ORIGINAL TO GENERAL FILES

# DEPARTMENT OF TRANSPORTATION
# STATE OF GEORGIA

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

**FILE** P.I. # 0009861
Bibb County
GDOT District 3 - Thomaston
Bridge Replacement: SR 11/SR 49/
US 41 at Rocky Creek 1 mile south of
Macon (8 Bridges)

**OFFICE** Design Policy & Support

**DATE** 6/19/2015

**FROM** for Brent Story, State Design Policy Engineer

**TO** SEE DISTRIBUTION

**SUBJECT** **APPROVED REVISED CONCEPT REPORT**

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

Attachment

DISTRIBUTION:

Glenn Bowman, Director of Engineering
Joe Carpenter, Director of P3/Program Delivery
Genetha Rice-Singleton, Assistant Director of P3/Program Delivery
Albert Shelby, State Program Delivery Engineer
Darryl VanMeter, State Innovative Delivery Engineer
Bobby Hilliard, Program Control Administrator
Cindy VanDyke, State Transportation Planning Administrator
Hiral Patel, State Environmental Administrator
Ben Rabun, State Bridge Engineer
Andrew Heath, State Traffic Engineer
Angela Robinson, Financial Management Administrator
Lisa Myers, State Project Review Engineer
Charles "Chuck" Hasty, State Materials Engineer
Lee Upkins, State Utilities Engineer
Paul Tanner, State Transportation Data Administrator
Attn: Systems & Classification Branch
Richard Cobb, Statewide Location Bureau Chief
Andy Casey, State Roadway Design Engineer
Attn: Sam Woods, Design Group Manager
Michael Presley, District Engineer
Kerry Gore, District Utilities Engineer
Kevin VanHouten, Project Manager
BOARD MEMBER - 2nd Congressional District

# DEPARTMENT OF TRANSPORTATION
# STATE OF GEORGIA
# REVISED PROJECT CONCEPT REPORT

| | | | |
|---|---|---|---|
| Project Type: | Bridge Replacement | P.I. Number: | 0009861 |
| GDOT District: | 3 | County: | Bibb |
| Federal Route Number: | 41 & 129 | State Route Number: | 11 & 49 |
| | Project Number: | N/A | |

**This Revised Concept Report reflects a change from replacing one bridge (Southbound at Rocky Creek) on SR 11/SR 49/US 41/US 129 to replacing eight bridges (Northbound and Southbound at Rocky Creek, Rocky Creek Overflow, Tobesofkee Creek, and Tobesofkee Overflow). This change in project scope is the result of a Bridge Maintenance recommendation which was based on a Hydraulic Study and Alternatives Analysis.**

**Submitted for approval:**

C. Andy Cary — 3-6-15
State Roadway Design Engineer — Date

Albert Shelby BNV — 3-17-15
State Program Delivery Engineer — Date

Kevin VanHouten — Digitally signed by Kevin VanHouten DN: cn=Kevin VanHouten, o=GDOT, ou=OPD, email=kvanhouten@dot.ga.gov, c=US Date: 2015.03.16 09:09:56 -04'00' — 03-16-2015
GDOT Project Manager — Date

**Recommendation for approval:**

* HIRAL PATEL — 4/7/2015
State Environmental Administrator — Date

* ANDREW HEATH — 3/20/2015
State Traffic Engineer — Date

* BEN BABUN — 5/28/2015
State Bridge Engineer — Date

X MPO Area: This project is consistent with the MPO adopted Regional Transportation Plan (RTP)/Long Range Transportation Plan (LRTP).

☐ Rural Area: This project is consistent with the goals outlined in the Statewide Transportation Plan (SWTP) and/or is included in the State Transportation Improvement Program (STIP).

* CYNTHIA L. VANDIKE — 3/19/2015
State Transportation Planning Administrator — Date

* RECOMMENDATION ON FILE

## PLANNING, APPROVED CONCEPT, AND BACKGROUND

**Project Justification Statement:** The original southbound bridges on SR 11/SR 49/US 41 were built in 1924 using a design loading of H-15 and have been widened at least twice since their original construction. The original portions of the existing southbound bridges have been in place for 90 years and the last widening is almost 30 years old. The original northbound bridges were built in 1943 using a design loading of H-20. The original portions of the existing northbound bridges have been in place for 71 years and the last widening is 30 year old. Although replacing all eight bridges has the highest initial cost, it is recommended to replace all eight bridges due to anticipated maintenance of the remaining bridges, causing the least impact to the public due to staging and total construction time and providing the optimal hydraulic solution of the bridge crossings. SR 11/SR 49/US 41 is part of the Strahnet (Strategic Highway Network) and is also part of the statewide bicycle plan (route 15). This project justification statement was prepared by the Office of Bridges and Structures.

**Existing conditions:** The project is located in northern Bibb County, approximately one mile south of Macon along SR 11/SR 49/US 41/US 129 between the intersection of Houston Road on the south and the diverge of US 41/US 129 on the north. The existing roadway consists of six lanes with eight bridges and a 28ft depressed grass median. The posted speed limit is 55mph.

**Description of the approved concept:** The approved concept was to replace the existing southbound bridge over Rocky Creek along SR 11/SR 49/US 41/US 129. The bridge is located in northern Bibb County, 1 mile south of Macon, and has a sufficiency rating of 35.86.

**Federal Oversight:** ☐ PoDI ☒ Exempt ☐ State Funded ☐ Other

**Projected Traffic as shown in the approved Concept Report: ADT**
Open Year (2017): 40,450 Design Year (2037): 49,400

**Updated Traffic:** Updated traffic will be requested after revised concept and schedule are approved. The traffic will not have any significant effect on the concept or early preliminary design decisions.

**Functional Classification (Mainline):** Urban Principal Arterial

**VE Study anticipated:** ☒No ☐ Yes ☐ Completed – Date:

## PROPOSED REVISIONS

| Approved Features: | Proposed Features: |
|---|---|
| • Typical Section – Roadway and Bridge typical sections only applied to the southbound side of the road at Rocky Creek.<br><br>• Project Termini – Although Permanent | • Typical Section – Roadway and Bridge typical sections now apply to northbound and southbound lanes at Rocky Creek, Tobesofkee Creek, and Overflows. |

| | |
|---|---|
| construction was limited to the southbound bridge at Rocky Creek, the project termini extended to Milepost 6.09 on the south end to Milepost 7.19 on the north end for temporary pavement, for an approximate total project length of 1.1 miles.<br><br>• Changes in Right of Way/Impacts – Retain existing 300ft R/W width (only minor R/W impacts anticipated). Environmental Resources were not previously identified or impacted so no change is proposed. | • Project Termini – No significant change to termini, however the permanent construction within the termini is being revised to include northbound and southbound with eight bridges.<br><br>• Changes in Right of Way/Impacts – The change in R/W will be the result of temporary pavement due to a traffic shift during Staging. |
| **Reason(s) for change:** This change in project scope is the result of a Bridge Maintenance recommendation which was based on a Hydraulic Study and Alternatives Analysis. | |

**Major Structures:**

| Structure | Existing | Proposed |
|---|---|---|
| Bridge ID# 021-0001-0 | Bridge length is 144', 3-12' Lanes, Bridge roadway width of 50.00', Deck width of 53.40', and sufficiency rating of 78.20. | Bridge will have roadway width of 48' and length of 206'. Roadway will include 3-12' lanes, 8' outside shoulder and 4' inside shoulder. |
| Bridge ID# 021-0002-0 | Bridge length is 102', 3-12' Lanes, Bridge roadway width of 50.30', Deck width of 53.70', and sufficiency rating of 83.10. | Bridge will have roadway width of 48' and length of 206'. Roadway will include 3-12' lanes, 8' outside shoulder and 4' inside shoulder. |
| Bridge ID# 021-0003-0 | Bridge length is 120', 3-12' Lanes, Bridge roadway width of 50.00', Deck width of 53.40', and sufficiency rating of 81.50. | Bridge will have roadway width of 48' and length of 142'. Roadway will include 3-12' lanes, 8' outside shoulder and 4' inside shoulder. |
| Bridge ID# 021-0004-0 | Bridge length is 103', 3-12' Lanes, Bridge roadway width of 50.30', Deck width of 53.70', and sufficiency rating of 72.00. | Bridge will have roadway width of 48' and length of 142'. Roadway will include 3-12' lanes, 8' outside shoulder and 4' inside shoulder. |
| Bridge ID# 021-0005-0 | Bridge length is 144', 3-12' Lanes, Bridge roadway width of 50.00', Deck width of 53.40', and sufficiency rating of 79.80. | Bridge will have roadway width of 48' and length of 186'. Roadway will include 3-12' lanes, 8' outside shoulder and 4' inside shoulder. |
| Bridge ID# 021-0006-0 | Bridge length is 102', 3-12' Lanes, Bridge roadway width of 50.30', Deck width of 53.70', and sufficiency rating of 73.40. | Bridge will have roadway width of 48' and length of 186'. Roadway will include 3-12' lanes, 8' outside shoulder and 4' inside shoulder. |
| Bridge ID# 021-0007-0 | Bridge length is 168', 3-12' Lanes, Bridge roadway width of 50.00', Deck width of 53.40', and sufficiency rating of 68.20. | Bridge will have roadway width of 48' and length of 212'. Roadway will include 3-12' lanes, 8' outside shoulder and 4' inside shoulder. |

| | | |
|---|---|---|
| Bridge ID# 021-0008-0 | Bridge length is 102', 3-12' Lanes, Bridge roadway width of 50.30', Deck width of 53.70', and sufficiency rating of 41.40. | Bridge will have roadway width of 48' and length of 212'. Roadway will include 3-12' lanes, 8' outside shoulder and 4' inside shoulder. |

**Design Variances and/or Exceptions needed:** There are no Design Variances or Exceptions anticipated at this time.

## ENVIRONMENTAL AND PERMITS

**Potential environmental impacts of proposed revision:** The initial environmental survey boundary provided enough coverage for the change in scope for this project. As a result there are no effects to the environmental schedule.

**Have proposed revisions been reviewed by environmental staff?** ☐ No ☒ Yes

**Environmental responsibilities (Studies/Documents/Permits):** There are no changes to the environmental impacts because environmental resources have not yet been identified. No additional Environmental work is anticipated from this change.

**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 |
| Is a Carbon Monoxide hotspot analysis required? | ☒ No | ☐ Yes |

## PROJECT COST AND ADDITIONAL INFORMATION

| Item | Estimated Cost | Date of Estimate | Funded By |
|---|---|---|---|
| Base Construction Cost: | $12,113,739.80 | 10/21/2014 | GDOT |
| Engineering and Inspection: | $605,686.99 | 10/21/2014 | GDOT |
| Contingencies: | $1,907,914.02 | 10/21/2014 | GDOT |
| Liquid AC Adjustment: | $461,176.50 | 10/21/2014 | GDOT |
| Total Construction Cost: | $15,088,517.31 | 10/21/2014 | GDOT |
| | | | |
| Right-of-Way: | $3,113,000.00 | 2/13/2015 | GDOT |
| | | | |
| Utilities (reimbursable costs): | $135,000.00 | 2/13/2015 | GDOT |
| | | | |
| Environmental Mitigation: | $3,520,000.00 | 2/19/2015 | GDOT |
| | | | |
| **TOTAL PROJECT COST:** | $21,856,517.31 | | |

**Recommendation:** It is recommended that the proposed revision to the concept be approved for implementation.

**Comments:** When the original concept report was approved, it was not known whether the bridges could be constructed in stages. Since the approval of the original concept report, it was determined that the existing bridges cannot be constructed in stages therefore, there will be two traffic shifts required.

**Attachments:**

1. Sketch map
2. Cost Estimate(s)
   a. Construction including Engineering and Inspection and Completed Fuel & Asphalt Price Adjustment Forms
   b. Right of Way and Utilities Cost Estimate
3. Conforming plan's network schematics showing thru lanes
4. Typical Section
5. Bridge Inventory
6. Hydraulic Study Analysis
7. Meeting Minutes
   a. Concept Team Meeting 6-20-12
   b. Project Team Meeting 8-8-13

## APPROVALS

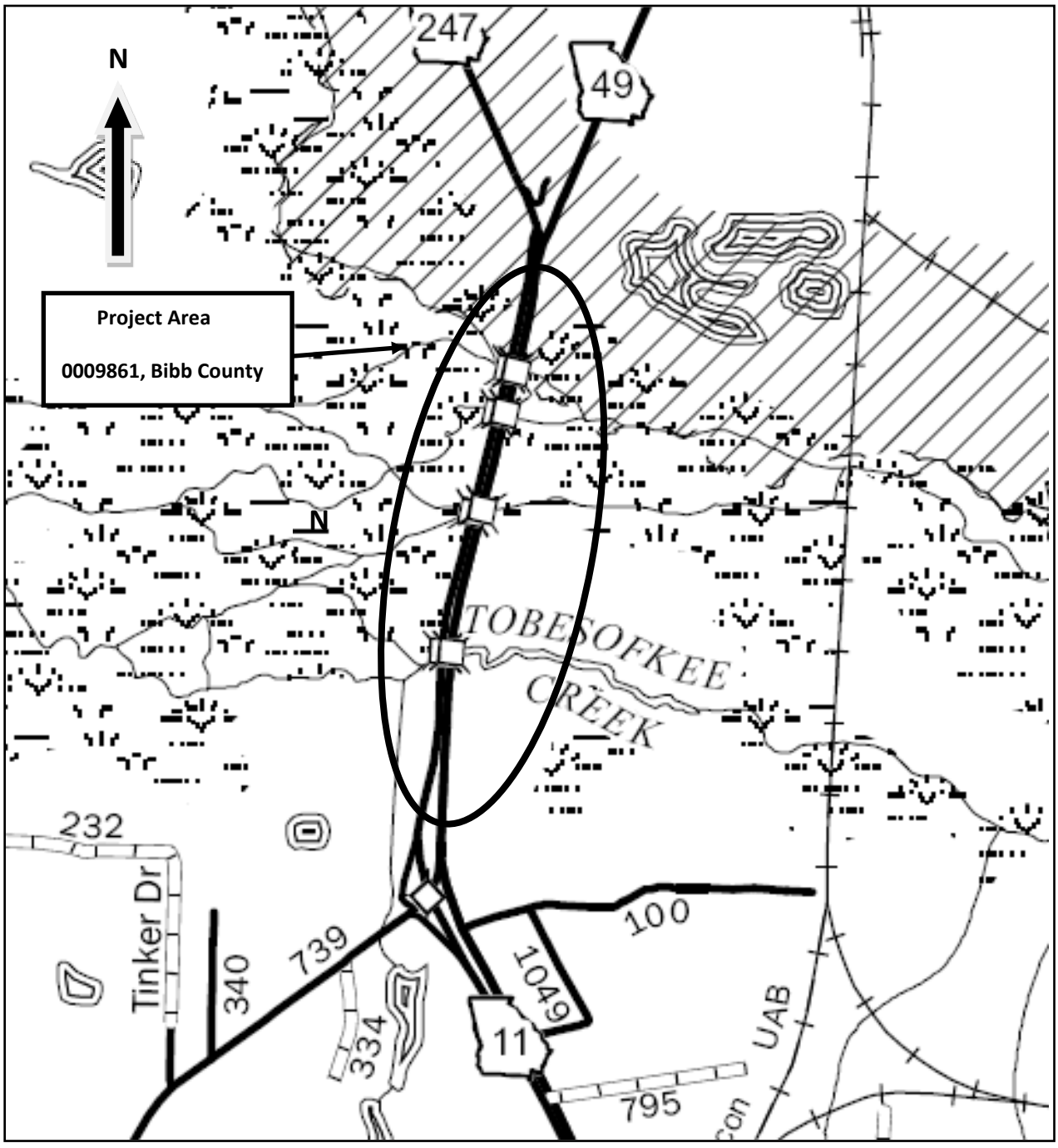
**Concur:** _____
Director of Engineering

**Approve:** Margaret B. Pinkle _____ 6.11.15
Chief Engineer Date

**PROJECT LOCATION MAP**

*Bridge Replacement – SR 11/SR 49/US 41 over Rocky Creek*

*Bibb County*



# DEPARTMENT OF TRANSPORTATION
# STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

**FILE** P.I. No. **PI# 0009861** **OFFICE** Program Delivery

**PROJECT DESCRIPTION**
SR 11/SR49/US 41 ROCKY CREEK 1 MI S OF MACON

**DATE** September 30, 2014

**From:** Albert V. Shelby III, State Program Delivery Engineer

**To:** Lisa L. Myers, State Project Review Engineer

**Subject: REVISIONS TO PROGRAMMED COSTS**

PROJECT MANAGER Kevin VanHouten KEST

MGMT LET DATE

MGMT ROW DATE

**PROGRAMMED COSTS (TPro W/OUT INFLATION)** **LAST ESTIMATE UPDATE**

| | | | | |
|---|---|---|---|---|
| CONSTRUCTION | $ | 2,057,153.00 | DATE | 9/20/2012 |
| RIGHT OF WAY | $ | 209,000.00 | DATE | 9/20/2012 |
| UTILITIES | $ | | DATE | |

**REVISED COST ESTIMATES**

| | | |
|---|---|---|
| CONSTRUCTION* | $ | 15,088,517.31 |
| RIGHT OF WAY | $ | |
| UTILITIES | $ | |

*Cost Contains **15** % Contingency

**REASONS FOR COST INCREASE AND CONTINGENCY JUSTIFICATION:**
Large SCOPE change, project went from single bridge replacement to an 8 bridge replacement (4 sets or twin bridges) - Contingency based on Bridge Replacement Project in concept phase with high risk.

# CONTINGENCY SUMMARY

| | | | | | |
|---|---|---|---|---|---|
| **A.** | **CONSTRUCTION COST ESTIMATE:** | $ 12,113,739.80 | Base Estimate From CES | | |
| **B.** | **ENGINEERING AND INSPECTION (E & I):** | $ 605,686.99 | Base Estimate (A) x | 5 | % |
| **C.** | **CONTINGENCY:** | $ 1,907,914.02 | Base Estimate (A) + E & I (B) x | 15 | % |
| | | | See % Table in "Risk Based Cost Estimation" Memo | | |
| **D.** | **TOTAL LIQUID AC ADJUSTMENT:** | $ 461,176.50 | Total From Liquid AC Spreadsheet | | |
| **E.** | **CONSTRUCTION TOTAL:** | $ **15,088,517.31** | (A + B + C + D = E) | | |

## REIMBURSABLE UTILTY COSTS

| UTILITY OWNER | REIMBURSABLE COST |
|---|---|
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| **TOTAL** | $ - |

**ATTACHMENTS:**

Detailed Cost Estimate Printout From TRAQS
Liquid AC Adjustment Spreadsheet

| | | | |
|---|---|---|---|
| **PROJ. NO.** | STP00-0054-01(048) | CALL NO. | 9/29/2009 |
| P.I. NO. | 333171- | | |
| DATE | 9/25/2014 | | |

| INDEX (TYPE) | DATE | INDEX |
|---|---|---|
| REG. UNLEADED | Sep-14 | $ 3.335 |
| DIESEL | | $ 3.765 |
| LIQUID AC | | $ 601.00 |

Link to Fuel and AC Index:
http://www.dot.ga.gov/doingbusiness/Materials/Pages/asphaltcementindex.aspx

## LIQUID AC ADJUSTMENTS

**PA=[((APM-APL)/APL)]xTMTxAPL**

**Asphalt**

| | | | | | |
|---|---|---|---|---|---|
| Price Adjustment (PA) | | | **454572.36** | **$** | **454,572.36** |
| Monthly Asphalt Cement Price month placed (APM) | Max. Cap | 60% | $ 961.60 | | |
| Monthly Asphalt Cement Price month project let (APL) | | | $ 601.00 | | |
| Total Monthly Tonnage of asphalt cement (TMT) | | | 1260.6 | | |

| ASPHALT | Tons | %AC | AC ton |
|---|---|---|---|
| Leveling | 44 | 5.0% | 2.2 |
| 12.5 OGFC | 3056 | 5.0% | 152.8 |
| 12.5 mm | 14906 | 5.0% | 745.3 |
| 9.5 mm SP | | 5.0% | 0 |
| 25 mm SP | 1342 | 5.0% | 67.1 |
| 19 mm SP | 5864 | 5.0% | 293.2 |
| | **25212** | | **1260.6** |

**BITUMINOUS TACK COAT**

| | | | | | |
|---|---|---|---|---|---|
| Price Adjustment (PA) | | | **$ 6,604.14** | **$** | **6,604.14** |
| Monthly Asphalt Cement Price month placed (APM) | Max. Cap | 60% | $ 961.60 | | |
| Monthly Asphalt Cement Price month project let (APL) | | | $ 601.00 | | |
| Total Monthly Tonnage of asphalt cement (TMT) | | | 18.31431033 | | |

| Bitum Tack Gals | gals/ton | tons |
|---|---|---|
| 4264 | 232.8234 | 18.3143103 |

**BITUMINOUS TACK COAT (surface treatment)**

| | | | | | |
|---|---|---|---|---|---|
| Price Adjustment (PA) | | | **0** | **$** | **-** |
| Monthly Asphalt Cement Price month placed (APM) | Max. Cap | 60% | $ 961.60 | | |
| Monthly Asphalt Cement Price month project let (APL) | | | $ 601.00 | | |
| 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** | **$** | **461,176.50** |

# DETAILED COST ESTIMATE

## Job: 0009861_ALT4

**JOB NUMBER** *0009861_ALT4* **FED/STATE PROJECT NUMBER**

**SPEC YEAR:** *01*

**DESCRIPTION:** *SR 11/SR 49/US 41- 8 BRIDGE REPLACEMENTS 4 SB, 4 NB*

### ITEMS FOR JOB 0009861_ALT4

### *0100 - ROADWAY*

| Line Number | ITEM | QUANTITY | UNITS | PRICE | DESCRIPTION | AMOUNT |
|---|---|---|---|---|---|---|
| 0005 | 150-1000 | 1.000 | LS | $400,000.00000 | TRAFFIC CONTROL - 0009861 | $400,000.00 |
| 0089 | 150-5010 | 2.000 | EA | $12,790.83887 | TRAF CTRL,PORTABLE IMPACT ATTN | $25,581.68 |
| 0010 | 153-1300 | 1.000 | EA | $84,000.00000 | FIELD ENGINEERS OFFICE TP 3 | $84,000.00 |
| 0008 | 201-1500 | 1.000 | LS | $385,880.00000 | CLEARING & GRUBBING - REPLACEMENT OF 4 BRIDGES | $385,880.00 |
| 0013 | 205-0001 | 5836.000 | CY | $16.61952 | UNCLASS EXCAV | $96,991.52 |
| 0014 | 206-0002 | 145553.000 | CY | $7.06120 | BORROW EXCAV, INCL MATL | $1,027,778.84 |
| 0024 | 310-1101 | 30490.000 | TN | $28.65253 | GR AGGR BASE CRS, INCL MATL | $873,615.64 |
| 0064 | 402-1812 | 44.000 | TN | $93.31237 | RECYL AC LEVELING,INC BM&HL | $4,105.74 |
| 0035 | 402-3121 | 14906.000 | TN | $70.00000 | RECYL AC 25MM SP,GP1/2,BM&HL | $1,043,420.00 |
| 0028 | 402-3130 | 1342.000 | TN | $79.46982 | RECYL AC 12.5MM SP,GP2,BM&HL | $106,648.50 |
| 0030 | 402-3190 | 5864.000 | TN | $71.00000 | RECYL AC 19 MM SP,GP 1 OR 2 ,INC BM&HL | $416,344.00 |
| 0029 | 402-4510 | 3056.000 | TN | $91.40140 | RECYL AC 12.5 MM SP,GP2ONLY,INC P-MBM&HL | $279,322.68 |
| 0045 | 413-1000 | 4264.000 | GL | $3.00000 | BITUM TACK COAT | $12,792.00 |
| 0053 | 432-5010 | 720.000 | SY | $11.54804 | MILL ASPH CONC PVMT,VARB DEPTH | $8,314.59 |
| 0215 | 433-1000 | 2560.000 | SY | $182.11590 | REINF CONC APPROACH SLAB | $466,216.70 |
| 0074 | 436-1000 | 7680.000 | LF | $10.27411 | ASPH CONC CURB - AT BOTTOM OF GUARDRAIL | $78,905.16 |
| 0049 | 446-1100 | 12344.000 | LF | $7.98873 | PVMT REF FAB STRIPS, TP2,18 INCH WIDTH | $98,612.88 |
| 0050 | 456-2012 | 2.000 | GLM | $1,000.00000 | INTENT. RUMB. STRIPS - GRND-IN-PL (CONT) | $2,000.00 |
| 0390 | 511-1000 | 560.000 | LB | $1.21329 | BAR REINF STEEL | $679.44 |
| 0054 | 620-0100 | 2000.000 | LF | $35.72414 | TEMP BARRIER, METHOD NO. 1 | $71,448.28 |
| 0009 | 632-0003 | 4.000 | EA | $17,407.88000 | CHANGEABLE MESS SIGN,PORT,TP 3 | $69,631.52 |
| 0065 | 641-1100 | 480.000 | LF | $80.00000 | GUARDRAIL, TP T | $38,400.00 |
| 0070 | 641-1200 | 7200.000 | LF | $20.00000 | GUARDRAIL, TP W | $144,000.00 |
| 0075 | 641-5001 | 8.000 | EA | $590.54118 | GUARDRAIL ANCHORAGE, TP 1 | $4,724.33 |
| 0080 | 641-5012 | 24.000 | EA | $1,716.23608 | GUARDRAIL ANCHORAGE, TP 12 | $41,189.67 |
| 0069 | 643-1152 | 305.000 | LF | $84.35436 | CH LK FEN,ZC COAT, 6', 9 GA | $25,728.08 |
| 0079 | 643-8200 | 12200.000 | LF | $2.35715 | BARRIER FENCE (ORANGE), 4 FT | $28,757.23 |
| | | | | | ***SUBTOTAL FOR ROADWAY:*** | **$5,835,088.48** |

