

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA**

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

**FILE** P.I. # 0011684 **OFFICE** Design Policy & Support  
DeKalb & Fulton Counties  
GDOT District 7 - Metro Atlanta **DATE** March 24, 2014  
SR 42 Spur @ Norfolk Southern Railroad  
Bridge Replacement

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

**TO** SEE DISTRIBUTION

**SUBJECT** APPROVED CONCEPT REPORT

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

Attachment

**DISTRIBUTION:**

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  
Bobby Hilliard, Program Control Administrator  
Cindy VanDyke, State Transportation Planning Administrator  
Hiral Patel, State Environmental Administrator  
Ben Rabun, State Bridge Engineer  
Kathy Zahul, State Traffic Engineer  
Angela Robinson, Financial Management Administrator  
Lisa Myers, State Project Review Engineer  
Charles "Chuck" Hasty, State Materials Engineer  
Mike Bolden, State Utilities Engineer  
Jeff Fletcher, Statewide Location Bureau Chief  
Andy Casey, State Roadway Design Engineer  
Attn: Mac Cranford, District Design Engineer  
Rachel Brown, District Engineer  
Scott Lee, District Preconstruction Engineer  
Patrick Allen, District Utilities Engineer  
Ryan Fernandez, Project Manager  
BOARD MEMBER - 5th Congressional District

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

Project Type:	<u>Replacement</u>	P.I. Number:	<u>0011684</u>
GDOT District:	<u>7</u>	County:	<u>Fulton</u>
Federal Route Number:	<u>N/A</u>	State Route Number:	<u>42</u>

*Project PI #0011684 will replace the existing bridge that spans across an active Norfolk Southern Rail line that runs underneath SR 42 Spur/McDonough Blvd S.E.*

**Submitted for approval:**

<u><i>Mac Goffard</i></u> District Seven Design Engineer	<u>1-17-14</u> DATE
<u><i>[Signature]</i></u> GDOT Project Manager	<u>1-17-14</u> DATE
<u><i>[Signature]</i></u> State Program Delivery Engineer	<u>1/22/14</u> DATE

**Recommendation for approval:**

<u><i>* Glenn Bowman/KLP</i></u> State Environmental Administrator	<u>12-12-13</u> DATE
<u><i>* Kathy Zahul/KLP</i></u> State Traffic Engineer	<u>12-30-13</u> DATE
<u><i>* Ben Rabun/KLP</i></u> State Bridge Design Engineer	<u>2-28-14</u> DATE

*\* Recommendation on file*

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

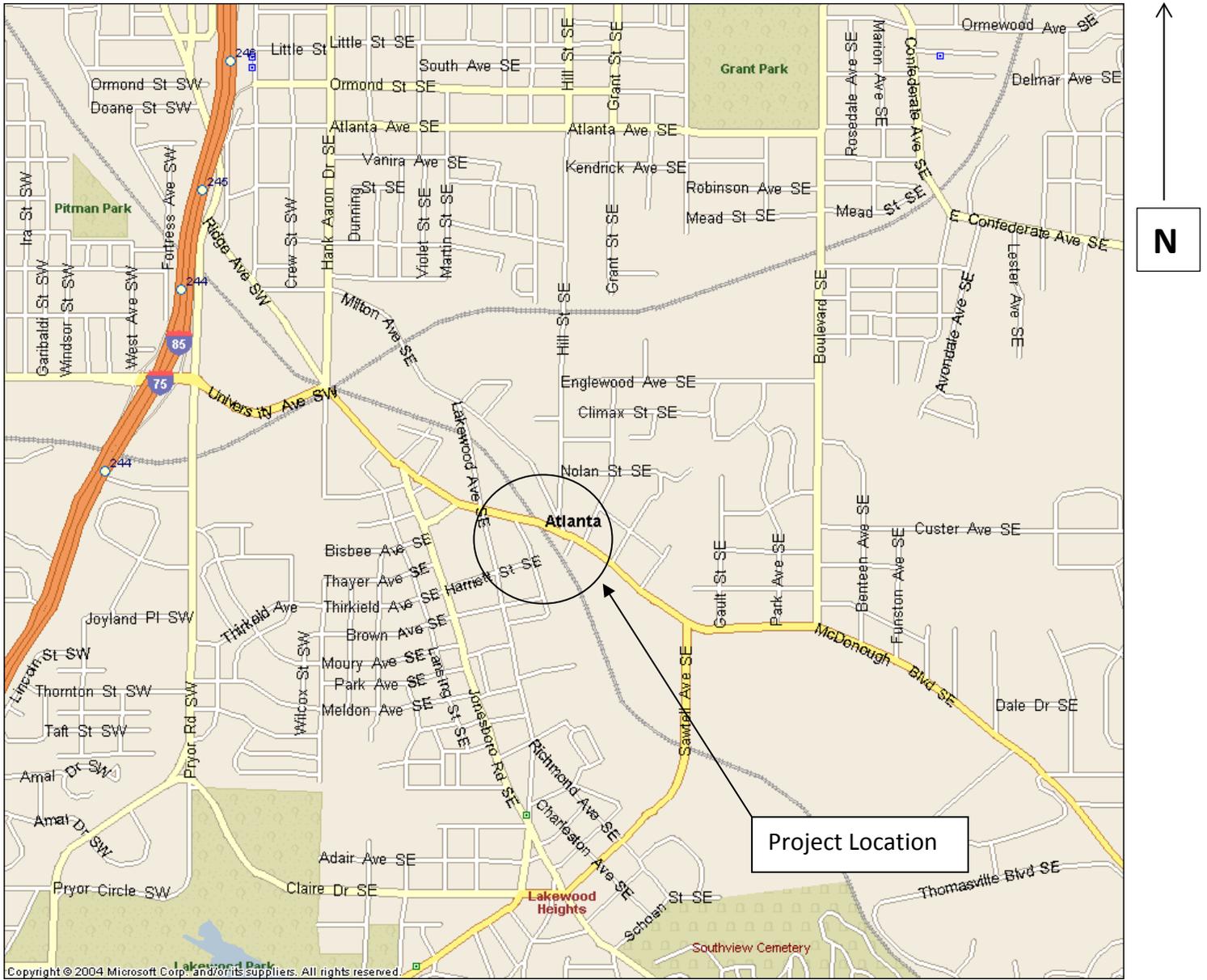
<u><i>* Cynthia VanDyke/KLP</i></u> State Transportation Planning Administrator	<u>12-13-13</u> DATE
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**Approval:**

Concur: <u><i>[Signature]</i></u> GDOT Director of Engineering	<u>3/7/14</u> DATE
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Approve: <u><i>[Signature]</i></u> GDOT Chief Engineer	<u>3/24/14</u> DATE
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### PROJECT LOCATION



**PROJECT DESCRIPTION: SR 42 SPUR @ NS #279967W 0.30 MI E OF SR 54**  
**PROG TYPE: BRIDGE REPLACEMENT**  
**PI NUMBER: 0011684**  
**COUNTY: FULTON**

County: Fulton

## PLANNING & BACKGROUND DATA

### Project Justification Statement:

This bridge (Structure ID 121-0051-0; SR 42 Spur over Norfolk-Southern RR) was built in 1924. The bridge consists of four spans of reinforced concrete deck girders on concrete columns and concrete caps. The design vehicle used for this bridge is below the current standards. The overall condition of this bridge would be classified as poor to fair. The deck is in fair condition due to concrete cracking, spalling and the presents of efflorescence throughout. The superstructure is in poor condition with advanced concrete spalls, delamination and section loss in the reinforcing steel. One sidewalk and approximately eight feet of roadway are closed to traffic due to the section loss and spalls. The substructure is in fair condition with concrete cracking and spalls. Due to structural integrity of all components of this bridge, replacement is recommended.

