

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

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

FILE P.I. # 0011683

OFFICE Design Policy & Support

Decatur County
GDOT District 4 - Tifton
SR 253 Bridge Replacement @ Spring
Creek

DATE 11/13/2014

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
Bobby Hilliard, Program Control Administrator
Albert Shelby, State Program Delivery Engineer
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
Richard Cobb, Statewide Location Bureau
Joe Sheffield, District Engineer
Brent Thomas, District Preconstruction Engineer
Tim Warren, District Utilities Engineer
Sonja Thompson, Project Manager
BOARD MEMBER - 2nd Congressional District

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

Project Type: <u>Replacement</u>	P.I. Number: <u>0011683</u>
GDOT District: <u>4</u>	County: <u>Decatur</u>
Federal Route Number: <u>N/A</u>	State Route Number: <u>SR 253</u>
Project Number: _____	N/A

Project Description: The proposed project (~0.4 mi) will replace the existing bridge (Structure ID 087-0027-0; SR 253 over Spring Creek) due to insufficient structural integrity.

Submitted for approval:

<u>Michael R. Moseley, Jr.</u> Michael R. Moseley, Jr., Atkins	<u>8/13/2014</u> DATE
<u>Albert Shelby</u> State Program Delivery Engineer	<u>8/27/14</u> DATE
<u>Donna Thompson</u> GDOT Project Manager	<u>8/13/2014</u> DATE

Recommendation for approval:

<u>Hiral Patel*/EKP</u> Program Control Administrator	<u>9/3/2014</u> DATE
<u>Kathy Zahul*/EKP</u> State Environmental Administrator	<u>9/17/2014</u> DATE
<u>Lisa Myers*/EKP</u> State Traffic Engineer	<u>8/29/2014</u> DATE
<u>Jun Birnkammer*/EKP</u> Project Review Engineer	<u>9/8/2014</u> DATE
<u>Joe Sheffield*/EKP</u> State Utilities Engineer	<u>9/5/2014</u> DATE
<u>Ben Rabun*/EKP</u> District Engineer	<u>8/31/2014</u> DATE
_____ State Bridge Design Engineer	DATE
_____ State Transportation Financial Management Administrator	DATE

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>Cindy VanDyke*/EKP</u> State Transportation Planning Administrator	<u>8/29/2014</u> DATE
--	--------------------------

* - Recommendation on File

County: Decatur

PLANNING AND BACKGROUND**Project Justification Statement:**

The existing bridge (Structure ID 087-0027-0; SR 253 over Spring Creek) was built in 1957. The bridge consists of seven spans of reinforced concrete deck girders on concrete columns and piles under 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 satisfactory. The deck is in fair condition due to concrete cracking, spalls and minor section loss of the reinforcement. The superstructure is in poor condition with advanced concrete spalls in the bearing area. The substructure is in satisfactory condition with concrete cracking and minor scour. Due to the structural integrity of the deck and superstructure, replacement of this bridge is recommended.

Existing conditions:

S.R. 253 is an existing two-lane facility (one in each direction) and is functionally classified as a rural major collector within the project limits. The existing bridge, located over Spring Creek, is 26 feet wide and 259 feet long. The posted speed limit along S.R. 253 is 55 miles per hour (mph) with a speed reduction to 45 mph posted prior to the bridge approaches due to the narrow structure. The section where the proposed bridge project improvement would take place is a school bus route. S.R. 253 is part of the Statewide Bicycle Plan within the project limits.

Other projects in the area:

- 0010827 - OFF-SYSTEM SAFETY IMPROVEMENTS @10 CR LOC IN SEMINOLE COUNTY
- 0012907 - OFF-SYSTEM SAFETY IMPROVEMENTS @ 6 CR LOC IN SEMINOLE COUNTY
- 0001561 - SR 38/US 84 MEDIAN TURN LANES FROM BAINBRIDGE TO GRADY CO
- 0001569 - SR 38/US 84 MEDIAN TURN LANES FM DONALSONVILLE TO BAINBRIDGE

MPO: N/A - Project not in MPO

MPO Project ID N/A

Regional Commission: Southwest Georgia RC

RC Project ID

Congressional District(s): 2

Federal Oversight: Full Oversight Exempt State Funded Other

Projected Traffic: ADT

Current Year (2012): 1410 Open Year (2018): 1495

Design Year (2038): 1825

Traffic Projections Performed by: Atkins

Functional Classification (Mainline): Rural Major Collector

Complete Streets - Bicycle, Pedestrian, and/or Transit Warrants:Warrants met: None Bicycle Pedestrian Transit

SR 253 is designated State Bicycle Route 10, on the Georgia Bicycle and Pedestrian Plan Statewide Route Network.

Is this a 3R (Resurfacing, Restoration, & Rehabilitation) Project?

 No Yes

County: Decatur

Pavement Evaluation and Recommendations

Preliminary Pavement Evaluation Summary Report Required? No Yes
 Preliminary Pavement Type Selection Report Required? No Yes
 Feasible Pavement Alternatives: HMA PCC HMA & PCC

DESIGN AND STRUCTURAL

Description of the proposed project:

The project includes a 2 lane bridge replacement for SR 253 over Spring Creek in Decatur County. The total project length is approximately 0.4 miles.

Major Structures:

Structure	Existing	Proposed
Structure ID 087-0027-0 SR 253 over Spring Creek	The existing structure is 259 ft in length and consists of two, 11 ft lanes with 2 ft shoulders. The bridge sufficiency rating is 38.89.	The proposed structure is 270 ft in length and consists of two, 12 ft lanes with 8 ft shoulders.