# DETAILED COST ESTIMATE

Georgia Department of Transportation

## Job: 0009861_ALT4

### 0200 - EROSION CONTROL

| Line Number | ITEM | QUANTITY | UNITS | PRICE | DESCRIPTION | AMOUNT |
|---|---|---|---|---|---|---|
| 0090 | 163-0232 | 8.000 | AC | $600.00000 | TEMPORARY GRASSING | $4,800.00 |
| 0095 | 163-0240 | 332.000 | TN | $250.00000 | MULCH | $83,000.00 |
| 0315 | 163-0300 | 8.000 | EA | $1,679.49823 | CONSTRUCTION EXIT | $13,435.99 |
| 0320 | 163-0520 | 1365.000 | LF | $20.72022 | CONSTR AND REMOVE TEMP PIPE SLOPE DRAIN | $28,283.10 |
| 0325 | 163-0527 | 70.000 | EA | $250.00000 | CNST/REM RIP RAP CKDM,STN P RIPRAP/SN BG | $17,500.00 |
| 0330 | 163-0528 | 4056.000 | LF | $3.00000 | CONSTR AND REM FAB CK DAM -TP C SLT FN | $12,168.00 |
| 0335 | 163-0541 | 15.000 | EA | $500.00000 | CONSTR & REM ROCK FILTER DAMS | $7,500.00 |
| 0340 | 163-0542 | 36.000 | EA | $300.00000 | CONSTR & REM STONE FILTER RING | $10,800.00 |
| 0345 | 163-0550 | 5.000 | EA | $300.53094 | CONS & REM INLET SEDIMENT TRAP | $1,502.65 |
| 0350 | 165-0010 | 50.000 | LF | $2.34996 | MAINT OF TEMP SILT FENCE, TP A | $117.50 |
| 0360 | 165-0030 | 9100.000 | LF | $1.71654 | MAINT OF TEMP SILT FENCE, TP C | $15,620.51 |
| 0334 | 165-0041 | 2728.000 | LF | $2.50000 | MAINT OF CHECK DAMS - ALL TYPES | $6,820.00 |
| 0319 | 165-0101 | 8.000 | EA | $608.13327 | MAINT OF CONST EXIT | $4,865.07 |
| 0349 | 165-0105 | 5.000 | EA | $145.43694 | MAINT OF INLET SEDIMENT TRAP | $727.18 |
| 0339 | 165-0110 | 15.000 | EA | $125.00000 | MAINT OF ROCK FILTER DAM | $1,875.00 |
| 0370 | 165-0111 | 36.000 | EA | $150.00000 | MAINT OF STONE FILTER RING | $5,400.00 |
| 0375 | 167-1000 | 2.000 | EA | $1,123.35733 | WATER QUALITY MONITORING AND SAMPLING | $2,246.71 |
| 0380 | 167-1500 | 24.000 | MO | $1,149.94837 | WATER QUALITY INSPECTIONS | $27,598.76 |
| 0355 | 171-0010 | 100.000 | LF | $2.35662 | TEMPORARY SILT FENCE, TYPE A | $235.66 |
| 0365 | 171-0030 | 18200.000 | LF | $3.15873 | TEMPORARY SILT FENCE, TYPE C | $57,488.89 |
| 0305 | 603-2024 | 104.000 | SY | $58.16831 | STN DUMPED RIP RAP, TP 1, 24" | $6,049.50 |
| 0310 | 603-7000 | 104.000 | SY | $8.31846 | PLASTIC FILTER FABRIC | $865.12 |
| 0130 | 700-6910 | 16.000 | AC | $1,000.00000 | PERMANENT GRASSING | $16,000.00 |
| 0135 | 700-7000 | 48.000 | TN | $65.00000 | AGRICULTURAL LIME | $3,120.00 |
| 0140 | 700-8000 | 30.000 | TN | $450.00000 | FERTILIZER MIXED GRADE | $13,500.00 |
| 0145 | 700-8100 | 1600.000 | LB | $2.30000 | FERTILIZER NITROGEN CONTENT | $3,680.00 |
| | | | | | ***SUBTOTAL FOR EROSION CONTROL:*** | **$345,199.64** |

### 0300 - SIGNING AND MARKING

| Line Number | ITEM | QUANTITY | UNITS | PRICE | DESCRIPTION | AMOUNT |
|---|---|---|---|---|---|---|
| 0268 | 636-1020 | 880.000 | SF | $13.17751 | HWY SGN,TP1MAT,REFL SH TP3 | $11,596.21 |
| 0269 | 636-2070 | 550.000 | LF | $9.28580 | GALV STEEL POSTS, TP 7 | $5,107.19 |
| 0250 | 653-1501 | 6406.000 | LF | $0.58341 | THERMO SOLID TRAF ST 5 IN, WHI | $3,737.32 |
| 0255 | 653-1502 | 6406.000 | LF | $0.62209 | THERMO SOLID TRAF ST, 5 IN YEL | $3,985.11 |
| 0260 | 653-3501 | 12812.000 | GLF | $0.23279 | THERMO SKIP TRAF ST, 5 IN, WHI | $2,982.51 |
| 0265 | 657-1054 | 2694.000 | LF | $3.44194 | PRF PL SD PVMT MKG,5",WH,TP PB | $9,272.59 |
| 0274 | 657-3054 | 5528.000 | GLF | $2.07640 | PRF PL SK PVMT MKG,5",WH,TP PB | $11,478.34 |
| 0270 | 657-6054 | 2694.000 | LF | $3.54742 | PRF PL SD PVMT MKG,5",YW,TP PB | $9,556.75 |
| | | | | | ***SUBTOTAL FOR SIGNING AND MARKING:*** | **$57,716.02** |

# DETAILED COST ESTIMATE

Georgia Department of Transportation

## Job: 0009861_ALT4

### 0400 - BRIDGE

| Line Number | ITEM | QUANTITY | UNITS | PRICE | DESCRIPTION | AMOUNT |
|---|---|---|---|---|---|---|
| 0198 | 540-1101 | 1.000 | LS | $53,295.00000 | REM OF EX BR, STA NO - 47+26.80 TO 48+94.80 BRIDGE ON NB | $53,295.00 |
| 0199 | 540-1101 | 1.000 | LS | $53,295.00000 | REM OF EX BR, STA NO - 43+67.52 TO 45+11.52 BRIDGE ON NB | $53,295.00 |
| 0200 | 540-1101 | 1.000 | LS | $53,295.00000 | REM OF EX BR, STA NO - 35+59.56 TO 36+79.56 BRIDGE ON NB | $53,295.00 |
| 0201 | 540-1101 | 1.000 | LS | $53,295.00000 | REM OF EX BR, STA NO - 23+43.75 TO 24+87.75 BRIDGE ON NB | $53,295.00 |
| 0202 | 540-1101 | 1.000 | LS | $53,295.00000 | REM OF EX BR, STA NO - 23+54.34 TO 24+56.34 BRIDGE ON SB | $53,295.00 |
| 0203 | 540-1101 | 1.000 | LS | $53,295.00000 | REM OF EX BR, STA NO - 35+71.75 TO 35+68.75 BRIDGE ON SB | $53,295.00 |
| 0204 | 540-1101 | 1.000 | LS | $53,295.00000 | REM OF EX BR, STA NO - 43+76.07 TO 44+78.07 BRIDGE ON SB | $53,295.00 |
| 0205 | 540-1101 | 1.000 | LS | $53,295.00000 | REM OF EX BR, STA NO - 47+60.25 TO 48+62.25 BRIDGE ON SB | $53,295.00 |
| 0278 | 543-9000 | 1.000 | LS | $763,200.00000 | CONSTR OF BRIDGE COMPLETE - STA 46+96 TO 49+08 BRIDGE ON NB | $763,200.00 |
| 0279 | 543-9000 | 1.000 | LS | $669,600.00000 | CONSTR OF BRIDGE COMPLETE - STA 43+45 TO 45+31 BRIDGE ON NB | $669,600.00 |
| 0280 | 543-9000 | 1.000 | LS | $511,200.00000 | CONSTR OF BRIDGE COMPLETE - STA 35+48 TO 36+90 BRIDGE ON NB | $511,200.00 |
| 0281 | 543-9000 | 1.000 | LS | $741,600.00000 | CONSTR OF BRIDGE COMPLETE - STA 23+12 TO 25+18 BRIDGE ON NB | $741,600.00 |
| 0282 | 543-9000 | 1.000 | LS | $763,200.00000 | CONSTR OF BRIDGE COMPLETE - STA 47+01 TO 49+13 BRIDGE ON SB | $763,200.00 |
| 0283 | 543-9000 | 1.000 | LS | $669,600.00000 | CONSTR OF BRIDGE COMPLETE - STA 43+35 TO 45 +21BRIDGE ON SB | $669,600.00 |
| 0284 | 543-9000 | 1.000 | LS | $511,200.00000 | CONSTR OF BRIDGE COMPLETE - STA 35+49 TO 36 +91BRIDGE ON SB | $511,200.00 |
| 0285 | 543-9000 | 1.000 | LS | $741,600.00000 | CONSTR OF BRIDGE COMPLETE - STA 23+04 TO 25+10 BRIDGE ON SB | $741,600.00 |
| | | | | | ***SUBTOTAL FOR BRIDGE:*** | **$5,797,560.00** |

### 0500 - DRAINAGE

| Line Number | ITEM | QUANTITY | UNITS | PRICE | DESCRIPTION | AMOUNT |
|---|---|---|---|---|---|---|
| 0385 | 500-3200 | 32.000 | CY | $583.50085 | CL B CONC | $18,672.03 |
| 0290 | 550-1180 | 875.000 | LF | $39.44588 | STM DR PIPE 18",H 1-10 | $34,515.15 |
| 0295 | 550-4218 | 19.000 | EA | $696.43200 | FLARED END SECT 18 IN, ST DR | $13,232.21 |
| 0300 | 668-2100 | 5.000 | EA | $2,351.25450 | DROP INLET, GP 1 | $11,756.27 |
| | | | | | ***SUBTOTAL FOR DRAINAGE:*** | **$78,175.66** |

### TOTALS FOR JOB 0009861_ALT4

| | |
|---|---|
| **ITEMS COST:** | **$12,113,739.80** |
| **COST GROUP COST:** | **$0.00** |
| **ESTIMATED COST:** | **$12,113,739.80** |
| **CONTINGENCY PERCENT:** | **0.00** |
| **ENGINEERING AND INSPECTION:** | **0.05** |
| **ESTIMATED COST WITH CONTINGENCY AND E&I:** | **$12,719,426.79** |



File Location: Div of Preconstruction > CES

# DEPARTMENT OF TRANSPORTATION
# STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

**FILE** P.I. No. **PI# 0009861** **OFFICE** Program Delivery

**PROJECT DESCRIPTION**
SR 11/SR49/US 41 ROCKY CREEK 1 MI S OF MACON

**DATE** February 13, 2015

**From:** Albert V. Shelby III, State Program Delivery Engineer

**To:** Lisa L. Myers, State Project Review Engineer

**Subject: REVISIONS TO PROGRAMMED COSTS**

PROJECT MANAGER Kevin VanHouten KEVD

MGMT LET DATE

MGMT ROW DATE

**PROGRAMMED COSTS (TPro W/OUT INFLATION)** **LAST ESTIMATE UPDATE**

| | | | | |
|---|---|---|---|---|
| CONSTRUCTION | $ | 15,088,517.31 | DATE | 10/21/2014 |
| RIGHT OF WAY | $ | 209,000.00 | DATE | 9/20/2012 |
| UTILITIES | $ | | DATE | |

**REVISED COST ESTIMATES**

| | | |
|---|---|---|
| CONSTRUCTION* | $ | - |
| RIGHT OF WAY | $ | 3,113,000.00 |
| UTILITIES | $ | 135,000.00 |

*Cost Contains **0** % Contingency

**REASONS FOR COST INCREASE AND CONTINGENCY JUSTIFICATION:**

Large SCOPE change, project went from single bridge replacement to an 8 bridge replacement (4 sets or twin bridges). This update is for UTL and ROW only.

# CONTINGENCY SUMMARY

| | | | | |
|---|---|---|---|---|
| **A.** | **CONSTRUCTION COST ESTIMATE:** | $ | | Base Estimate From CES |
| **B.** | **ENGINEERING AND INSPECTION (E & I):** | $ | - | Base Estimate (A) x **5** % |
| **C.** | **CONTINGENCY:** | $ | - | Base Estimate (A) + E & I (B) x % |
| | | | | See % Table in "Risk Based Cost Estimation" Memo |
| **D.** | **TOTAL LIQUID AC ADJUSTMENT:** | $ | | Total From Liquid AC Spreadsheet |
| **E.** | **CONSTRUCTION TOTAL:** | $ | - | (A + B + C + D = E) |

## REIMBURSABLE UTILTY COSTS

| UTILITY OWNER | REIMBURSABLE COST |
|---|---|
| GA Power Distribution | $ 135,000.00 |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| **TOTAL** | **$ 135,000.00** |

**ATTACHMENTS:**

# DEPARTMENT OF TRANSPORTATION
# STATE OF GEORGIA

## INTERDEPARTMENT CORRESPONDENCE

FILE **Project #N/A, Bibb County, P.I. # 0009861**

OFFICE Thomaston

DATE February 13, 2015

FROM Kerry Gore, District Utilities Engineer

TO Kevin VanHouten, Project Manager

SUBJECT **PRELIMINARY UTILITY COST (ESTIMATE)**

As requested by your office, we are furnishing you with a Preliminary Utility Cost estimate for each utility with facilities potentially located within the project limits.

| FACILITY OWNER | NON-REIMBURSABLE | REIMBURSABLE |
|---|---|---|
| Atlanta Gas Light | 150,000 | 0 |
| BellSouth d/b/a AT&T Georgia | 30,000 | 0 |
| Georgia Power (Distribution) | 0 | 135,000 |
| Macon Water Authority | 40,000 | 0 |
| Windstream | 30,000 | 0 |
| **TOTALS** | **$250,000** | **$135,000** |

Total Preliminary Utility Cost Estimate $**385,000**.

If you have any questions, please contact Kerry Gore at 706-646-7603.

KG/

cc: Mike Bolden, State Utilities Engineer *(via: e-mail)*

GEORGIA DEPARTMENT OF TRANSPORTATION
PRELIMINARY ROW COST ESTIMATE SUMMARY

Date: 2/12/2015 Project: 0009861
Revised: County: Bibb
PI: 0009861
Description: SR 11/SR 49/ US 41 Bridge Replacement
Project Termini: Bridge Replacement
Existing ROW: Varies
Parcels: 21 Required ROW: Varies

| | | |
|---|---|---|
| Land and Improvements | | $2,465,625.00 |
| *Proximity Damage* | *$150,000.00* | |
| *Consequential Damage* | *$225,000.00* | |
| *Cost to Cures* | *$150,000.00* | |
| *Trade Fixtures* | *$150,000.00* | |
| *Improvements* | *$550,000.00* | |
| Valuation Services | | $131,250.00 |
| Legal Services | | $164,175.00 |
| Relocation | | $87,000.00 |
| Demolition | | $75,000.00 |
| Administrative | | $189,500.00 |
| TOTAL ESTIMATED COSTS | | $3,112,550.00 |
| ***TOTAL ESTIMATED COSTS (ROUNDED)*** | | ***$3,113,000.00*** |

| Preparation Credits | Hours | Signature |
|---|---|---|
| | | |
| | | |
| | | |
| | | |

Prepared By: LaShone Alexander CG#: 286999 02/12/2015 (DATE)
Approved By: LaShone Alexander CG#: 286999 02/15/2015 (DATE)

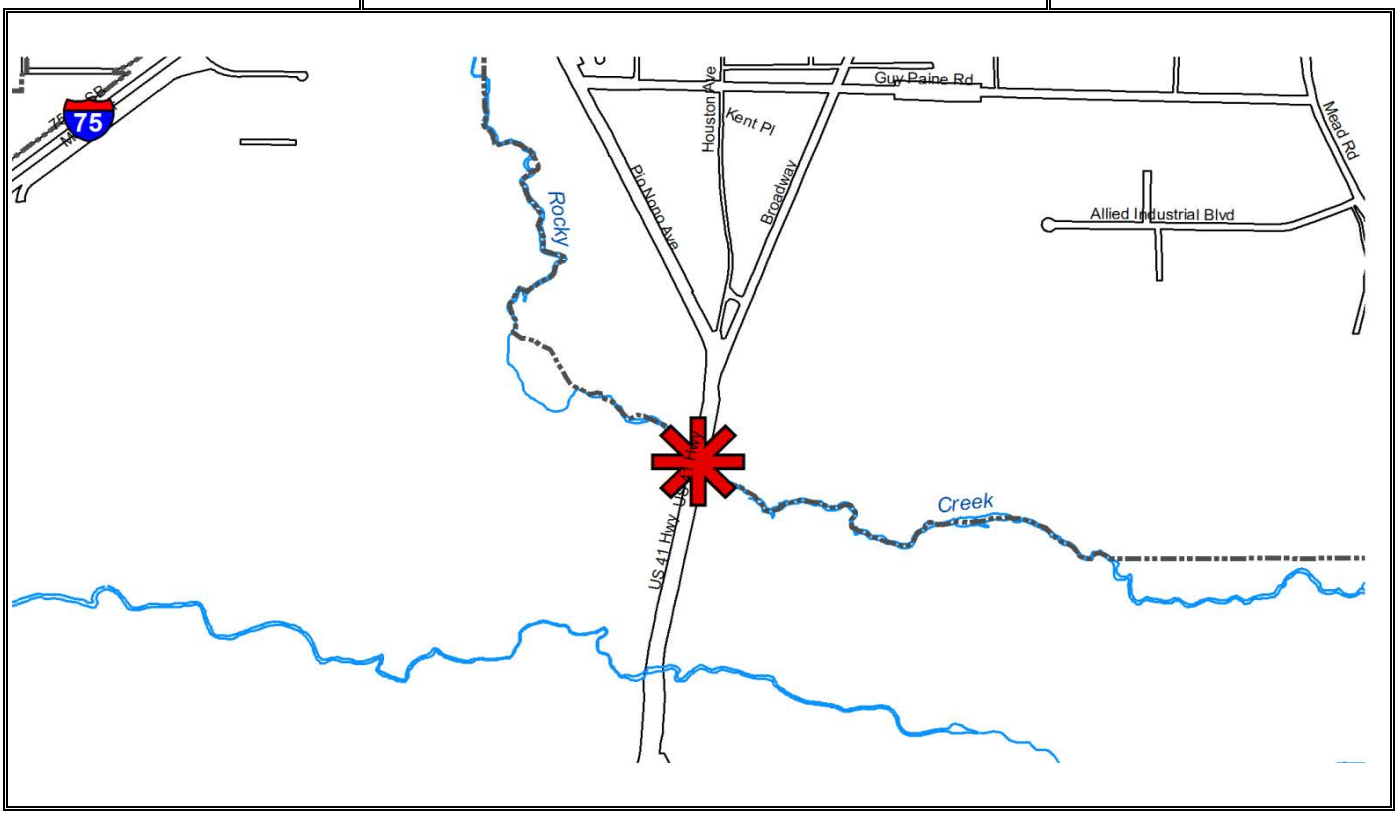
**NOTE: No Market Appreciation is included in this Preliminary Cost Estimate**

| | | | |
|---|---|---|---|
| ***PROJECT NAME:*** | HOUSTON ROAD (US 41/SR 11/SR 49) @ ROCKY CREEK | | ***PROJECT#:*** |
| ***PROJECT DESCRIPTION:*** | Replacement of bridge at Rocky Creek | | ***P.I. NOS:*** 0009861 |
| | | | ***TIP#:*** MCN - 118 |
| | | | ***COUNTY:*** BIBB |
| ***LENGTH (MI):*** 0.40 | ***# OF LANES - EXISTING:*** N/A | | ***PLANNED:*** N/A |
| ***TRAFFIC VOLUMES (ADT):*** | N/A ***(2012)*** N/A | | ***(2040)*** |
| ***LOCAL RD. #:*** | ***ST./US #*** | | ***FUNDING :*** M001 |
| ***COMMENTS/REMARKS:*** | This project was added to the TIP in FY 2012 and is in the 2020 network and exempt from air quality analysis. | | |

| ***PROJECT PHASE*** | ***$ SOURCE*** | ***FY 15*** | ***FY 16*** | ***FY 17*** | ***FY 18*** | ***TOTAL*** |
|---|---|---|---|---|---|---|
| ***PRELIMINARY ENGR. (000'S)*** | | $0 | $0 | $0 | $0 | $0 |
| ***RIGHT-OF-WAY (000'S)*** | FED/ST. | $0 | $222 | $0 | $0 | $222 |
| ***CONSTRUCTION (000'S)*** | FED./ST. | $0 | $0 | $0 | $2,272 | $2,272 |
| ***PROJECT COST (000'S)*** | | **$0** | **$222** | **$0** | **$2,272** | **$2,494** |
| ***FEDERAL COST (000'S)*** | | $0 | $178 | $0 | $1,817 | $1,995 |
| ***STATE COST (000'S)*** | | $0 | $44 | $0 | $454 | $498 |
| ***LOCAL COST (000'S)*** | | $0 | $0 | $0 | $0 | $0 |

| | | |
|---|---|---|
| ***DOT DISTRICT:*** ***3*** | ***CONGRESSIONAL DIST:*** ***8*** | ***RC*** MG |
| Fund 1 For PI 1: | Fund 2 For PI 2: | Fund 3 For PI 3: |

***PROJECT LOCATION***

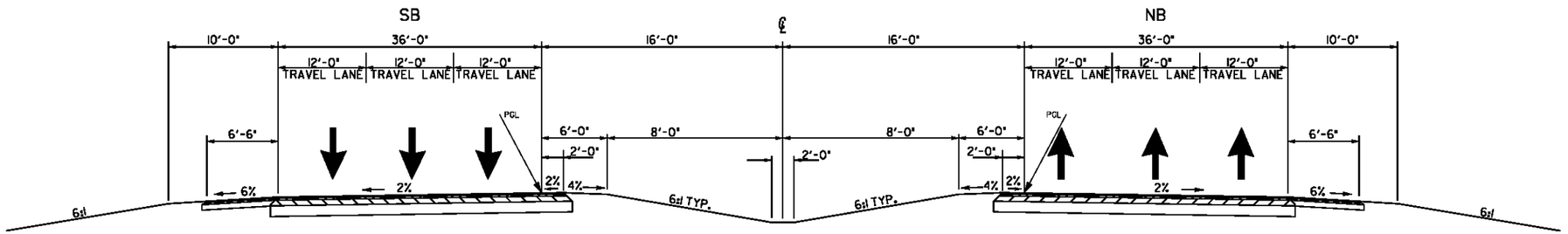


| 3/6/2015 1:48:16 PM<br>USER:gculver | Iversion<br>gpiotbardor-V81-PG.tbl | 0009861_5-001.dgn | STATE<br>GA | PROJECT NUMBER<br>STP00-0155-01(022) | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|

SLOPES STEEPER THAN 2:1 WILL REQUIRE GUARDRAIL.
SEE DETAIL "A" FOR TYPICAL SHOULDER DETAIL FOR GUARDRAIL.