### Description of the proposed project:

As part of the Departments Construction Work Program, the improvements along S.R. 42 Spur/McDonough Blvd S.E. are proposed to begin and end at the intersection of Lakewood Ave S.E. and Milton Ave S.E. respectively. This bridge replacement project consists of removing the existing bridge that has a sufficiency rating of 39.82 and replacing it with a new concrete bridge (170'x54.25') along the existing horizontal and vertical alignment if possible along S.R. 42 Spur/McDonough Blvd. The existing pedestrian facilities within the project limits (portions of Lakewood Ave) will be upgraded to current standards as well. Also, the left corner radii of Milton Ave will be adjusted to provide adequate turning movement for truck. The existing left corner radius at Milton Ave is damaged due to truck traffic riding onto the curb. The existing right-of-way width along S.R. 42 Spur/McDonough Blvd S.E. varies between 80 feet and 100 feet, and the proposed right-of-way width varies between 90 feet and 120 feet. The project is located in the City of Atlanta, in Fulton County Georgia. S.R. 42 Spur/McDonough Blvd S.E. has a functional classification as an urban minor arterial with a design speed of 45 mph. The proposed length of the project is .40 miles. The project will utilize a road closure of S.R. 42 Spur/McDonough Blvd S.E. in order to replace the bridge. The detour route will be along S.R. 42 Spur/McDonough Blvd SE, Sawtell Ave SE, S.R. 54/Jonesboro Rd SE and Lakewood Ave SE and will be in place until the bridge replacement project is complete.

**Federal Oversight:**     Exempt     State Funded     Other

**MPO:** Atlanta Regional Commission (ARC)

MPO Project ID: AT-285

**Congressional District(s):** 5

County: Fulton

**Projected Traffic:** AADT

Current Year (2013): 27,000 Open Year (2018): 28,500 Design Year (2038): 36,500

Traffic Projections Performed by: GDOT Office of Planning

**Functional Classification (Mainline):** Urban Minor Arterial Street

**Is this a 3R (Resurfacing, Restoration, & Rehabilitation) Project?**  No  Yes

**Will Context Sensitive Solutions procedures be utilized?**  No  Yes

**DESIGN AND STRUCTURAL DATA**

**Mainline Design Features:** SR 42 Spur/McDonough Blvd S.E.

Feature	Existing	Standard*	Proposed
<b>Typical Section</b>			
- Number of Lanes	2	N/A	2
- Lane Width(s)	16'	10'- 12'	16'
- Outside Shoulder or Border Area Width	8'-10' URBAN	10'-16'	8'-17' URBAN
- Outside Shoulder Slope	N/A	6%	N/A
- Sidewalks	5' - 7.5'	5' – 12'	5' - 7.5'
Posted Speed	35		35
Design Speed	45	45	45
Min Horizontal Curve Radius	N/A	711	711
Superelevation Rate	N/A	4%	4%
Grade	0%-6%	7% max	0%-6%
Access Control	By Permit	By Permit	By Permit
Right-of-Way Width	80'	N/A	80'-100'
Maximum Grade – Crossroad	N/A	7%	7%
Design Vehicle	N/A	WB-40	WB-67

**Major Structures:**

Structure ID	Existing	Proposed
121-0051-0	The existing two lane bridge is 170 feet long with a deck width of 54.25 feet wide. The bridge road width is 35 wide. The sufficiency rating for the bridge is 39.82.	The proposed bridge will consist of two 16 feet wide lanes, 9.5 feet wide shoulders (7.5ft sidewalk & 2ft gutter), and will be 170 feet long with a deck width of 54.25 feet wide.
WALLS	The existing retaining walls that span parallel to S.R.42 near the N.E. section of the bridge has an existing length of 185' and 245' at the N.W. section. While the S.E section has an existing length of 120' and 315' at the S.W. section. The existing widths of	The proposed walls will replace the existing walls and vary in heights of 20-30 feet. The walls that span parallel to S.R. 42 Spur near the N.E. section of the bridge will have a proposed length of 185' and 245' at the N.W. section. While the S.E

County: Fulton

	the walls that will run adjacent to the bridge cap are 55’.	section will have a proposed length of 120’ and 315’ at the S.W. section. The proposed widths of the walls that will run adjacent to the bridge cap will be about 57’.
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**Major Interchanges/Intersections:** The Intersection of Lakewood Ave S.E. & S.R. 42 Spur/McDonough Blvd S.E.

**Utility Involvements:** Georgia Power Distribution (overhead and underground electric and lighting) – Electricity, City of Atlanta Water & Sewer (underground water and sewer), Comcast (overhead and underground cable & fiber communications), AT&T (Overhead Telephone communications) May be impacted by proposed project activities.

**Public Interest Determination Policy and Procedure recommended (Utilities)?**  No  Yes

**SUE Required:**  No  Yes

**Railroad Involvement:** Norfolk Southern Railroad runs underneath S.R. 42 Spur/McDonough Blvd SE and will require project coordination due to proposed project activity.

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

Warrants met:  None  Bicycle  Pedestrian  Transit

**Right-of-Way:**

Required Right-of-Way anticipated:  No  Yes  Undetermined  
Easements anticipated:  None  Temporary  Permanent  Utility  Other

Anticipated number of impacted parcels: 13  
Displacements anticipated: Total: 0  
Businesses: 0  
Residences: 0  
Other: 0

**Transportation Management Plan [TMP] Required:**  No  Yes  
If Yes: Project classified as:  Non-Significant  Significant  
TMP Components Anticipated:  TTC/SP150  TO  PI

County: Fulton

**Design Exceptions to FHWA/AASHTO controlling criteria anticipated:**

- A Design Exception for lateral offset to obstruction will be applied for; due to the existing location of utility power/phone poles not meeting the required minimum offset within the project limits.
- A Design Exception for intersection skew angle will be applied for, due to the existing skew angle of Milton Ave S.E. (35 degrees) and Blashfield Street S.E. (55 degrees) not meeting the required minimum angle to tie into the main roadway.

**Design Variances to GDOT Standard Criteria anticipated:**

- A Design Variances for intersection skew angle will be applied for, due to the existing skew angle of Lakewood Ave (67 degrees) not meeting the required minimum angle to tie into the main roadway.