Mainline Design Features: SR 253 over Spring Creek/ Major Rural Collector

Feature	Existing	Standard*	Proposed
Typical Section			
- Number of Lanes	2	2	2
- Lane Width(s)	11	12	12
- Median Width & Type	N/A	N/A	N/A
- Outside Shoulder or Border Area Width	2 ft	8 ft (4 ft paved)	8 ft (6.5 ft paved)
- Outside Shoulder Slope	6%	6%	6%
- Inside Shoulder Width	N/A	N/A	N/A
- Sidewalks	0	0	0
- Auxiliary Lanes	N/A	N/A	N/A
- Bike Lanes	0 (Share the road signs)	Incorporated in Paved Shoulder	Incorporated in Paved Shoulder
Posted Speed	55 mph (45 mph at bridge)		55 mph
Design Speed	55 mph	45 mph	55 mph
Min Horizontal Curve Radius	1447	643	1447
Maximum Superelevation Rate	8%	6%	6%
Maximum Grade	2.5%	7%	2.5%
Access Control	N/A	N/A	N/A
Design Vehicle	SU	SU	SU
Pavement Type	HMA	HMA	HMA

*According to current GDOT design policy if applicable

Major Interchanges/Intersections: N/A

Lighting required: No Yes

Off-site Detours Anticipated: No Undetermined Yes

County: Decatur

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

Design Exceptions to FHWA/AASHTO controlling criteria anticipated:

FHWA/AASHTO Controlling Criteria	No	Undeter- mined	Yes	Appvl Date (if applicable)
1. Design Speed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Lane Width	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Shoulder Width	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Bridge Width	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. Horizontal Alignment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. Superelevation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7. Vertical Alignment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8. Grade	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9. Stopping Sight Distance	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
10. Cross Slope	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
11. Vertical Clearance	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
12. Lateral Offset to Obstruction	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
13. Bridge Structural Capacity	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Design Variances to GDOT Standard Criteria anticipated:

GDOT Standard Criteria	Reviewing Office	No	Undeter-- mined	Yes	Appvl Date (if applicable)
1. Access Control/Median Openings	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Intersection Sight Distance	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Intersection Skew Angle	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Lateral Offset to Obstruction	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. Rumble Strips	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. Safety Edge	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7. Median Usage	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8. Roundabout Illumination Levels	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9. Complete Streets	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
10. ADA & PROWAG	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
11. GDOT Construction Standards	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
12. GDOT Drainage Manual	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
13. GDOT Bridge & Structural Manual	Bridges	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

VE Study anticipated: No Yes Completed – Date:

UTILITY AND PROPERTY

Temporary State Route needed: No Yes Undetermined

Railroad Involvement: N/A

Utility Involvements: The following utilities are located along the project corridor

- Georgia Power Company (Distribution)
- Three Notch EMC

County: Decatur

- AT&T / Bellsouth

SUE Required: No Yes Undetermined

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

Right-of-Way (ROW): Existing width: 100 to 140 ft Proposed width: 100 to 180 ft
 Required Right-of-Way anticipated: None Yes Undetermined
 Easements anticipated: None Temporary Permanent Utility Other
 Anticipated total number of impacted parcels: 4
 Displacements anticipated: Businesses: 0
 Residences: 0
 Other: 0
 Total Displacements: 0

Location and Design approval: Not Required Required

CONTEXT SENSITIVE SOLUTIONS

Issues of Concern: There are unavoidable impacts to wetlands and stream buffers.

Context Sensitive Solutions Proposed: The design will utilize maximum slopes, 2:1, and install guardrail to limit impacts to the stream buffer and wetlands.

ENVIRONMENTAL & PERMITS

Anticipated Environmental Document:

GEPA: NEPA: CE EA/FONSI EIS

MS4 Permit Compliance – Is the project located in a MS4 area? No Yes

Environmental Permits/Variations/Commitments/Coordination anticipated:

Permit/ Variance/ Commitment/ Coordination Anticipated	No	Yes	Remarks
1. U.S. Coast Guard Permit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2. Forest Service/Corps Land	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3. CWA Section 404 Permit	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
4. Tennessee Valley Authority Permit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
5. Buffer Variance	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
6. Coastal Zone Management Coordination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
7. NPDES	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
8. FEMA	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
9. Cemetery Permit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
10. Other Permits	<input type="checkbox"/>	<input checked="" type="checkbox"/>	ARPA permit for archaeology field work on USACE land
11. Other Commitments	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
12. Other Coordination	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Section 4(f) and Section 7

Section 4(f) coordination will be required with FHWA, USACE and the Department of Interior for the use of USACE owned land designated as recreational. Section 7 consultation will be required with USFWS for impacts to mussel habitat.

County: Decatur

Is a PAR required? No Yes Completed – Date:

Preliminary calculations indicate that the project will qualify for a Regional Permit 96 which would not require a PAR.

Environmental Comments and Information:

NEPA/GEPA: The bridge crossing is adjacent to USACE owned property, a DNR Wildlife Management Area and a National Register eligible resource. Acquisition of property will occur from USACE owned land which is designated as a recreational use; therefore, an Individual Section 4(f) Evaluation is required. Level of documentation is a Categorical Exclusion.

Ecology: Ecology field studies have identified eight wetlands, five open waters and one perennial stream. Suitable habitat was identified for the gopher tortoise, eastern indigo snake, Barbour’s map turtle, fringed campion, and Florida torreya. Seasonal surveys are required for each species. Surveys have been conducted for each of the above listed species. The gopher tortoise survey identified seven burrows (5 active, 2 inactive) within the survey area. During the eastern indigo snake survey, 20 burrows (mammal and gopher tortoise) were investigated with the use of a burrow scope. No eastern indigo snakes were discovered during the survey. The Barbour’s map turtle survey revealed the presence of 5 individuals (3 females and 2 males) basking on an old bridge abutment in Spring Creek just to the north of the existing bridge within the survey area. A survey for the fringed campion was conducted and no species were observed. The Florida torreya survey resulted in no species observed. It should be noted that Jim Ozier with GDNR revealed there is a known bald eagle nest about 0.6 miles to the south. No bald eagles were observed during any survey; however, a call was heard during the original ecological survey and suitable foraging habitat is present in Spring Creek at the proposed bridge crossing. It also should be noted that two osprey were observed building a nest on a dead tree located on the northeast side of the existing bridge structure. Since osprey are protected under the Migratory Bird Treaty Act, protective measures to minimize disturbance may need to be addressed once the final approved plans are issued. An aquatic survey was also conducted for fish and mussel species. Several relict shells of the federally protected finelined pocketbook mussel were located just downstream of the existing bridge. An Ecology Resource Survey Report, Protected Species Survey Report(s), Aquatic Survey Report, and Ecology Assessment of Effects Report are required. At a minimum, Informal Section 7 Consultation with the USFWS under the Endangered Species Act will be required due to existing suitable protected species habitat in the project area.

History: One property, the power house, will be recommended as eligible for the National Register. The proposed boundary will likely encompass the power house and associated spillway. The project will require the preparation of a Historic Resources Survey Report and Assessment of Effects both of which will require SHPO concurrence.