# SR 11/SR 49/US 41

## DEPRESSED MEDIAN SECTION




TANGENT SECTION

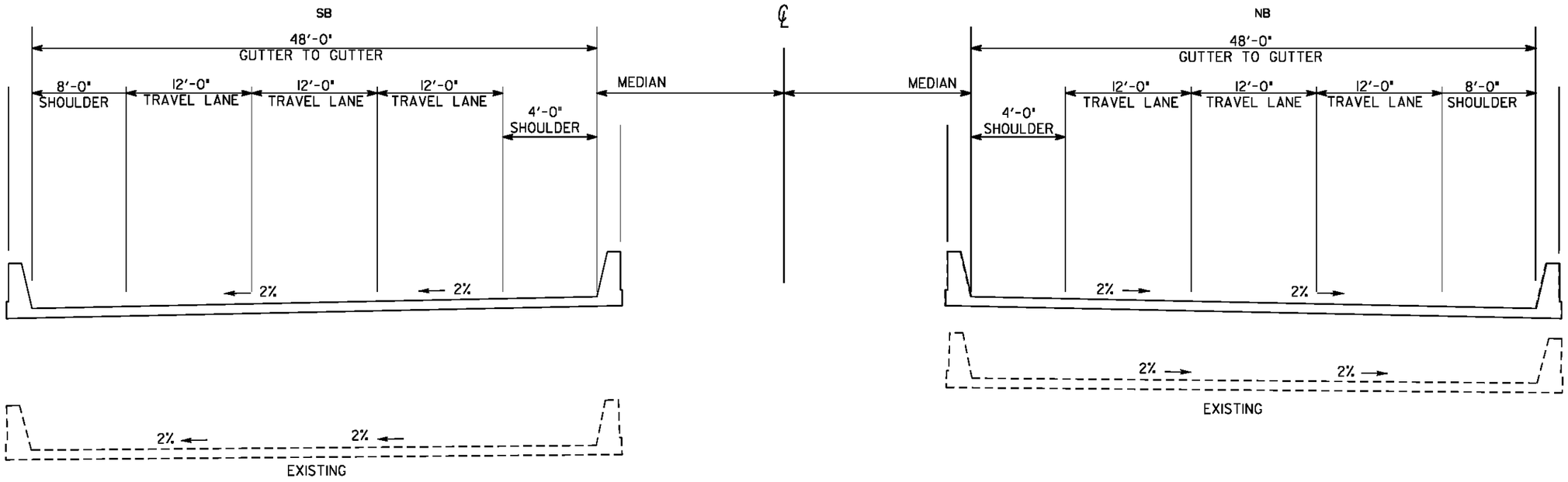
| | | | |
|---|---|---|---|
| | **GEORGIA**<br>**DEPARTMENT OF TRANSPORTATION** | REVISION DATES | STATE OF GEORGIA<br>DEPARTMENT OF TRANSPORTATION<br>OFFICE: ROADWAY DESIGN<br>**TYPICAL SECTIONS**<br>NOT TO SCALE<br>BIBB COUNTY<br>DRAWING No. 5-001 |

3/1/2007 GPLR

| 3/6/2015 1:49:16 PM | Jversion | 0009861_5-002.dgn | STATE | PROJECT NUMBER | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| USER:gculver | gptotbordor-V81-PG.tbl | | GA | STP00-0155-01(023) | | |

- SHOULDER TO SLOPE AT NORMAL RATE, HOWEVER, THE ALGEBRAIC DIFFERENCE IN TRAVEL LANE SLOPE AND SHOULDER SLOPE SHALL NOT EXCEED 8%. MINIMUM SHOULDER SLOPE TO BE 2%.
- ** SHOULDER TO SLOPE AT NORMAL RATE OR SUPERELEVATION RATE, WHICHEVER IS GREATER.

# TWIN BRIDGE SECTION




## SR 11/SR 49/US 41 BRIDGE SECTION

| GEORGIA DEPARTMENT OF TRANSPORTATION | REVISION DATES | STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION<br>OFFICE: ROADWAY DESIGN<br>**TYPICAL SECTIONS**<br>NOT TO SCALE<br>BIBB COUNTY | DRAWING No. 05-002 |
|---|---|---|---|

**Processed Date:4/8/2015**

**Parameters: Bridge Serial Num**

# Bridge Inventory Data Listing

**Structure ID:021-0001-0** **Bibb** **SUFF. RATING: 78.20**

## Location & Geography

| | |
|---|---|
| **Structure ID:** | 021-0001-0 |
| 200 Brdge Information: | 04 |
| *6A Feature Int: *6B Critical Bridge: | TOBESOFKEE CREEK |
| *7A Route No Carried: | SR00011 |
| *7B Facility Carried: | US 41 NBL, SR 49 |
| 9 Location: | SOUTH EDGE MACON C.L. |
| 2 Dot District: | 4841300000 - D3 District Three Thomaston |
| 207 Year Photo: | 2012 |
| *91 Inspection Frequency: | 24 Date: 03/05/2014 |
| 92A Fract Crit Insp Freq: | 0 Date: 02/01/1901 |
| 92B Underwater Insp Freq: | 60 Date: 10/03/2012 |
| 92C Other Spc. Insp Freq: | 00 Date: 02/01/1901 |
| * 4 Place Code: | 00000 |
| *5 Inventory Route(O/U): | 1 |
| Type: | 2 - U.S. Numbered |
| Designation: | 1- Mainline |
| Number: | 00041 |
| Direction: | 0. Not applicable |
| *16 Latitude: | 32.0000- 45.7464 HMMS Prefix:SR |
| *17 Longtitude: | 83.0000- 39.6996 HMMS Suffix:00 |
| | MP: 6.17 |
| 98 Border Bridge: | % Shared:00 |
| 99 ID Number: | 000000000000000 |
| *100 STRAHNET: | 3- The Feature is on a STRAHNET Connector route |
| 12 Base Highway Network: | 1 |
| 13A LRS Inventory Route: | 211001100 |
| 13B Sub Inventory Route: | 0.00 |
| *101 Parallel Structure: | R. Right structure of parallel bridges |
| *102 Direction of Traffic: | 1- One Way |
| *264 Road Inventory Mile Post: | 006.46 |
| *208 Inspection Area: | Area 08 Initials: JKP |
| Engineer's Initials: | JTB |
| * Location ID No: | 021-00011D-006.46N |

| | |
|---|---|
| *104 Highway System: | 1-Inventory Route is on the NHS |
| *26 Functional Classification: | 14- Urban - Other Principal Arterial |
| *204 Federal Route Type: | F - Primary. No: 00023 |
| 105 Federal Lands Highway: | 0. Not applicable |
| *110 Truck Route: | 0 |
| 206 School Bus Route: | 1 |
| 217 Benchmark Elevation: | 0000.00 |
| 218 Datum: | 0- Not Applicable |
| *19 Bypass Length: | 1 |
| *20 Toll: | 3- On a Free Road or Non-Highway |
| *21 Maintanance: | 01-State Highway Agency. |
| *22 Owner: | 01-State Highway Agency. |
| *31 Design Load: | 4- H 20 |
| 37 Historical Significance: | 5- Not eligible for the National Register of Historic Places |
| 205 Congressional District: | 2 - TWO |
| 27 Year Constructed: | 1943 |
| 106 Year Reconsrtucted: | 1985 |
| 33 Bridge Median | 1-Open |
| 34 Skew: | 0 |
| 35 Structure Flared: | No |
| 38 Navigation Control: | 0- Navigation is not controlled by an Agency |
| 213 Special Steel Design: | 0- Not applicable or other |
| 267 Type of Paint: | 0- Not Applicable. |
| *42 Type of Service On: | 1-Highway |
| Type of Service Under: | 5-Waterway |
| 214 Movable Bridge: | 0 |
| 203 Type Bridge: | O - Multip - O. Concrete A. No Beam - O. Concrete |
| 259 Pile Encasement | 3 |
| *43 Structure Type Main: | 2-Concrete (Continuous) 1-Slab |
| 45 No.Spans Main: | 7 |
| 44 Structure Type Appr: | 0- Other 0- Other |
| 46 No Spans Appr: | 0 |
| 226 Bridge Curve Horz | 1 Vert: 0.00 |
| 111 Pier Protection | N - Navigation Control item coded 0, or Feature not a waterway |
| 107 Deck Structure Type: | |
| 108 Wearing Structure Type: | |
| Membrane Type: | |
| Deck Protection: | |

## Signs & Attachments

| | |
|---|---|
| 225 Expansion Joint Type: | 02- Open or sealed concrete joint (silicone sealant) |
| 242 Deck Drains: | 1- Open Scuppers. |
| 243 Parapet Location: | 0- None present. |
| Height: | 0.00 |
| Width: | 0.00 |
| 238 Curb Height: | 0 |
| Curb Material: | 0- None. |
| 239 Handrail | 9- Concrete New Jersey Type Barrier 9- Concrete New Jersey |
| *240 Median Barrier Rail: | 0- None. |
| 241 Bridge Median Height: | 0 |
| * Bridge Median Width: | 0 |
| 230 Guardrail Loc. Dir. Rear: | 6- Both sides, approach and continuous. |
| Fwrd: | 6- Both sides, approach and continuous. |
| Oppo. Dir. Rear: | 0- None. |
| Oppo. Fwrd: | 0- None. |
| 244 Aproach Slab | 3- Forward and Rear. |
| 224 Retaining Wall: | 1- Cast-in-Pla |
| 233Posted Speed Limit: | 55 |
| 236 Warning Sign: | 0.00 |
| 234 Delineator: | 1.00 |
| 235 Hazard Boards: | 1 |
| 237 Utilities Gas: | 00- Not Applicable |
| Water: | 00- Not Applicable |
| Electric: | 00- Not Applicable |
| Telephone: | 23- Bottom Center. |
| Sewer: | 00- Not Applicable |
| 247 Lighting Street: | 0 |
| Navigation: | 0 |
| Aerial: | 0- Not |
| *248 County Continuity No.: | 09 |

# Bridge Inventory Data Listing

## Structure ID:021-0001-0

**Programming Data**

201 Project No: TSAPF-2-3 (5) CT.5
202 Plans Available: 4- Plans in InfoImage.
249 Prop Proj No: 000000000000000000000000
250 Approval Status: 0000
251 PI Number: 0000000
252 Contract Date: 02/01/1901
260 Seismic No: 00000
75 Type Work: 0- Not Applicable 0- Initial Inventory
94 Bridge Imp: Cost: $716
95 Roadway Imp. Cost: $72
96 Total Imp Cost: $1074
76 Imp Length: 0
97 Imp Year: 2013
114 Furure ADT: 52320 Year:2032

**Hydralic Data**

215Waterway 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. No Load Rating; no scour critical data entered.
216 Water Depth: 06.3 Br.Height:12.7
222 Slope Protection: 7
221Spur Dikes Rear 0 Fwd:0
219 Fender System 0- None.
220 Dolphin:
223 Culvert Cover: 000
Type: 0- Not Applicable
No. Barrels: 0
Width: 0.00 Height:0
Length: 0 Apron:0
*265 U/W Insp. Area 2 Diver:RMO
*Location ID No: 021-00011D-006.46N

**Measurements:**

*29 ADT 34880 Year:2012
109 %Trucks: 1
* 28 Lanes On: 3 Under:0
210 No. Tracks On: 00 Under:00
* 48 Max. Span Length 24
* 49 Structure Length: 144
51 Br. Rwdy. Width 50.00
52 Deck Width: 53.40
* 47 Tot. Horiz. Cl: 50
50 Curb / Sidewalk Width 0.00 / 0.00
32 Approach Rdwy. Width 49
*229 Shoulder Width:
Rear Lt: 1.00 Type:2 - Rt:13
Fwd. Lt: 1.00 Type:2 - Rt:13
Pavement Width:
Rear: 36.00 Type: 2- Asphalt.
36.00 Type: 2- Asphalt.
Intersaction Rear: 0 Fwd: 0
36Safety Features Br. Rail: 1- Meets current standards
Transition: 2- Inspected feature meets acceptable construction date standards.
App. G. Rail: 1- Meets current standards
App. Rail End: 2- Inspected feature meets acceptable construction date standards.
53 Minimum Cl. Over: 99'99"
Under: N- Feature not a highway or railroad. 0.00'0.00"
*228 Minimum Vertical Cl
Act. Odm Dir:: 99 ' 99"
Oppo. Dir: 99' 99"
Posted Odm. Dir: 00' 00"
Oppo. Dir: 00'00 "
55 Lateral Undercl. Rt: N- Feature not a highway or railroad. 0.00
56 Lateral Undercl. Lt: 0.00
*10 Max Min Vert Cl: 99' 99" Dir:0
39 Nav Vert Cl: 000 Horiz:0
116 Nav Vert Cl Closed: 000
245 Deck Thickness Main 14.00
Deck Thick Approach: 0.00
246 Overlay Thickness: 3.00
212 Year Last Painted: Sup:0000 Sub:0000

65 Inventory Rating Method: 1-Load Factor (LF)
63 Operating Rating Method: 1-Load Factor (LF)
66 Inventory Type: 2 - HS loading. Rating: 20
64 Operating Type: 2 - HS loading. Rating: 34
231Calculated Loads:
H-Modified: 18 0
HS-Modified: 23 0
Type 3: 19 0
Type 3s2: 31 0
Timber: 23 0
Piggyback: 40 0
261 H Inventory Rating: 13
262 H Operating Rating 23
67 Structural Evaluation: 6
58 Deck Condition: 6 - Satisfactory Condition
59 Superstructure Condition: 6 - Satisfactory Condition
* 227 Collision Damage:
60A Substructure Condition: 6 - Satisfactory Condition
60B Scour Condition: 6 - Satisfactory Condition
60C Underwater Condition 7 - Good Condition
71 Waterway Adequacy: 8-Equal to present desirable criteria.
61 Channel Protection Cond.: 7
68 Deck Geometry: 6
69 UnderClr. Horz/Vert: N
72 Appr. Alignment: 8-No reduction of vehicle operating speed required.
62 Culvert: N - Not Applicable

**Posting Data**

70 Bridge Posting Required 5. Equal to or above legal loads
41 Struct Open, Posted, CL: A. Open, no restriction
* 103 Temporary Structure: 0
232 Posted Loads
H-Modified: 00
HS-Modified: 00
Type 3: 00
Type 3s2: 00
Timber: 00
Piggyback 00
253 Notification Date: 02/01/1901
258 Fed Notify Date: 02/01/1901

**Processed Date:4/8/2015**

**Parameters: Bridge Serial Num**

# Bridge Inventory Data Listing

**Structure ID:021-0002-0** **Bibb** **SUFF. RATING: 83.10**

## Location & Geography

| | |
|---|---|
| **Structure ID:** | 021-0002-0 |
| 200 Brdge Information: | 04 |
| *6A Feature Int: *6B Critical Bridge: | TOBESOFKEE CREEK |
| *7A Route No Carried: | SR00011 |
| *7B Facility Carried: | US 41 SBL, SR 49 |
| 9 Location: | SOUTH EDGE MACON C.L. |
| 2 Dot District: | 4841300000 - D3 District Three Thomaston |
| 207 Year Photo: | 2012 |
| *91 Inspection Frequency: | 24 Date: 03/05/2014 |
| 92A Fract Crit Insp Freq: | 0 Date: 02/01/1901 |
| 92B Underwater Insp Freq: | 60 Date: 10/03/2012 |
| 92C Other Spc. Insp Freq: | 00 Date: 02/01/1901 |
| * 4 Place Code: | 00000 |
| *5 Inventory Route(O/U): | 1 |
| Type: | 2 - U.S. Numbered |
| Designation: | 1- Mainline |
| Number: | 00041 |
| Direction: | 0. Not applicable |
| *16 Latitude: | 32.0000- 45.7440 HMMS Prefix:SR |
| *17 Longtitude: | 83.0000- 39.6852 HMMS Suffix:00 |
| | MP: 6.18 |
| 98 Border Bridge: | % Shared:00 |
| 99 ID Number: | 000000000000000 |
| *100 STRAHNET: | 3- The Feature is on a STRAHNET Connector route |
| 12 Base Highway Network: | 1 |
| 13A LRS Inventory Route: | 211001100 |
| 13B Sub Inventory Route: | 0.00 |
| *101 Parallel Structure: | L. Left structure of parallel bridges |
| *102 Direction of Traffic: | 1- One Way |
| *264 Road Inventory Mile Post: | 006.47 |
| *208 Inspection Area: | Area 08 Initials: JKP |
| Engineer's Initials: | JTB |
| * Location ID No: | 021-00011D-006.47N |

| | |
|---|---|
| *104 Highway System: | 1-Inventory Route is on the NHS |
| *26 Functional Classification: | 14- Urban - Other Principal Arterial |
| *204 Federal Route Type: | F - Primary. No: 00023 |
| 105 Federal Lands Highway: | 0. Not applicable |
| *110 Truck Route: | 0 |
| 206 School Bus Route: | 1 |
| 217 Benchmark Elevation: | 0000.00 |
| 218 Datum: | 0- Not Applicable |
| *19 Bypass Length: | 1 |
| *20 Toll: | 3- On a Free Road or Non-Highway |
| *21 Maintanance: | 01-State Highway Agency. |
| *22 Owner: | 01-State Highway Agency. |
| *31 Design Load: | 2- H 15 |
| 37 Historical Significance: | 5- Not eligible for the National Register of Historic Places |
| 205 Congressional District: | 8 - EIGHT |
| 27 Year Constructed: | 1924 |
| 106 Year Reconsrtucted: | 1985 |
| 33 Bridge Median | 1-Open |
| 34 Skew: | 0 |
| 35 Structure Flared: | No |
| 38 Navigation Control: | 0- Navigation is not controlled by an Agency |
| 213 Special Steel Design: | 0- Not applicable or other |
| 267 Type of Paint: | 6- No Paint present. |
| *42 Type of Service On: | 1-Highway |
| Type of Service Under: | 5-Waterway |
| 214 Movable Bridge: | 0 |
| 203 Type Bridge: | O - Multip - O. Concrete O. Concrete - O. Concrete |
| 259 Pile Encasement | 3 |
| *43 Structure Type Main: | 2-Concrete (Continuous) 4-Tee Beam |
| 45 No.Spans Main: | 3 |
| 44 Structure Type Appr: | 0- Other 0- Other |
| 46 No Spans Appr: | 0 |
| 226 Bridge Curve Horz | 0 Vert: 0.00 |
| 111 Pier Protection | N - Navigation Control item coded 0, or Feature not a waterway |
| 107 Deck Structure Type: | |
| 108 Wearing Structure Type: | |
| Membrane Type: | |
| Deck Protection: | |

## Signs & Attachments

| | |
|---|---|
| 225 Expansion Joint Type: | 02- Open or sealed concrete joint (silicone sealant) |
| 242 Deck Drains: | 1- Open Scuppers. |
| 243 Parapet Location: | 0- None present. |
| Height: | 0.00 |
| Width: | 0.00 |
| 238 Curb Height: | 1 |
| Curb Material: | 1- Concrete. |
| 239 Handrail | 1- Concrete. 9- Concrete New Jersey |
| *240 Median Barrier Rail: | 0- None. |
| 241 Bridge Median Height: | 0 |
| * Bridge Median Width: | 0 |
| 230 Guardrail Loc. Dir. Rear: | 7- Left side - approach only, right side - approach and continuous |
| Fwrd: | 0- None. |
| Oppo. Dir. Rear: | 0- None. |
| Oppo. Fwrd: | 0- None. |
| 244 Aproach Slab | 3- Forward and Rear. |
| 224 Retaining Wall: | 1- Cast-in-Pla |
| 233Posted Speed Limit: | 55 |
| 236 Warning Sign: | 0.00 |
| 234 Delineator: | 1.00 |
| 235 Hazard Boards: | 1 |
| 237 Utilities Gas: | 00- Not Applicable |
| Water: | 00- Not Applicable |
| Electric: | 00- Not Applicable |
| Telephone: | 00- Not Applicable |
| Sewer: | 00- Not Applicable |
| 247 Lighting Street: | 0 |
| Navigation: | 0 |
| Aerial: | 0- Not |
| *248 County Continuity No.: | 09 |

# Bridge Inventory Data Listing

## Structure ID:021-0002-0

**Programming Data**

201 Project No: TSAPF-2-3 (5) CT.5
202 Plans Available: 4- Plans in InfoImage.
249 Prop Proj No: 000000000000000000000000
250 Approval Status: 0000
251 PI Number: 0000000
252 Contract Date: 02/01/1901
260 Seismic No: 00000
75 Type Work: 34- Widening with deck 1- Work to be done by contract
94 Bridge Imp: Cost: $507
95 Roadway Imp. Cost: $51
96 Total Imp Cost: $761
76 Imp Length: 314
97 Imp Year: 2013
114 Furure ADT: 58125 Year:2031

**Hydralic Data**

215Waterway 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. No Load Rating; no scour critical data entered.
216 Water Depth: 10.5 Br.Height:08.3
222 Slope Protection: 1
221Spur Dikes Rear 0 Fwd:0
219 Fender System 0- None.
220 Dolphin:
223 Culvert Cover: 000
Type: 0- Not Applicable
No. Barrels: 0
Width: 0.00 Height:0
Length: 0 Apron:0
*265 U/W Insp. Area 2 Diver:RMO
*Location ID No: 021-00011D-006.47N

**Measurements:**

*29 ADT 38750 Year:2010
109 %Trucks: 1
* 28 Lanes On: 3 Under:0
210 No. Tracks On: 00 Under:00
* 48 Max. Span Length 34
* 49 Structure Length: 102
51 Br. Rwdy. Width 50.30
52 Deck Width: 53.70
* 47 Tot. Horiz. Cl: 50
50 Curb / Sidewalk Width 0.60 / 0.00
32 Approach Rdwy. Width 46
*229 Shoulder Width:
Rear Lt: 7.00 Type:2 - Rt:3
Fwd. Lt: 7.00 Type:2 - Rt:3
Pavement Width:
Rear: 36.00 Type: 2- Asphalt.
36.00 Type: 2- Asphalt.
Intersaction Rear: 0 Fwd: 0
36Safety Features Br. Rail: 2- Inspected feature meets acceptable construction date standards.
Transition: 2- Inspected feature meets acceptable construction date standards.
App. G. Rail: 2- Inspected feature meets acceptable construction date standards.
App. Rail End: 2- Inspected feature meets acceptable construction date standards.
53 Minimum Cl. Over: 99'99"
Under: N- Feature not a highway or railroad. 0.00'0.00"
*228 Minimum Vertical Cl
Act. Odm Dir:: 99 ' 99"
Oppo. Dir: 99' 99"
Posted Odm. Dir: 00' 00"
Oppo. Dir: 00'00 "
55 Lateral Undercl. Rt: N- Feature not a highway or railroad. 0.00
56 Lateral Undercl. Lt: 0.00
*10 Max Min Vert Cl: 99' 99" Dir:0
39 Nav Vert Cl: 000 Horiz:0
116 Nav Vert Cl Closed: 000
245 Deck Thickness Main 7.00
Deck Thick Approach: 0.00
246 Overlay Thickness: 5.00
212 Year Last Painted: Sup:0000 Sub:0000

65 Inventory Rating Method: 1-Load Factor (LF)
63 Operating Rating Method: 1-Load Factor (LF)
66 Inventory Type: 2 - HS loading. Rating: 34
64 Operating Type: 2 - HS loading. Rating: 57
231Calculated Loads:
H-Modified: 20 0
HS-Modified: 25 0
Type 3: 26 0
Type 3s2: 39 0
Timber: 36 0
Piggyback: 40 0
261 H Inventory Rating: 15
262 H Operating Rating 25
67 Structural Evaluation: 5
58 Deck Condition: 6 - Satisfactory Condition
59 Superstructure Condition: 5 - Fair Condition
* 227 Collision Damage:
60A Substructure Condition: 5 - Fair Condition
60B Scour Condition: 7 - Good Condition
60C Underwater Condition 7 - Good Condition
71 Waterway Adequacy: 6-Equal to present minimum criteria.
61 Channel Protection Cond.: 7
68 Deck Geometry: 6
69 UnderClr. Horz/Vert: N
72 Appr. Alignment: 8-No reduction of vehicle operating speed required.
62 Culvert: N - Not Applicable

