

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

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

FILE P.I. # 0009640 **OFFICE** Design Policy & Support
Fulton County
GDOT District 7 - Metro Atlanta **DATE** 4/3/2013
SR 9 @ Chattahoochee River in Roswell -
Enhancements

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:

Bobby Hilliard, Program Control Administrator
Genetha Rice-Singleton, State Program Delivery Engineer
Glenn Bowman, State Environmental Administrator
Cindy VanDyke, State Transportation Planning 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
Ken Thompson, Statewide Location Bureau Chief
Tamaya Huff, State Pedestrian and Bicycle Coordinator
Rachel Brown, District Engineer
Scott Lee, District Preconstruction Engineer
Jonathan Walker, District Utilities Engineer
Charner Rodgers Register, Project Manager
BOARD MEMBER - 6th Congressional District

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

Project Type: <u>Pedestrian Bridge</u>	P.I. Number: <u>0009640</u>
GDOT District: <u>7</u>	County: <u>Fulton</u>
Federal Route Number: <u>NA</u>	State Route Number: <u>SR 9</u>

Construction of a pedestrian and bicycle bridge and approaches parallel to the existing SR 9 roadway bridge over the Chattahoochee River. The north approach ties into the existing intersection of SR 9 and Azalea Drive/Riverside Road. The south approach ties into the existing intersection of SR 9 and Roberts Drive. The total project length is approximately 0.2 miles with 625± feet of bridge.

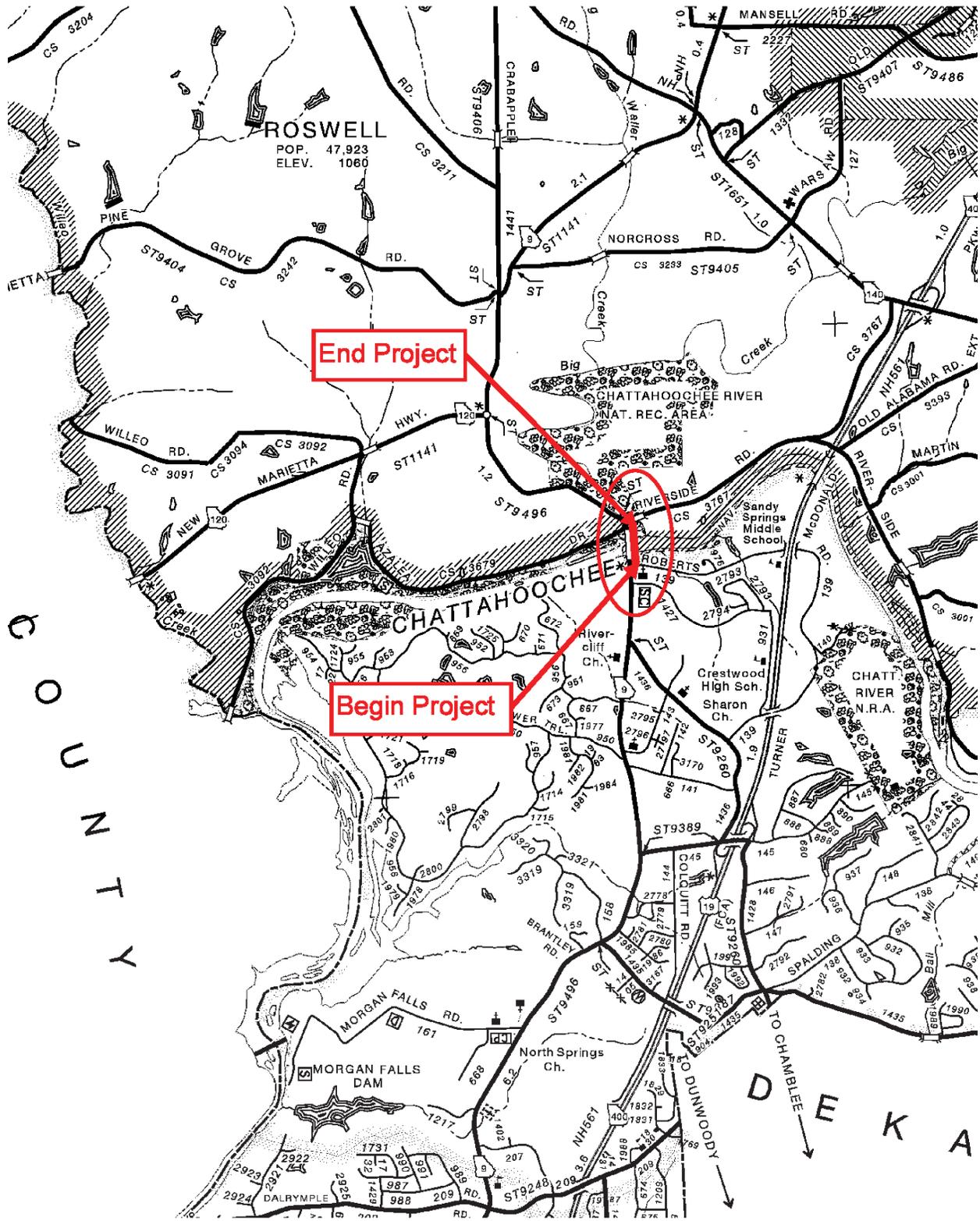
Submitted for approval:

<u>Mark W. H. [Signature], Heath & Linoback Engineers, Inc.</u>	<u>7/18/12</u>
Consultant Designer & Firm or GDOT Concept/Design Phase Office Head & Office	DATE
<u>[Signature]</u>	<u>3-19-13</u>
Local Government (if applicable)	DATE
<u>[Signature]</u>	<u>9-10-12</u>
Office Head (GDOT Project Manager's Office)	DATE
<u>Charles Rodgers Register</u>	<u>8/24/12</u>
GDOT Project Manager	DATE