**ENVIRONMENTAL DATA**

**Anticipated Environmental Document:**

GEPA:  NEPA:  CE  PCE

**Project Air Quality:**

Is the project located in a PM 2.5 Non-attainment area?	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes
Is the project located in an Ozone Non-attainment area?	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes
Is a Carbon Monoxide hotspot analysis required?	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes

The proposed project would not exceed state and federal air quality standards, and it is consistent with the State Implementation Plan for the attainment of clean air quality in the state. A qualitative PM2.5 hotspot analysis is not required for this project since it is not a project of local air quality concern under 40 CFR 93.123(b)(1). Furthermore, under 40 CFR 93.126 Exempt project; the proposed project falls under table 2 of exempt project as a railroad/highway crossing project. Project types listed as such in this section are exempt from the requirement to determine conformity.

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

**Environmental Permits/Variations/Commitments/Coordination anticipated:**

NPDES will be required and a Detour PIOH will be held at a later date.

**NEPA/GEPA Comments & Information:** The existing bridge may be eligible for the National Register. Environmental screenings & mitigation for this project is still being determined.

County: Fulton

**PROJECT RESPONSIBILITIES****Project Activities:**

Project Activity	Party Responsible for Performing Task(s)
Concept Development	GDOT
Design	GDOT
Right-of-Way Acquisition	GDOT
Utility Relocation	Utility Companies/GDOT
Letting to Contract	GDOT
Construction Supervision	GDOT
Providing Material Pits	Contractor
Providing Detours	Contractor
Environmental Studies, Documents, and Permits	GDOT
Environmental Mitigation	To Be Determined
Construction Inspection & Materials Testing	GDOT

**Lighting required:**  No  Yes

**Other projects in the area:**

- PI No. 0002641 – UNIVERSITY AVE FM: MCDONOUGH BLVD TO METROPOLITAN PKWY (Widening)
- PI No. 771340 – PRYOR RD STREETScape FM CLAIRE DR TO UNIVERSITY AVE (Bicycle/Ped. Facility)

**Other coordination to date:** None

**Project Cost Estimate and Funding Responsibilities:**

	Breakdown of PE	ROW	Reimbursable Utility	CST*	Environmental Mitigation	Total Cost
By Whom	GDOT	GDOT	GDOT	GDOT	TBD	
\$ Amount	\$350,000	\$1,261,000	\$250,000	\$3,320,721	-	\$5,181,721
Date of Estimate	7/19/2012	7/24/2013	8/21/2013	1/16/2014	-	

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

**ALTERNATIVES**

<b>Preferred Alternative:</b> <i>Replace Bridge and Keep The Existing Roadway Alignment</i>			
<b>Estimated Property Impacts:</b>	<b>13</b>	<b>Estimated Total Cost:</b>	<b>\$5,181,721</b>
<b>Estimated ROW Cost:</b>	<b>\$1,261,000</b>	<b>Estimated CST Time:</b>	<b>18 months</b>
<b>Rationale:</b> Minimize Utility and ROW impacts within the project limits.			

<b>No-Build Alternative: <i>No Build</i></b>			
<b>Estimated Property Impacts:</b>	<b>0</b>	<b>Estimated Total Cost:</b>	<b>0</b>
<b>Estimated ROW Cost:</b>	<b>0</b>	<b>Estimated CST Time:</b>	<b>0</b>
<b>Rationale: This alternative does not resolve the poor bridge rating</b>			

<b>Alternative 1: <i>Realign Existing Roadway Alignments and Construct a New Bridge</i></b>			
<b>Estimated Property Impacts:</b>	<b>19</b>	<b>Estimated Total Cost:</b>	<b>7,280,000</b>
<b>Estimated ROW Cost:</b>	<b>2,380,000</b>	<b>Estimated CST Time:</b>	<b>24 Months</b>
<b>Rationale: Major impacts to ROW parcels, potential relocations and a larger construction footprint.</b>			

**Comments/additional information: None**

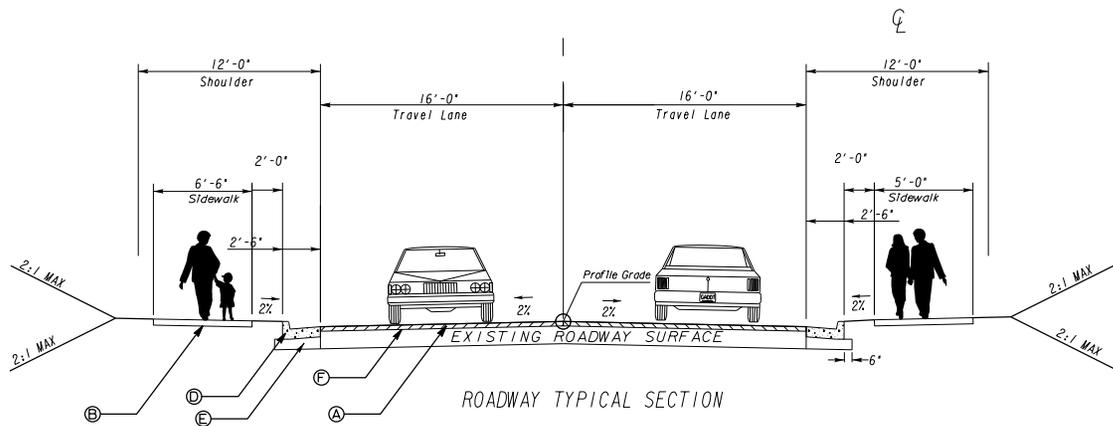
**Attachments:**

1. Concept Layout
2. Typical Sections
3. Detailed Cost Estimates:
  - a. Construction including Engineering and Inspection
  - b. Fuel & Asphalt Price Adjustment forms
  - c. Right-of-Way
  - d. Utilities
4. Crash Summaries
5. Minutes of Concept Meetings
6. HSM Analysis Statement
7. Bridge Inventory Data Listing – 121-0051-0
8. Detour Map

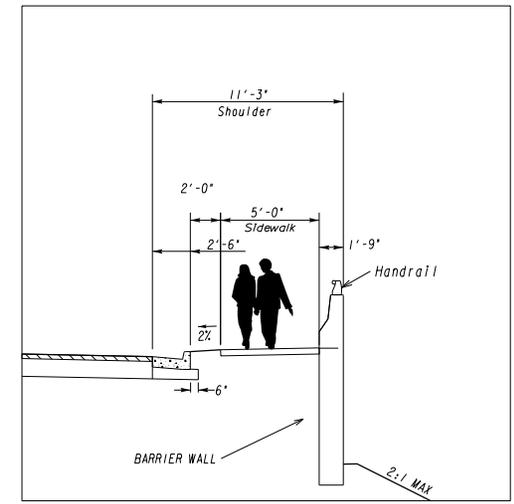


STATE: GA		PROJECT NUMBER: 51:0011884 - SR 42 McDonough Blvd. Bridge Concept Stage (Project 10011864) Layout.dwg	
SHEET NO.:		TOTAL SHEETS:	
REVISION DATES:		STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION OFFICE: DT DESIGN <b>CONSTRUCTION LAYOUT</b> SR 42 @ M.S. RAILROAD	
SCALE: 1/4" = 1'-0"		DRAWING NO.: 11-01	

