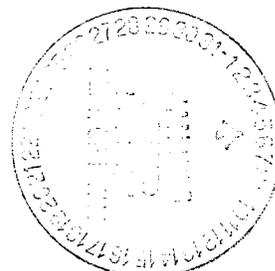
The above project is for the replacement of the existing bridge over Mulberry Creek on State Route 124 in Barrow and Jackson Counties.

The original Concept Report, for a bridge widening, was submitted on October 17, 1986, and has now been revised to a bridge replacement.

If further information or clarification is needed please contact this office.

LTD:rte

Attachment



PROJECT CONCEPT REPORT

PROJECT NO. BHS-0910 (8), P. I. No. 130900 Barrow-Jackson COUNTY

PREVIOUS PROJECT NO.: None ROUTE NO.: SR 124

LOCATION: State Route 124 at the Mulberry River on the Barrow-Jackson County Line

TRAFFIC: CURRENT ADT 500 (1985) PROJECT ADT 800 (2005)

EXISTING TYPICAL SECTION: 22' Asphalt roadway with variable width grassed shoulders

EXISTING MAJOR STRUCTURES: 22' x 245' Concrete Bridge Structure, with Guardrail Handrail

STATEMENT OF NEED & PURPOSE OF PROJECT: Replace a substandard narrow bridge on State Route 124. Functionally obsolete. Sufficiency Rating 65.5.

PROJECT CONCEPT:

LENGTH: 0.172 Mile BEGINNING: Station 887+00
ENDING: Station 896+00

PDP CLASSIFICATION: Minor FUNCTIONAL CLASSIFICATION: Rural

MAX. DEGREE OF CURVE: No Curve MAX. GRADES: 0.5% DESIGN SPEED: 50 MPH

PROPOSED TYPICAL SECTION: Retain existing roadway and add flares and tapers for proposed bridge.

MAJOR STRUCTURES: Replace existing bridge with a 38' x 220' bridge

TYPE ACCESS: Free

TRAFFIC CONTROL DURING CONSTRUCTION: State Route 124 to be closed during construction

ESTIMATED COST: R/W \$ 0.00
CONSTR. \$ 449,800.00 TOTAL \$ 449,800.00
UTILITIES Local Government

PERMITS REQUIRED: Nationwide 404 Permit

LEVEL OF ENVIRONMENTAL ANALYSIS: Categorical Exclusion

LEVEL OF PUBLIC INVOLVEMENT: None

TIME SAVING PROCEDURES APPROPRIATE: X YES NO

DESIGN EXCEPTIONS REQUIRED: None

ALTERNATES CONSIDERED: No-Build -- Rejected as not meeting the Transportation
Plan

OTHER PROJECTS IN AREA: None

CONCEPT TEAM MEETING HELD: September 16, 1986

PRESENT: <u>Hugh L. Tyner</u>	<u>District Engineer</u>
<u>Charles E. Whitworth</u>	<u>District Preconstruction Engineer</u>
<u>Jim Graybeal</u>	<u>District Design Engineer</u>
<u>Bob Marrujo</u>	<u>C.E.T. (Designer)</u>

FIELD REVIEW HELD: _____

COMMENTS: The existing bridge will now be replaced with a 38' x 220' bridge
due to the existing H-10 Loading Design. State Route 124 will be closed during
construction.

Attachments: ~~Typical Section~~
~~Traffic Diagrams~~
~~Concept Team Meeting Minutes~~
~~Field Inspection Reports~~
Local Project Agreements

PRELIMINARY COST ESTIMATE

DATE December 28, 1987

PROJECT BRS-0910 (8), Barrow-Jackson Counties

P. I. NO. 130900

PROJECT DESCRIPTION State Route 124 at the Mulberry River

PROPOSED CONCEPT Bridge Replacement

EXISTING ROADWAY (If Applicable) _____

TRAFFIC: Existing 500 VPD (1985) Design 800 VPD (2005)