Archeology: An underwater archaeology survey is required for Spring Creek. An ARPA permit is required to conduct shovel testing on USACE owned land. A Phase I Archaeological Survey Report will be prepared and SHPO concurrence will be required.

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

Noise Effects: No adverse effects anticipated. No noise barriers are anticipated.

County: Decatur

Public Involvement: No public information meetings are anticipated.

Major stakeholders: USACE, traveling public, emergency services and schools will be a major stakeholder.

CONSTRUCTION

Issues potentially affecting constructability/construction schedule: To maintain existing low chord elevation of the proposed bridge will require an increase in elevation in the vicinity of the bridge of approximately 3 ft. This profile difference could require temporary shoring and temporary lane closures during construction. In addition, there could be schedule limitations due to threatened or endangered species in the project area.

Early Completion Incentives recommended for consideration: No Yes

COORDINATION, ACTIVITIES, RESPONSIBILITIES, AND COSTS

Initial Concept Meeting: N/A

Concept Meeting: 5/8/2014

Other coordination to date: N/A

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

Project Cost Estimate Summary and Funding Responsibilities:

	Breakdown of PE	ROW	Reimbursable Utility	CST*	Environmental Mitigation	Total Cost
Funded By	GDOT	GDOT	GDOT	GDOT	GDOT	
Approved \$ Amount	\$1,014,031.41	\$217,260.00	\$0	\$3,817,411.85	\$0	\$5,048,703.26
Est. \$ Amount	\$1,014,031.41	\$213,000.00	\$0	\$3,529,651.51	\$25,000	\$4,781,682.92
Date of Estimate		9/9/2014	5/7/2014	10/24/2014	8/29/2014	

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

ALTERNATIVES DISCUSSION

Alternative selection:

Preferred Alternative: Bridge replacement using permanent re-alignment of SR 253 (26 ft shift to the north)			
Estimated Property Impacts:		Estimated Total Cost:	\$3,529,651
Estimated ROW Cost:	\$213,000	Estimated CST Time:	12-18 months
Rationale: This alternative would permanently re-align 2,390 LF of SR 253 to the north. The realignment of SR 253 would allow the proposed bridge to be stage constructed 26 ft north and upstream of the existing bridge. This alternative would maintain the existing two-lane operation during all stages of construction. Existing wetlands and a stream parallel to the existing roadway would be impacted by this alternative.			

*Total cost shown does not include right-of-way or environmental mitigation costs.

No-Build Alternative: Road and bridge to remain as-is.			
Estimated Property Impacts:	None	Estimated Total Cost:	\$0
Estimated ROW Cost:	\$0	Estimated CST Time:	N/A
Rationale: Eliminated due to substandard structural rating of existing bridge.			

Alternative 1: Bridge replacement using permanent re-alignment of SR 253 (55 ft shift to the north)			
Estimated Property Impacts:		* Estimated Total Cost:	\$3,077,113
Estimated ROW Cost:		Estimated CST Time:	12-18 months
Rationale: This alternative would permanently re-align 4,100 LF of SR 253 to the north. The realignment of SR 253 would allow the proposed bridge to be built 55 ft north and upstream of the existing bridge with minimal disruption to existing traffic. Existing wetlands and a stream parallel to the existing roadway would be impacted negatively by this alternative. The preferred alternative construction cost was approximately \$0.09 M more but has fewer impacts to the surrounding environmental resources. This alternative also encroached on the historic boundary of the power house.			

*Total cost shown does not include right-of-way or environmental mitigation costs.

Alternative 2: Bridge replacement using permanent re-alignment of SR 253 (55 ft shift to the south)			
Estimated Property Impacts:		Estimated Total Cost:	\$3,353,626
Estimated ROW Cost:		Estimated CST Time:	12-18 months
Rationale: This alternative would permanently re-align 3,100 LF of SR 253 to the south. The realignment of SR 253 would allow the proposed bridge to be built 55 ft south and downstream of the existing bridge with minimal disruption to existing traffic. Existing wetlands would be impacted negatively by this alternative as well as impacts to the Lake Seminole Wildlife Management Area. The preferred alternative construction cost was approximately \$0.19 M less and has fewer impacts to the surrounding environmental resources.			

*Total cost shown does not include right-of-way or environmental mitigation costs.

Alternative 3: Bridge replacement using permanent re-alignment of SR 253 (14 ft shift to the north)			
Estimated Property Impacts:		Estimated Total Cost:	\$2,977,973
Estimated ROW Cost:		Estimated CST Time:	12-18 months
Rationale: This alternative would permanently re-align 2,030 LF of SR 253 to the north. The realignment of SR 253 would allow the proposed bridge to be stage constructed 14 ft north and upstream of the existing bridge. This alternative proposed one-lane operation during the initial stages of construction controlled by temporary			

County: Decatur

traffic signals. Existing wetlands and a stream parallel to the existing roadway would be impacted by this alternative. While the preferred alternative construction cost was approximately \$0.19 M more and has more impacts to surrounding wetlands and open waters, the one-lane operation was not feasible for the traveling public. The location of adjacent farm land and use of large equipment precluded the one-lane operation due to insufficient width of the bridge.

*Total cost shown does not include right-of-way or environmental mitigation costs.

Alternative 4: Bridge replacement utilizing detours

Estimated Property Impacts:	0	Estimated Total Cost:	\$3,319,329
Estimated ROW Cost:		Estimated CST Time:	12-18 months

Rationale: Bridge needs to be replaced due to existing bridge structural sufficiency rating. This alternative would replace the bridge on existing alignment using a detour. This alternate was eliminated due to the 36 mile detour that was not feasible.

*Total cost shown does not include right-of-way or environmental mitigation costs.

Alternative 5: Bridge replacement using permanent re-alignment of SR 253 (26 ft shift to the south)

Estimated Property Impacts:		Estimated Total Cost:	\$3,260,584
Estimated ROW Cost:		Estimated CST Time:	12-18 months

Rationale: This alternative would permanently re-align 2,890 LF of SR 253 to the south. The realignment of SR 253 would allow the proposed bridge to be stage constructed 26 ft south and downstream of the existing bridge. Existing wetlands would be impacted negatively by this alternative as well as impacts to the Lake Seminole Wildlife Management Area. The preferred alternative construction cost was approximately \$0.1 M less and has fewer impacts to the surrounding environmental resources.