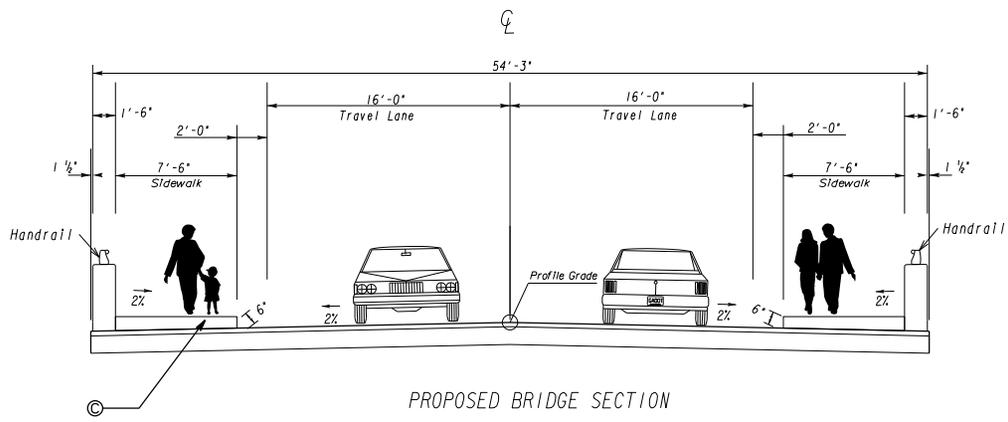
**GEORGIA**  
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TRANSPORTATION



ROADWAY TYPICAL SECTION



BARRIER WALL SHOULDER DETAIL



PROPOSED BRIDGE SECTION

PAVEMENT DESIGN		
SYMBOL	PAVEMENT SYMBOLS LEGEND DESCRIPTION	
A	RECYCLED ASPH CONC 9.5 MM SUPERPAVE, GP 2 ONLY, INCL BITUM MATL & H LIME	135 LB/SY
B	CONC SIDEWALK, 4 IN	
C	CONC SIDEWALK, 6 IN	
D	CONC CURB & GUTTER, 6"x30"TP2	
E	10" GRADED AGGREGATE BASE	
F	MILL ASPH CONC PWMT, VARIABLE DEPTH	

**GEORGIA**  
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OF  
TRANSPORTATION

NOT TO SCALE

REVISION DATES	

STATE OF GEORGIA  
DEPARTMENT OF TRANSPORTATION  
OFFICE: DT DESIGN  
**TYPICAL SECTIONS**

SR 42 @ N. S. RAILROAD

DRAWING No.  
**05-01**

# DETAILED COST ESTIMATE



**Job: 0011684\_OAO**

**JOB NUMBER** 0011684\_OAO

**FED/STATE PROJECT NUMBER** 0011684

**SPEC YEAR:** 01

**DESCRIPTION:** SR 42@ NS #279967W - BRIDGE REPLACEMENT

**ITEMS FOR JOB 0011684\_OAO**

**0010 - ROADWAY**

Line Number	ITEM	QUANTITY	UNITS	PRICE	DESCRIPTION	AMOUNT
0080	150-1000	1.000	LS	\$100,000.00000	TRAFFIC CONTROL - 0011684	\$100,000.00
0085	210-0100	1.000	LS	\$250,000.00000	GRADING COMPLETE - 0011684	\$250,000.00
0040	310-1101	300.000	TN	\$26.41819	GR AGGR BASE CRS, INCL MATL	\$7,925.46
0045	402-1812	680.000	TN	\$83.77309	RECYL AC LEVELING, INC BM&HL	\$56,965.70
0035	402-3103	420.000	TN	\$70.00000	REC AC 9.5 MM SP, TPII, GP2, INCL BM & H L	\$29,400.00
0390	402-3143	175.000	TN	\$80.37665	RECYL AC 25 MM SP, GP 1 OR 2, INCL BM	\$14,065.91
0310	402-3190	30.000	TN	\$95.65514	RECYL AC 19 MM SP, GP 1 OR 2, INC BM&HL	\$2,869.65
0050	413-1000	300.000	GL	\$2.89011	BITUM TACK COAT	\$867.03
0110	432-5010	900.000	SY	\$11.91493	MILL ASPH CONC PVMT, VARB DEPTH	\$10,723.44
0190	441-0016	35.000	SY	\$44.27243	DRIVEWAY CONCRETE, 6 IN TK	\$1,549.54
0170	441-0104	1600.000	SY	\$82.58550	CONC SIDEWALK, 4 IN	\$132,136.80
0185	441-0108	25.000	SY	\$136.14193	CONC SIDEWALK, 8 IN	\$3,403.55
0115	441-4040	40.000	SY	\$35.00000	CONC VALLEY GUTTER, W/CURB, 6"	\$1,400.00
0105	441-6022	1200.000	LF	\$29.24078	CONC CURB & GUTTER, 6"X30"TP2	\$35,088.94
0280	446-1100	100.000	LF	\$2.87057	PVMT REF FAB STRIPS, TP2, 18 INCH WIDTH	\$287.06
0300	500-2100	865.000	LF	\$27.96441	CONCRETE BARRIER	\$24,189.21
0365	500-9999	10.000	CY	\$242.78535	CL B CONC, BASE OR PVMT WIDEN	\$2,427.85
0385	516-1100	500.000	LF	\$62.53656	ALUM HANDRAIL, STD 3626	\$31,268.28
0205	634-1200	12.000	EA	\$95.04771	RIGHT OF WAY MARKERS	\$1,140.57
0200	641-1100	84.000	LF	\$63.30588	GUARDRAIL, TP T	\$5,317.69
0325	641-1200	150.000	LF	\$14.81172	GUARDRAIL, TP W	\$2,221.76
0260	641-5001	2.000	EA	\$653.09081	GUARDRAIL ANCHORAGE, TP 1	\$1,306.18
0265	641-5012	2.000	EA	\$1,984.76726	GUARDRAIL ANCHORAGE, TP 12	\$3,969.53
<b>SUBTOTAL FOR ROADWAY:</b>						<b>\$718,524.15</b>