Recommendation for approval:

Program Control Administrator	DATE
<u>GLENN BOWMAN T.J. *</u>	<u>8/12/12</u>
State Environmental Administrator (recommendation required)	DATE
<u>KATHY ZAHUL T.J. *</u>	<u>8/5/12</u>
State Traffic Engineer (recommendation required for roundabout projects)	DATE
<u>LISA MYERS T.J. *</u>	<u>8/9/12</u>
Project Review Engineer	DATE
<u>PATRICK ALLEN T.J. *</u>	<u>8/14/12</u>
State Utilities Engineer	DATE
<u>RACHEL BROWN T.J. *</u>	<u>8/20/12</u>
District Engineer (projects not originating in District Office)	DATE
<u>BEN RABUN T.J. *</u>	<u>8/7/12</u>
State Bridge Design Engineer (if applicable)	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 VAXI DYKE T.J. *</u>	<u>8/3/12</u>
State Transportation Planning Administrator (recommendation required)	DATE

*** RECOMMENDATION ON FILE**



PROJECT LOCATION

PLANNING & BACKGROUND DATA

Project Justification Statement : The Cities of Roswell and Sandy Springs are jointly sponsoring the design of a bridge for pedestrians and bicyclists across the Chattahoochee River at the existing SR9 bridge crossing. Existing pedestrian and cycling facilities on the existing SR9 bridge are not ADA compliant, too narrow, difficult to maintain, and dangerous to navigate. The construction of the project will be paid for by a Federal set aside allocation of \$3 mm. See the Project Framework Agreement (PFA) in the Appendix.

Need and Purpose

The Need & Purpose of the project is to provide a pedestrian and bicycle crossing of the Chattahoochee River on the SR9 corridor. The need and purpose can be discussed under two major headings as follows:

Improve Operations

- Improve deficient bicycle and pedestrian facilities at SR9 over Chattahoochee River
- Provide separation of pedestrians and bicyclists from vehicular traffic

Separation of the cyclists and pedestrians from the road traffic on the SR 9 Bridge will encourage use of the facility. Security and visibility, particularly at night, of the mixed used facility is an important consideration. If the project requires pedestrians and bicyclists to cross SR9 at grade any crossing must be designed with the welfare of both in mind.

Increase Connectivity

- Encourage use of facility as a commuter alternative
- Enhance linkage of trail systems and facilities

A well-conceived project would encourage the use of the project by commuters travelling to and from work and home destinations separated by the river, recreational bicyclists, and recreational walkers and joggers. Both Cities have been active in promoting the use of pedestrian and cycling facilities, combined with transit options, to provide mobility and recreational opportunity. The linkage provided by this project should strengthen these options. The connectivity offered by the new facility should provide increased mobility for pedestrians and bicyclists using the existing SR9 roadway and adjoining side roads north and south of the river. Increased recreational opportunity for users of the Riverwalk Trail in the city of Roswell and for planned and programmed pedestrian facilities in the city of Sandy Springs is an important consideration as well as access to historic facilities.

The City of Roswell is in the initial planning and concept stage for a Gateway project that will reconstruct SR9 from the north end of the bridge, north to Roswell Square. This project may reconstruct the interchange of SR9 with Azalea Road/ Riverside Drive immediately at the north end of the bridge. This project may include the addition of sidewalks, bicycle lanes on SR9, and a parallel off route trail with a trailhead located several hundred feet east of SR9 on Riverside Road in Roswell. The likelihood is the SR9/Chattahoochee River Bridge project will be built first. A complexity of the project therefore is the interface of the new bridge facility with existing and possible future facilities.

Existing bicycle and pedestrian facilities on SR9 are not fully developed. There is existing sidewalk on the east side of SR9, immediately south of the river and on the west side several hundred feet further south in the city of Sandy Springs. There is no sidewalk on SR9 in the city of Roswell, north of the river. The Riverwalk recreational mixed use trail along the north river bank in the city of Roswell is grade separated from SR9 (the trail is located in a back span of the bridge).

Description of the proposed project: The project would construct a 12-foot wide, 625-foot long pedestrian and bicycle bridge over the Chattahoochee River parallel to SR 9. Approaches to the bridge would be 12-foot wide multi-use trails with 2-foot wide shoulders connecting to the SR 9/Azalea Drive/Riverside Road intersection on the north side of the river and existing sidewalk along the east side of SR 9 on the south side of the river. Project length: 0.20 miles.

Federal Oversight: Full Oversight Exempt State Funded Other

MPO: N/A MPO - Atlanta Regional Commission (ARC)
MPO Project TIP # FN-253

Regional Commission: N/A RC – Atlanta Regional Commission
RC Project ID # FN-253

Congressional District(s): 6

Projected Traffic ADT:

Current Year (20WW): N/A Open Year (20XX): N/A Design Year (20YY): N/A

Functional Classification (Mainline): N/A

Is this project on a designated bike route? No YES
Regional Bicycle Transportation and Pedestrian Walkways Plan (2007)

Is this project located on a pedestrian plan? No YES
Regional Bicycle Transportation and Pedestrian Walkways Plan (2007)

Is this project located on or part of a transit network? No YES
MARTA Bus Route 85

CONTEXT SENSITIVE SOLUTIONS

Issues of Concern:

- Proposed impact to private property on south side of river
- Potential impact to NPS property on north side of river
- Proposed impact to unnamed stream running parallel to SR 9 on the southeast side of the project

Context Sensitive Solutions:

- Facilitated Stakeholder engagement to mitigate impact to private property
- Facilitated Stakeholder involvement with NPS and innovative typical sections to eliminate or minimize potential impact to NPS property
- A structure will be utilized to avoid adverse impacts to the stream on the southeast side of the project

DESIGN AND STRUCTURAL DATA

Mainline Design Features: Pedestrian and Bicycle Bridge

Feature	Proposed
Typical Section	<i>DESIGN SPEED 20 MPH *TJ</i>
- Trail Width	12'
- Bike Lanes	Multi-Use, Shared Use
- State Route Involvement	SR 9 Roswell Road
- Trail Shoulder Width	2'
- Utilities	Georgia Power, AT&T fiber Optic lines, Fulton County sanitary sewer, Fulton County water lines
- Right of Way	1 parcel on south side of river

Major Structures:

Structure	Proposed
Pedestrian Bridge over Chattahoochee River	Approximately 625' long, 12' wide.