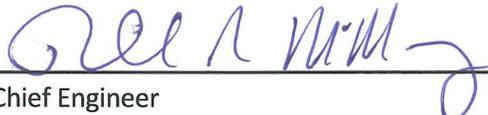
*Total cost shown does not include right-of-way or environmental mitigation costs.

LIST OF ATTACHMENTS/SUPPORTING DATA

1. Concept Layout
2. Typical Sections
3. Detailed Cost Estimates:
 - a. Construction including Engineering and Inspection
 - b. Completed Fuel & Asphalt Price Adjustment forms
 - c. Right-of-Way
 - d. Utilities
 - e. Environmental Mitigation (EPD, etc)
4. Design Traffic
5. Bridge Inventory Report
6. Minutes of Concept meetings and other coordination

APPROVALS

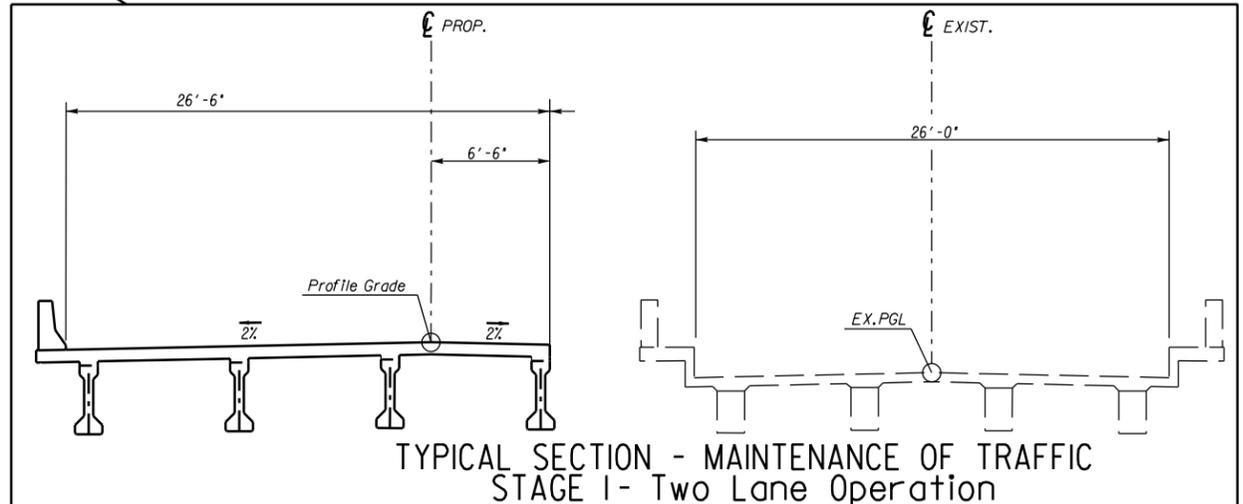
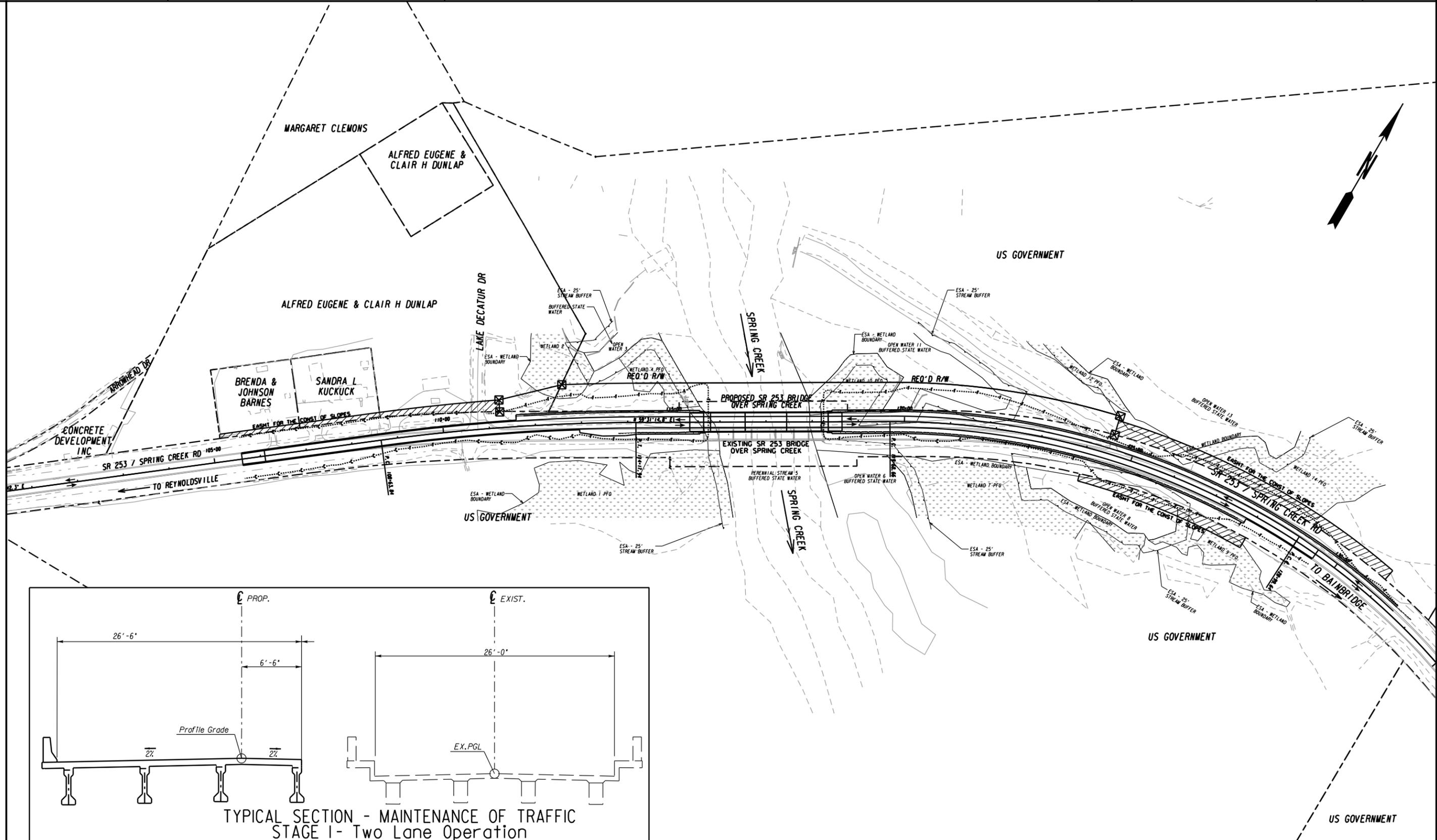
Concur: 
 Director of Engineering