# DETAILED COST ESTIMATE



**Job: 0011684\_OAO**

**0020 - SIGNING AND MARKING**

Line Number	ITEM	QUANTITY	UNITS	PRICE	DESCRIPTION	AMOUNT
0285	632-0003	4.000	EA	\$16,086.00917	CHANGEABLE MESS SIGN,PORT,TP 3	\$64,344.04
0120	636-1033	30.000	SF	\$25.53118	HWY SIGNS, TP1MAT,REFL SH TP 9	\$765.94
0125	636-2070	45.000	LF	\$12.40234	GALV STEEL POSTS, TP 7	\$558.11
0330	639-4004	4.000	EA	\$6,761.24886	STRAIN POLE, TP IV	\$27,045.00
0335	647-1000	1.000	LS	\$10,000.00000	TRAF SIGNAL INSTALLATION NO - SIGNAL 1 - LAKEWOOD AVE	\$10,000.00
0340	647-1000	1.000	LS	\$15,000.00000	TRAF SIGNAL INSTALLATION NO - SIGNAL 2 - MILTON AVE	\$15,000.00
0380	653-0120	2.000	EA	\$86.49431	THERM PVMT MARK, ARROW, TP 2	\$172.99
0130	653-1501	1850.000	LF	\$0.62227	THERMO SOLID TRAF ST 5 IN, WHI	\$1,151.20
0135	653-1502	1850.000	LF	\$0.60195	THERMO SOLID TRAF ST, 5 IN YEL	\$1,113.61
0160	653-1704	85.000	LF	\$4.79622	THERM SOLID TRAF STRIPE,24",WH	\$407.68
0165	653-1804	1900.000	LF	\$3.37158	THERM SOLID TRAF STRIPE, 8",WH	\$6,406.00
0350	653-3501	150.000	GLF	\$0.70081	THERMO SKIP TRAF ST, 5 IN, WHI	\$105.12
0345	654-1001	10.000	EA	\$6.29681	RAISED PVMT MARKERS TP 1	\$62.97
0370	657-1085	400.000	LF	\$8.69647	PRF PL SD PVT MKG,8",B/W,TP PB	\$3,478.59
0375	657-6085	400.000	LF	\$9.35443	PRF PL SD PVMT MKG,8",B/Y,TPPB	\$3,741.77
<b>SUBTOTAL FOR SIGNING AND MARKING:</b>						<b>\$134,353.02</b>

**0030 - EROSION CONTROL**

Line Number	ITEM	QUANTITY	UNITS	PRICE	DESCRIPTION	AMOUNT
0055	163-0232	1.000	AC	\$836.46529	TEMPORARY GRASSING	\$836.47
0060	163-0240	25.000	TN	\$293.22100	MULCH	\$7,330.53
0095	163-0300	2.000	EA	\$1,676.59664	CONSTRUCTION EXIT	\$3,353.19
0360	163-0550	4.000	EA	\$277.02855	CONS & REM INLET SEDIMENT TRAP	\$1,108.11
0070	165-0030	800.000	LF	\$1.48939	MAINT OF TEMP SILT FENCE, TP C	\$1,191.51
0100	165-0101	2.000	EA	\$652.34498	MAINT OF CONST EXIT	\$1,304.69
0355	165-0105	4.000	EA	\$125.92865	MAINT OF INLET SEDIMENT TRAP	\$503.71
0065	171-0030	1600.000	LF	\$2.40537	TEMPORARY SILT FENCE, TYPE C	\$3,848.59
0235	550-1180	250.000	LF	\$56.40513	STM DR PIPE 18",H 1-10	\$14,101.28
0225	550-4218	4.000	EA	\$650.47579	FLARED END SECT 18 IN, ST DR	\$2,601.90
0230	603-2018	72.000	SY	\$45.71450	STN DUMPED RIP RAP, TP 1, 18"	\$3,291.44
0240	603-7000	72.000	SY	\$0.44357	PLASTIC FILTER FABRIC	\$31.94
0220	668-1200	6.000	EA	\$3,118.59194	CATCH BASIN, GP 2	\$18,711.55
0075	700-6910	2.000	AC	\$1,024.84011	PERMANENT GRASSING	\$2,049.68
0150	700-7000	1.000	TN	\$93.72375	AGRICULTURAL LIME	\$93.72
0155	700-8000	1.000	TN	\$406.74937	FERTILIZER MIXED GRADE	\$406.75
0195	716-2000	2000.000	SY	\$1.09255	EROSION CONTROL MATS, SLOPES	\$2,185.10
<b>SUBTOTAL FOR EROSION CONTROL:</b>						<b>\$62,950.16</b>

# DETAILED COST ESTIMATE



**Job: 0011684\_OAO**

**0050 - BRIDGE REPLACEMENT**

Line Number	ITEM	QUANTITY	UNITS	PRICE	DESCRIPTION	AMOUNT
0090	433-1100	200.000	SY	\$255.83941	REF CONC APPR SL/INCL CURB	\$51,167.88
0005	500-0100	350.000	SY	\$4.71775	GROOVED CONCRETE	\$1,651.21
0180	500-1008	1.000	LS	\$1,100,000.00000	SUPERSTR CONCRETE, CL AA-1, BRNO - 0011684 - BRIDGE	\$1,100,000.00
0015	500-3002	100.000	CY	\$750.10111	CL AA CONCRETE	\$75,010.11
0295	500-3107	250.000	CY	\$656.14183	CL A CONC, RET WALL	\$164,035.46
0175	522-1000	1.000	LS	\$60,000.00000	SHORING	\$60,000.00
0305	627-1020	15180.000	SF	\$51.11990	MSE WALL FACE, 20 - 30 FT HT, WALL NO - 0011684 - WALL 1 & 2	\$776,000.08
<b>SUBTOTAL FOR BRIDGE REPLACEMENT:</b>						<b>\$2,227,864.74</b>

**TOTALS FOR JOB 0011684\_OAO**

<b>ITEMS COST:</b>	<b>\$3,143,692.07</b>
<b>COST GROUP COST:</b>	<b>\$0.00</b>
<b>ESTIMATED COST:</b>	<b>\$3,143,692.07</b>
<b>CONTINGENCY PERCENT:</b>	<b>0.00</b>
<b>ENGINEERING AND INSPECTION:</b>	<b>0.05</b>
<b>ESTIMATED COST WITH CONTINGENCY AND E&amp;I:</b>	<b>\$3,300,876.67</b>

**PROJ. NO.**

SR 42 @ NS #279967W 0.30 MI E OF SR 54

CALL NO.