Major Interchanges/Intersections: Roberts Drive – southern bridge approach connects to the Roberts Drive intersection with SR 9 (Roswell Road)

Azalea Drive/Riverside Road – northern bridge approach connects to both existing and proposed Azalea Drive/Riverside Road intersection with SR 9 (Roswell Road)

Utility Involvements: Sanitary sewer in RW on southeast side of SR 9, Fiber Optic Company in RW on southeast side of SR 9. Relocation is not required.

Public Interest Determination Policy and Procedure recommended (Utilities)? YES NO

SUE Required: Yes No

Railroad Involvement: N/A

Right-of-Way:

Required Right-of-Way anticipated: YES NO Undetermined
 Easements anticipated: Temporary Permanent Utility Other

Anticipated number of impacted parcels: 1
 Anticipated number of displacements (Total): 0
 Businesses: 0
 Residences: 0
 Other: 0

Location and Design approval: Not Required Required

Off-site Detours Anticipated: No Yes Undetermined

Transportation Management Plan Anticipated: YES NO

**TJ ALL TRAFFIC CONTROL WILL BE COVERED UNDER SPECIAL PROVISION 150*

VE Study anticipated: No Yes Completed – Date: [Click here to enter a date.](#)

ENVIRONMENTAL DATA

Anticipated Environmental Document:

GEPA: **NEPA:** Categorical Exclusion EA/FONSI EIS

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

Environmental Permits/Variations/Commitments/Coordination anticipated:

Permit/ Variance/ Commitment/ Coordination Anticipated	YES	NO	Remarks
1. U.S. Coast Guard Permit	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2. Forest Service/Corps Land	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3. CWA Section 404 Permit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4. Tennessee Valley Authority Permit	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
5. Buffer Variance	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
6. Coastal Zone Management Coordination	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
7. NPDES	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
8. FEMA	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No-Rise condition
9. Cemetery Permit	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
10. Other Permits	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Special Use Permit from NPS
11. Other Commitments	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
12. Other Coordination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Coordination with NPS

Is a PAR required? No Yes Completed – Date: [Click here to enter a date.](#)

NEPA/GEPA: National Park Service (NPS) EA/FONSI required

Ecology:

NPS NEPA regulations require extensive surveys and coordination; field surveys, documentation, and reporting.

No special permits from NPS are anticipated except as noted above, but the level of documentation is significantly greater than for FHWA projects.

Survey season for fish and mussel is May to October

- More likely fish than mussel
- Chattahoochee River Crayfish
- Blue stripe shiner
- High scale shiner
- Halloween darter
- Potential mussel species Shiney- rayed pocketbook, Delicate spike (historic record)

- Aimophila aestivalis (Bachman's Sparrow) [GA]- bird
- Ammodramus henslowii (Henslow's Sparrow) [GA] - bird

Falco peregrinus (Peregrine Falcon) [GA] - bird
Hemidactylium scutatum (Four-toed Salamander) - amphibian

Survey periods for plants vary but include both spring and fall

Cypripedium acaule (Pink Ladyslipper) [GA]
Cypripedium parviflorum (Yellow Ladyslipper) [GA]
Fothergilla major (Mountain Witch-alder) [GA]
Monotropsis odorata (Sweet Pinesap) [GA]
Nestronia umbellula (Indian Olive) [GA]
Rhus michauxii (Dwarf Sumac) [US]
Schisandra glabra (Bay Star-vine) [GA]
Symphyotrichum georgianum (Georgia Aster) [US]
Waldsteinia lobata (Barren Strawberry) [GA]

History: Eligible mill site east of SR 9, north of Chattahoochee River, and west of Big Creek on NPS property.

Archeology: Eligible mill site east of SR 9, north of Chattahoochee River, and west of Big Creek on NPS property.

Air & Noise:

Likely a Type III. But NPS policy requirements would also need to be followed.

Public Involvement: The project team held a Public Input Meeting in both Roswell (10/6/11) and Sandy Springs (10/11/11). The overwhelming majority of citizens prefer the pedestrian and bicycle bridge be located on the east side of SR 9 (Roswell Road) and all supported the project. There will be a Public Information Open House held after Concept Report approval.

Major stakeholders: Citizens of Roswell and Sandy Springs, GDOT, City of Roswell, City of Sandy Springs, National Park Service, Atlanta Bike Coalition, FHWA, Upper Chattahoochee Riverkeeper

CONSTRUCTION

Issues potentially affecting constructability/construction schedule: Construction access for building the piers and picking the beams is limited. It is believed that the water is too shallow for a floating barge. Other options for constructing the bridge include a work bridge trestle or rock jetties.