Approve: 
 Chief Engineer

11-9-14
 Date

Attachment 1

Concept Layout



ATKINS



REVISION DATES

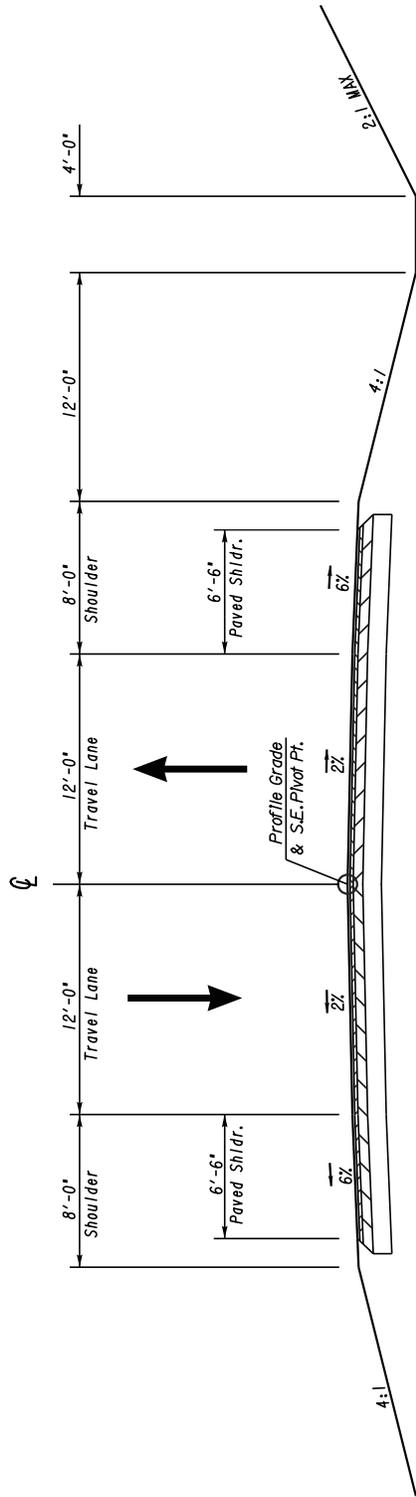
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE:
MAINLINE PLAN

SR 253
PREFERRED ALTERNATIVE

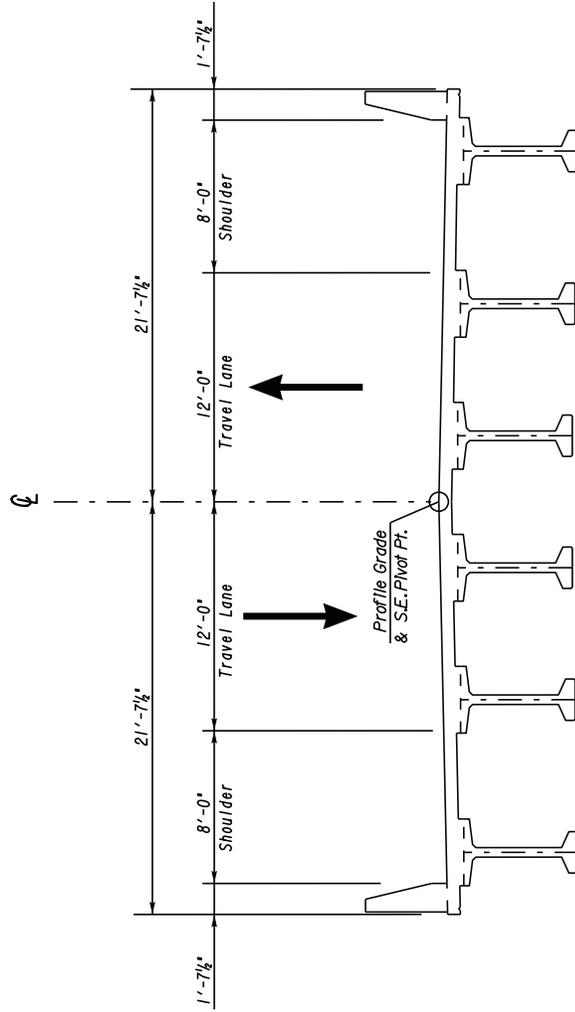
DRAWING No.
13-

Attachment 2

Typical Sections



TYPICAL SECTION
S. R. 253



BRIDGE TYPICAL SECTION
S. R. 253 OVER SPRING CREEK

Attachment 3a

Construction Cost Estimate

0065	641-1100	LF	GUARDRAIL, TP T	100.000	54.78	5478.67
0070	641-1200	LF	GUARDRAIL, TP W	2800.000	19.20	53774.25
0075	641-5001	EA	GUARDRAIL ANCHORAGE, TP 1	2.000	824.27	1648.54
0080	641-5012	EA	GUARDRAIL ANCHORAGE, TP 12	2.000	1963.83	3927.67
0085	540-1101	LS	REM OF EX BR, STA NO - 0011683	1.000	400000.00	400000.00

ITEM TOTAL						1471667.08
INFLATED ITEM TOTAL						1471667.08

TOTALS FOR JOB 0011683

ESTIMATED COST: 2997017.08

CONTINGENCY PERCENT (10.0): 299701.71

ENGINEERING AND INSPECTION (5.0): 149850.85

TOTAL AC AND FUEL ADJUSTMENT: 83081.87

=====

ESTIMATED TOTAL: 3529651.51

Attachment 3b

Fuel/Asphalt Price Adjustment Form

Attachment 3c

R/W Cost Estimate

Department of Transportation State of Georgia

Interdepartmental Correspondence

FILE R/W Cost Estimate **OFFICE** Atlanta
DATE September 09, 2014
FROM Phil Copeland, Right of Way Administrator
TO Sonja Thompson, Project Manager
SUBJECT **Preliminary Right of Way Cost Estimate**

Project: Decatur County

P.I. No.: 0011683

Description: Bridge Replacement SR 253

As per your request, attached is a copy of the approved Preliminary Right of Way Cost Estimates on the above referenced projects.