**P.I. NO.**

0011684

**DATE**

11/23/2013

**INDEX (TYPE)**

Link to Fuel and AC Index:

REG. UNLEADED

**DATE** **INDEX**

Nov-13 \$ 3.221

DIESEL

\$ 3.823

LIQUID AC

\$ 565.00

<http://www.dot.ga.gov/doingbusiness/Materials/Pages/asphaltcementindex.aspx>**LIQUID AC ADJUSTMENTS****PA=(((APM-APL)/APL)xTMTxAPL****Asphalt**

Price Adjustment (PA)

**19407.75**

Monthly Asphalt Cement Price month placed (APM)

\$ 904.00

Monthly Asphalt Cement Price month project let (APL)

\$ 565.00

**Total Monthly Tonnage of asphalt cement (TMT)****57.25**\$ **19,407.75****ASPHALT****Tons** **%AC** **AC ton**

Leveling

680	5.0%	34
	5.0%	0
	5.0%	0
420	5.0%	21
15	5.0%	0.75
30	5.0%	1.5
<b>1145</b>		<b>57.25</b>

12.5 OGFC

12.5 mm

9.5 mm SP

25 mm SP

19 mm SP

**BITUMINOUS TACK COAT**

Price Adjustment (PA)

**436.81**

Monthly Asphalt Cement Price month placed (APM)

\$ 904.00

Monthly Asphalt Cement Price month project let (APL)

\$ 565.00

**Total Monthly Tonnage of asphalt cement (TMT)****1.288530277**\$ **436.81**

Bitum Tack

Gals

gals/ton

tons

**300****232.8234****1.28853028**

**PROJ. NO.**

SR 42 @ NS #279967W 0.30 MI E OF SR 54

CALL NO.

**P.I. NO.**

0011684

**DATE**

11/23/2013

**BITUMINOUS TACK COAT (surface treatment)**

Price Adjustment (PA)

0

\$

Monthly Asphalt Cement Price month placed (APM)

904.00

\$

Monthly Asphalt Cement Price month project let (APL)

565.00

\$

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

**TOTAL LIQUID AC ADJUSTMENT**

\$

19,844.56

GEORGIA DEPARTMENT OF TRANSPORTATION  
PRELIMINARY ROW COST ESTIMATE SUMMARY

Date: 7/24/2013 Project: 0011684  
 Revised: County: Dekalb/Fulton  
 PI: 0011684

Description: SR 42 @ NS#278867W 0.30 Miles E of SR 54  
 Project Termini: SR 42 @ NS#278867W 0.30 Miles E of SR 54

Existing ROW: Varies  
 Required ROW: Varies  
 Parcels: 13

Land and Improvements \_\_\_\_\_ \$952,312.50

Proximity Damage	\$0.00
Consequential Damage	\$0.00
Cost to Cures	\$0.00
Trade Fixtures	\$0.00
Improvements	\$40,000.00

Valuation Services \_\_\_\_\_ \$25,000.00

Legal Services \_\_\_\_\_ \$83,775.00

Relocation \_\_\_\_\_ \$26,000.00

Demolition \_\_\_\_\_ \$50,000.00

Administrative \_\_\_\_\_ \$123,500.00

TOTAL ESTIMATED COSTS \_\_\_\_\_ \$1,260,587.50

**TOTAL ESTIMATED COSTS (ROUNDED) \_\_\_\_\_ \$1,261,000.00**

Preparation Credits	Hours	Signature

Prepared By: Deshone Alexander CG#: 286999 07/24/2013(E)

Approved By: Deshone Alexander CG#: 286999 07/24/2013(E)

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

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA**

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**INTER-DEPARTMENT CORRESPONDENCE**

**DATE:** August 21, 2013

**FROM:** Patrick Allen, P.E., District Utilities Engineer

**TO:** Ryan Fernandez, Project Manager

**SUBJECT:** PRELIMINARY UTILITY COST ESTIMATE  
SR42 @ NS #279967W 3.30 MILES E OF SR54  
@ CR 198/ BANKS MILL RD/POOL RD.  
P.I. NO.0011684, DEKALB/FULTON COUNTIES

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	GRAND TOTAL
Atlanta Gas Light Company	\$ 68,640.00		
AT&T formerly BellSouth	\$ 50,000.00	\$250,000.00	
Comcast of Georgia, Inc.	\$ 45,000.00		
City of Atlanta Sewer	\$137,280.00		
City of Atlanta Water	\$ 77,216.00		
Georgia Power Distribution	\$100,000.00		
<b>Totals:</b>	<b>\$478,136.00</b>	<b>\$250,000.00</b>	<b>\$728,136.00</b>

This estimate is based upon the current information provided. We will provide an updated estimate when the plans are further established.

If you have any questions, please contact Yulonda Pride-Foster at 770-986-1117.

PA/YPF

C: Mike Bolden, State Utilities Engineer  
Scott Lee, District Preconstruction Engineer

**Crash Report Summary Table: FULTON COUNTY, SR 42 Spur from Milton Avenue (CS 142803) to Lakewood Avenue (CS 132203)**

Collision Type	Year of Accident			
	2006	2007	2008	2009
Rear End	3	0	5	1
Angle	2	1	1	2
Sideswipe	0	4	5	2
Not A Collision With A Motor Vehicle	2	2	1	0
Injuries	3	0	4	0
Fatalities	0	0	0	0

Concept Team Meeting notes – PI#0011684, Fulton County – 10/16/2013

- Ryan Fernandez opened the meeting with introductions
- Ryan Fernandez presented the proposed project description & scope
- Mac Cranford gave an overview of the proposed project design and existing issues
  - Explained the project limits from Lakewood Ave to Milton Ave along S.R. 42/McDonough Blvd. Milton Ave has an intersecting skew angle less than 70 degrees.
  - Existing bridge was built in 1924 and currently has a sufficiency rating of 39.82. The bridge at one point in time had to have one travel lane closed due to spalls and cracks in the bridge deck.
  - The Parcel owner of an adjacent dumpster storage facility attached wooden fence panels to the bridge's hand railing along the south west section of the bridge.
  - The existing bridge retaining walls appear to be in bad condition as well.
  - The proposed typical section of the bridge is to show 16' lanes, 6'-8' sidewalks & side barrier walls.
  - Mentioned that due to the walls needing to be replaced, ROW easement will be needed within the project limits. About 13 parcels will be impacted.
  - A roadway detour will be utilized to close the road the existing bridge is being replaced. During the PTIP meeting, feedback from the trucking association should be utilized to find a best fit detour route.
  - Mentioned that an existing stairwell should be removed from the project limits.
  - A design exception for the power pole locations will be warranted.
- Jennifer Napier –
  - Mentioned due to the bridge being built in 1924, the bridge would have to clear a historic evaluation prior to be replaced.
  - Anticipating the environmental document to be a C.E.
  - Suggested that a PIOH and Detour meeting be held in the area near the project.
  - Mentioned that a Carbon Monoxide hotspot analysis might be required due to the traffic counts and level of service within the project limit.
  - Not anticipating a 404 permit being needed for this project.
- Melissa Harper –
  - Mentioned that the existing Retaining walls should be replaced with a updated retaining wall system.
  - Mentioned that due to railroad constraints & requirement, replacing the existing bent for the bridge might not receive approval from the railroad company and that the existing vertical clearance may have to be raised. So the proposed bridge should span across the railroad tracks.
  - Mentioned that in order for the contractor to place the beams across the railroad tracks, the power lines will need to be relocated so that a constructability conflict does not occur.

- SUE maybe needed to verify any other utility conflicts.
- Mentioned that once the existing vertical clearance is determined, if it is less than the current standard; the roadway profile grade will change and increase the ROW needed and sight distance controls will need to be reviewed.
  