Early Completion Incentives recommended for consideration:

No

Yes

PROJECT RESPONSIBILITIES

Project Activities:

Project Activity	Party Responsible for Performing Task(s)
Concept Development	Heath & Lineback Engineers, City of Roswell, City of Sandy Springs, GDOT
Design	Heath & Lineback Engineers
Right-of-Way Acquisition	Undetermined
Utility Relocation	Utility Companies
Letting to Contract	City of Roswell
Construction Supervision	City of Roswell
Providing Material Pits	Contractor
Providing Detours	N/A
Environmental Studies, Documents, and Permits	Edwards-Pittman Environmental, Inc.
Environmental Mitigation	City of Roswell, City of Sandy Springs
Construction Inspection & Materials Testing	GDOT and approved testing firm hired by Contractor

Lighting required: No Yes

The City of Roswell will be responsible for maintenance of lighting. The cost of lighting will be split between the cities of Roswell and Sandy Springs.

Initial Concept Meeting: 6/28/2011, GDOT, 7/7/2011, NPS

Concept Meeting: April 16, 2012

Other projects in the area: Gateway Project (P.I. No. 721010) - The City of Roswell is in the initial planning and concept stage for a Gateway project that will reconstruct SR 9 from the north end of the bridge, north to Roswell Square. This project may reconstruct a grade separated interchange of SR 9 with Azalea Road/ Riverside Road near the north end of the pedestrian bridge. This project may include the addition of sidewalks, bicycle lanes on SR9, and a parallel off route trail with a trailhead located several hundred feet east of SR9 on Riverside Road.

Other coordination to date: Meetings with GDOT, NPS, City of Roswell, City of Sandy Springs and two stakeholder meetings, see attached meeting summaries.

Project Cost Estimate and Funding Responsibilities:

	Breakdown of PE	ROW	Utility	CST*	Environmental Mitigation [#]	Total Cost
By Whom	Roswell DOT, Sandy Springs PWD	Sandy Springs PWD	Roswell DOT, Sandy Springs PWD	GDOT, Roswell DOT, Sandy Springs PWD	Roswell DOT, Sandy Springs PWD	
\$ Amount	\$500,000	45,900	0	\$3,054,712	\$275,000	\$3,875,612
Date of Estimate	12/19/2011	1/7/2013		1/7/2013 2/20/2013	12/19/2011 2/6/2013	

*CST Cost includes: Construction, Engineering and Inspection. *T.J

[#] Conceptual estimate for stream impacts *T.J

ALTERNATIVES DISCUSSION

Alternative selection:

Preferred Alternative: East side of SR 9 bridge			
Estimated Property Impacts:	0	Estimated Total Cost:	\$3,875,612
Estimated ROW Cost:	\$45,900	Estimated CST Time:	24 months
Rationale: The preferred alternative connects to existing sidewalk on each side of the river and was the overwhelming desire of citizens at the Public Input Meetings.			

No-Build Alternative:			
Estimated Property Impacts:	0	Estimated Total Cost:	\$0
Estimated ROW Cost:	\$0	Estimated CST Time:	N/A
Rationale: The no-build alternative does not adequately protect pedestrians or bicyclists that cross over the SR9 bridge over Chattahoochee River or connect the Cities of Roswell and Sandy Springs.			

Alternative 1: West side of SR 9 bridge			
Estimated Property Impacts:	0	Estimated Total Cost:	\$2,957,262*
Estimated ROW Cost:	\$16,400	Estimated CST Time:	24 months
Rationale: Alternate 1 does not directly connect to Roberts Drive, has no existing or planned sidewalk on the Sandy Springs side of the river, located near overhead power lines. Alternative 1 allows for future connection to National Park Service land on the south side of the river.			

*Environmental mitigation costs not anticipated for West Alternative.

Attachments:

1. Concept Layouts
2. Typical sections
3. Detailed Cost Estimates
4. PFA – Project Framework Agreement
5. Initial Concept and Stakeholder Meeting Minutes
6. Concept Team Meeting Minutes
7. Bridge Type Study
8. Preferred Alternate Renderings
9. Lighting Commitment Letter
10. Right-of-Way Estimate
11. Environmental Mitigation Estimate