**Posting Data**

70 Bridge Posting Required 5. Equal to or above legal loads
41 Struct Open, Posted, CL: A. Open, no restriction
* 103 Temporary Structure: 0
232 Posted Loads
H-Modified: 00
HS-Modified: 00
Type 3: 00
Type 3s2: 00
Timber: 00
Piggyback 00
253 Notification Date: 02/01/1901
258 Fed Notify Date: 02/01/1901

**Processed Date:4/8/2015**

**Parameters: Bridge Serial Num**

# Bridge Inventory Data Listing

**Structure ID:021-0003-0** **Bibb** **SUFF. RATING: 81.50**

## Location & Geography

| | |
|---|---|
| **Structure ID:** | 021-0003-0 |
| 200 Brdge Information: | 04 |
| *6A Feature Int: *6B Critical Bridge: | TOBESOFKEE CREEK O/F |
| *7A Route No Carried: | SR00011 |
| *7B Facility Carried: | US 41 NBL, SR 49 |
| 9 Location: | SOUTH EDGE OF MACON C.L. |
| 2 Dot District: | 4841300000 - D3 District Three Thomaston |
| 207 Year Photo: | 2012 |
| *91 Inspection Frequency: | 24 Date: 04/02/2014 |
| 92A Fract Crit Insp Freq: | 0 Date: 02/01/1901 |
| 92B Underwater Insp Freq: | 60 Date: 10/03/2012 |
| 92C Other Spc. Insp Freq: | 00 Date: 02/01/1901 |
| * 4 Place Code: | 00000 |
| *5 Inventory Route(O/U): | 1 |
| Type: | 2 - U.S. Numbered |
| Designation: | 1- Mainline |
| Number: | 00041 |
| Direction: | 0. Not applicable |
| *16 Latitude: | 32.0000- 45.9444 HMMS Prefix:SR |
| *17 Longtitude: | 83.0000- 39.6546 HMMS Suffix:00 |
| | MP: 6.44 |
| 98 Border Bridge: | % Shared:00 |
| 99 ID Number: | 000000000000000 |
| *100 STRAHNET: | 3- The Feature is on a STRAHNET Connector route |
| 12 Base Highway Network: | 1 |
| 13A LRS Inventory Route: | 211001100 |
| 13B Sub Inventory Route: | 0.00 |
| *101 Parallel Structure: | R. Right structure of parallel bridges |
| *102 Direction of Traffic: | 1- One Way |
| *264 Road Inventory Mile Post: | 006.69 |
| *208 Inspection Area: | Area 08 Initials: JKP |
| Engineer's Initials: | JTB |
| * Location ID No: | 021-00011D-006.69N |

| | |
|---|---|
| *104 Highway System: | 1-Inventory Route is on the NHS |
| *26 Functional Classification: | 14- Urban - Other Principal Arterial |
| *204 Federal Route Type: | F - Primary. No: 00023 |
| 105 Federal Lands Highway: | 0. Not applicable |
| *110 Truck Route: | 0 |
| 206 School Bus Route: | 1 |
| 217 Benchmark Elevation: | 0000.00 |
| 218 Datum: | 0- Not Applicable |
| *19 Bypass Length: | 1 |
| *20 Toll: | 3- On a Free Road or Non-Highway |
| *21 Maintanance: | 01-State Highway Agency. |
| *22 Owner: | 01-State Highway Agency. |
| *31 Design Load: | 4- H 20 |
| 37 Historical Significance: | 5- Not eligible for the National Register of Historic Places |
| 205 Congressional District: | 2 - TWO |
| 27 Year Constructed: | 1943 |
| 106 Year Reconsrtucted: | 1985 |
| 33 Bridge Median | 1-Open |
| 34 Skew: | 0 |
| 35 Structure Flared: | No |
| 38 Navigation Control: | 0- Navigation is not controlled by an Agency |
| 213 Special Steel Design: | 0- Not applicable or other |
| 267 Type of Paint: | 0- Not Applicable. |
| *42 Type of Service On: | 1-Highway |
| Type of Service Under: | 9-Relief |
| 214 Movable Bridge: | 0 |
| 203 Type Bridge: | I - Concre - O. Concrete A. No Bear - O. Concrete |
| 259 Pile Encasement | 3 |
| *43 Structure Type Main: | 2-Concrete (Continuous) 1-Slab |
| 45 No.Spans Main: | 6 |
| 44 Structure Type Appr: | 0- Other 0- Other |
| 46 No Spans Appr: | 0 |
| 226 Bridge Curve Horz | 1 Vert: 0.00 |
| 111 Pier Protection | N - Navigation Control item coded 0, or Feature not a waterway |
| 107 Deck Structure Type: | |
| 108 Wearing Structure Type: | |
| Membrane Type: | |
| Deck Protection: | |

## Signs & Attachments

| | |
|---|---|
| 225 Expansion Joint Type: | 02- Open or sealed concrete joint (silicone sealant) |
| 242 Deck Drains: | 1- Open Scuppers. |
| 243 Parapet Location: | 0- None present. |
| Height: | 0.00 |
| Width: | 0.00 |
| 238 Curb Height: | 0 |
| Curb Material: | 0- None. |
| 239 Handrail | 9- Concrete New Jersey Type Barrier 9- Concrete New Jersey |
| *240 Median Barrier Rail: | 0- None. |
| 241 Bridge Median Height: | 0 |
| * Bridge Median Width: | 0 |
| 230 Guardrail Loc. Dir. Rear: | 6- Both sides, approach and continuous. |
| Fwrd: | 6- Both sides, approach and continuous. |
| Oppo. Dir. Rear: | 0- None. |
| Oppo. Fwrd: | 0- None. |
| 244 Aproach Slab | 0- None. |
| 224 Retaining Wall: | 0- None. |
| 233Posted Speed Limit: | 55 |
| 236 Warning Sign: | 0.00 |
| 234 Delineator: | 1.00 |
| 235 Hazard Boards: | 1 |
| 237 Utilities Gas: | 00- Not Applicable |
| Water: | 00- Not Applicable |
| Electric: | 00- Not Applicable |
| Telephone: | 23- Bottom Center. |
| Sewer: | 00- Not Applicable |
| 247 Lighting Street: | 0 |
| Navigation: | 0 |
| Aerial: | 0- Not a |
| *248 County Continuity No.: | 09 |

# Bridge Inventory Data Listing

## Structure ID:021-0003-0

**Programming Data**

201 Project No: TSAPF-2-3 (5) CT.5
202 Plans Available: 4- Plans in InfoImage.
249 Prop Proj No: 000000000000000000000000
250 Approval Status: 0000
251 PI Number: 0000000
252 Contract Date: 02/01/1901
260 Seismic No: 00000
75 Type Work: 0- Not Applicable 0- Initial Inventory
94 Bridge Imp: Cost: $597
95 Roadway Imp. Cost: $60
96 Total Imp Cost: $895
76 Imp Length: 0
97 Imp Year: 2013
114 Furure ADT: 52320 Year:2032

**Hydralic Data**

215Waterway Data:
High Water Elev: 0000.0 Year:1900
Flood Elev: 0000.0 Freq:00
Avg Streambed Elev: 0000.0
Drainage Area: 00215
Area of Opening: 001203
113 Scour Critical U. No Load Rating; no scour critical data entered.
216 Water Depth: 5.4 Br.Height:13.8
222 Slope Protection: 7
221Spur Dikes Rear 0 Fwd:0
219 Fender System 0- None.
220 Dolphin:
223 Culvert Cover: 000
Type: 0- Not Applicable
No. Barrels: 0
Width: 0.00 Height:0
Length: 0 Apron:0
*265 U/W Insp. Area 2 Diver:RMO
*Location ID No: 021-00011D-006.69N

**Measurements:**

*29 ADT 34880 Year:2012
109 %Trucks: 1
* 28 Lanes On: 3 Under:0
210 No. Tracks On: 00 Under:00
* 48 Max. Span Length 24
* 49 Structure Length: 120
51 Br. Rwdy. Width 50.00
52 Deck Width: 53.40
* 47 Tot. Horiz. Cl: 50

50 Curb / Sidewalk Width 0.00 / 0.00
32 Approach Rdwy. Width 49
*229 Shoulder Width:
Rear Lt: 1.00 Type:2 - Rt:13
Fwd. Lt: 1.00 Type:2 - Rt:13

Pavement Width:
Rear: 36.00 Type: 2- Asphalt.
36.00 Type: 2- Asphalt.
Intersaction Rear: 0 Fwd: 0
36Safety Features Br. Rail: 1- Meets current standards
Transition: 2- Inspected feature meets acceptable construction date standards.
App. G. Rail: 1- Meets current standards
App. Rail End: 2- Inspected feature meets acceptable construction date standards.
53 Minimum Cl. Over: 99'99"
Under: N- Feature not a highway or railroad. 0.00'0.00"
*228 Minimum Vertical Cl
Act. Odm Dir:: 99 ' 99"
Oppo. Dir: 99' 99"
Posted Odm. Dir: 00' 00"
Oppo. Dir: 00'00 "
55 Lateral Undercl. Rt: N- Feature not a highway or railroad. 0.00
56 Lateral Undercl. Lt: 0.00
*10 Max Min Vert Cl: 99' 99" Dir:0
39 Nav Vert Cl: 000 Horiz:0
116 Nav Vert Cl Closed: 000
245 Deck Thickness Main 12.70
Deck Thick Approach: 0.00
246 Overlay Thickness: 3.00

212 Year Last Painted: Sup:0000 Sub:0000

65 Inventory Rating Method: 1-Load Factor (LF)
63 Operating Rating Method: 1-Load Factor (LF)
66 Inventory Type: 2 - HS loading. Rating: 22
64 Operating Type: 2 - HS loading. Rating: 36
231Calculated Loads:
H-Modified: 18 0
HS-Modified: 24 0
Type 3: 19 0
Type 3s2: 32 0
Timber: 26 0
Piggyback: 32 0
261 H Inventory Rating: 15
262 H Operating Rating 25
67 Structural Evaluation: 6
58 Deck Condition: 7 - Good Condition
59 Superstructure Condition: 7 - Good Condition
* 227 Collision Damage:
60A Substructure Condition: 6 - Satisfactory Condition
60B Scour Condition: 7 - Good Condition
60C Underwater Condition 6 - Satisfactory Condition
71 Waterway Adequacy: 8-Equal to present desirable criteria.
61 Channel Protection Cond.: 7
68 Deck Geometry: 6
69 UnderClr. Horz/Vert: N
72 Appr. Alignment: 8-No reduction of vehicle operating speed required.
62 Culvert: N - Not Applicable

**Posting Data**

70 Bridge Posting Required 5. Equal to or above legal loads
41 Struct Open, Posted, CL: A. Open, no restriction
* 103 Temporary Structure: 0
232 Posted Loads
H-Modified: 00
HS-Modified: 00
Type 3: 00
Type 3s2: 00
Timber: 00
Piggyback 00
253 Notification Date: 02/01/1901
258 Fed Notify Date: 02/01/1901

**Processed Date:4/8/2015**

**Parameters: Bridge Serial Num**

# Bridge Inventory Data Listing

**Structure ID:021-0004-0** **Bibb** **SUFF. RATING: 72.00**

## Location & Geography

| | |
|---|---|
| **Structure ID:** | 021-0004-0 |
| 200 Brdge Information: | 04 |
| *6A Feature Int: *6B Critical Bridge: | TOBESOFKEE CREEK O/F |
| *7A Route No Carried: | SR00011 |
| *7B Facility Carried: | US 41 SBL, SR 49 |
| 9 Location: | SOUTH EDGE OF MACON C.L. |
| 2 Dot District: | 4841300000 - D3 District Three Thomaston |
| 207 Year Photo: | 2012 |
| *91 Inspection Frequency: | 24 Date: 04/02/2014 |
| 92A Fract Crit Insp Freq: | 0 Date: 02/01/1901 |
| 92B Underwater Insp Freq: | 60 Date: 10/03/2012 |
| 92C Other Spc. Insp Freq: | 00 Date: 02/01/1901 |
| * 4 Place Code: | 00000 |
| *5 Inventory Route(O/U): | 1 |
| Type: | 2 - U.S. Numbered |
| Designation: | 1- Mainline |
| Number: | 00041 |
| Direction: | 0. Not applicable |
| *16 Latitude: | 32.0000- 45.9408 HMMS Prefix:SR |
| *17 Longtitude: | 83.0000- 39.6408 HMMS Suffix:00 |
| | MP: 6.45 |
| 98 Border Bridge: | % Shared:00 |
| 99 ID Number: | 000000000000000 |
| *100 STRAHNET: | 3- The Feature is on a STRAHNET Connector route |
| 12 Base Highway Network: | 1 |
| 13A LRS Inventory Route: | 211001100 |
| 13B Sub Inventory Route: | 0.00 |
| *101 Parallel Structure: | L. Left structure of parallel bridges |
| *102 Direction of Traffic: | 1- One Way |
| *264 Road Inventory Mile Post: | 006.70 |
| *208 Inspection Area: | Area 08 Initials: JKP |
| Engineer's Initials: | JTB |
| * Location ID No: | 021-00011D-006.70N |

| | |
|---|---|
| *104 Highway System: | 1-Inventory Route is on the NHS |
| *26 Functional Classification: | 14- Urban - Other Principal Arterial |
| *204 Federal Route Type: | F - Primary. No: 00023 |
| 105 Federal Lands Highway: | 0. Not applicable |
| *110 Truck Route: | 0 |
| 206 School Bus Route: | 1 |
| 217 Benchmark Elevation: | 0000.00 |
| 218 Datum: | 0- Not Applicable |
| *19 Bypass Length: | 1 |
| *20 Toll: | 3- On a Free Road or Non-Highway |
| *21 Maintanance: | 01-State Highway Agency. |
| *22 Owner: | 01-State Highway Agency. |
| *31 Design Load: | 2- H 15 |
| 37 Historical Significance: | 5- Not eligible for the National Register of Historic Places |
| 205 Congressional District: | 8 - EIGHT |
| 27 Year Constructed: | 1924 |
| 106 Year Reconsrtucted: | 1985 |
| 33 Bridge Median | 1-Open |
| 34 Skew: | 0 |
| 35 Structure Flared: | No |
| 38 Navigation Control: | 0- Navigation is not controlled by an Agency |
| 213 Special Steel Design: | 0- Not applicable or other |
| 267 Type of Paint: | 0- Not Applicable. |
| *42 Type of Service On: | 1-Highway |
| Type of Service Under: | 9-Relief |
| 214 Movable Bridge: | 0 |
| 203 Type Bridge: | I - Concre - O. Concrete O. Concrete - O. Concrete |
| 259 Pile Encasement | 3 |
| *43 Structure Type Main: | 1-Concrete 4-Tee Beam |
| 45 No.Spans Main: | 3 |
| 44 Structure Type Appr: | 0- Other 0- Other |
| 46 No Spans Appr: | 0 |
| 226 Bridge Curve Horz | 1 Vert: 0.00 |
| 111 Pier Protection | N - Navigation Control item coded 0, or Feature not a waterway |
| 107 Deck Structure Type: | |
| 108 Wearing Structure Type: | |
| Membrane Type: | |
| Deck Protection: | |

## Signs & Attachments

| | |
|---|---|
| 225 Expansion Joint Type: | 02- Open or sealed concrete joint (silicone sealant) |
| 242 Deck Drains: | 1- Open Scuppers. |
| 243 Parapet Location: | 0- None present. |
| Height: | 0.00 |
| Width: | 0.00 |
| 238 Curb Height: | 1 |
| Curb Material: | 1- Concrete. |
| 239 Handrail | 1- Concrete. 9- Concrete New Jersey |
| *240 Median Barrier Rail: | 0- None. |
| 241 Bridge Median Height: | 0 |
| * Bridge Median Width: | 0 |
| 230 Guardrail Loc. Dir. Rear: | 7- Left side - approach only, right side - approach and continuous |
| Fwrd: | 0- None. |
| Oppo. Dir. Rear: | 0- None. |
| Oppo. Fwrd: | 0- None. |
| 244 Aproach Slab | 3- Forward and Rear. |
| 224 Retaining Wall: | 1- Cast-in-Pla |
| 233Posted Speed Limit: | 55 |
| 236 Warning Sign: | 0.00 |
| 234 Delineator: | 1.00 |
| 235 Hazard Boards: | 1 |
| 237 Utilities Gas: | 00- Not Applicable |
| Water: | 00- Not Applicable |
| Electric: | 00- Not Applicable |
| Telephone: | 00- Not Applicable |
| Sewer: | 00- Not Applicable |
| 247 Lighting Street: | 0 |
| Navigation: | 0 |
| Aerial: | 0- Not |
| *248 County Continuity No.: | 09 |

# Bridge Inventory Data Listing

## Structure ID:021-0004-0

**Programming Data**

201 Project No: TSAPF-2-3 (5) CT.5
202 Plans Available: 4- Plans in InfoImage.
249 Prop Proj No: 000000000000000000000000
250 Approval Status: 0000
251 PI Number: 0000000
252 Contract Date: 02/01/1901
260 Seismic No: 00000
75 Type Work: 34- Widening with deck 1- Work to be done by contract
94 Bridge Imp: Cost: $512
95 Roadway Imp. Cost: $51
96 Total Imp Cost: $768
76 Imp Length: 313
97 Imp Year: 2013
114 Furure ADT: 58125 Year:2031

**Hydralic Data**

215Waterway Data:
High Water Elev: 0000.0 Year:1900
Flood Elev: 3800.0 Freq:50
Avg Streambed Elev: 0000.0
Drainage Area: 00210
Area of Opening: 000633
113 Scour Critical U. No Load Rating; no scour critical data entered.
216 Water Depth: 7.2 Br.Height:9.0
222 Slope Protection: 1
221Spur Dikes Rear 0 Fwd:0
219 Fender System 0- None.
220 Dolphin:
223 Culvert Cover: 000
Type: 0- Not Applicable
No. Barrels: 0
Width: 0.00 Height:0
Length: 0 Apron:0
*265 U/W Insp. Area 2 Diver:RMO
*Location ID No: 021-00011D-006.70N

**Measurements:**

*29 ADT 38750 Year:2010
109 %Trucks: 1
* 28 Lanes On: 3 Under:0
210 No. Tracks On: 00 Under:00
* 48 Max. Span Length 39
* 49 Structure Length: 103
51 Br. Rwdy. Width 50.30
52 Deck Width: 53.70
* 47 Tot. Horiz. Cl: 50

50 Curb / Sidewalk Width 0.60 / 0.00
32 Approach Rdwy. Width 46
*229 Shoulder Width:
Rear Lt: 7.00 Type:2 - Rt:3
Fwd. Lt: 7.00 Type:2 - Rt:3

Pavement Width:
Rear: 36.00 Type: 2- Asphalt.
36.00 Type: 2- Asphalt.
Intersaction Rear: 0 Fwd: 0
36Safety Features Br. Rail: 2- Inspected feature meets acceptable construction date standards.
Transition: 2- Inspected feature meets acceptable construction date standards.
App. G. Rail: 2- Inspected feature meets acceptable construction date standards.
App. Rail End: 2- Inspected feature meets acceptable construction date standards.
53 Minimum Cl. Over: 99'99"
Under: N- Feature not a highway or railroad. 0.00'0.00"
*228 Minimum Vertical Cl
Act. Odm Dir:: 99 ' 99"
Oppo. Dir: 99' 99"
Posted Odm. Dir: 00' 00"
Oppo. Dir: 00'00 "
55 Lateral Undercl. Rt: N- Feature not a highway or railroad. 0.00
56 Lateral Undercl. Lt: 0.00
*10 Max Min Vert Cl: 99' 99" Dir:0
39 Nav Vert Cl: 000 Horiz:0
116 Nav Vert Cl Closed: 000
245 Deck Thickness Main 7.00
Deck Thick Approach: 0.00
246 Overlay Thickness: 4.00

212 Year Last Painted: Sup:0000 Sub:0000

65 Inventory Rating Method: 1-Load Factor (LF)
63 Operating Rating Method: 1-Load Factor (LF)
66 Inventory Type: 2 - HS loading. Rating: 24
64 Operating Type: 2 - HS loading. Rating: 41
231Calculated Loads:
H-Modified: 20 0
HS-Modified: 25 0
Type 3: 26 0
Type 3s2: 39 0
Timber: 36 0
Piggyback: 40 0
261 H Inventory Rating: 15
262 H Operating Rating 25
67 Structural Evaluation: 5
58 Deck Condition: 7 - Good Condition
59 Superstructure Condition: 5 - Fair Condition
* 227 Collision Damage:
60A Substructure Condition: 6 - Satisfactory Condition
60B Scour Condition: 6 - Satisfactory Condition
60C Underwater Condition 7 - Good Condition
71 Waterway Adequacy: 6-Equal to present minimum criteria.
61 Channel Protection Cond.: 6
68 Deck Geometry: 6
69 UnderClr. Horz/Vert: N
72 Appr. Alignment: 8-No reduction of vehicle operating speed required.
62 Culvert: N - Not Applicable

**Posting Data**

70 Bridge Posting Required 5. Equal to or above legal loads
41 Struct Open, Posted, CL: A. Open, no restriction
* 103 Temporary Structure: 0
232 Posted Loads
H-Modified: 00
HS-Modified: 00
Type 3: 00
Type 3s2: 00
Timber: 00
Piggyback 00
253 Notification Date: 02/01/1901
258 Fed Notify Date: 02/01/1901

**Processed Date:4/8/2015**

**Parameters: Bridge Serial Num**

# Bridge Inventory Data Listing

**Structure ID:021-0005-0** **Bibb** **SUFF. RATING: 79.80**

## Location & Geography

| | |
|---|---|
| **Structure ID:** | 021-0005-0 |
| 200 Brdge Information: | 04 |
| *6A Feature Int: *6B Critical Bridge: | ROCKY CREEK OVERFLOW |
| *7A Route No Carried: | SR00011 |
| *7B Facility Carried: | US 41 NBL, SR 49 |
| 9 Location: | SOUTH EDGE OF MACON C.L. |
| 2 Dot District: | 4841300000 - D3 District Three Thomaston |
| 207 Year Photo: | 2012 |
| *91 Inspection Frequency: | 24 Date: 04/02/2014 |
| 92A Fract Crit Insp Freq: | 0 Date: 02/01/1901 |
| 92B Underwater Insp Freq: | 60 Date: 10/03/2012 |
| 92C Other Spc. Insp Freq: | 00 Date: 02/01/1901 |
| * 4 Place Code: | 00000 |
| *5 Inventory Route(O/U): | 1 |
| Type: | 2 - U.S. Numbered |
| Designation: | 1- Mainline |
| Number: | 00041 |
| Direction: | 0. Not applicable |
| *16 Latitude: | 32.0000- 46.0740 HMMS Prefix:SR |
| *17 Longtitude: | 83.0000- 39.6204 HMMS Suffix:00 |
| | MP: 6.59 |
| 98 Border Bridge: | % Shared:00 |
| 99 ID Number: | 000000000000000 |
| *100 STRAHNET: | 3- The Feature is on a STRAHNET Connector route |
| 12 Base Highway Network: | 1 |
| 13A LRS Inventory Route: | 211001100 |
| 13B Sub Inventory Route: | 0.00 |
| *101 Parallel Structure: | R. Right structure of parallel bridges |
| *102 Direction of Traffic: | 1- One Way |
| *264 Road Inventory Mile Post: | 006.84 |
| *208 Inspection Area: | Area 08 Initials: JKP |
| Engineer's Initials: | JTB |
| * Location ID No: | 021-00011D-006.84N |

| | |
|---|---|
| *104 Highway System: | 1-Inventory Route is on the NHS |
| *26 Functional Classification: | 14- Urban - Other Principal Arterial |
| *204 Federal Route Type: | F - Primary. No: 00023 |
| 105 Federal Lands Highway: | 0. Not applicable |
| *110 Truck Route: | 0 |
| 206 School Bus Route: | 1 |
| 217 Benchmark Elevation: | 0000.00 |
| 218 Datum: | 0- Not Applicable |
| *19 Bypass Length: | 1 |
| *20 Toll: | 3- On a Free Road or Non-Highway |
| *21 Maintanance: | 01-State Highway Agency. |
| *22 Owner: | 01-State Highway Agency. |
| *31 Design Load: | 4- H 20 |
| 37 Historical Significance: | 5- Not eligible for the National Register of Historic Places |
| 205 Congressional District: | 2 - TWO |
| 27 Year Constructed: | 1943 |
| 106 Year Reconsrtucted: | 1985 |
| 33 Bridge Median | 1-Open |
| 34 Skew: | 0 |
| 35 Structure Flared: | No |
| 38 Navigation Control: | 0- Navigation is not controlled by an Agency |
| 213 Special Steel Design: | 0- Not applicable or other |
| 267 Type of Paint: | 0- Not Applicable. |
| *42 Type of Service On: | 1-Highway |
| Type of Service Under: | 5-Waterway |
| 214 Movable Bridge: | 0 |
| 203 Type Bridge: | I - Concre - O. Concrete A. No Bear- O. Concrete |
| 259 Pile Encasement | 3 |
| *43 Structure Type Main: | 2-Concrete (Continuous) 1-Slab |
| 45 No.Spans Main: | 7 |
| 44 Structure Type Appr: | 0- Other 0- Other |
| 46 No Spans Appr: | 0 |
| 226 Bridge Curve Horz | 0 Vert: 0.00 |
| 111 Pier Protection | N - Navigation Control item coded 0, or Feature not a waterway |
| 107 Deck Structure Type: | |
| 108 Wearing Structure Type: | |
| Membrane Type: | |
| Deck Protection: | |