- Yulonda Pride Foster –
  - Proposed that giving utility companies within the project limit a design locate, may expedite a response from them concerning any conflicts with the proposed project design.
  - Mentioned that a preliminary coordination meeting with utility owners could be setup to gather information of where there facilities are within the project limits.
  - Mentioned that a request for SUE to be utilized on the project would be needed.
  - Explained that typically, railroad companies don't encourage for utility owners to span their facilities along bridges that goes across their tracks.

# CONCEPT TEAM MEETING - SIGN-IN SHEET

**Project:** Bridge Replacement on SR 42 over Norfolk Southern Railroad  
**Meeting Date:** October 16, 2013  
**PI:** 0011684, Fulton County  
**Place/Room:** District 7 Office Conference Room, Chamblee, GA

Name	Title	Company/Office	Phone	E-Mail
Ryan Fernandez	Project Manager	GDOT-OPD	(404) 631-1162	rfernandez@dot.ga.gov
Jennifer Napier	Environmental	Kimley-Horn & Assoc	678-533-3912	jennifer.napier@kimley-horn.com
GERARD FORD	DESIGN	GDOT - DESIGN	7-986-1111	gford@dot.ga.gov
ERIK BROWN	OPERATIONS	GDOT	770 986 1769 404	EBROWN@DOT.GA.GOV
Melissa Harper	Asst. St. Const. Eng	GDOT	631-1971	mharper@dot.ga.gov
Ola Onabanjo	Design	"	7-986-1786	oonabanjo@dot.ga.gov
Mac Cranford	DT Design	"	7-986-1260	mcranford@dot.ga.gov
Ylonda Prude-Fest	DT Util	GDOT Util	7-986-1117	ypride@dot.ga.gov

**PI 0011684 Fulton/DeKalb Counties**

**Proposed Concept Report for Bridge Replacement**

GDOT Office of Roadway Design policy directs that Highway Safety Manual (HSM) analysis is not required for bridge replacement projects with 0.5-mile or less of roadway construction on each bridge approach. This project has less than 0.5-mile of roadway construction proposed on each approach thus a HSM analysis is not included.



# Bridge Inventory Data Listing

## Parameters: Bridge Serial Num

Structure ID: 121-0051-0

Fulton

SUFF. RATING: 39.82

### Location & Geography

Structure ID:	121-0051-0	*104 Highway System:	0	<b>Signs &amp; Attachments</b>	
200 Bridge Information:	07	*26 Functional Classification:	16	225 Expansion Joint Type:	04
*6A Feature Int:	NORFOLK-SOUTHERN RR	*204 Federal Route Type:	MNo: 00372	242 Deck Drains:	0
*6B Critical Bridge:	0	105 Federal Lands Highway:	0	243 Parapet Location:	0
*7A Route No Carried:	SR00042	*110 Truck Route:	0	Height:	0
*7B Facility Carried:	MCDONOUGH BLVD.	2006 School Bus Route:	1	Width:	0
9 Location:	.3 MI E OF SR 54	217 Benchmark Elevation:	0000.00	238 Curb Height:	0
2 Dot District:	7	218 Datum:	0	Curb Material:	1
207 Year Photo:	2011	*19 Bypass Length:	02	239 Handrail	55
*91 Inspection Frequency:	24 Date: 06/30/2011	*20 Toll:	3	*240 Medium Barrier Rail:	0
92A Fract Crit Insp Freq:	0 Date: 02/01/1901	*21 Maintenance:	01	241 Bridge Median Height:	0
92B Underwater Insp Freq:	0 Date: 02/01/1901	*22 Owner:	01	* Bridge Median Width:	0
92C Other Spc. Insp Freq:	0 Date: 02/01/1901	*31 Design Load:	2	230 Guardrail Loc. Dir. Rear:	0
*4 Place Code:	04000	37 Historical Significance:	2	Fwd:	0
*5 Inventory Route(O/U):	1	205 Congressional District:	05	Oppo. Dir. Rear:	0
Type:	3	27 Year Constructed:	1924	Oppo. Fwd:	0
Designation:	4	106 Year Reconstructed:	0000	244 Approach Slab	3
Number:	00042	33 Bridge Medium:	0	224 Retaining Wall:	1
Direction:	0	34 Skew:	47	233 Posted Speed Limit:	45
*16 Latitude:	33 43.0412 HMMS Prefix:SR	35 Structure Flared:	0	236 Warning Sign:	0.00
*17 Longitude:	84 -22.7922 HMMS Suffix:SP MP:0.32	38 Navigation Control:	N	234 Delineator:	0.00
98 Border Bridge:	000%Shared:00	213 Special Steel Design:	0	235 Hazzard Boards:	0
99 ID Number:	0000000000000000	267 Type of Paint:	0	237 Utilities Gas:	00
*100 STRAHNET:	0	*42 Type of Service On:	5	Water:	21
12 Base Highway Network:	1	Type of Service Under:	2	Electric:	00
13A LRS Inventory Route:	1211004200	214 Movable Bridge:	0	Telephone:	22
13B Sub Inventory Route:	0	203 Type Bridge:	Z	Sewer:	00
101 parallel Structure:	N	259 Pile Encasement	3	247 Lighting Street:	0
*102 Direction of Traffic:	2	*43 Structure Type Main:	1 04	Navigation:	0
*264 Road Inventory Mile Post:	002.05	45 No.Spans Main:	004	Aerial:	0
*208 Inspection Area:	7 Initials: EFP	44 Structure Type Appr:	0 00	*248 County Continuity No.:	00
Engineer's Initials:	sgm	46 No Spans Appr:	0000		
* Location ID No:	121-00042P-000.32E	226 Bridge Curve Horiz	0 Vert: 1		
		111 pier Protection	0		
		107 Deck Structure Type:	1		
		108 Wearing Structure Type:	6		
		Membrane Type:	0		
		Deck Protection:	8		