APPROVALS

Concur: *R. Joel Carpenter 3/26/2013*
Director of Engineering

Approve: *Allen M. M...*
Chief Engineer

4-1-13
Date



IVY & LAUREL MILLS HISTORIC RUINS

FULTON COUNTY PARK

← CHATTAHOOCHEE RIVER

RUBEN W. & LLOYD E. PITTMAN

MUSKAM ODDREY

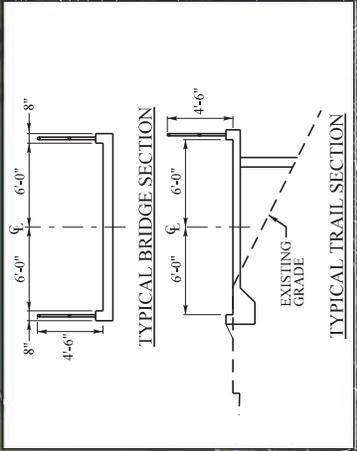
ROBERT'S DR

SR 9/ROSWELL RD

HUB PROPERTIES LLC

LEGEND

- TRAIL - ON GRADE
- BRIDGE
- PROPERTY LINE
- ENVIRONMENTALLY SENSITIVE AREA

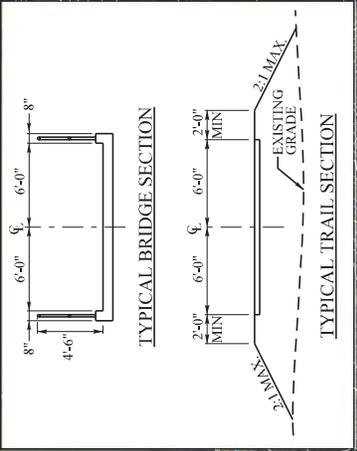


SR 9/CHATTAHOOCHEE RIVER BRIDGE PEDESTRIAN & BICYCLE IMPROVEMENTS - PREFERRED ALTERNATE



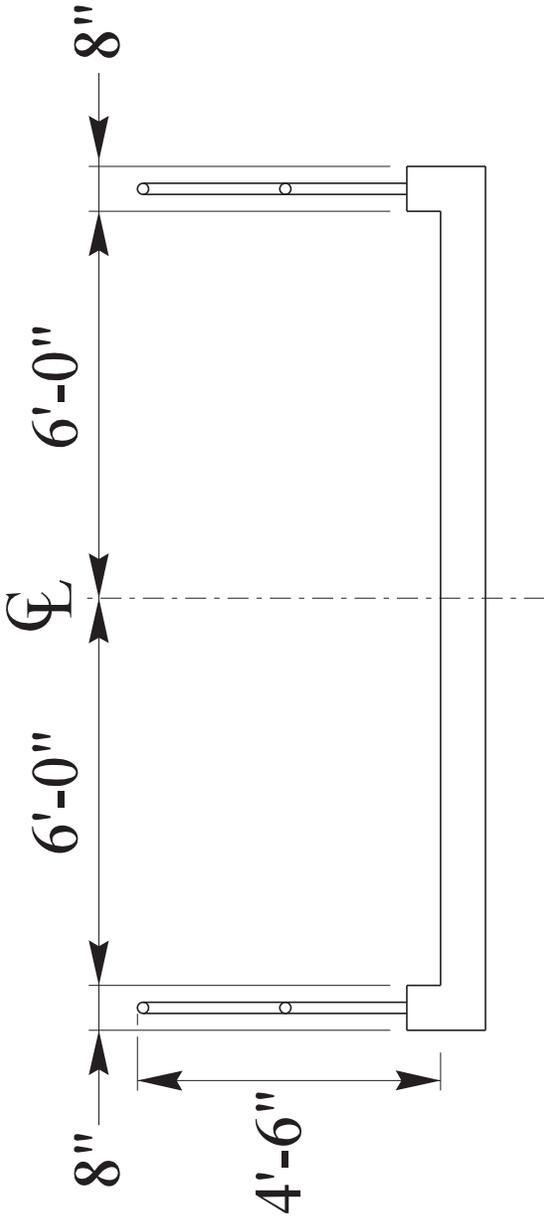
LEGEND

	TRAIL - ON GRADE
	BRIDGE
	PROPERTY LINE
	ENVIRONMENTALLY SENSITIVE AREA

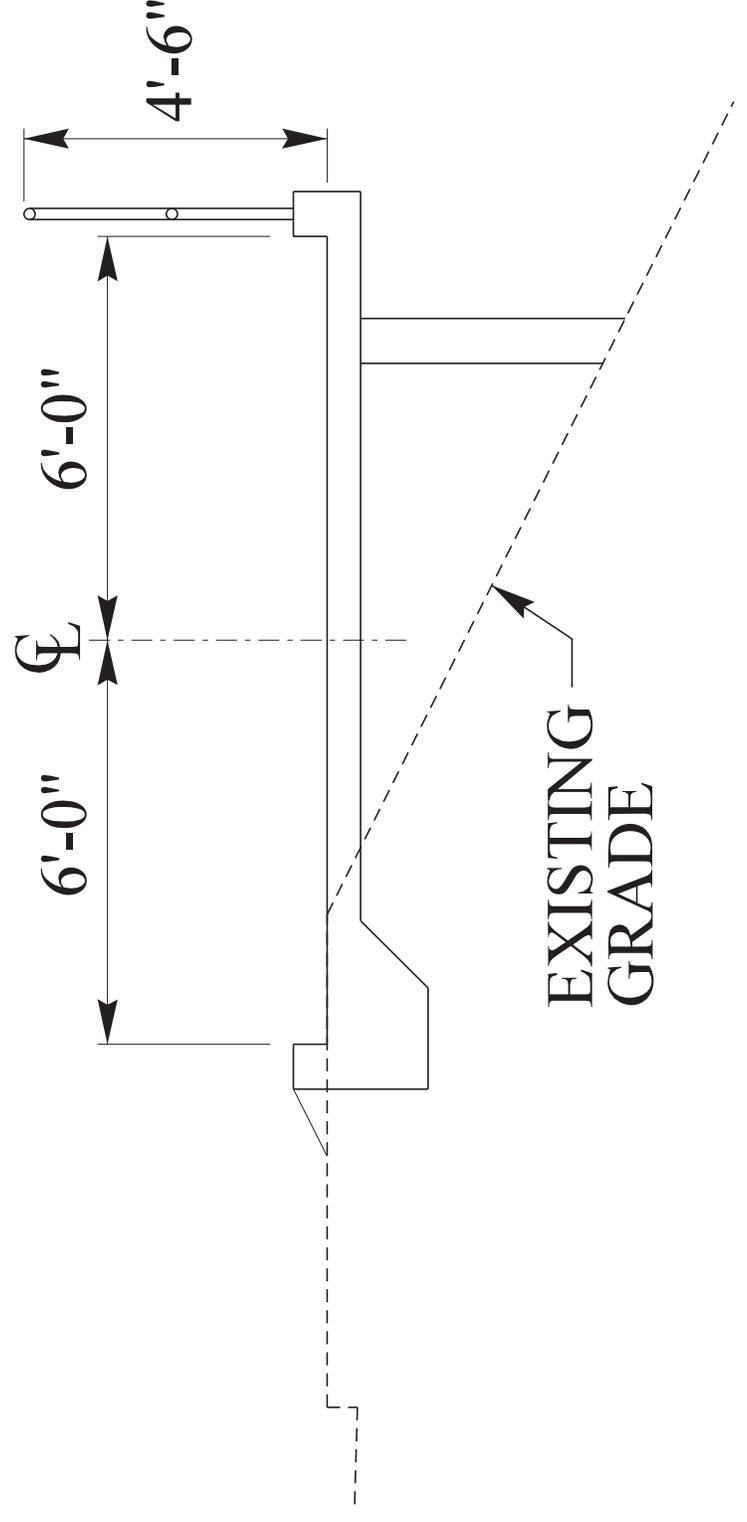


SR 9/CHATTAHOOCHEE RIVER BRIDGE PEDESTRIAN & BICYCLE IMPROVEMENTS - ALTERNATE 2

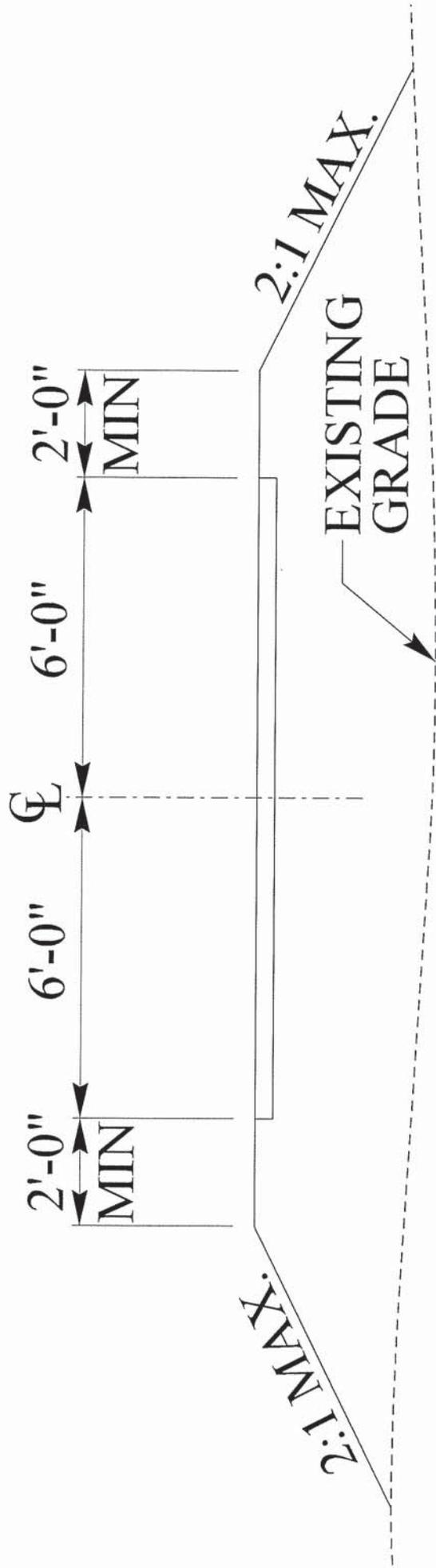
H & L
Heath & Lineback Engineers
 INCORPORATED
 2390 CANTON ROAD, BUILDING 200
 MARIETTA, GEORGIA 30066-5393



TYPICAL BRIDGE SECTION



TYPICAL TRAIL SECTION



TYPICAL TRAIL SECTION

PROJ. NO.: Fulton County
P.I. NO. 0009640
DATE: 6/21/2012

Preferred (East)
Alternate

Base Construction Cost		\$	2,909,249.09
E & I	5%	\$	145,462.45
Construction Contingency	0%	\$	-