() PROGRAMMING PROCESS () CONCEPT DEVELOPMENT (XX) DURING PROJECT DEVELOPMENT

PROJECT COSTS

A. RIGHT OF WAY

1. PROPERTY (Land and Easements)	\$ _____
2. DISPLACEMENTS	\$ _____
3. OTHER COSTS	\$ _____
	SUBTOTAL \$ _____

B. REIMBURSABLE UTILITIES

1. RAILROAD	\$ _____
2. TRANSMISSION	\$ _____
3. SERVICES	\$ _____
	SUBTOTAL \$ _____

C. MAJOR STRUCTURES

1. WALLS	\$ _____
2. BRIDGE STREAM CROSSINGS Including Approach Slabs	\$ 337,800.00
3. BRIDGE OVER/UNDERPASS	\$ _____
4. BOX CULVERTS	\$ _____
	SUBTOTAL \$ 337,800.00 ✓

D. GRADING AND DRAINAGE

1. EARTHWORK	\$	14,000.00
<hr/>		
a. Cross Drain Pipes (exc. box culverts)	\$	
<hr/>		
b. Curb and Gutter	\$	
<hr/>		
c. Longitudinal System (Incl. Catch Basins)	\$	
<hr/>		
SUBTOTAL	\$	14,000.00

E. BASE AND PAVING

1. AGGREGATE BASE	\$	3,900.00
<hr/>		
2. ASPHALT PAVING	\$	10,800.00
<hr/>		
3. CONCRETE PAVING	\$	16,445
<hr/>		
4. OTHER	\$	1,300.00
<hr/>		
Aggregate Surface Course		
SUBTOTAL	\$	32,445 16,000.00

F. LUMP ITEMS

1. TRAFFIC CONTROL	\$	2,000.00
<hr/>		
2. CLEARING AND GRUBBING	\$	
<hr/>		
3. LANDSCAPING	\$	
<hr/>		
4. EROSION CONTROL	\$	11,800.00
<hr/>		
5. DETOURS (Incl. Temp. Bridges)	\$	
<hr/>		
SUBTOTAL	\$	13,800.00

G. MISCELLANEOUS

1. LIGHTING	\$	
<hr/>		
2. SIGNING - STRIPING	\$	
<hr/>		
3. GUARDRAIL	\$	9,500.00
<hr/>		
4. OTHER	\$	
<hr/>		
SUBTOTAL	\$	9,500.00

H. SPECIAL FEATURES

SUBTOTAL	\$	
----------	----	--

ESTIMATE SUMMARY

A. RIGHT OF WAY	\$ - 0 -
B. REIMBURSABLE UTILITIES	\$ Local Government

CONSTRUCTION COST SUMMARY

C. MAJOR STRUCTURES	\$ 337,800.00
D. GRADING AND DRAINAGE	\$ 14,000.00
E. BASE AND PAVING	\$ 16,000.00 32,445
F. LUMP ITEMS	\$ 13,800.00
G. MISCELLANEOUS	\$ 9,500.00
H. SPECIAL FEATURES	\$
SUBTOTAL CONSTRUCTION COST	\$ 391,400.00 407,545
E. & C. (10%)	\$ 40,754 39,110.00
INFLATION (5% per year)	\$ 19,555.00 20,377
TOTAL CONSTRUCTION COST	\$ 449,765.00

GRAND TOTAL PROJECT COST \$ 449,765.00

BRIDGE REVIEW SHEET

1. Project No. BRS-0910, Barrow-Jackson Counties P.I. No. 130900

2. Description: a. Road State Route 124
b. Stream name Mulberry River
c. Stream classif. Minor

d. Type and size of existing structure and ROW.
22' x 245' Concrete Structure with Guardrail Handrail. 100' Existing R/W.
e. Termini, descrip. of new structure, ROW, location of
realignment or detour, map with north and flow arrows.
Replace existing bridge with a 38' x 220' Bridge. No R/W required. Retain
existing alignment. No detour required. Road to be closed during construction.

3. Permits: a. Coast Guard b. Forest Service/Corps land

4. Wetland a. No Involvement b. Involvement see attached.

5. Floodplains: a. FEMA Program
1) Regular 2) Emergency 3) Non-Particip.

b. Regulatory Floodway
c. Longitudinal Encroachment
d. Channel change If yes, see attached.