If you have any questions, please contact LaShone Alexander at One Georgia Center 600 West Parkway Street, NW Atlanta, GA 30308, Right of Way Office at (478) 553-1569 or (478) 232-4045.

PC:LA

Attachments

c:

GEORGIA DEPARTMENT OF TRANSPORTATION
PRELIMINARY ROW COST ESTIMATE SUMMARY

Date: 9/9/2014 Project: 0011683
 Revised: County: Decatur County
 PI: 0011683

Description: Bridge Replacement SR 253
 Project Termini: Bridge Replacement SR 253

Existing ROW: Varies
 Required ROW: Varies
 Parcels: 4

Land and Improvements _____ \$110,850.00

Proximity Damage	\$0.00
Consequential Damage	\$0.00
Cost to Cures	\$0.00
Trade Fixtures	\$0.00
Improvements	\$35,000.00

Valuation Services _____ \$15,000.00

Legal Services _____ \$40,200.00

Relocation _____ \$8,000.00

Demolition _____ \$0.00

Administrative _____ \$38,000.00

TOTAL ESTIMATED COSTS _____ \$212,050.00

TOTAL ESTIMATED COSTS (ROUNDED) _____ \$213,000.00

Preparation Credits	Hours	Signature

Prepared By: Dashone Alexander CG#: 286999 09/09/2014(E)

Approved By: Dashone Alexander CG#: 286999 09/09/2014(E)

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

Attachment 3d

Concept Utility Cost Estimate

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE

Project No: N/A OFFICE: Tifton
County Decatur DATE: May 7, 2014
P.I. # 0011683
Description: **SR 253 @ SPRING CREEK 12 MI SW OF BAINBRIDGE**


FROM Tim Warren, P.E., District Utilities Engineer

TO Jeremy Busby , Project Manager

SUBJECT UTILITY COST ESTIMATE

A review of utilities located on the above referenced project has been conducted without a design concept.. Listed below is a breakdown of the anticipated reimbursable and non-reimbursable cost.

<u>Utility Owner</u>	<u>Reimbursable</u>	<u>Non-Reimbursable</u>	<u>Estimate Based on</u>
Bellsouth	\$0.00	\$27,500.00	Site Visit / Available Drawings
Georgia Power Company (Distribution)	\$0.00	\$35,000.00	Site Visit / Available Drawings
Three Notch EMC	\$0.00	\$70,000.00	Site Visit / Available Drawings
Total	\$ 0.00	\$132,500.00	

**** Indicates Potential Utility Aid Request from Local Gov't**

Estimate is based on the best available information at the current stage, unforeseen prior rights information may be provided by the Utility Company at a later date that could cause some non-reimbursable costs to shift to the reimbursable cost column.

If additional information is needed, please contact me or  Bill Cooper, Assistant District Utilities Engineer at (229) 386-3288.

c: Abdulvahid Munshi, State Utilities Office
Lee Upkins, State Utilities Office
Jun Birnkammer, State Utilities Office
Brent Thomas, District Preconstruction Engineer

Attachment 3e

Concept Environmental Mitigation

Attachment 4

Design Traffic



Atkins North America, Inc.
1600 RiverEdge Parkway, NW, Suite 600
Atlanta, Georgia 30328
Telephone: +1.770.933.0280
www.atkinsglobal.com/northamerica

MEMORANDUM TO: Daniel R. Funk
Georgia Department of Transportation, Office of Planning

FROM: Jimmy Adams, AICP
Atkins, Transportation Planning

DATE: December 16th, 2013

SUBJECT: Traffic Assignments for SR 253/Spring Creek Road Bridge Replacement
Decatur County, P.I. #0011683

Atkins is furnishing estimated Traffic Assignments for the above project as follows:

No Build=Build

2012 ADT	1410
2012 DHV	130
2015 ADT	1455
2015 DHV	135
2035 ADT	1725
2035 DHV	160
K	9%
D	65%
T	4%
S.U.	3%
COMB.	1%
24 HOUR T	6%
S.U.	3%
COMB.	3%

If you have any questions concerning this information please contact Jimmy Adams at (678) 247-2474.

Attachment 5

Bridge Inventory Report



Bridge Inventory Data Listing

Parameters: Bridge Serial Num

Structure ID: 087-0027-0

Decatur

SUFF. RATING: 38.89

Location & Geography

Structure ID:	087-0027-0	*104 Highway System:	0	Signs & Attachments	
200 Bridge Information:	06	*26 Functional Classification:	07	225 Expansion Joint Type:	02
*6A Feature Int:	SPRING CREEK	*204 Federal Route Type:	S No: 00501	242 Deck Drains:	1
*6B Critical Bridge:	0	105 Federal Lands Highway:	0	243 Parapet Location:	0
*7A Route No Carried:	SR00253	*110 Truck Route:	0	Height:	0
*7B Facility Carried:	SR 253	2006 School Bus Route:	1	Width:	0
9 Location:	12 MI SW OF BAINBRIDGE	217 Benchmark Elevation:	0095.15	238 Curb Height:	1
2 Dot District:	4	218 Datum:	1	Curb Material:	1
207 Year Photo:	2011	*19 Bypass Length:	07	239 Handrail:	1 1
*91 Inspection Frequency:	24 Date: 08/23/2011	*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:	1 Date: 01/24/2012	*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:	3
* 4 Place Code:	00000	37 Historical Significance:	5	Fwrd:	3
*5 Inventory Route(O/U):	1	205 Congressional District:	02	Oppo. Dir. Rear:	0
Type:	3	27 Year Constructed:	1957	Oppo. Fwrd:	0
Designation:	1	106 Year Reconstructed:	0000	244 Approach Slab:	3
Number:	00253	33 Bridge Medium:	0	224 Retaining Wall:	0
Direction:	0	34 Skew:	00	233 Posted Speed Limit:	55
*16 Latitude:	30 52.1973 HMMS Prefix:SR	35 Structure Flared:	0	236 Warning Sign:	1.00
*17 Longitude:	84 -45.642 HMMS Suffix:00 MP-0.47	38 Navigation Control:	0	234 Delineator:	1.00
98 Border Bridge:	000%Shared:00	213 Special Steel Design:	0	235 Hazzard Boards:	1
99 ID Number:	0000000000000000	267 Type of Paint:	0	237 Utilities Gas:	00
*100 STRAHNET:	0	*42 Type of Service On:	1	Water:	00
12 Base Highway Network:	1	Type of Service Under:	5	Electric:	00
13A IRS Inventory Route:	871025300	214 Movable Bridge:	0	Telephone:	00
13B Sub Inventory Route:	0	203 Type Bridge:	0	Sewer:	00
101 parallel Structure:	N	259 Pile Encasement:	3	247 Lighting Street:	0
*102 Direction of Traffic:	2	*43 Structure Type Main:	2 04	Navigation:	0
*264 Road Inventory Mile Post:	000.48	45 No.Spans Main:	007	Aerial:	0
*208 Inspection Area:	4 Initials: EFP	44 Structure Type Appr:	0 00	*248 County Continuity No.:	00
Engineer's Initials:	JTB	46 No Spans Appr:	0000		
* Location ID No:	087-00253D-000.47N	226 Bridge Curve Horz	0 Vert: 0		
		111 pier Protection	0		
		107 Deck Structure Type:	1		
		108 Wearing Structure Type:	1		
		Membrane Type:	0		
		Deck Protection:	0		