## Signs & Attachments

| | |
|---|---|
| 225 Expansion Joint Type: | 02- Open or sealed concrete joint (silicone sealant) |
| 242 Deck Drains: | 1- Open Scuppers. |
| 243 Parapet Location: | 0- None present. |
| Height: | 0.00 |
| Width: | 0.00 |
| 238 Curb Height: | 0 |
| Curb Material: | 0- None. |
| 239 Handrail | 9- Concrete New Jersey Type Barrier 9- Concrete New Jersey |
| *240 Median Barrier Rail: | 0- None. |
| 241 Bridge Median Height: | 0 |
| * Bridge Median Width: | 0 |
| 230 Guardrail Loc. Dir. Rear: | 6- Both sides, approach and continuous. |
| Fwrd: | 6- Both sides, approach and continuous. |
| Oppo. Dir. Rear: | 0- None. |
| Oppo. Fwrd: | 0- None. |
| 244 Aproach Slab | 3- Forward and Rear. |
| 224 Retaining Wall: | 0- None. |
| 233Posted Speed Limit: | 55 |
| 236 Warning Sign: | 0.00 |
| 234 Delineator: | 1.00 |
| 235 Hazard Boards: | 1 |
| 237 Utilities Gas: | 00- Not Applicable |
| Water: | 00- Not Applicable |
| Electric: | 00- Not Applicable |
| Telephone: | 23- Bottom Center. |
| Sewer: | 00- Not Applicable |
| 247 Lighting Street: | 0 |
| Navigation: | 0 |
| Aerial: | 0- Not a |
| *248 County Continuity No.: | 09 |

# Bridge Inventory Data Listing

## Structure ID:021-0005-0

**Programming Data**

201 Project No: TSAPF-2-3 (5) CT.5
202 Plans Available: 4- Plans in InfoImage.
249 Prop Proj No: 000000000000000000000000
250 Approval Status: 0000
251 PI Number: 0000000
252 Contract Date: 02/01/1901
260 Seismic No: 00000
75 Type Work: 0- Not Applicable 0- Initial Inventory
94 Bridge Imp: Cost: $716
95 Roadway Imp. Cost: $72
96 Total Imp Cost: $1074
76 Imp Length: 0
97 Imp Year: 2013
114 Furure ADT: 52320 Year:2032

**Hydralic Data**

215Waterway Data:
High Water Elev: 0000.0 Year:1900
Flood Elev: 0000.0 Freq:50
Avg Streambed Elev: 3800.0
Drainage Area: 00215
Area of Opening: 000639
113 Scour Critical U. No Load Rating; no scour critical data entered.
216 Water Depth: 8.4 Br.Height:13.8
222 Slope Protection: 7
221Spur Dikes Rear 0 Fwd:0
219 Fender System 0- None.
220 Dolphin:
223 Culvert Cover: 000
Type: 0- Not Applicable
No. Barrels: 0
Width: 0.00 Height:0
Length: 0 Apron:0
*265 U/W Insp. Area 2 Diver:RMO
*Location ID No: 021-00011D-006.84N

**Measurements:**

*29 ADT 34880 Year:2012
109 %Trucks: 1
* 28 Lanes On: 3 Under:0
210 No. Tracks On: 00 Under:00
* 48 Max. Span Length 24
* 49 Structure Length: 144
51 Br. Rwdy. Width 50.00
52 Deck Width: 53.40
* 47 Tot. Horiz. Cl: 50

50 Curb / Sidewalk Width 0.00 / 0.00
32 Approach Rdwy. Width 49
*229 Shoulder Width:
Rear Lt: 1.00 Type:2 - Rt:13
Fwd. Lt: 1.00 Type:2 - Rt:13

Pavement Width:
Rear: 36.00 Type: 2- Asphalt.
36.00 Type: 2- Asphalt.
Intersaction Rear: 0 Fwd: 0
36Safety Features Br. Rail: 1- Meets current standards
Transition: 2- Inspected feature meets acceptable construction date standards.
App. G. Rail: 1- Meets current standards
App. Rail End: 2- Inspected feature meets acceptable construction date standards.
53 Minimum Cl. Over: 99'99"
Under: N- Feature not a highway or railroad. 0.00'0.00"
*228 Minimum Vertical Cl
Act. Odm Dir:: 99 ' 99"
Oppo. Dir: 99' 99"
Posted Odm. Dir: 00' 00"
Oppo. Dir: 00'00 "
55 Lateral Undercl. Rt: N- Feature not a highway or railroad. 0.00
56 Lateral Undercl. Lt: 0.00
*10 Max Min Vert Cl: 99' 99" Dir:0
39 Nav Vert Cl: 000 Horiz:0
116 Nav Vert Cl Closed: 000
245 Deck Thickness Main 12.00
Deck Thick Approach: 0.00
246 Overlay Thickness: 2.50

212 Year Last Painted: Sup:0000 Sub:0000

65 Inventory Rating Method: 1-Load Factor (LF)
63 Operating Rating Method: 1-Load Factor (LF)
66 Inventory Type: 2 - HS loading. Rating: 21
64 Operating Type: 2 - HS loading. Rating: 35
231Calculated Loads:
H-Modified: 18 0
HS-Modified: 24 0
Type 3: 20 0
Type 3s2: 32 0
Timber: 24 0
Piggyback: 32 0
261 H Inventory Rating: 14
262 H Operating Rating 23
67 Structural Evaluation: 6
58 Deck Condition: 7 - Good Condition
59 Superstructure Condition: 7 - Good Condition
* 227 Collision Damage:
60A Substructure Condition: 6 - Satisfactory Condition
60B Scour Condition: 6 - Satisfactory Condition
60C Underwater Condition 7 - Good Condition
71 Waterway Adequacy: 8-Equal to present desirable criteria.
61 Channel Protection Cond.: 7
68 Deck Geometry: 6
69 UnderClr. Horz/Vert: N
72 Appr. Alignment: 8-No reduction of vehicle operating speed required.
62 Culvert: N - Not Applicable

**Posting Data**

70 Bridge Posting Required 5. Equal to or above legal loads
41 Struct Open, Posted, CL: A. Open, no restriction
* 103 Temporary Structure: 0
232 Posted Loads
H-Modified: 00
HS-Modified: 00
Type 3: 00
Type 3s2: 00
Timber: 00
Piggyback 00
253 Notification Date: 02/01/1901
258 Fed Notify Date: 02/01/1901

**Processed Date:4/8/2015**

**Parameters: Bridge Serial Num**

# Bridge Inventory Data Listing

**Structure ID:021-0006-0** **Bibb** **SUFF. RATING: 73.40**

## Location & Geography

| | |
|---|---|
| **Structure ID:** | 021-0006-0 |
| 200 Brdge Information: | 04 |
| *6A Feature Int: *6B Critical Bridge: | ROCKY CREEK OVERFLOW |
| *7A Route No Carried: | SR00011 |
| *7B Facility Carried: | US 41 SBL, SR 49 |
| 9 Location: | SOUTH EDGE OF MACON C.L. |
| 2 Dot District: | 4841300000 - D3 District Three Thomaston |
| 207 Year Photo: | 2012 |
| *91 Inspection Frequency: | 24 Date: 04/02/2014 |
| 92A Fract Crit Insp Freq: | 0 Date: 02/01/1901 |
| 92B Underwater Insp Freq: | 60 Date: 10/03/2012 |
| 92C Other Spc. Insp Freq: | 00 Date: 02/01/1901 |
| * 4 Place Code: | 00000 |
| *5 Inventory Route(O/U): | 1 |
| Type: | 2 - U.S. Numbered |
| Designation: | 1- Mainline |
| Number: | 00041 |
| Direction: | 0. Not applicable |
| *16 Latitude: | 32.0000- 46.0722 HMMS Prefix:SR |
| *17 Longtitude: | 83.0000- 39.6072 HMMS Suffix:00 |
| | MP: 6.60 |
| 98 Border Bridge: | % Shared:00 |
| 99 ID Number: | 000000000000000 |
| *100 STRAHNET: | 3- The Feature is on a STRAHNET Connector route |
| 12 Base Highway Network: | 1 |
| 13A LRS Inventory Route: | 211001100 |
| 13B Sub Inventory Route: | 0.00 |
| *101 Parallel Structure: | L. Left structure of parallel bridges |
| *102 Direction of Traffic: | 1- One Way |
| *264 Road Inventory Mile Post: | 006.85 |
| *208 Inspection Area: | Area 08 Initials: JKP |
| Engineer's Initials: | JTB |
| * Location ID No: | 021-00011D-006.85N |

| | |
|---|---|
| *104 Highway System: | 1-Inventory Route is on the NHS |
| *26 Functional Classification: | 14- Urban - Other Principal Arterial |
| *204 Federal Route Type: | F - Primary. No: 00023 |
| 105 Federal Lands Highway: | 0. Not applicable |
| *110 Truck Route: | 0 |
| 206 School Bus Route: | 1 |
| 217 Benchmark Elevation: | 0000.00 |
| 218 Datum: | 0- Not Applicable |
| *19 Bypass Length: | 1 |
| *20 Toll: | 3- On a Free Road or Non-Highway |
| *21 Maintanance: | 01-State Highway Agency. |
| *22 Owner: | 01-State Highway Agency. |
| *31 Design Load: | 2- H 15 |
| 37 Historical Significance: | 5- Not eligible for the National Register of Historic Places |
| 205 Congressional District: | 8 - EIGHT |
| 27 Year Constructed: | 1924 |
| 106 Year Reconsrtucted: | 1985 |
| 33 Bridge Median | 1-Open |
| 34 Skew: | 0 |
| 35 Structure Flared: | No |
| 38 Navigation Control: | 0- Navigation is not controlled by an Agency |
| 213 Special Steel Design: | 0- Not applicable or other |
| 267 Type of Paint: | 0- Not Applicable. |
| *42 Type of Service On: | 1-Highway |
| Type of Service Under: | 5-Waterway |
| 214 Movable Bridge: | 0 |
| 203 Type Bridge: | I - Concre - O. Concrete O. Concrete- O. Concrete |
| 259 Pile Encasement | 3 |
| *43 Structure Type Main: | 2-Concrete (Continuous) 4-Tee Beam |
| 45 No.Spans Main: | 3 |
| 44 Structure Type Appr: | 0- Other 0- Other |
| 46 No Spans Appr: | 0 |
| 226 Bridge Curve Horz | 0 Vert: 0.00 |
| 111 Pier Protection | N - Navigation Control item coded 0, or Feature not a waterway |
| 107 Deck Structure Type: | |
| 108 Wearing Structure Type: | |
| Membrane Type: | |
| Deck Protection: | |

## Signs & Attachments

| | |
|---|---|
| 225 Expansion Joint Type: | 02- Open or sealed concrete joint (silicone sealant) |
| 242 Deck Drains: | 1- Open Scuppers. |
| 243 Parapet Location: | 0- None present. |
| Height: | 0.00 |
| Width: | 0.00 |
| 238 Curb Height: | 1 |
| Curb Material: | 5- Combination. |
| 239 Handrail | 1- Concrete. 9- Concrete New Jersey |
| *240 Median Barrier Rail: | 0- None. |
| 241 Bridge Median Height: | 0 |
| * Bridge Median Width: | 0 |
| 230 Guardrail Loc. Dir. Rear: | 7- Left side - approach only, right side - approach and continuous |
| Fwrd: | 0- None. |
| Oppo. Dir. Rear: | 0- None. |
| Oppo. Fwrd: | 0- None. |
| 244 Aproach Slab | 3- Forward and Rear. |
| 224 Retaining Wall: | 1- Cast-in-Pla |
| 233Posted Speed Limit: | 55 |
| 236 Warning Sign: | 0.00 |
| 234 Delineator: | 1.00 |
| 235 Hazard Boards: | 1 |
| 237 Utilities Gas: | 00- Not Applicable |
| Water: | 00- Not Applicable |
| Electric: | 00- Not Applicable |
| Telephone: | 00- Not Applicable |
| Sewer: | 00- Not Applicable |
| 247 Lighting Street: | 0 |
| Navigation: | 0 |
| Aerial: | 0- Not |
| *248 County Continuity No.: | 09 |

# Bridge Inventory Data Listing

## Structure ID:021-0006-0

**Programming Data**

201 Project No: TSAPF-2-3 (5) CT.5
202 Plans Available: 4- Plans in InfoImage.
249 Prop Proj No: 000000000000000000000000
250 Approval Status: 0000
251 PI Number: 0000000
252 Contract Date: 02/01/1901
260 Seismic No: 00000
75 Type Work: 34- Widening with deck 1- Work to be done by contract
94 Bridge Imp: Cost: $507
95 Roadway Imp. Cost: $51
96 Total Imp Cost: $761
76 Imp Length: 313
97 Imp Year: 2013
114 Furure ADT: 58125 Year:2031

**Hydralic Data**

215Waterway 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. No Load Rating; no scour critical data entered.
216 Water Depth: 7.4 Br.Height:9.0
222 Slope Protection: 1
221Spur Dikes Rear 0 Fwd:0
219 Fender System 0- None.
220 Dolphin:
223 Culvert Cover: 000
Type: 0- Not Applicable
No. Barrels: 0
Width: 0.00 Height:0
Length: 0 Apron:0
*265 U/W Insp. Area 2 Diver:RMO
*Location ID No: 021-00011D-006.85N

**Measurements:**

*29 ADT 38750 Year:2010
109 %Trucks: 1
* 28 Lanes On: 3 Under:0
210 No. Tracks On: 00 Under:00
* 48 Max. Span Length 34
* 49 Structure Length: 102
51 Br. Rwdy. Width 50.30
52 Deck Width: 53.70
* 47 Tot. Horiz. Cl: 50

50 Curb / Sidewalk Width 0.60 / 0.00
32 Approach Rdwy. Width 46
*229 Shoulder Width:
Rear Lt: 7.00 Type:2 - Rt:3
Fwd. Lt: 7.00 Type:2 - Rt:3

Pavement Width:
Rear: 36.00 Type: 2- Asphalt.
36.00 Type: 2- Asphalt.
Intersaction Rear: 0 Fwd: 0
36Safety Features Br. Rail: 2- Inspected feature meets acceptable construction date standards.
Transition: 2- Inspected feature meets acceptable construction date standards.
App. G. Rail: 2- Inspected feature meets acceptable construction date standards.
App. Rail End: 2- Inspected feature meets acceptable construction date standards.
53 Minimum Cl. Over: 99'99"
Under: N- Feature not a highway or railroad. 0.00'0.00"
*228 Minimum Vertical Cl
Act. Odm Dir:: 99 ' 99"
Oppo. Dir: 99' 99"
Posted Odm. Dir: 00' 00"
Oppo. Dir: 00'00 "
55 Lateral Undercl. Rt: N- Feature not a highway or railroad. 0.00
56 Lateral Undercl. Lt: 0.00
*10 Max Min Vert Cl: 99' 99" Dir:0
39 Nav Vert Cl: 000 Horiz:0
116 Nav Vert Cl Closed: 000
245 Deck Thickness Main 7.00
Deck Thick Approach: 0.00
246 Overlay Thickness: 3.50

212 Year Last Painted: Sup:0000 Sub:0000

65 Inventory Rating Method: 1-Load Factor (LF)
63 Operating Rating Method: 1-Load Factor (LF)
66 Inventory Type: 2 - HS loading. Rating: 25
64 Operating Type: 2 - HS loading. Rating: 41
231Calculated Loads:
H-Modified: 20 0
HS-Modified: 25 0
Type 3: 28 0
Type 3s2: 40 0
Timber: 36 0
Piggyback: 40 0
261 H Inventory Rating: 15
262 H Operating Rating 26
67 Structural Evaluation: 5
58 Deck Condition: 7 - Good Condition
59 Superstructure Condition: 5 - Fair Condition
* 227 Collision Damage:
60A Substructure Condition: 5 - Fair Condition
60B Scour Condition: 6 - Satisfactory Condition
60C Underwater Condition 7 - Good Condition
71 Waterway Adequacy: 6-Equal to present minimum criteria.
61 Channel Protection Cond.: 7
68 Deck Geometry: 6
69 UnderClr. Horz/Vert: N
72 Appr. Alignment: 8-No reduction of vehicle operating speed required.
62 Culvert: N - Not Applicable

**Posting Data**

70 Bridge Posting Required 5. Equal to or above legal loads
41 Struct Open, Posted, CL: A. Open, no restriction
* 103 Temporary Structure: 0
232 Posted Loads
H-Modified: 00
HS-Modified: 00
Type 3: 00
Type 3s2: 00
Timber: 00
Piggyback 00
253 Notification Date: 02/01/1901
258 Fed Notify Date: 02/01/1901

**Processed Date:4/8/2015**

**Parameters: Bridge Serial Num**

# Bridge Inventory Data Listing

**Structure ID:021-0007-0** **Bibb** **SUFF. RATING: 68.20**

## Location & Geography

| | |
|---|---|
| **Structure ID:** | 021-0007-0 |
| 200 Brdge Information: | 06 |
| *6A Feature Int: *6B Critical Bridge: | ROCKY CREEK |
| *7A Route No Carried: | SR00011 |
| *7B Facility Carried: | US 41 NBL, SR 49 |
| 9 Location: | SOUTH EDGE OF MACON C.L. |
| 2 Dot District: | 4841300000 - D3 District Three Thomaston |
| 207 Year Photo: | 2012 |
| *91 Inspection Frequency: | 24 Date: 04/02/2014 |
| 92A Fract Crit Insp Freq: | 0 Date: 02/01/1901 |
| 92B Underwater Insp Freq: | 60 Date: 10/03/2012 |
| 92C Other Spc. Insp Freq: | 00 Date: 02/01/1901 |
| * 4 Place Code: | 49000 |
| *5 Inventory Route(O/U): | 1 |
| Type: | 2 - U.S. Numbered |
| Designation: | 1- Mainline |
| Number: | 00041 |
| Direction: | 0. Not applicable |
| *16 Latitude: | 32.0000- 46.1328 HMMS Prefix:SR |
| *17 Longtitude: | 83.0000- 39.5910 HMMS Suffix:00 |
| | MP: 6.66 |
| 98 Border Bridge: | % Shared:00 |
| 99 ID Number: | 000000000000000 |
| *100 STRAHNET: | 3- The Feature is on a STRAHNET Connector route |
| 12 Base Highway Network: | 1 |
| 13A LRS Inventory Route: | 211001100 |
| 13B Sub Inventory Route: | 0.00 |
| *101 Parallel Structure: | R. Right structure of parallel bridges |
| *102 Direction of Traffic: | 1- One Way |
| *264 Road Inventory Mile Post: | 006.90 |
| *208 Inspection Area: | Area 08 Initials: JKP |
| Engineer's Initials: | JTB |
| * Location ID No: | 021-00011D-006.90N |

| | |
|---|---|
| *104 Highway System: | 1-Inventory Route is on the NHS |
| *26 Functional Classification: | 14- Urban - Other Principal Arterial |
| *204 Federal Route Type: | F - Primary. No: 00023 |
| 105 Federal Lands Highway: | 0. Not applicable |
| *110 Truck Route: | 0 |
| 206 School Bus Route: | 1 |
| 217 Benchmark Elevation: | 0000.00 |
| 218 Datum: | 0- Not Applicable |
| *19 Bypass Length: | 1 |
| *20 Toll: | 3- On a Free Road or Non-Highway |
| *21 Maintanance: | 01-State Highway Agency. |
| *22 Owner: | 01-State Highway Agency. |
| *31 Design Load: | 4- H 20 |
| 37 Historical Significance: | 5- Not eligible for the National Register of Historic Places |
| 205 Congressional District: | 8 - EIGHT |
| 27 Year Constructed: | 1943 |
| 106 Year Reconsrtucted: | 1985 |
| 33 Bridge Median | 1-Open |
| 34 Skew: | 0 |
| 35 Structure Flared: | No |
| 38 Navigation Control: | 0- Navigation is not controlled by an Agency |
| 213 Special Steel Design: | 0- Not applicable or other |
| 267 Type of Paint: | 0- Not Applicable. |
| *42 Type of Service On: | 1-Highway |
| Type of Service Under: | 5-Waterway |
| 214 Movable Bridge: | 0 |
| 203 Type Bridge: | I - Concre - O. Concrete A. No Bear - O. Concrete |
| 259 Pile Encasement | 3 |
| *43 Structure Type Main: | 2-Concrete (Continuous) 1-Slab |
| 45 No.Spans Main: | 8 |
| 44 Structure Type Appr: | 0- Other 0- Other |
| 46 No Spans Appr: | 0 |
| 226 Bridge Curve Horz | 0 Vert: 0.00 |
| 111 Pier Protection | N - Navigation Control item coded 0, or Feature not a waterway |
| 107 Deck Structure Type: | |
| 108 Wearing Structure Type: | |
| Membrane Type: | |
| Deck Protection: | |

## Signs & Attachments

| | |
|---|---|
| 225 Expansion Joint Type: | 02- Open or sealed concrete joint (silicone sealant) |
| 242 Deck Drains: | 1- Open Scuppers. |
| 243 Parapet Location: | 0- None present. |
| Height: | 0.00 |
| Width: | 0.00 |
| 238 Curb Height: | 0 |
| Curb Material: | 0- None. |
| 239 Handrail | 9- Concrete New Jersey Type Barrier 9- Concrete New Jersey |
| *240 Median Barrier Rail: | 0- None. |
| 241 Bridge Median Height: | 0 |
| * Bridge Median Width: | 0 |
| 230 Guardrail Loc. Dir. Rear: | 6- Both sides, approach and continuous. |
| Fwrd: | 0- None. |
| Oppo. Dir. Rear: | 0- None. |
| Oppo. Fwrd: | 0- None. |
| 244 Aproach Slab | 3- Forward and Rear. |
| 224 Retaining Wall: | 0- None. |
| 233Posted Speed Limit: | 55 |
| 236 Warning Sign: | 0.00 |
| 234 Delineator: | 1.00 |
| 235 Hazard Boards: | 1 |
| 237 Utilities Gas: | 00- Not Applicable |
| Water: | 00- Not Applicable |
| Electric: | 00- Not Applicable |
| Telephone: | 23- Bottom Center. |
| Sewer: | 00- Not Applicable |
| 247 Lighting Street: | 0 |
| Navigation: | 0 |
| Aerial: | 0- Not a |
| *248 County Continuity No.: | 09 |

# Bridge Inventory Data Listing

## Structure ID:021-0007-0

**Programming Data**

201 Project No: TSAPF-2-3 (5) CT.5
202 Plans Available: 4- Plans in InfoImage.
249 Prop Proj No: 000000000000000000000000
250 Approval Status: 0000
251 PI Number: 0000000
252 Contract Date: 02/01/1901
260 Seismic No: 00000
75 Type Work: 0- Not Applicable 0- Initial Inventory
94 Bridge Imp: Cost: $835
95 Roadway Imp. Cost: $84
96 Total Imp Cost: $1253
76 Imp Length: 0
97 Imp Year: 2013
114 Furure ADT: 58125 Year:2031

**Hydralic Data**

215Waterway 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. No Load Rating; no scour critical data entered.
216 Water Depth: 13.3 Br.Height:13.8
222 Slope Protection: 7
221Spur Dikes Rear 0 Fwd:0
219 Fender System 0- None.
220 Dolphin:
223 Culvert Cover: 000
Type: 0- Not Applicable
No. Barrels: 0
Width: 0.00 Height:0
Length: 0 Apron:0
*265 U/W Insp. Area 2 Diver:RMO
*Location ID No: 021-00011D-006.90N