6. Historic/4f a. Steel truss b. Concrete arch
c. Other historic site d. Parks, wildlife refuge
e. No involvement

7. Displacements

8. Public Water Intakes

9. Potentially Significant
Archaeological Resource: a. No b. Yes See attached.

10. EPA/FWS Classification

Field Reviewer _____ Date _____

Bridge Coordinatord _____ Date _____



ORIGINAL
GENERAL FILES

Department of Transportation

State of Georgia

No. 2 Capitol Square

Atlanta, Georgia 30334-1002

THOMAS D. MORELAND
COMMISSIONER



LOCAL GOVERNMENT PROJECT AGREEMENT

In consideration of the proposed improvements, the XXX/County of Barrow agrees to provide or perform the following at no cost to the Georgia Department of Transportation for project BHS-0910(8), P.I. #130900, Barrow County:

State Route 124 - Bridge and approaches at Mulberry River. Proposed bridge replacement.

- Provide all necessary rights-of-way and/or easements for the construction of this project and remove existing structures or obstructions within the rights-of-way of this proposed project.
- Make all utility relocations, adjustments or betterments of publicly owned utilities in conflict with this proposed project.
- To cause all privately owned utilities to be relocated or adjusted as necessary to clear construction of this proposed project, including adjustments at railroad crossings if required.
- Other

This 18th day of December 19 84.

APPROVED Arnie J. Stearns
City/County Official

COST COMPARISONS

ALTERNATE 1 - CLOSE ROAD

PROPOSED BRIDGE: $(41.25')(220')(\$40/\text{FT}^2) = \$363,000$

WORK BRIDGE: $(100')(16')(\$10/\text{FT}^2) = \$16,000$

REMOVAL OF EXISTING BRIDGE: $(24')(245')(\$4/\text{FT}^2) = \$23,520$

TOTAL COST, ALT. 1 = \$402,520

ALTERNATE 2 - DETOUR BRIDGE ALT.

PROPOSED BRIDGE = \$363,000

WORK BRIDGE = \$16,000

REMOVAL OF EXISTING BRIDGE = \$23,520

DETOUR BRIDGE: $(26')(170')(\$15/\text{FT}^2) = \$66,300$

DETOUR FILL: $(\$22 \text{ YDS}/\text{FT})(750')(\$4/\text{YD}) = \$66,000$

DETOUR PAVING: $(750')(24')/9 = (2,000 \text{ SQ YD})(\$4/\text{YD}^2) = \$8,000$

** REMOVE & REPLACE UTILITIES = \$40,000

** EASEMENT TO BUILD DETOUR = \$1,000

TOTAL COST, ALT. 2 = \$583,820

ALTERNATE 3 - STAGE CONSTRUCTION

PROPOSED BRIDGE: $\left[\begin{array}{l} \text{TWICE AS MANY POUR DAYS,} \\ \text{ADDITIONAL FORMWORK,} \\ \text{8 WEEKS EXTRA TIME} \end{array} \right] = \$40,000 + (41.25')(234')(\$40/\text{FT}^2) = \$426,100$

REMOVAL OF EXISTING BRIDGE WITH CONTROLLED CUT: $(7" \text{ SUB})(\$1.00/\text{IN})(245') = \$1,715$
 $+ \$23,520$
\$25,235

2 WORK BRIDGES: $\$16,000 + \$10,000 = \$26,000$

TEMP. BARRIER ON BRIDGE: $(445')(\$25/\text{FT}) = \$11,125$

TRAFFIC SIGNALIZATION (WIG-WAGS) = \$15,000

ROADWORK: BASE & PAVEMENT: $(450' + 275') = 725'$; $\left[\frac{(725')(24')}{9} \right] (\$20/\text{YD}^2) = \$38,667$

PAVEMENT REMOVAL: $\left[\frac{(725')(24')}{9} \right] (\$2/\text{YD}^2) = \$3,867$

DIRT (BORROW): $7 \text{ YD}/3 \text{ FT}: (725/3) = (242')(7) = (1,694 \text{ CU YD}/\text{BRW})(\$4/\text{YD}^3) = \$6,776$

REMOVE & RESET 450 FT OF GUARDRAIL @ \$6/FT = \$2,700

DETOUR TRAFFIC TO NEW HALF OF BRDG: $(800' \text{ BARRIER FOR RBWAY})(\$25/\text{FT}) = \$20,000$

TOTAL COST, ALT. 3 = \$575,470

*NOTE: COSTS WERE SUPPLIED BY BOB HUMPHREY OF ENGINEERING SERVICES
EXCEPT AS NOTED.

** JIM GRAYBEAL OF DISTRICT 1 SUPPLIED THESE COSTS.