Subtotal Construction Cost		\$	3,054,711.54
Liquid AC Adjustment (50 % cap)		\$	-
Total Construction Cost		\$	3,054,711.54

JOB ESTIMATE REPORT

JOB NUMBER : 0009640 SPEC YEAR: 01
DESCRIPTION: SR 9 PEDESTRIAN BRIDGE
PREFERRED (EAST) ALTERNATE

ITEMS FOR JOB 0009640

LINE	ITEM	ALT	UNITS	DESCRIPTION	QUANTITY	PRICE	AMOUNT
0005	150-0001		LS	TRAFFIC CONTROL, NON-REFUNDABLE DEDUCT	1.000	100000.00	100000.00
0010	163-0001		LS	EROSION CONTROL, NON-REFUNDABLE DEDUCT	1.000	100246.35	100246.35
0015	210-0100		LS	GRADING COMPLETE - APPROACHES	1.000	261000.00	261000.00
0025	441-0106		SY	CONC SIDEWALK, 6 IN	414.000	33.95	14058.37
0030	310-5060		SY	GR AGGR BS CRS 6IN INCL MATL	484.000	12.59	6095.28
0035	534-1000		LS	PEDESTRIAN OVERPASS BRIDGE, STA 7500 SF	1.000	2100000.00	2100000.00
0040	534-1000		LS	PEDESTRIAN OVERPASS BRIDGE, STA 1320 SF	1.000	303600.00	303600.00
0050	641-1200		LF	GUARDRAIL, TP W	200.000	18.30	3661.25
0055	641-5001		EA	GUARDRAIL ANCHORAGE, TP 1	2.000	613.76	1227.54
0060	641-5012		EA	GUARDRAIL ANCHORAGE, TP 12	2.000	1834.84	3669.68
0065	681-4121		EA	LT STD, 13' MH, POST TOP	6.000	2349.59	14097.54
0070	653-1804		LF	THERM SOLID TRAF STRIPE, 8" ,WH	606.000	2.08	1263.26
0075	653-3502		GLF	THERMO SKIP TRAF ST, 5 IN, YEL	1160.000	0.28	329.82