**Measurements:**

*29 ADT 38750 Year:2010
109 %Trucks: 1
* 28 Lanes On: 3 Under:0
210 No. Tracks On: 00 Under:00
* 48 Max. Span Length 24
* 49 Structure Length: 168
51 Br. Rwdy. Width 50.00
52 Deck Width: 53.40
* 47 Tot. Horiz. Cl: 50

50 Curb / Sidewalk Width 0.00 / 0.00
32 Approach Rdwy. Width 49
*229 Shoulder Width:
Rear Lt: 1.00 Type:2 - Rt:13
Fwd. Lt: 1.00 Type:2 - Rt:13

Pavement Width:
Rear: 36.00 Type: 2- Asphalt.
36.00 Type: 2- Asphalt.
Intersaction Rear: 0 Fwd: 0
36Safety Features Br. Rail: 1- Meets current standards
Transition: 2- Inspected feature meets acceptable construction date standards.
App. G. Rail: 1- Meets current standards
App. Rail End: 2- Inspected feature meets acceptable construction date standards.
53 Minimum Cl. Over: 99'99"
Under: N- Feature not a highway or railroad. 0.00'0.00"
*228 Minimum Vertical Cl
Act. Odm Dir:: 99 ' 99"
Oppo. Dir: 99' 99"
Posted Odm. Dir: 00' 00"
Oppo. Dir: 00'00 "
55 Lateral Undercl. Rt: N- Feature not a highway or railroad. 0.00
56 Lateral Undercl. Lt: 0.00
*10 Max Min Vert Cl: 99' 99" Dir:0
39 Nav Vert Cl: 000 Horiz:0
116 Nav Vert Cl Closed: 000
245 Deck Thickness Main 12.00
Deck Thick Approach: 0.00
246 Overlay Thickness: 3.00

212 Year Last Painted: Sup:0000 Sub:0000

65 Inventory Rating Method: 1-Load Factor (LF)
63 Operating Rating Method: 1-Load Factor (LF)
66 Inventory Type: 2 - HS loading. Rating: 21
64 Operating Type: 2 - HS loading. Rating: 36
231Calculated Loads:
H-Modified: 18 0
HS-Modified: 23 0
Type 3: 19 0
Type 3s2: 31 0
Timber: 23 0
Piggyback: 31 0
261 H Inventory Rating: 13
262 H Operating Rating 23
67 Structural Evaluation: 5
58 Deck Condition: 6 - Satisfactory Condition
59 Superstructure Condition: 6 - Satisfactory Condition
* 227 Collision Damage:
60A Substructure Condition: 5 - Fair Condition
60B Scour Condition: 6 - Satisfactory Condition
60C Underwater Condition 6 - Satisfactory Condition
71 Waterway Adequacy: 8-Equal to present desirable criteria.
61 Channel Protection Cond.: 7
68 Deck Geometry: 6
69 UnderClr. Horz/Vert: N
72 Appr. Alignment: 8-No reduction of vehicle operating speed required.
62 Culvert: N - Not Applicable

**Posting Data**

70 Bridge Posting Required 5. Equal to or above legal loads
41 Struct Open, Posted, CL: A. Open, no restriction
* 103 Temporary Structure: 0
232 Posted Loads
H-Modified: 00
HS-Modified: 00
Type 3: 00
Type 3s2: 00
Timber: 00
Piggyback 00
253 Notification Date: 02/01/1901
258 Fed Notify Date: 02/01/1901

**Processed Date:4/8/2015**

**Parameters: Bridge Serial Num**

# Bridge Inventory Data Listing

**Structure ID:021-0008-0** **Bibb** **SUFF. RATING: 41.40**

## Location & Geography

| | |
|---|---|
| **Structure ID:** | 021-0008-0 |
| 200 Brdge Information: | 04 |
| *6A Feature Int: *6B Critical Bridge: | ROCKY CREEK |
| *7A Route No Carried: | SR00011 |
| *7B Facility Carried: | US 41 SBL, SR 49 |
| 9 Location: | SOUTH EDGE OF MACON C.L. |
| 2 Dot District: | 4841300000 - D3 District Three Thomaston |
| 207 Year Photo: | 2012 |
| *91 Inspection Frequency: | 24 Date: 08/26/2014 |
| 92A Fract Crit Insp Freq: | 0 Date: 02/01/1901 |
| 92B Underwater Insp Freq: | 12 Date: 08/26/2014 |
| 92C Other Spc. Insp Freq: | 00 Date: 02/01/1901 |
| * 4 Place Code: | 49000 |
| *5 Inventory Route(O/U): | 1 |
| Type: | 2 - U.S. Numbered |
| Designation: | 1- Mainline |
| Number: | 00041 |
| Direction: | 0. Not applicable |
| *16 Latitude: | 32.0000- 46.1358 HMMS Prefix:SR |
| *17 Longtitude: | 83.0000- 39.6036 HMMS Suffix:00 |
| | MP: 6.67 |
| 98 Border Bridge: | % Shared:00 |
| 99 ID Number: | 000000000000000 |
| *100 STRAHNET: | 3- The Feature is on a STRAHNET Connector route |
| 12 Base Highway Network: | 1 |
| 13A LRS Inventory Route: | 211001100 |
| 13B Sub Inventory Route: | 0.00 |
| *101 Parallel Structure: | L. Left structure of parallel bridges |
| *102 Direction of Traffic: | 1- One Way |
| *264 Road Inventory Mile Post: | 006.91 |
| *208 Inspection Area: | Area 08 Initials: JKP |
| Engineer's Initials: | kms |
| * Location ID No: | 021-00011D-006.91N |

| | |
|---|---|
| *104 Highway System: | 1-Inventory Route is on the NHS |
| *26 Functional Classification: | 14- Urban - Other Principal Arterial |
| *204 Federal Route Type: | F - Primary. No: 00023 |
| 105 Federal Lands Highway: | 0. Not applicable |
| *110 Truck Route: | 0 |
| 206 School Bus Route: | 1 |
| 217 Benchmark Elevation: | 0000.00 |
| 218 Datum: | 0- Not Applicable |
| *19 Bypass Length: | 1 |
| *20 Toll: | 3- On a Free Road or Non-Highway |
| *21 Maintanance: | 01-State Highway Agency. |
| *22 Owner: | 01-State Highway Agency. |
| *31 Design Load: | 2- H 15 |
| 37 Historical Significance: | 5- Not eligible for the National Register of Historic Places |
| 205 Congressional District: | 2 - TWO |
| 27 Year Constructed: | 1924 |
| 106 Year Reconsrtucted: | 1985 |
| 33 Bridge Median | 1-Open |
| 34 Skew: | 0 |
| 35 Structure Flared: | No |
| 38 Navigation Control: | 0- Navigation is not controlled by an Agency |
| 213 Special Steel Design: | 0- Not applicable or other |
| 267 Type of Paint: | 0- Not Applicable. |
| *42 Type of Service On: | 1-Highway |
| Type of Service Under: | 5-Waterway |
| 214 Movable Bridge: | 0 |
| 203 Type Bridge: | O - Multip - O. Concrete O. Concrete- O. Concrete |
| 259 Pile Encasement | 3 |
| *43 Structure Type Main: | 1-Concrete 4-Tee Beam |
| 45 No.Spans Main: | 3 |
| 44 Structure Type Appr: | 0- Other 0- Other |
| 46 No Spans Appr: | 0 |
| 226 Bridge Curve Horz | 0 Vert: 0.00 |
| 111 Pier Protection | N - Navigation Control item coded 0, or Feature not a waterway |
| 107 Deck Structure Type: | |
| 108 Wearing Structure Type: | |
| Membrane Type: | |
| Deck Protection: | |

## Signs & Attachments

| | |
|---|---|
| 225 Expansion Joint Type: | 02- Open or sealed concrete joint (silicone sealant) |
| 242 Deck Drains: | 1- Open Scuppers. |
| 243 Parapet Location: | 0- None present. |
| Height: | 0.00 |
| Width: | 0.00 |
| 238 Curb Height: | 1 |
| Curb Material: | 1- Concrete. |
| 239 Handrail | 1- Concrete. 9- Concrete New Jersey |
| *240 Median Barrier Rail: | 0- None. |
| 241 Bridge Median Height: | 0 |
| * Bridge Median Width: | 0 |
| 230 Guardrail Loc. Dir. Rear: | 7- Left side - approach only, right side - approach and continuous |
| Fwrd: | 7- Left side - approach only, right side - approach and continuous |
| Oppo. Dir. Rear: | 0- None. |
| Oppo. Fwrd: | 0- None. |
| 244 Aproach Slab | 3- Forward and Rear. |
| 224 Retaining Wall: | 1- Cast-in-Pla |
| 233Posted Speed Limit: | 55 |
| 236 Warning Sign: | 0.00 |
| 234 Delineator: | 1.00 |
| 235 Hazard Boards: | 1 |
| 237 Utilities Gas: | 00- Not Applicable |
| Water: | 00- Not Applicable |
| Electric: | 00- Not Applicable |
| Telephone: | 00- Not Applicable |
| Sewer: | 00- Not Applicable |
| 247 Lighting Street: | 0 |
| Navigation: | 0 |
| Aerial: | 0- Not |
| *248 County Continuity No.: | 09 |

# Bridge Inventory Data Listing

## Structure ID:021-0008-0

**Programming Data**

201 Project No: TSAPF-2-3 (5) CT.5
202 Plans Available: 4- Plans in InfoImage.
249 Prop Proj No: 0009861
250 Approval Status: 0000
251 PI Number: 0009861
252 Contract Date: 02/01/1901
260 Seismic No: 00000
75 Type Work: 0- Not Applicable 0- Initial Inventory
94 Bridge Imp: Cost: $507
95 Roadway Imp. Cost: $51
96 Total Imp Cost: $761
76 Imp Length: 0
97 Imp Year: 2013
114 Furure ADT: 52320 Year:2032

**Hydralic Data**

215Waterway 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. No Load Rating; no scour critical data entered.
216 Water Depth: 19.1 Br.Height:8.6
222 Slope Protection: 1
221Spur Dikes Rear 0 Fwd:0
219 Fender System 0- None.
220 Dolphin:
223 Culvert Cover: 000
Type: 0- Not Applicable
No. Barrels: 0
Width: 0.00 Height:0
Length: 0 Apron:0
*265 U/W Insp. Area 2 Diver:JWO
*Location ID No: 021-00011D-006.91N

**Measurements:**

*29 ADT 34880 Year:2012
109 %Trucks: 1
* 28 Lanes On: 3 Under:0
210 No. Tracks On: 00 Under:00
* 48 Max. Span Length 34
* 49 Structure Length: 102
51 Br. Rwdy. Width 50.30
52 Deck Width: 53.70
* 47 Tot. Horiz. Cl: 50
50 Curb / Sidewalk Width 0.60 / 0.00
32 Approach Rdwy. Width 47
*229 Shoulder Width:
Rear Lt: 7.00 Type:2 - Rt:4
Fwd. Lt: 7.00 Type:2 - Rt:4
Pavement Width:
Rear: 36.00 Type: 2- Asphalt.
36.00 Type: 2- Asphalt.
Intersaction Rear: 0 Fwd: 0
36Safety Features Br. Rail: 2- Inspected feature meets acceptable construction date standards.
Transition: 2- Inspected feature meets acceptable construction date standards.
App. G. Rail: 2- Inspected feature meets acceptable construction date standards.
App. Rail End: 2- Inspected feature meets acceptable construction date standards.
53 Minimum Cl. Over: 99'99"
Under: N- Feature not a highway or railroad. 0.00'0.00"
*228 Minimum Vertical Cl
Act. Odm Dir:: 99 ' 99"
Oppo. Dir: 99' 99"
Posted Odm. Dir: 00' 00"
Oppo. Dir: 00'00 "
55 Lateral Undercl. Rt: N- Feature not a highway or railroad. 0.00
56 Lateral Undercl. Lt: 0.00
*10 Max Min Vert Cl: 99' 99" Dir:0
39 Nav Vert Cl: 000 Horiz:0
116 Nav Vert Cl Closed: 000
245 Deck Thickness Main 7.00
Deck Thick Approach: 0.00
246 Overlay Thickness: 3.50
212 Year Last Painted: Sup:0000 Sub:0000

65 Inventory Rating Method: 1-Load Factor (LF)
63 Operating Rating Method: 1-Load Factor (LF)
66 Inventory Type: 2 - HS loading. Rating: 25
64 Operating Type: 2 - HS loading. Rating: 41
231Calculated Loads:
H-Modified: 20 0
HS-Modified: 25 0
Type 3: 26 0
Type 3s2: 39 0
Timber: 36 0
Piggyback: 40 0
261 H Inventory Rating: 15
262 H Operating Rating 25
67 Structural Evaluation: 3
58 Deck Condition: 7 - Good Condition
59 Superstructure Condition: 6 - Satisfactory Condition
* 227 Collision Damage:
60A Substructure Condition: 3 - Serious Condition
60B Scour Condition: 3 - Serious Condition
60C Underwater Condition 3 - Serious Condition
71 Waterway Adequacy: 8-Equal to present desirable criteria.
61 Channel Protection Cond.: 7
68 Deck Geometry: 6
69 UnderClr. Horz/Vert: N
72 Appr. Alignment: 8-No reduction of vehicle operating speed required.
62 Culvert: N - Not Applicable

**Posting Data**

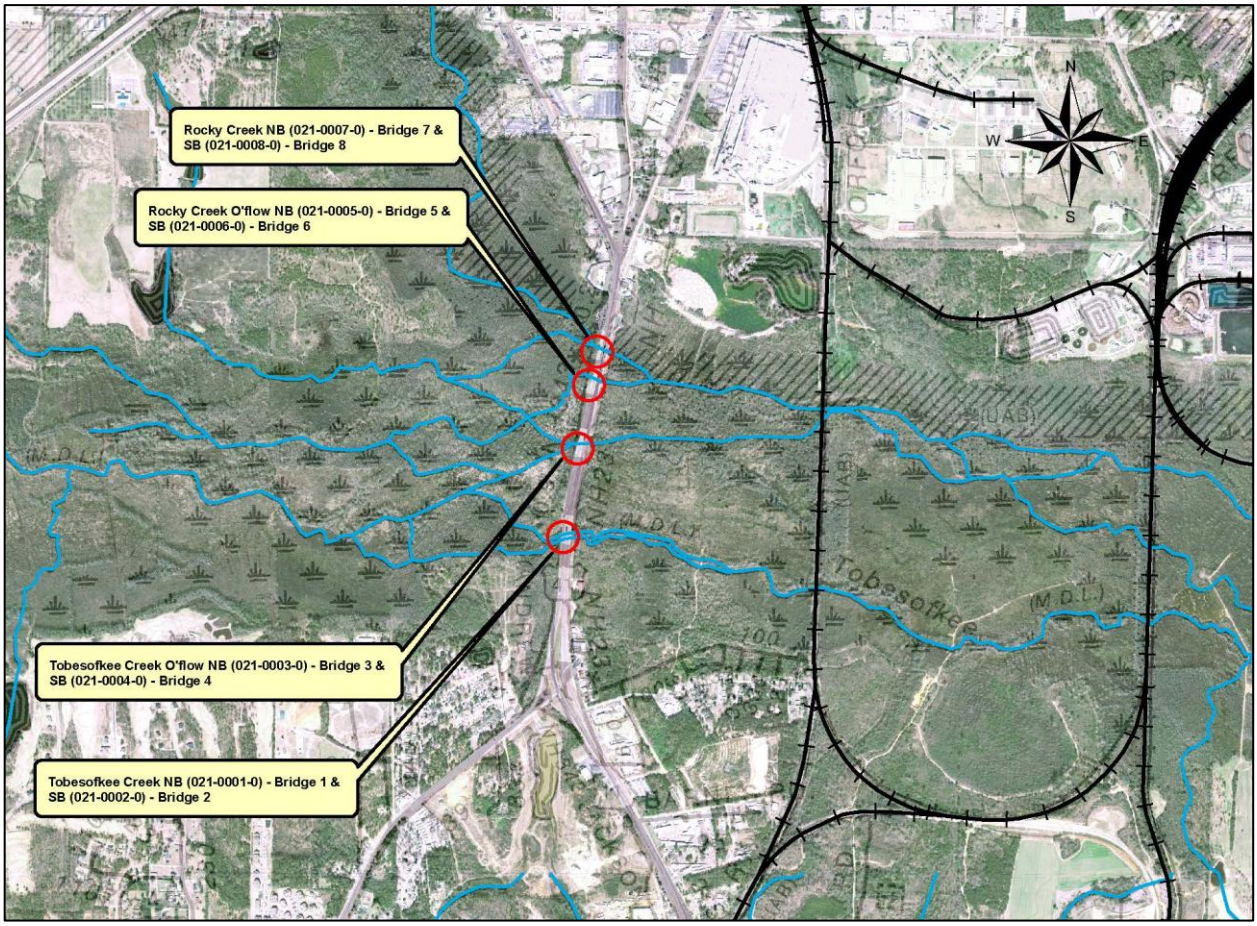
70 Bridge Posting Required 5. Equal to or above legal loads
41 Struct Open, Posted, CL: A. Open, no restriction
* 103 Temporary Structure: 0
232 Posted Loads
H-Modified: 00
HS-Modified: 00
Type 3: 00
Type 3s2: 00
Timber: 00
Piggyback 00
253 Notification Date: 02/01/1901
258 Fed Notify Date: 02/01/1901

**BIBB COUNTY**

**SR 11/SR 49 (US 41) OVER ROCKY AND TOBESOFKEE CREEKS**

**PI NO. 0009861**

**HYDRAULIC AND HYDROLOGICAL STUDY**



**BIBB COUNTY**

**SR 11/SR 49(US 41) OVER ROCKY AND TOBESOFKEE CREEKS**

**PI NO. 0009861**

**HYDRAULIC AND HYDROLOGICAL STUDY**

EXAMINED AND APPROVED:

8/7/2014
DATE

BENJAMIN F. RABUN, III, P.E.

STATE BRIDGE ENGINEER

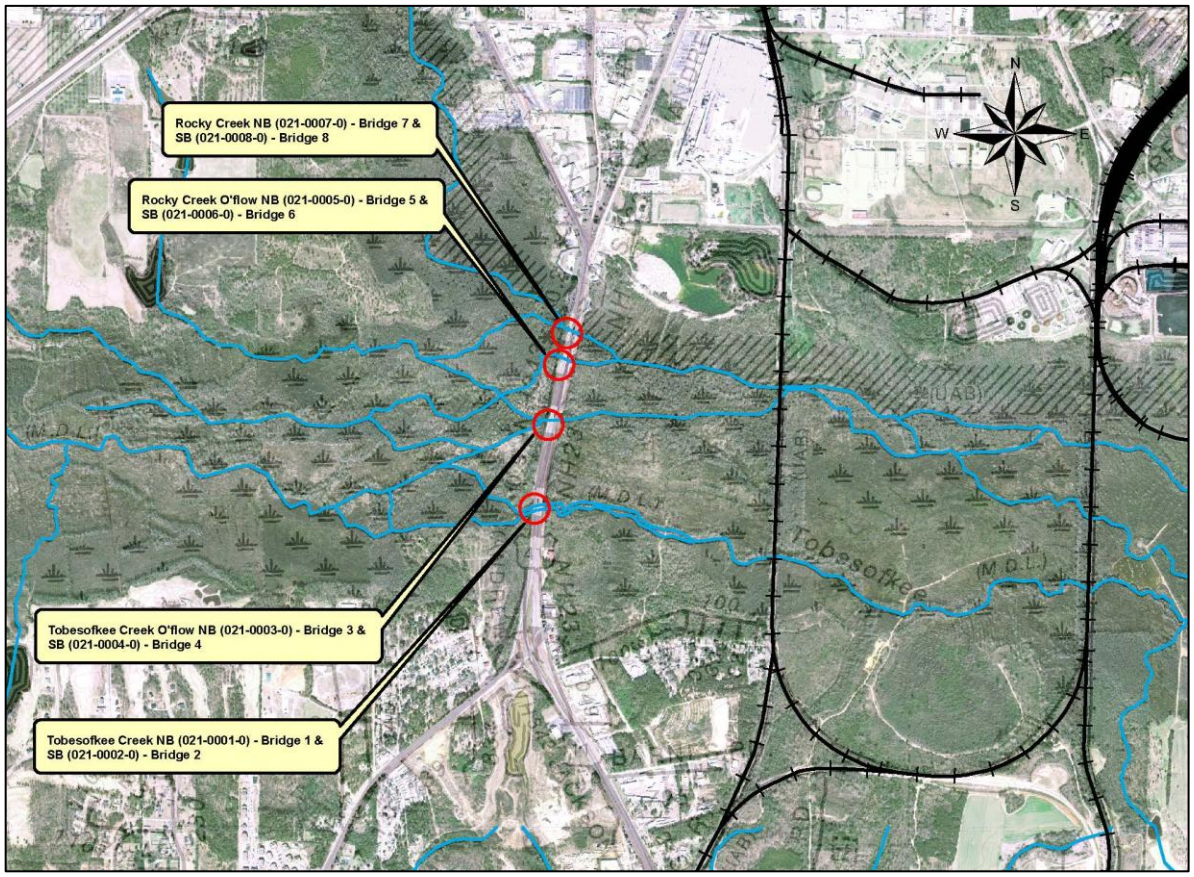
____FEMA and Community Coordination Required
____Community Coordination Only Required
__X__No FEMA or Community

**BIBB COUNTY**

**SR 11/SR 49 (US 41) OVER ROCKY AND TOBESOFKEE CREEKS**

**PI NO. 0009861**

**HYDRAULIC AND HYDROLOGICAL EVALUATION OF ALTERNATIVES**




____ FEMA and Community Coordination Required
____ Community Coordination Only Required
__X__ No FEMA or Community Coordination Required

BIBB COUNTY

SR 11/SR49 (US 41) OVER ROCKY AND TOBESOFKEE CREEKS

RECOMMENDATION

The four alternates presented in the following pages were reviewed and evaluated by the Office of Bridges and Structures. The recommendation of the Office of Bridges and Structures is Alternate 4 which involves replacing all eight bridges. Although Alternate 4 has the highest initial cost out of the four alternates, it is the best solution due to anticipated maintenance of the remaining bridges, has the least impact to the public due to staging and total construction time and provides the optimal hydraulic solution for the bridge crossings. The original southbound bridges were built in 1924 using a design loading of H-15 and have been widened at least twice since their original construction. The original portions of the existing southbound bridges have been in place for 90 years and the last widening is almost 30 years old. The original northbound bridges were built in 1943 using a design loading of H-20. The original portions of the existing northbound bridges have been in place for 71 years and the last widening is 30 year old. If an option is chosen to replace only some of the existing bridges, it is likely that the remaining bridges will need to be replaced soon due to their age. In addition, the option to replace all eight bridges presents the best staging scenario to limit impacts to the wetlands in the floodplain and provides the least impact to the travelling public. Due to the wetlands and the locations of the bridges, the most logical staging plan is to shift traffic so that one side carries two-way traffic while the opposite side is replaced. Traffic can then be shifted to the new side while the remaining side is constructed. The most desirable location to have a detour crossover is above the northernmost bridges and below the southernmost bridges. Finally, replacing all eight bridges will allow the proposed bridges to provide proper clearance over the design and 100 year floodstage elevations. The bridges will be sized appropriately to reduce backwater and channel velocities from the existing condition and reduce the instance of flooding.