Bridge Inventory Data Listing

Processed Date: 1/22/2013

Parameters: Bridge Serial Num

Structure ID: 087-0027-0

Programming Data

S-0501 (3)
 201 Project No.: 4
 202 Plans Available:
 249 Prop Proj No.: 00000000000000000000000000000000
 250 Approval Status: 0000
 251 PI Number: 00000000
 252 Contract Date: 02/01/1901
 260 Seismic No: 00000
 75 Type Work: 34 1
 94 Bridge Imp. Cost: \$200
 95 Roadway Imp. Cost: 243
 96 Total Imp. Cost: 573
 76 Imp Length: 001579
 97 Imp Year: 1990
 114 Future ADT: 002430 Year: 3930

Hydraulic Data

215 Waterway Data:
 High Water Elev: 0087.5 Year: 1974
 Flood Elev: 0000.0 Freq: 00
 Avg Streambed Elev: 0064.2
 Drainage Area: 00000
 Area of Opening: 004950
 113 Scour Critical: U
 216 Water Depth: 20.9 Br. Height: 17.0
 222 Slope Protection: 1
 221 Slope Protection: 0 Fwd: 0
 219 Fender System: 0
 220 Dolphin: 0
 223 Current Cover: 000

Measurements:

*29 ADT: 001620 Year: 3910
 109% Tracks: 9
 * 28 Lanes On: 02 Under: 00
 210 No. Tracks On: 00 Under: 00
 * 48 Max. Span Length: 0052
 * 49 Structure Length: 260
 51 Br. Rwdy. Width: 26.00
 52 Deck Width: 32.20
 * 47 Tot. Horiz. Cl: 26
 50 Curb / Sidewalk Width: 2.00 / 2.00
 32 Approach Rdwy. Width: 024
 *229 Shoulder Width: 10.00 Type 8 Rt: 10.00
 Rear Lt: 10.00 Type 8 Rt: 10.00
 Fwd. Lt:

Permanent Width:

Rear: 24.00 Type: 8
 24.00 Type: 2
 0 Fwd: 0
 Intersection Rear:
 36 Safety Features Br. Rail: 2
 Transition: 2
 App. G. Rail: 1
 App. Rail End: 1
 53 Minimum Cl. Over: 99' 99" "

Under:

*228 Minimum Vertical Cl: 99' 99"
 Act. Odm Dir: 99' 99"
 Oppo. Dir: 00' 00"
 Posted Odm. Dir: 00' 00"
 Oppo. Dir: 00' 00"

55 Lateral Undercl. Rt:

0.00
 56 Lateral Undercl. Lt: 0.00
 *10 Max Min Vert Cl: 99' 99" Dir: 0
 39 Nav Vert Cl: 000 Horiz: 0000
 116 Nav Vert Cl Closed: 000
 245 Deck Thickness Main Deck Thick Approach: 6.00
 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: 21
 64 Operating Type: 2 Rating: 21

231 Calculated 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: 26
 67 Structural Evaluation: 4
 58 Deck Condition: 5
 59 Superstructure Condition: 4

*** 227 Collision Damage:**

0
 60A Substructure Condition: 6
 60B Scour Condition: 6
 60C Underwater Condition: 6
 71 Waterway Adequacy: 6
 61 Channel Protection Cond.: 7

68 Deck Geometry:

4
 69 UnderCl. Horiz/Vert: N
 72 Appr. Alignment: 5
 62 Culvert: N

Posting Data

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

Attachment 6

Concept Team Meeting Minutes



Meeting Minutes

SR 253 at Spring Creek Decatur County P.I. No. 0011683

Date: May 8, 2014

Location/Time: Tifton District Office / 10:00 a.m. – 11:00 a.m.

Attendees:

Jeremy Busby	GDOT – Program Delivery
Brent Thomas	GDOT – District Pre-Construction
Shane Pridgen	GDOT – District Planning
Van Mason	GDOT – District Traffic
Sadi Hasona	GDOT – District Construction
Mike Simmons	GDOT – District Utilities
Robbie Dixon	AT&T
Wendy Dyson	Atkins
Amanda Miolen	Atkins
Mike Moseley	Atkins

Minutes By: Mike Moseley

The following items were discussed at the meeting:

1. Jeremy Busby, the GDOT Project Manager, started the meeting with introductions and an overview of the project.
2. Mr. Busby then turned the meeting over to Mike Moseley with Atkins, the consultant project manager.
3. To begin the meeting Mike Moseley briefly went through the draft concept report and covered the topics in the attached Concept Team Meeting agenda.
4. Wendy Dyson covered several environmental topics including that the aquatic survey was currently underway and that the historical boundary has been tentatively set at the existing R/W on the north side of SR 253, due to several contributing features including the old roadbed/dam. The limit of impacts on this boundary will determine whether de minimus can be claimed. Mrs. Dyson also clarified that a CE will be the type of environmental document and based on the Regional Permit impact thresholds a PAR will not be required.