ITEM TOTAL 2909249.08
INFLATED ITEM TOTAL 2909249.09

TOTALS FOR JOB 0009640

ESTIMATED COST: 2909249.09
CONTINGENCY PERCENT (0.0): 0.00
ESTIMATED TOTAL: 2909249.09

ROW Estimates

East (Preferred) Alternate Right-of-Way

Required ROW: 9180 SF / 0.22 AC

Unit Cost: \$5 SF / \$217,800 AC

ROW Cost Estimate: 9180 SF x \$5 = **\$45,900**

West Alternate Right-of-Way

Required ROW: 3280 SF / 0.08 AC

Unit Cost: \$5 SF / \$217,800 AC

ROW Cost Estimate: 3280 SF x \$5 = **\$16,400**

Mark Holmberg

From: Josh Earhart <jearhart@edwards-pitman.com>
Sent: Wednesday, February 06, 2013 4:56 PM
To: Mark Holmberg
Subject: RE: Concept Report for PI#0009640

Mark,

With regards to the environmental mitigation costs, the largest portion of the \$275,000 estimate is from impacts to the stream on the south side of the river. Concept plans show the trail covering almost all the stream. We assumed that the entire 280 foot length of the stream would be impacted. Impacts over 100 lf require mitigation. We based our stream mitigation cost on the cost per stream credit in the Hydrologic Unit Code (HUC) containing the project. Stream mitigation costs per HUC vary from year to year, but based on when we made these calculations, the stream mitigation cost was approximately \$140/stream credit. We also assumed the worst type of impact for the stream mitigation worksheet. The 280 lf of impact would result in 1,400 stream credits. At the \$140/credit fee, that is \$196,000.00.

The remainder of the \$275,000.00 was estimated for mitigating impacts to the Ivey Mill archaeological site. Although the bridge would be outside the Park boundary it would be within the view shed of the site. The Park service had suggested stamped stone siding for the bridge in the vicinity of the site, as one possible context sensitive alternative. The Park Service also discussed certain types of lighting that reduce light pollution.

If you need further information let me know.

Josh Earhart

Edwards-Pitman Environmental, Inc.

1250 Winchester Parkway, Suite 200

Smyrna, Georgia 30080

Phone: 770.333.9484, Fax: 770.333.8277

www.edwards-pitman.com



 Please consider the environment before printing this email.

From: Mark Holmberg [<mailto:mholmberg@heath-lineback.com>]

Sent: Wednesday, February 06, 2013 9:39 AM

To: Josh Earhart

Subject: FW: Concept Report for PI#0009640

Per comments below, we need some backup for mitigation cost.

PROJ. NO.: Fulton County
P.I. NO. 0009640
DATE: 6/21/2012

West
Alternate

Base Construction Cost		\$	2,340,249.09
E & I	5%	\$	117,012.45
Construction Contingency	0%	\$	-
Subtotal Construction Cost		\$	2,457,261.54
Liquid AC Adjustment (50 % cap)		\$	-
Total Construction Cost		\$	2,457,261.54

JOB ESTIMATE REPORT

JOB NUMBER : 0009640
DESCRIPTION: SR 9 PEDESTRIAN BRIDGE
WEST ALTERNATE

SPEC YEAR: 01

ITEMS FOR JOB 0009640

LINE	ITEM	ALT	UNITS	DESCRIPTION	QUANTITY	PRICE	AMOUNT
0005	150-0001		LS	TRAFFIC CONTROL, NON-REFUNDABLE DEDUCT	1.000	100000.00	100000.00
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0015	210-0100		LS	GRADING COMPLETE - APPROACHES	1.000	261000.00	261000.00
0025	441-0106		SY	CONC SIDEWALK, 6 IN	894.000	32.36	28937.81
0030	310-5060		SY	GR AGGR BS CRS 6IN INCL MATL	1043.000	11.47	11971.53
0035	534-1000		LS	PEDESTRIAN OVERPASS BRIDGE, STA 7500 SF	1.000	1800000.00	1800000.00
0040	641-1200		LF	GUARDRAIL, TP W	200.000	18.30	3661.25
0045	641-5001		EA	GUARDRAIL ANCHORAGE, TP 1	2.000	613.76	1227.54
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ITEM TOTAL 2340249.09
INFLATED ITEM TOTAL 2340249.09

TOTALS FOR JOB 0009640

ESTIMATED COST: 2340249.09
CONTINGENCY PERCENT (0.0): 0.00
ESTIMATED TOTAL: 2340249.09

Chatt Ped Bridge

Vance C. Smith, Jr., Commissioner



GEORGIA DEPARTMENT OF TRANSPORTATION

One Georgia Center, 600 West Peachtree Street, NW
Atlanta, Georgia 30308
Telephone: (404) 631-1000

CITY OF ROSWELL
Received

MAY 19 2011

May 16, 2011

MAYOR'S OFFICE

*cc: ✓ Steve - copy
Mayor file - copy
original - Marice*

The Honorable Jere Wood, Mayor
City of Roswell
38 Hill Street
Roswell, Georgia 30075

Dear Mr. Wood:

I am returning for your files an executed agreement between the Georgia Department of Transportation and the City of Roswell for the following project:

PROJECT#: 0009-00(9640) Fulton County, P.I. #0009640

We look forward to working with you on the successful completion of the joint project. Should you have any questions, please contact the Project Manager Charner Rodgers at (404)631-1161.