BIBB COUNTY

SR 11/SR 49(US 41) OVER ROCKY AND TOBESOFKEE CREEKS

PI NO. 0009861

## BRIDGE NUMBERS

As a result of the recommendation of the Office of Bridges and Structures to replace all eight bridges, the bridges were renumbered on the preliminary layouts to reflect standard parallel bridge numbers for multiple bridges in a project. The study retains the numbering system described in the following report. The table below gives equivalent numbers between the study and the preliminary bridge layouts.

| Bridge serial number | Bridge number – study | Bridge number – layout |
|---|---|---|
| 021-0001-0 | 1 | 1 RT |
| 021-0002-0 | 2 | 1 LT |
| 021-0003-0 | 3 | 2 RT |
| 021-0004-0 | 4 | 2 LT |
| 021-0005-0 | 5 | 3 RT |
| 021-0006-0 | 6 | 3 LT |
| 021-0007-0 | 7 | 4 RT |
| 021-0008-0 | 8 | 4 LT |

BIBB COUNTY
SR 11/SR 49 (US 41) OVER ROCKY AND TOBESOFKEE CREEKS

## HYDRAULIC AND HYDROLOGICAL EVALUATION OF ALTERNATIVES

This study presents four alternatives to replace the existing bridges at the crossing of SR 11/SR 49 (US 41) over Rocky Creek and Overflow, and Tobesofkee Creek and Overflow. There are eight parallel bridges at the crossing, four northbound and four southbound. The initial scope of this project was to replace the southbound bridge over Rocky Creek. However, due to the close proximity of the bridge over Rocky Creek Overflow to the bridge over Rocky Creek, any change in profile would affect both bridges. In addition, the original portions of the existing southbound bridges were built with H15 loading. Due to these issues, four alternatives were proposed (see enclosed email dated October 01, 2013; and letter dated August 13, 2013), and evaluated under this study: (1) replace the southbound main and overflow bridges over Rocky Creek; (2) replace all four southbound bridges; (3) replace the northbound and southbound bridges over Rocky Creek and Overflow; and (4) replace all eight bridges. The existing bridges are not listed on the Historic Bridge Inventory. The existing and proposed bridge characteristics are shown on Tables 1 and 2.

| | Existing | | Proposed - Alternative 1 - Estimated Cost: $3,729,651.86 | | | | Proposed - Alternative 2 - Estimated Cost: $6,726,376.20 | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Bridge | Length | Width G to G | Length | Width G to G | Spans | Beam Type | Length | Width G to G | Spans | Beam Type |
| 1 | 144.00 | 50.00 | | | | | | | | |
| 2 | 102.00 | 50.30 | | | | | 206.00 | 48.00 | 40-126-40 | Type I Mod - 63" Bulb Tee - Type I Mod |
| 3 | 120.00 | 50.00 | | | | | | | | |
| 4 | 103.00 | 50.30 | | | | | 142.00 | 48.00 | 142 | 75" Bulb Tee |
| 5 | 144.00 | 50.00 | | | | | | | | |
| 6 | 102.00 | 50.30 | 186.00 | 48.00 | 30-126-30 | Type I Mod - 63" Bulb Tee - Type I Mod | 186.00 | 48.00 | 30-126-30 | Type I Mod - 63" Bulb Tee - Type I Mod |
| 7 | 168.00 | 50.00 | | | | | | | | |
| 8 | 102.00 | 53.42 | 212.00 | 48.00 | 40-132-40 | Type I Mod - 65" Bulb Tee - Type I Mod | 212.00 | 48.00 | 40-132-40 | Type I Mod - 65" Bulb Tee - Type I Mod |

Notes: All the dimensions are in U.S. Survey Feet. Refer to Figure 1 for bridge descriptions.

Table 1 - Existing and Proposed Bridges (Alternatives 1 and 2)

| | Proposed - Alternative 3 - Estimated Cost: $6,830,461.27 | | | | Proposed - Alternative 4 - Estimated Cost: $12,719,426.79 | | | |
|---|---|---|---|---|---|---|---|---|
| Bridge | Length | Width G to G | Spans | Beam Type | Length | Width G to G | Spans | Beam Type |
| 1 | | | | | 206.00 | 48.00 | 40-126-40 | Type I Mod - 63' Bulb Tee - Type I Mod |
| 2 | | | | | 206.00 | 48.00 | 40-126-40 | Type I Mod - 63' Bulb Tee - Type I Mod |
| 3 | | | | | 142.00 | 48.00 | 142 | 75" Bulb Tee |
| 4 | | | | | 142.00 | 48.00 | 142 | 75" Bulb Tee |
| 5 | 186.00 | 48.00 | 30-126-30 | Type I Mod - 63" Bulb Tee - Type I Mod | 186.00 | 48.00 | 30-126-30 | Type I Mod - 63' Bulb Tee - Type I Mod |
| 6 | 186.00 | 48.00 | 30-126-30 | Type I Mod - 63" Bulb Tee - Type I Mod | 186.00 | 48.00 | 30-126-30 | Type I Mod - 63' Bulb Tee - Type I Mod |
| 7 | 212.00 | 48.00 | 40-132-40 | Type I Mod - 65" Bulb Tee - Type I Mod | 212.00 | 48.00 | 40-132-40 | Type I Mod - 65' Bulb Tee - Type I Mod |
| 8 | 212.00 | 48.00 | 40-132-40 | Type I Mod - 65" Bulb Tee - Type I Mod | 212.00 | 48.00 | 40-132-40 | Type I Mod - 65' Bulb Tee - Type I Mod |

Notes: All the dimensions are in U.S. Survey Feet. Refer to Figure 1 for bridge descriptions.

Table 2 - Proposed Bridges (Alternatives 3 and 4)

Throughout this study, the bridges will be referred as follows: Tobesofkee Creek northbound main bridge ("Bridge 1"), Tobesofkee Creek southbound main bridge ("Bridge 2"), Tobesofkee Creek northbound overflow ("Bridge 3"), Tobesofkee Creek southbound overflow ("Bridge 4"), Rocky Creek northbound overflow ("Bridge 5"), Rocky Creek Southbound overflow ("Bridge 6"), Rocky Creek Northbound Main ("Bridge 7"), and Rocky Creek southbound main ("Bridge 8"). Figure 1 identifies these structures with the adopted nomenclature.

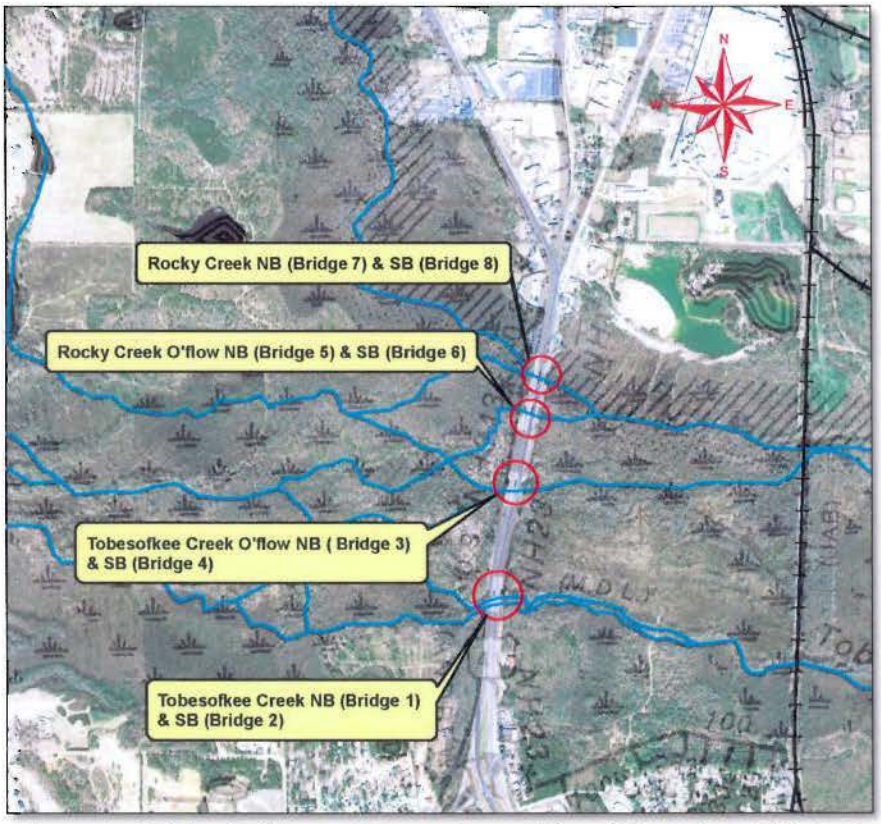



Figure 1 - Existing Bridges and Nomenclature Adopted Throughout This Study

The proposed structures are to be replaced along the existing alignment. The proposed bridges will have concrete intermediate bents and spillthrough abutments. The bents are to be at approximately 90 degrees to the roadway centerline to align with the flood flow. The drainage area at the crossing is approximately 262 total square miles which includes 213.8 square miles for Tobesofkee Creek and 48.2 square miles for Rocky Creek. The drainage areas were obtained from the WMS software. The hydraulic slope was obtained from the USGS Quad maps for this area.

The bridge width of 48 ft was obtained from GDOT Policies & Procedures 4265-10 for divided rural multilane State Routes. The proposed typical section of three 12 ft lanes, 4 ft inside shoulders and 8 ft outside shoulders was chosen to preserve the existing roadway lane configuration and provide for bikeable shoulders as the present site is within a designated bike route. The design year ADT is 49,400 vpd and the speed design is 55 mph. The design storm is the 50 year storm as per the Drainage Design Manual for a State Route. The proposed site is located in unincorporated Bibb County, and a small portion is within Macon city limits. Bibb County participates in the National Flood Insurance Program administered by the Federal Emergency Management Agency (FEMA). A detailed study with regulatory floodways has not been done for this reach of Tobesofkee and Rocky Creeks, so coordination with FEMA or Bibb County will not be required.

The 2, 50, 100, and 500 year storm discharges were determined using the regions 1 and 3 Flood Frequency Relations. The floodstage elevations, areas of opening, velocities and backwaters for the existing and proposed structures were calculated by using the HEC-RAS computer program. Additionally, a two-dimensional hydraulic (2D) analysis was performed due to the wide floodplain, the divergent flow patterns and the multiple relief openings. The 2D analysis was used to determine the flow distribution through each bridge and to calibrate the HEC-RAS model.

The 2D hydraulic modeling was performed using the U.S. Department of the Interior

Bureau of Reclamation SRH-2D model and read into the SMS interface.

The model represents a surface area of approximately 7.03 square miles. The model extends approximately 2.37 river miles upstream and 2.53 river miles downstream to include two Central of Georgia Railroad bridges approximately 3,200 ft downstream, and three Southern Railroad bridges approximately 7,500 ft downstream, in order to study the backwater impact from the railroad structures to the proposed bridges.

The mesh was generated with a combination of survey data, terrain data from a digital elevation model (DEM) and SMS feature stamping tool. The mesh representing the existing conditions was refined to include the elevations obtained from the as-built plans for the railroad bridges. Two distinct meshes simulated the proposed conditions: a mesh with the proposed four northernmost bridges, and a mesh with all eight bridges. The upstream boundary conditions are the 2-, 50-, 100- and 500-year storm discharges. In order to reach equilibrium, the total simulation time for each storm was 140 hours with result output frequency every one half hour. The downstream boundary condition is the approximate water surface elevation obtained from the FEMA Flood Insurance Rate Map.

The Manning's n values were varied spatially according to Table 1 below.

| Coverage Type | n Value | Area ($mi^2$) |
|---|---|---|
| Thick Vegetation | 0.13 | 2.05 |
| Channels and Wetlands | 0.05 | 3.30 |
| Roads | 0.025 | 0.10 |
| Developed Areas | 0.07 | 1.58 |

Table 3 – Manning's n Values

In order to monitor flow, observation lines were introduced within SMS and monitor lines/points within SRH-2D. Tables showing the distribution of the discharges are included in this study.

All of the existing southbound and the northbound structures were widened at least twice

since their original construction in 1924 and 1943, respectively. The profile of the northbound bridges is approximately 4 ft higher than the profile of the southbound bridges. Prior to the most recent widening in 1985, a Memorandum Report was prepared by the U.S. Geological Survey. According to the Report, the 50 and 100 year floodstages inundate the beams of the existing southbound lane bridges and cause overtopping of portions of the roadway. The findings, however, were substantiated in data from a USGS gage that is no longer published because the peak flows were affected by regulation upstream from the crossing after the report was completed (see attached email from Anthony Gotvald, dated April 22, 2013). With the regulation, the 50 and 100 year floodstages inundate the existing southbound beams but do not cause overtopping of the roadway. Proposed alternatives 2 and 4 clear the 50 and 100 year floodstage elevations with no flow over the roadway occurring during either storm. Proposed alternatives 1 and 3 also clear the 50 and 100 year floodstage elevation, but only for the portions of the roadway that will be raised. A design variance to the Drainage Manual may be required if either alternative 1 or 3 is implemented.

Mean velocities and the backwater computations for the existing and natural conditions are shown in Table 4.

| | Existing Conditions | | | | Natural Conditions | |
|---|---|---|---|---|---|---|
| Bridge | Mean Velocity (fps) | | Backwater (ft) | | Channel Velocities (fps) | |
| | 50 Year | 100 Year | 50 Year | 100 Year | 50 Year | 100 Year |
| **1 & 2** | 9.82 | 10.72 | 2.12 | 2.50 | 2.20 | 2.24 |
| **3 & 4** | 2.65 | 2.91 | 2.12 | 2.50 | 2.20 | 2.24 |
| **5 & 6** | 3.07 | 3.56 | 2.12 | 2.50 | 2.20 | 2.24 |
| **7 & 8** | 3.84 | 4.19 | 2.12 | 2.50 | 2.20 | 2.24 |

Table 4 - Mean Velocities and Backwater - Existing and Natural Conditions

The proposed bridge lengths shown in Tables 1 and 2 are the most effective structures that have acceptable velocities, provide satisfactory clearance from the toe of the endrolls to top of stream banks and improve backwater values. The chosen span arrangements shown in Tables 1 and

2 also allow the bents to straddle the deepest parts of the creeks, eliminate intermediate bents where scour was present and avoid the locations of the existing concrete bents. Table 5 shows the proposed mean velocities and backwater values for alternatives 1 and 2. Table 6 shows the proposed mean velocities and backwater values for alternatives 3 and 4.

| Bridge | Proposed Alternative 1 | | | | Proposed Alternative 2 | | | |
|---|---|---|---|---|---|---|---|---|
| | Mean Velocity (fps) | | Backwater (ft) | | Mean Velocity (fps) | | Backwater (ft) | |
| | 50 Year | 100 Year | 50 Year | 100 Year | 50 Year | 100 Year | 50 Year | 100 Year |
| **1 & 2** | 10.09 | 10.72 | 1.46 | 1.65 | 8.52 | 8.93 | 1.29 | 1.37 |
| **3 & 4** | 2.44 | 2.78 | 1.46 | 1.65 | 3.38 | 3.61 | 1.29 | 1.37 |
| **5 & 6** | 3.50 | 3.91 | 1.46 | 1.65 | 3.05 | 3.24 | 1.29 | 1.37 |
| **7 & 8** | 3.72 | 4.11 | 1.46 | 1.65 | 3.57 | 3.76 | 1.29 | 1.37 |

Table 5 - Mean Velocities and Backwater - Proposed Alternatives 1 & 2

| Bridge | Proposed Alternative 3 | | | | Proposed Alternative 4 | | | |
|---|---|---|---|---|---|---|---|---|
| | Mean Velocity (fps) | | Backwater (ft) | | Mean Velocity (fps) | | Backwater (ft) | |
| | 50 Year | 100 Year | 50 Year | 100 Year | 50 Year | 100 Year | 50 Year | 100 Year |
| **1 & 2** | 10.24 | 10.81 | 1.29 | 1.44 | 6.12 | 6.41 | 1.05 | 1.09 |
| **3 & 4** | 2.17 | 2.48 | 1.29 | 1.44 | 2.59 | 2.70 | 1.05 | 1.09 |
| **5 & 6** | 2.80 | 3.12 | 1.29 | 1.44 | 2.47 | 2.61 | 1.05 | 1.09 |
| **7 & 8** | 2.97 | 3.30 | 1.29 | 1.44 | 2.82 | 2.96 | 1.05 | 1.09 |

Table 6 - Mean Velocities and Backwater - Proposed Alternatives 3 & 4

**Alternate 1**

This alternate consists of replacing the southbound Rocky Creek main and overflow bridges and most closely follows the original concept of the project. The existing bridge over Rocky Creek has experienced 5 to 10 ft of scour which affects the structural integrity of the bridge. Due to the fact that the overflow bridge is located less than 300 ft from the main bridge over Rocky Creek, the significant grade adjustment necessary to provide proper clearance for the new bridge over Rocky Creek would affect the overflow bridge as well. Due to H15 design of the original portion of the overflow bridge, a decision was made to replace rather than jack the overflow bridge in addition to the replacement of the bridge over Rocky Creek.

The proposed 212 ft long bridge over Rocky Creek was sized to allow the intermediate bents to straddle the channel where significant scour has occurred while providing adequate clearance between the toes of the endrolls and the tops of the creek banks. The proposed 186 ft long overflow bridge was sized to straddle the deepest part of the creek while providing adequate clearance between the toes of the endrolls and the tops of the creek banks.

The results of the hydraulic analysis for this alternate indicate that the proposed backwater depth will be 1.65 ft for the 100 year storm. The proposed velocities are shown on Table 5. The maximum calculated contraction scour depth is 11.1 ft for the 100 year storm. Guide bank calculations, performed as prescribed in the FHWA publication HEC No. 23, "Bridge Scour and Stream Instability Countermeasures," indicate that no guide banks are required at either end of the bridges. The estimated estimated proposed construction cost for this alternate is $3,729,651.86.

**Alternate 2**

This alternate consists of replacing all the southbound bridges due to the fact that the original portions of the existing southbound bridges consist of H15 design, and the 50 and 100 year floodstages inundate the beams on all existing southbound bridges.

The proposed 212 ft long bridge over Rocky Creek and the proposed 186 ft long bridge over Rocky Creek Overflow were sized as explained in Alternative 1. The proposed 206 ft long bridge over Tobesofkee Creek was sized to straddle the deepest part of the creek while providing adequate clearance between the toes of the endrolls and the tops of the creek banks. The proposed 142 ft long bridge over Tobesofkee Creek Overflow was sized to avoid encroachment into the existing end bents while providing adequate clearance between the toes of the endrolls and the tops of the creek banks.

The results of the hydraulic analysis for this alternate indicate that the proposed backwater

depth will be 1.37 ft for the 100 year storm. The proposed velocities are shown on Table 5. The maximum calculated contraction scour depth is 11.1 ft for the 100 year storm. Guide bank calculations, performed as prescribed in the FHWA publication HEC No. 23, "Bridge Scour and Stream Instability Countermeasures," indicate that no guide banks are required at either end of bridges 4, 6, 8, or the north end of bridge 2. Guide bank calculations indicate that a 55 ft long guide bank is required at the south end of bridge 2. However, Department policy is not to build guide banks less than 150 ft. Therefore, guide banks will not be built at either end of proposed bridge 2. The estimated proposed construction cost for this alternate is $6,726,376.20.

**Alternate 3**

This alternate consists of replacing the northbound and southbound bridges over Rocky Creek and Overflow for the same reasons explained under Alternative 1, and to increase the overall area of the openings.

The proposed southbound 212 ft long bridge over Rocky Creek and the proposed southbound 186 ft long bridge over Rocky Creek Overflow were sized as explained in Alternative 1. The proposed northbound 212 ft long bridge over Rocky Creek was sized to straddle the deepest part of the creek while providing adequate clearance between the toes of the endrolls and the tops of the creek banks. The proposed northbound 186 ft long bridge over Rocky Creek Overflow was sized to straddle the deepest part of the creek while providing adequate clearance between the toes of the endrolls and the tops of the creek banks.

The results of the hydraulic analysis for this alternate indicate that the propose backwater depth will be 1.44 ft for the 100 year storm. The proposed velocities are shown on Table 6. The maximum calculated contraction scour depth is 10.5 ft for the 100 year storm. Guide bank calculations, performed as prescribed in the FHWA publication HEC No. 23, "Bridge Scour and

Stream Instability Countermeasures," indicate that no guide banks are required at either end of the bridges. The estimated proposed construction cost for this alternate is $6,830,461.27.

**Alternate 4**

This alternate consists of replacing all eight bridges for the reasons discussed under alternatives 1 through 3, and to reduce overall backwater and channel velocities.

The proposed 212 ft long bridges over Rocky Creek and the proposed 186 ft long bridges over Rocky Creek Overflow were sized as explained in Alternatives 1 and 3. The proposed southbound 206 ft long bridge over Tobesofkee Creek and the proposed southbound 142 ft long bridge over Tobesofkee Creek Overflow were sized as explained in Alternative 2. The proposed northbound 206 ft long bridge over Tobesofkee Creek was sized was sized to straddle the deepest part of the creek while providing adequate clearance between the toes of the endrolls and the tops of the creek banks. The proposed northbound 142 ft long bridge over Tobesofkee Creek Overflow was sized to avoid encroachment into the existing end bents while providing adequate clearance between the toes of the endrolls and the tops of the creek banks.

The results of the hydraulic analysis for this alternate indicate that the proposed backwater depth will be 1.09 ft for the 100 year storm. The proposed velocities are shown on Table 6. The maximum calculated contraction scour depth is 11.1 ft for the 100 year storm. Guide bank calculations, performed as prescribed in the FHWA publication HEC No. 23, "Bridge Scour and Stream Instability Countermeasures," indicate that no guide banks are required at either end of the bridges. The estimated proposed construction cost for this alternate is $12,719,426.79.

Risk assessments were performed for each alternate and no risk was found due to the fact that backwater and channel velocities were reduced for the proposed conditions. There are

buildings within the upstream floodplain that are being impacted by the existing 100 year floodstage elevations. The impacted buildings are JB&L Auto Sales (elevation 285.29 ft) and Magnolia Court Hotel (elevations 283.40 ft at the south end and 285.68 ft at the north end). The existing upstream 100 year floodstage elevation is 285.78 ft. The proposed upstream 100 year floodstage elevations are 284.92 ft (alternative 1), 284.64 ft (alternative 2), 284.68 ft (alternative 3), and 284.32 ft (alternative 4). Therefore, irrespective to the alternative chosen, the proposed conditions will decrease the backwater elevation.

Calculations for riprap, using the method shown in the FHWA publication, HEC no. 23 "Bridge Scour and Stream Instability Countermeasures," indicate that, for all alternatives, Type I riprap is sufficient at both endrolls of each of the proposed bridges.

Calculations for deck drainage were performed using the method shown in the FHWA publication, HEC No. 21 "Design of Bridge Deck Drainage" and Flowmaster software. The results indicated that no deck drains are required. The site is an MS4 stormwater permit area. The deck drains will be eliminated on all the bridges.

Traffic will be maintained on existing northbound bridges during proposed construction of southbound bridges. If an alternative is chosen requiring replacement of any northbound bridges, traffic would then be shifted to new southbound bridges while the existing bridges are removed and replaced. The required maps, calculations, computer runs, roadway sheets, and preliminary layout are included in the following pages.

May 6, 2014 Prepared by: Jania Braswell

BIBB COUNTY

SR 11/SR 49 (US 41) OVER ROCKY AND TOBESOFKEE CREEKS

HYDRAULIC SITE INSPECTION

A hydraulic site inspection was performed at the crossing of SR 11/SR 49 (US 41) over Rocky Creek, Tobesofkee Creek and overflows on July 30, 2013. There are eight parallel bridges at the crossing, four northbound and four southbound. The initial scope of this project is to replace the southbound bridge over the Rocky Creek main channel. The southbound bridges are approximately four feet lower than the northbound bridges. There are five railroad bridges located approximately 3,200 ft and 7,500 ft downstream from the crossing. The railroad bridges were not inspected due to the lack of accessibility. However, four sets of existing railroad bridge plans were provided by the railroad owners and will be used to build the models.

In the vicinity of the crossing, Rocky, Tobesofkee Creeks and overflows share an approximate 5,000 foot wide floodplain with several tributaries and braided channels. The overall upstream and downstream floodplains are flat with wetlands, dense vegetation, tall trees, some downed trees and thick undergrowth. The floodplain immediately downstream from Tobesofkee Creek overflow differs as the trees have scant foliage and moderate undergrowth. Tobesofkee Creek approaches the crossing from the west and Rocky Creek approaches the crossing from the northwest. The flood flow approaches the bridges at an approximate angle of 90 degrees to the construction centerline. The overall soil type appears to be clayey sand.

Rocky Creek main channel is approximately 100 ft wide at the upstream face of the south main bridge. The channel splits into north and south branches after the northbound crossing. Tree stumps and downed trees are present in the downstream channel. The banks are well defined and heavily vegetated with weeds, trees and heavy brush. The downstream bank has visible signs of

lateral scour on the north side. The water was muddy and almost stagnant at the time of the inspection. Water marks on the intermediate bents indicated that the water reached higher elevations in the past. The creek appeared very deep under the southbound bridge. Muddy riprap protection is in place. GDOT Maintenance files reported severe scour under the southbound timber pile footings at bents two and three.