5. The meeting then moved onto the alternatives developed to date:
 - a. Alternative 1 – This alternative would permanently re-align 4,100 LF of SR 253 to the north. The realignment of SR 253 would allow the proposed bridge to be built 55 ft north and upstream of the existing bridge with minimal disruption to existing traffic.
 - b. Alternative 2 – This alternative would permanently re-align 3,100 LF of SR 253 to the south. The realignment of SR 253 would allow the proposed bridge to be built 55 ft south and downstream of the existing bridge with minimal disruption to existing traffic.
 - c. Preferred Alternative – This alternative would shift SR 253 14 ft to the north of existing and upstream of the existing bridge. The staging of this shift would be accomplished with temporary traffic signals on each end of the project to control one lane operation. .
6. Mr. Moseley briefly went over the alternatives and pointed out that Alternative 2 was not desirable due to 4F coordination required for R/W acquisition on the Lake Seminole Wildlife Management Area. He also discussed that somewhere between the Preferred Alternative offset of 14 ft and Alternative 1 offset of 55 ft is a desirable distance that would help “avoid and minimize” impacts to ecological resources, reduce R/W and construction costs while providing an acceptable sequencing of construction.
7. GDOT District officials inquired into the cost differences conceptually set for each alternative. The Traffic Control cost for the Preferred Alternative was increased \$40K for the temporary signals and the removal of the existing bridge was increased by \$50K for partial removal of the bridge. The District stated that the Traffic Control was probably low considering the Preferred Alternative would most likely extend the project duration an additional year.
8. The District was also concerned about the width of the one lane operation used in the Preferred Alternative. Due to the large number of farms in the area, extra wide equipment will be crossing the reduced width bridge and could cause problems during construction. Public involvement was discussed as a way to investigate the needed staging width of the bridge and also present detour requirements if needed. Approximate length of detour would exceed 30 miles one way.
9. Upon further discussion working toward a public meeting was tabled in lieu of speaking with the Decatur County Extension Office to determine the width of farm equipment in the area.

Action Items:

1. Contact Decatur County Extension Office to inquire about width of local farm equipment (Atkins) – **Completed 5/12/2014 Mr. Justin Ballew of the Decatur County Extension stated that the required width for farm equipment would be 15-16 ft.**
2. Investigate the historic boundary and contributing resources on the north side of SR 253 (Atkins) – **Meeting set with New South Associates for Thursday, May 15, 2014.**

3. Revise concept alternatives based on required equipment width and impact to contributing resources (Atkins)

Attachments: Concept Team Meeting Agenda, Sign-in sheet, Summary email from Mr. Justin Ballew of the Decatur County Extension Office



Atkins North America, Inc.
1600 RiverEdge Parkway, NW, Suite 600
Atlanta, Georgia 30328

Telephone: +1.770.933.0280

www.atkinsglobal.com/northamerica

S.R. 253/Spring Creek Road over Spring Creek
P.I. Number: 0011683
Decatur County

Concept Team Meeting Agenda based on PDP:

- Introductions
- Project Justification
- Existing structures and their condition
- Planning Concept/Conforming plan's project description and network schematic showing through lanes/STIP project definition
- Design traffic
- Accident data
- Safety concerns
- Opportunities to accommodate other modes of transportation
- Proposed design criteria including design speed
- Proposed type of access control
- Staging and traffic control, including Traffic Management Plan
- Work zone safety and mobility requirements
- Alternates considered to date
- Traffic calming techniques to be implemented
- Existing right-of-way
- General location, size of utilities
- Need for a formal or informal location inspection
- Maintenance problems, including drainage and pavement problems
- District information on public contacts and concerns to date
- Evaluate the extent of public outreach efforts and coordination needed
- Coordination with FHWA and other non-environmental Federal, state and local agencies
- Environmental Resources
 - Wetlands, open waters, streams and their buffers
 - Park lands
 - Historic properties, potential archaeological sites
 - Streams and their buffers
 - Cemeteries
 - Location of potential hazardous waste sites
 - Underground storage tank sites
 - Threatened and Endangered Species
- Need for a Practical Alternatives Report (PAR)
- Environmental Document anticipated
- Air Quality
- Potential for noise impacts
- Possible permits required:
 - U.S. Army Corps of Engineers Section 404 Permit
 - Tennessee Valley Authority (TVA)
 - U.S. Coast Guard (USCG)
 - Stream Buffer Variance
- Coordination with other GDOT and local projects

SR 253 @ SPRING CREEK 12 MI SW OF BAINBRIDGE
 DECATUR COUNTY, GEORGIA
 P.I. NO. 0011683

CONCEPT TEAM MEETING

May 8, 2014

Name	Company/Office	Address	Phone Number	Email Address
MIKE MOSELEY	ATKINS		770 933-0280	michael.moseley@atkinglobal.com
WENDY DYSON	ATKINS		770 933-0280	wendy.dyson@atkinglobal.com
JEREMY BERRY	GDOT - OPLD		404-631-1154	jbushy@dot.ga.gov
Amanda Miolen	ATKINS		706-459-0394	amanda.miolen@atkinsglobal.com
Brent Thomas	GDOT - Precast		229-386-3300	bthomas@dot.ga.gov
Shane Pridsen	GDOT - Planning		"	spridsen@dot.ga.gov
Van Mason	GDOT - Traffic		229-386-3435	VMason@dot.ga.gov
SADI HASONA	GDOT - Construction		229-309-9955	Shasona@dot.ga.gov

Moseley, Michael R

From: Miolen, Amanda M
Sent: Monday, May 12, 2014 3:25 PM
To: Dyson, Wendy E; Moseley, Michael R
Subject: J. Ballew - Decatur County Ext Agent

Good afternoon,

I spoke with Mr. Justin Ballew, Decatur County Extension Agent regarding the current bridge plan for S.R. 253/Spring Creek Road. He stated that a minimum width needed for farming equipment would likely be between 15 – 16 feet (based on a 6-wheel tractor); that a single lane with a width of 12 feet would “no doubt” impact several local farmers. I inquired about additional routes that could be utilized – he stated Hwy 84 could be viable, however he said this could possibly be a lengthy detour for some farmers. The only other comment he had regarding impact was that residents residing in Seminole County who work in Decatur County frequently use the bridge. Mr. Ballew was open to providing further assistance if it was necessary. His contact information is below:

http://extension.uga.edu/about/staff/index.cfm?pk_id=14946

Regards,

Amanda Miolen
Environmental Planner

The Atkins North America Holdings Corporation

1600 RiverEdge Parkway, NW, Suite 600, Atlanta, GA 30328 | Tel: +1 (770) 933 0280 x 4062472 | Direct: +1 (678) 247 2472
Email: amanda.miolen@atkinsglobal.com | Web: www.atkinsglobal.com/northamerica | www.atkinsglobal.com