# Bridge Inventory Data Listing

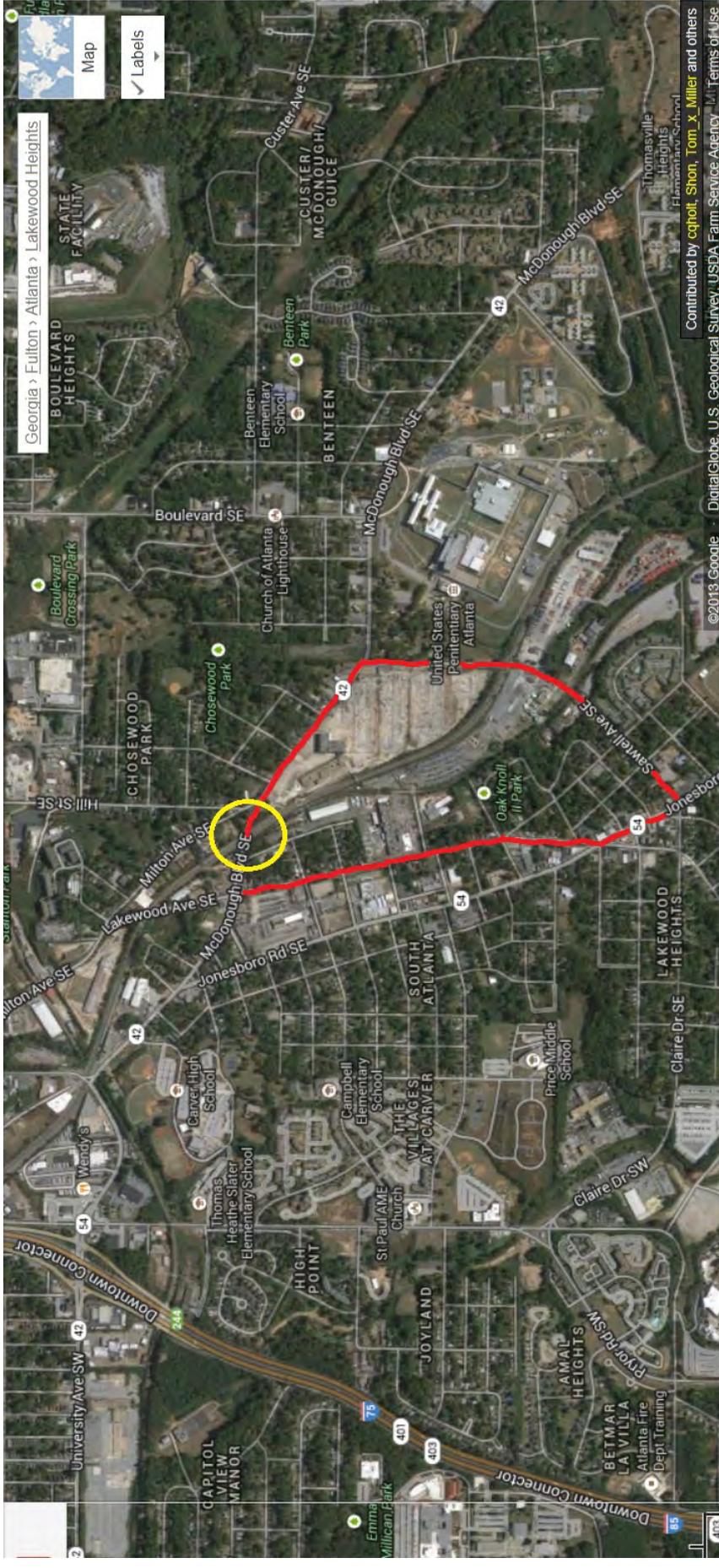
Processed Date: 7/3/2013

Parameters: Bridge Serial Num

Structure ID: 121-0051-0

<b>Programming Data</b>		<b>Measurements:</b>	
201 Project No:	UNKNOWN	*29ADT	021890 Year:2010
202 Plans Available:	0	109% Trucks:	2
249 Prop Proj No:	00000000000000000000000000000000	* 28 Lanes On:	02 Under:00
250 Approval Status:	0000	210 No. Tracks On:	00 Under:03
251 PI Number:	00000000	* 48 Max. Span Length	0046
252 Contract Date:	02/01/1901	* 49 Structure Length:	170
260 Seismic No.:	00000	51 Br. Rwdy. Width	35.00
75 Type Work:	31 1	52 Deck Width:	52.20
94 Bridge Imp. Cost:	\$664	* 47 Tot. Horiz. Cl:	35
95 Roadway Imp. Cost:	66	50 Curb / Sidewalk Width	7.50 / 7.50
96 Total Imp Cost:	996	32 Approach Rdwy. Width	035
76 Imp Length:	001490	*229 Shoulder Width:	
97 Imp Year:	2013	Rear Lt:	0.00 Type:7 Rt:0.00
114 Future ADT:	032835 Year:2030	Fwd. Lt:	0.00 Type:7 Rt:0.00
<b>Hydraulic Data</b>			
215 Waterway Data:			
High Water Elev:	0000.0 Year:1900	Permanent Width:	
Flood Elev:	0000.0 Freq:00	Rear:	35.00 Type:7
Avg Streambed Elev:	0000.0	Intersection Rear:	35.00 Type:2
Drainage Area:	00000	36 Safety Features Br. Rail:	2
Area of Opening:	000000	Transition:	0
113 Scour Critical	N	App. G. Rail:	0
216 Water Depth:	00.0 Br. Height:00.0	App. Rail End:	0
222 Slope Protection:	0	53 Minimum Cl. Over:	99' 99" *
221 Slope Protection	0 Fwd:0	Under:	
219 Fender System	0	*228 Minimum Vertical Cl	
220 Dolphin:	0	Act. Odm Dir::	99' 99"
223 Current Cover:	000	Oppo. Dir:	99' 99"
Type:	0	Posted Odm. Dir:	00' 00"
No. Barrels:	0	Oppo. Dir:	00' 00"
* Width:	0.00 Height:0.00	55 Lateral Undercl. Rt:	R 8.8
* Length:	0 Apron:0	56 Lateral Undercl. Lt:	0.00
265 U/W Insp. Area	0 Diver:ZZZ	*10 Max Min Vert Cl:	99' 99" Dir:0
Location ID No:	121-00042P-000.32E	39 Nav Vert Cl:	000 Horiz:0000
		116 Nav Vert Cl Closed:	000
		245 Deck Thickness Main Deck Thick Approach:	8.00
		246 Overlay Thickness:	0.00
		212 Year Last Painted:	Sup:0000 Sub:0000
		65 Inventory Rating Method:	2
		63 Operating Rating Method:	2
		66 Inventory Type:	2 Rating: 20
		64 Operating Type:	2 Rating: 20
		231 Calculated 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	21
		67 Structural Evaluation:	4
		58 Deck Condition:	5
		59 Superstructure Condition:	4
		* 227 Collision Damage:	0
		60A Substructure Condition:	5
		60B Scour Condition:	N
		60C Underwater Condition	N
		71 Waterway Adequacy:	N
		61 Channel Protection Cond.:	N
		68 Deck Geometry:	4
		69 UnderClr. HorzVert:	2
		72 Appr. Alignment:	6
		62 Culvert:	N
		<b>Posting Data</b>	
		70 Bridge Posting Required	5
		41 Struct Open, Posted, CL:	A
		* 103 Temporary Structure:	0
		232 Posted Loads	
		H-Modified:	00
		HS-Modified:	00
		Type 3:	00
		Type 3s2:	00
		Timber:	00
		Piggyback	00
		253 Notification Date:	02/01/1901
		258 Fed Notify Date:	2/1/1901 12:00:00AM

S.R. 42/McDonough Blvd SE  
P.I. 0011684  
DETOUR MAP



Measured Distances:

- S.R. 42/McDonough Blvd SE - 0.50 miles
- Sawtell Ave SE - 0.70 miles
- S.R. 54/Jonesboro Rd SE – 0.20 miles
- Lakewood Ave SE – 0.70 miles