Rocky Creek overflow channel is wide due to a small west tributary with an overall upstream width of approximately 90 ft. Upstream from the bridge, the water was flowing very fast due to a small rock dam. The banks are well defined and heavily vegetated with weeds, trees and heavy brush. The intermediate bents were collecting some debris and had visible signs of higher water levels. Riprap protection is in place.

Tobesofkee Creek overflow channel is approximately 100 ft wide at the upstream face of the southbound bridge. The banks are low, heavily vegetated, poorly defined and appeared scoured both upstream and downstream. The water was almost stagnant and muddy. Tall trees are growing within the channel. Riprap protection is in place.

Tobesofkee Creek main channel is approximately 80 ft wide at the upstream face of the southbound bridge and approximately 120 ft downstream from the northbound bridge. The northwest abutment shows signs of lateral scour. The water level was about three feet below the southbound bridge caps. The intermediate bents also have visible signs of higher water levels. The banks are well defined with heavy vegetation and signs of scour on the upstream side. Riprap protection is in place.

The following buildings appear to be within the edges of the floodplain: JB&L Auto Sales (approximately 75 ft left from station 51+40), BP gas station (approximately 75 ft left from station 57+10), Magnolia Court Hotel (approximately 70 ft left from station 55+50), Car Land dealership

(approximately100 ft right from station 50+73) and Magnolia Court Hotel (approximately 105 ft right from station 54+87). Also, there are five billboards within the floodplain, three upstream and two downstream.

There are several utilities within the project limits. The noticeable ones included a buried gas line on the northbound side of the corridor; telephone conduits and gas main attached to the northbound bridges; a double wing catch basin on the northwest quadrant of the Rocky Creek main bridge, implying the presence of a water main; overhead electric lines with poles approximately 50 ft downstream of the northbound bridges and AT&T/Bellsouth buried lines.

The southbound bridges were built in 1924 and the northbound bridges were built in 1943. All the bridges were widened at least twice and the latest widening happened in 1985. The roadway bridges that are outside the initial project scope have the following characteristics: Tobesofkee Creek main northbound bridge ("Bridge 1") is 144 ft long and 50 ft wide. Tobesofkee Creek main southbound bridge ("Bridge 2") is 102 ft long and 50.3 ft wide. Tobesofkee Creek overflow northbound bridge ("Bridge 3") is 120 ft long and 50 ft wide. Tobesofkee Creek overflow southbound bridge ("Bridge 4") is 103 ft long and 50.3 ft wide. Rocky Creek overflow northbound bridge ("Bridge 5") is 144 ft long and 50 ft wide. Rocky Creek overflow southbound bridge ("Bridge 6") is 102 ft long and 50.3 ft wide. Rocky Creek main northbound bridge ("Bridge 7") is 168 ft long and 50 ft wide. The northbound bridges consist of continuous reinforced concrete slab decks arranged as follow: 18 ft, 24 ft, 18 ft, 18 ft, 24 ft, 24 ft and 18 ft (Bridge 1); 18 ft, 24 ft, 18 ft, 18 ft, 24 ft, 18 ft (Bridge 3); 18 ft, 24 ft, 18 ft, 18 ft, 24 ft, 24 ft and 18 ft (Bridge 5); and 18 ft, 24 ft, 24 ft, 18 ft, 18 ft, 24 ft, 24 ft and 18 ft (Bridge 7). The southbound bridges consist of continuous reinforced concrete "T" beams approximately arranged as follow: 34.5 ft, 33 ft and 34.5 ft (Bridge 2); 32 ft, 39 ft and 32 ft (Bridge 4) and 34.5 ft, 33 ft and 34.5 ft (Bridge 6). All the bridges have

concrete columns with timber pile foundation in the original bridge section, and concrete pile intermediate bents in the widened section.

Rocky Creek main southbound bridge ("Bridge 8") is the initial scope of this project. The original structure consists of three spans of continuous reinforced concrete "T" beams on concrete caps and columns with timber pile footings. The widened section of the bridge consists of three spans of reinforced concrete "T" beams on concrete caps and prestressed concrete piles. The span lengths are approximately 34.5 ft, 33 ft and 34.5 ft. Reinforced concrete walls are used as lateral support at the north and south ends of the structure. According to the survey, the structure is 53.5 ft wide.

The existing roadway is a six lane paved State Route divided by depressed median with three 13 ft lanes in the southbound direction, three 12 ft lanes in the northbound direction. The roadway fill is approximately 6 ft above the natural groundline on the east side and approximately 2 ft on the west side.

August 2, 2013 Prepared By: Jania Braswell

BIBB COUNTY

SR 11/SR 49 (US 41) OVER ROCKY AND TOBESOFKEE CREEKS

PREDICTED SCOUR REPORT

Theoretical scour depths for the proposed bridges at this site were calculated by using the methods shown in the FHWA publication, HEC no. 18, "Evaluating Scour at Bridges". Contraction and local pier scour were calculated for the 100 and 500 year storms, as called for in this publication. The predicted scour depths at each intermediate bent of the proposed bridges will be provided to the Office of Materials Soils Lab and the Bridge Structural Designer for inclusion in the analysis and design of the bridge foundations. Tables and calculations showing these predicted scour depths are included in this study.

April 15, 2014

Prepared by: Jania Braswell

## Braswell, Jania

**From:** Beck, Susan
**Sent:** Tuesday, October 01, 2013 3:29 PM
**To:** Braswell, Jania
**Subject:** FW: SR 11 (US 41) SBL / Rocky Creek

Bill forgot to copy you...

Susan T. Beck
GDOT Office of Bridge Design - Hydraulics
One Georgia Center
600 W. Peachtree St., NW - 24th Floor
Atlanta, GA 30308
(404) 631-1862 (Direct)
(404) 631-1954 (Fax)
email: sbeck@dot.ga.gov

**From:** DuVall, Bill
**Sent:** Tuesday, October 01, 2013 1:24 PM
**To:** Woods, Sam
**Cc:** Rabun, Ben; Clements, Lyn; Beck, Susan; Saxon, Brad; VanHouten, Kevin
**Subject:** SR 11 (US 41) SBL / Rocky Creek

BRN00-0034-03(036), Bibb
P.I. No. 0009861

Sam,

As you are aware the Bridge Office is evaluating the NB and SB bridges along SR 11 (total of 8 bridges) for possible replacement under the current project. The Bridge Maintenance Unit has performed document and field reviews for these bridges. In order to make a final determination for replacement of these bridges a long range plan must be developed. The Bridge Office will need to model the entire floodplain based on the future replacement of all 8 bridges. From there, coordination with Roadway Design will be necessary to develop cost comparisons for each option and subsequently final determination of the bridges to be replaced under this current project.

For the crossing of Rocky Creek there are multiple openings to allow the flow to cross SR 11. The best technique to model a floodplain such as this is to create a 2-D model. This work is generally more complicated and time consuming than a traditional 1-D model. We are currently working on a 2-D model in Charlton County and must complete it before switching back to this project. We expect to move back to Bibb County in December.

As I have mentioned, we will develop the model assuming all 8 bridges will be replaced. This will most likely require the profile to be raised at all locations. The Bridge Office will provide the boundary conditions for the profile changes for each of the bridges. Roadway Design will then need to adjust the profiles and then provide cost estimates for the various scenarios. As it appears to me we will have the following options: (1) replacing all 8 bridge, (2) replacing only the SB bridges and only adjusting the profile in the SB direction, (3) replacing the parallel bridges at the 2 northern most sites and adjusting the profiles at these locations, and (4) just replacing the 2 northern most bridges in the SB direction (basically the intent of the original design). If we only replace the 2 northern most bridges in the SB direction then the remaining 6 will most likely need to be replaced in the near future.

I just wanted to let you know where we stand in moving this project forward and that it will require additional coordination to develop these cost estimates. If you think that we need to discuss any of this please feel free to contact me. Otherwise we will move forward with Bibb County sometime in December.

Thanks,
Bill

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

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VOTE NOW. VOTE OFTEN. http://nominate.americastransportationawards.org/voting.aspx

The I-285 & Ashford Dunwoody Road Diverging Diamond Interchange (DDI) is a top ten finalist in the AASHTO 2013 America's Transportation Awards. The competition represents the best of the best and demonstrates how state DOT projects deliver value, change lives and help communities. The People's Choice Award is decided by popular vote. Help us win a $10,000 award for the Georgia DOT Scholarship Fund! Vote online through Wednesday, Oct. 2. Vote now. Vote often (up to 10x a day per email address). And tell your coworkers, family and friends.

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# DEPARTMENT OF TRANSPORTATION
# STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE P.I. NO. 0009861, BIBB CO.

OFFICE Atlanta, GA
DATE August 13, 2013

FROM Benjamin F. Rabun, III, P.E, State Bridge Engineer

TO Andy Doyle, P.E., State Bridge Maintenance Engineer

SUBJECT **SR 11/49 (US 41) OVER ROCKY CREEK, SOUTHBOUND BRIDGE**

A hydraulic study is in progress on the above bridge replacement project. As shown on the attached drawing, there are four pairs of bridges located in close proximity: Rocky Creek, Rocky Creek Overflow, Tobesofkee Creek and Tobesofkee Creek Overflow. Currently the scope of the project is to replace the southbound bridge over Rocky Creek. A recommendation is requested from your office to determine whether the scope of the project should be increased to include replacement of all 4 southbound bridges or to include replacement of all 8 northbound and southbound bridges.

The floodplains for the two creeks merge and the hydraulic modeling must include all 8 bridges in order to analyze the entire floodplain for the one proposed bridge replacement. A hydraulic study from the previous widening of the southbound bridges in 1985 shows the floodstage elevations into the beams of the existing southbound bridges. The current profile of the northbound bridges is approximately 4 ft higher than the current profile of the southbound bridges. The bridge over Rocky Creek is located approximately 300 ft from the Rocky Creek Overflow bridge. If the profile of the proposed bridge is raised to provide clearance over the floodstage elevations, the change in profile would affect the overflow bridge, requiring jacking.

It has been determined that due to previous widenings on the existing bridge, it is not feasible to cut the existing bridge in order to stage construct the proposed bridge. Furthermore, the existing Rocky Creek bridge has been subjected to approximately 10 ft of scour, exposing the timber piles below the concrete footings. For these reasons and due to the close proximity of the 3 other bridge pairs in this corridor, staging will consist of shifting the southbound traffic to the northbound bridges for the entire corridor. During construction, the existing northbound bridges will carry two lanes of traffic in each direction.

In researching the plans for all of the bridges, it has been determined that the original portion of all the southbound bridges was built in 1924 and each bridge has been widened at least twice since. It appears from documentation in the Maintenance files that original portions of the southbound bridges were built using a design loading of H-15. Plans for the original portions of the bridges cannot be located.

In addition, the original portions of the northbound bridges were built in 1943 and each bridge has been widened at least twice since. Original plans cannot be located for these bridges either, although old Bridge Office records indicate that these bridges were built using a design loading of H-20.

Please provide a recommendation as to whether all four of the southbound bridges should be replaced due to the age and design loading of the original portion of the existing bridges. Please provide a similar recommendation for the four northbound bridges. These recommendations are requested at your earliest convenience due to the fact that the scope and schedule of the project may be severely impacted. A location map is attached for your use.

If you have any questions and/or comments, please contact Susan Beck of the Office of Bridges and Structures at (404) 631-1862 or at email address sbeck@dot.ga.gov.

BFR:STB:alr

Attachment

cc: Lyn Clements (Susan Beck)
Genetha Rice-Singleton, State Program Delivery Engineer
Attn: Kevin VanHouten
Andy Casey, State Roadway Design Engineer
Attn: Sam Woods

## Braswell, Jania

**From:** Gotvald, Anthony [agotvald@usgs.gov]
**Sent:** Monday, April 22, 2013 9:39 AM
**To:** Braswell, Jania
**Cc:** Beck, Susan
**Subject:** Re: Bibb County - PI 0009861 - Gage Heights and Recurrence Intervals

**Follow Up Flag:** Follow up
**Flag Status:** Flagged

Jania,

There are no gage data available for Rocky Creek. As for 02213500, that streamgage was not included in the 2006 report because it is regulated and the regulation has shown to affect the peak flows. The pre-regulated data show the Q1% to be around 17,000 cfs (gage height around 27.2 feet) and the Q0.2% around 22,000 cfs (gage height around 29.5 ft). The regulated data shows Q1% to be around 8700 cfs (21.5 ft) and Q0.2% around (22.5 ft). However, the 1994 event at this streamgage was 54,000 cfs (gage height of 39.5 ft). You add 309.6 ft to the gage height values for 02213500 to get the elevation above NAVD88. Let me know if you have any further questions.

Tony

Tony Gotvald
USGS Georgia Water Science Center
1770 Corporate Drive, Suite 500
Norcross, GA 30093
(678) 924-6648

On Fri, Apr 19, 2013 at 12:08 PM, Braswell, Jania <jabraswell@dot.ga.gov> wrote:

Tony,

We are replacing a bridge in Bibb County near Macon on SR 11/SR 49/US 41 over Rocky Creek (location map attached). The site has eight parallel bridges and the basin encompasses Rocky and Tobesofkee Creeks.

The site number 02213500 (Tobesofkee Creek near Macon, GA) is located upstream from our project and was included in the 1994 USGS Summary Report for Tropical Storm Alberto. However, it was not included in 2006 USGS Rural Study. Therefore, we do not have enough data to estimate the flood-frequency for our ungaged site. Also, I could not find any USGS data for Rocky Creek near this project crossing.

If you can help us with any additional data, we are looking for information such as gage heights for each associated recurrence interval for the gage, a recurrence interval for the 1994 flood, or any additional information on Rocky Creek to calibrate our 2D model.

Thank you,

**Jania Braswell**

Office of Bridges and Structures - Hydraulics

Georgia Department of Transportation

600 West Peachtree St., N.W. - 24th Floor

Atlanta, GA 30308

☎ 404-631-1864| 🖷 404-631-1954

✉ jabraswell@dot.ga.gov

# Meeting Minutes

6-20-2012
0009861, Bibb County
Concept Meeting

Attendees

Chad E. White Sr.-Program Delivery (Project Manager)
Sam Woods-Roadway Design Group Leader
Dwayne Wilson-Roadway Design
Lashone Alexander–Right of Way
Frank Scott- Environmental Services
Pamela Baughman-Environmental Services
Jason Mobley –District 3 Preconstruction
Carol Perry –District 3 Right of Way
Kerry Gore –District 3 Utilities
Greg Smith –District 3 Location
Sheldon-Minor-Area 4, District 3 Engineer
Kevin Ellis –Assistant Area 4, District Engineer
David English –Engineer Services
Daniel Chastain –Engineer Services
Chris Hardy- Georgia Power
Kelly Keevan-Atlanta Gas light (AGL)
Chet Demmon-Windstream
Jim Johnson- City of Macon
Bob Rychel- Middle GA. Regional Commission

*Bill DuVall- Bridge Design Assistant State Engineer
**Attendance by video conference call*

- The Project Manager (PM) Chad E. White introduced the Project P.I. 0009861 bridge replacement SR11/SR49/US41 @ Rocky Creek.
- The PM indicated that the schedule is as follows.
    - Right of Way (R/W) Approval by 3/15/2015
    - Management LET date 3/07/2014

- A question was posed as to why all of the bridges on the corridor are not being replaced, considering the impacts from flooding that occurred in 1994.
    - The southbound bridge over Rocky Creek is the only of the eight bridges in this area with a sufficiency rating that warrants replacement.

- Dwayne Wilson gave an overview of the project, went through the concept report, and briefly explained the staging layout. It was clarified during the meeting that the layout shown represents options for shifting traffic to the northbound lanes.
- If the results of the survey and hydraulic study allow the preferred alternate to remain (stage constructing the new bridge), traffic will not need to be shifted to the northbound lanes.
    - Alternatives were discussed and rationale for preferred alternative along with constraints was mentioned (the need for survey to have a conclusive decision on how project will be staged).
    - Mr. Duval added that the Hydraulic study will also be needed in conjunction with the survey, to determine the high water elevation, which will be one constraint on the vertical alignment.
    - Frank Scott stated that project site has wetlands all around and that wetland mitigation and a 404 permit are expected on this project. Frank advised that this project is in an Ozone non-attainment area and the possibility of the bridge being historic (built in 1924, last modification in 1985). No Environmental Justice issues are expected and UST should not be an issue either.
    - Pamela Baughman mentioned that the Ocmulgee Traditional Cultural Property is in close proximity to the project. Any Row/Easement acquired may have archeological environmental impacts.
    - It was mentioned that PCB signs are posted near the bridges; Mr. Frank Scott advised that no issue should arise from this.
- Utility representatives for Windstream, AGL, and Ga. Power gave input:
    - Windstream mentioned that they have fiber optic on the northbound section and based on the preferred alternate, they do not expect any conflicts.
    - Ga. Power also did not anticipate any conflicts.
    - AGL advised that there are likely no conflicts because their equipment is buried and on the northbound side of the corridor.
    - Mr. Gore advised that a layout will be needed for a concept cost estimate.
- Mr. Duval posed questions in regards to design speed, staging lanes, and State Bike Route. wanted to know if a corridor with such high traffic volume would be on a bike route (wanted to know for sure to implement bike provisions on bridge now)
    - Mr. Wilson advised the design speed is 55 mph, and the staging concept (if needed) is to maintain at least two lanes in each direction. This roadway is on the State Bicycle System; bicycle accommodations (bikeable shoulders, not a dedicated bike lane) will be made if practical.

        - Mr. Duval responded that a taller bridge barrier would be used if bicycles need to be accommodated.
- Carol Perry had ROW concerns for sediment basins, erosion control, utilities, etc.
    - Mr. Woods advised that we did not expect to have a sediment basin and BMP's would be placed as required, expected to be within existing ROW.
- Mr. Chad White closed the meeting.

Action Items:

- Concept updated to reflect yes for ozone non-attainment area
- State Bike Map checked and shows corridor to be on State Bike route 10

# DEPARTMENT OF TRANSPORTATION
# STATE OF GEORGIA

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**MEETING SUMMARY**
**DATE: August 8, 2013**

**LOCATION:** Bridge Office Conference Room, and VC w/ District Three Room 156

**ATTENDEES:**
Kevin VanHouten, OPD Project Manager
Melissa Harper, Assistant State Construction Engineer
Sam Woods, RD Design Engineer Group Manager
Eugene Culver, Design Engineer II
Lyn Clements, Asst. State Bridge Design Engineer
Bill Duvall, Asst. State Bridge Engineer
Susan Beck, Bridge Design Group Leader
Jania Braswell, Bridge Design Engineer 3

**COPIES:**
Project File
Russell McMurry, Chief Engineer
Joe Carpenter, Director of Engineering
Genetha Rice- Singleton, State Program Delivery Engineer
Bobby Hilliard, State Program Control Engineer
Ben Rabun, State Bridge Engineer
Brad Saxon, Assistant State Program Delivery Engineer
Thomas Howell, District Three Engineer

**SUBJECT: PI# 0009861 BIBB – SR 11/SR 49/US 41 @ Rocky Creek 1 Mile South of Macon Construction Staging and Maintenance of Traffic**

**DISCUSSION:**

The meeting was opened with a brief synopsis of the project history. The concept was approved on 09/18/2012 and preliminary design layouts were started. It was decided that two approaches would be investigated for the construction staging and maintenance of traffic:

1. Construct the bridge by staging traffic down to two lanes on half of the existing bridge while the other half is removed and re-constructed, then mirroring the opposite for stage two.
2. Shift the SB traffic onto the NB twinned bridge reducing SR 11 from 6 to 4 lanes, then remove and reconstruct the SB bridge.

It was determined in February 2013 that in order to make an accurate decision on the best project direction, additional survey of the existing bridges would be needed and a request was

submitted in March 2013. The additional survey was completed July 24, 2013 and this meeting was scheduled to discuss all options.

Sam commented that the concept construction estimates depicted approximately $2 million without the traffic shift and $3 million with the traffic shift. He also commented that a temporary detour bridge was considered, but eliminated because of the fact that two temporary bridges would need to be constructed due to the close proximity of the bridge to the south. This coupled with the need to construct roadway tie-ins to the temporary bridges would make it less economical than utilizing the existing NB lanes and bridges for the shift.

Melissa stated that after reviewing the photos, survey data, and plans for the existing bridges that no feasible way exists to cut the existing SB bridge and maintain traffic on it while constructing the opposite half. She also noted that the existing SB bridge has a 9-10 foot deep scour around some of the timber piles and that time is of the essence for replacing the bridge.

Sam noted that this area actually consists of 4 pairs of twinned bridges all in relatively close proximity. This would require the traffic shift to occur prior to the northern most bridge near the intersection of US 41 / SR 49 / and Houston Ave.

Susan discussed the fact that the bottom of beam elevation will play a role in the scope of the project. Bottom of beam elevations for the NB bridges are approximately 3-4 feet higher than the SB bridges. Additionally, if the SB bridge over rocky creek is raised, it will require jacking the SB bridge which lies 300 feet to the South of Rocky Creek as well to provide a suitable profile tie-in. She also noted that the hydraulic modeling is underway and once complete the exact parameters of the required bridge opening can be determined. Susan noted also that the bottom beam elevations may stay the same elevation and in that case the profile of the new bridge would still rise 1-2 feet in order to accommodate taller beams. She noted that it would be desirable to span the current scour; Lyn commented that if the scour could not be spanned, that a caisson foundation may be needed.

Melissa interjected that it would be desirable to replace all four southbound bridges while the traffic is shifted. She inquired what the sufficiency ratings were for the eight bridges, their ages, and what design criteria was used, HS15 or HS20. Jania reviewed the documents and stated that it appears the other bridges have sufficiency ratings of approximately 70. She further stated that the SB bridges appear to have been built in the 1920's the NB bridges appear to have been built in the 1940's. Bridge widening also occurred in the 60's and 80's. It was also noted that none of the bridges appear to be posted for load limits. It was also stated that prior to placing 4 lanes of traffic onto the NB bridges, a review of the structures should be completed to verify they are capable of supporting such loads. Melissa stated that with all 4 SB bridges being built in the 1920's they were most likely HS15 designs and that coupled with the fact that the original structures are 90 years old, would lead her to recommend reconstruction of all 4 SB bridges at a minimum. She reminded the team of the "Get In, Get Out, Stay Out" mantra.

The Bridge office team stated that if we replace all four SB bridges, this would allow the bottom of beam elevations to be adjusted to more suitable heights and the profile of the roadway to be raised to match the NB lanes. Sam pointed out that replacing all four bridges would increase the roadway work substantially and these changes in scope would require a major change in PE/CST costs as well as ROW. If all eight bridges are replaced, then a re-

design from scratch would be utilized to bring all bridges within standards for loadings, hydraulics, profile, etc.

Susan explained that the goal thus far was to determine if the single bridge to be replaced could be designed so that the need to raise the SB bridge to the south of Rocky Creek could be accomplished by jacking that bridge not more than 1 foot. This would minimize the scope of the project. Melissa interjected that in the past, there have been issues with jacking T-beam bridges. They have experienced excessive cracking, and beams frozen to pins. Bill commented that there is a vertical limit to the height of the jacking and that the bearing seats for bridges of this age (all 8) would also most likely need replacing. It is anticipated that the SB bridges are HS-15 design due to their age and that the NB bridges are HS-20 since the shift occurred around 1944 and the NB bridges were constructed around that time. Susan also commented that there is an existing downstream RR bridge and the opening under that bridge will control the hydraulics of this area. The team noted that if all 8 are replaced, it would be desirable to shift traffic to the NB bridges in stage 1 to prevent placing additional traffic load on the existing SB bridges. Sam further commented that this is a bike route and the bike traffic will be handled with a bike-able shoulder and not a dedicated bike lane. It was also noted that the height of the bridge barrier would be taller for the bike application. Melissa also commented that if all four bridges cannot be replaced, the project scope could be reduced to a maintenance project to shore up the single bridge until such time as funding allows replacement of all four.

**ACTION ITEMS:**

- Susan Beck will write a letter to Andy Doyle (State Bridge Maintenance Engineer) requesting a recommendation between replacing all 8 bridges, just the 4 SB bridges, or just the 1 SB bridge at Rocky Creek.
- Bridge office will continue to work on the hydraulic analysis of the area as this data will be required for any of the three options.
- Roadway Design will proceed with design for the required traffic shift to place the SB lanes onto the NB lanes. This will be required for any of the three options decided upon by the Bridge Maintenance Office
- Roadway will compose cost estimates for replacement of all four SB bridges and raising the profile to match the NB lanes

Transcribed by: Kevin VanHouten