Sincerely,

Angela Robinson,
Financial Management Administrator

AR:rm

Enclosure

- c: Bob Rogers
- Bryant Poole – District 7
- Mac Cranford – District 7
- Jonathan Walker – District 7
- Jeff Baker – Utilities
- Stuart Moaring

AGREEMENT
BETWEEN
DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
AND
THE CITY OF ROSWELL
FOR
TRANSPORTATION FACILITY IMPROVEMENTS

This Framework Agreement is made and entered into this 31st day of May, 2011, by and between the DEPARTMENT OF TRANSPORTATION, an agency of the State of Georgia, hereinafter called the "DEPARTMENT", and THE CITY OF ROSWELL, acting by and through its Mayor and City County Council, hereinafter called the "LOCAL GOVERNMENT".

WHEREAS, the LOCAL GOVERNMENT has represented to the DEPARTMENT a desire to improve the transportation facility described in Attachment A, attached and incorporated herein by reference and hereinafter referred to as the "PROJECT"; and

WHEREAS, the LOCAL GOVERNMENT has represented to the DEPARTMENT a desire to participate in certain activities including the funding of certain portions of the PROJECT and the DEPARTMENT has relied upon such representations; and

WHEREAS, the DEPARTMENT has expressed a willingness to participate in certain activities of the PROJECT as set forth in this Agreement; and

WHEREAS, the Constitution authorizes intergovernmental agreements whereby state and local entities may contract with one another "for joint services, for the provision of services, or for the joint or separate use of facilities or equipment; but such contracts must deal with activities, services or facilities which the parties are authorized by law to undertake or provide." Ga. Constitution Article IX, §III, ¶II(a).

NOW THEREFORE, in consideration of the mutual promises made and of the benefits to flow from one to the other, the DEPARTMENT and the LOCAL GOVERNMENT hereby agree each with the other as follows:

1. The LOCAL GOVERNMENT shall by following the procedures in the DEPARTMENT's Local Administered Project Manual contribute to the PROJECT by funding all or certain portions of the PROJECT costs for the preconstruction engineering (design) activities, hereinafter referred to as "PE", all reimburseable utility relocations, all non-reimburseable utilities owned by the LOCAL GOVERNMENT, railroad costs, right of way acquisitions and construction, as specified in Attachment A, attached hereto and incorporated herein by reference. Expenditures incurred by the LOCAL GOVERNMENT prior to the execution of this AGREEMENT or subsequent funding agreements shall not be considered for reimbursement by the DEPARTMENT. PE expenditures incurred by the LOCAL GOVERNMENT after execution of this

AGREEMENT shall be reimbursed by the DEPARTMENT once a written notice to proceed is given by the DEPARTMENT.

2. The DEPARTMENT shall contribute to the PROJECT by funding all or certain portions of the PROJECT costs for the PE, right of way acquisitions, reimbursable utility relocations, railroad costs, or construction as specified in Attachment A.

3. It is understood and agreed by the DEPARTMENT and the LOCAL GOVERNMENT that the funding portion as identified in Attachment "A" of this Agreement only applies to the PE. The Right of Way and Construction funding estimate levels as specified in Attachment "A" are provided herein for planning purposes and do not constitute a funding commitment for right of way and construction. The DEPARTMENT will prepare LOCAL GOVERNMENT Specific Activity Agreements for funding applicable to Right of Way or Construction when appropriate.

Further, the LOCAL GOVERNMENT shall be responsible for repayment of any expended federal funds if the PROJECT does not proceed forward to completion due to a lack of available funding in future PROJECT phases, changes in local priorities or cancellation of the PROJECT by the LOCAL GOVERNMENT without concurrence by the DEPARTMENT.

4. The LOCAL GOVERNMENT shall be responsible for all costs for the continual maintenance and operations of any and all sidewalks and the grass strip between the curb and sidewalk within the PROJECT limits.

5. Both the LOCAL GOVERNMENT and the DEPARTMENT hereby acknowledge that Time is of the Essence. It is agreed that both parties shall adhere to the schedule of activities currently established in the approved Transportation Improvement Program/State Transportation Improvement Program, hereinafter referred to as "TIP/STIP". Furthermore, all parties shall adhere to the detailed project schedule as approved by the DEPARTMENT, attached as Attachment B and incorporated herein by reference. In the completion of respective commitments contained herein, if a change in the schedule is needed, the LOCAL GOVERNMENT shall notify the DEPARTMENT in writing of the proposed schedule change and the DEPARTMENT shall acknowledge the change through written response letter; provided that the DEPARTMENT shall have final authority for approving any change.

If, for any reason, the LOCAL GOVERNMENT does not produce acceptable deliverables in accordance with the approved schedule, the DEPARTMENT reserves the right to delay the PROJECT's implementation until funds can be re-identified for right of way or construction, as applicable.

6. The LOCAL GOVERNMENT shall certify that the regulations for "CERTIFICATION OF COMPLIANCES WITH FEDERAL PROCUREMENT REQUIREMENTS, STATE AUDIT REQUIREMENTS, and FEDERAL AUDIT REQUIREMENTS" are understood and will comply in full with said provisions.

7. The LOCAL GOVERNMENT shall accomplish the PE activities for the PROJECT. The PE activities shall be accomplished in accordance with the DEPARTMENT's Plan Development Process hereinafter referred to as "PDP", the applicable guidelines of the American Association of State Highway and Transportation Officials, hereinafter referred to as "AASHTO", the DEPARTMENT's Standard Specifications Construction of Transportation Systems, and all applicable design guidelines and policies of the DEPARTMENT to produce a cost effective PROJECT. Failure to follow the PDP and all applicable guidelines and policies will jeopardize the use of Federal Funds in some or all categories outlined in this agreement, and it shall be the responsibility of the LOCAL GOVERNMENT to make up the loss of that funding. The LOCAL GOVERNMENT's responsibility for PE activities shall include, but is not limited to the following items:

a. Prepare the PROJECT Concept Report and Design Data Book in accordance with the format used by the DEPARTMENT. The concept for the PROJECT shall be developed to accommodate the future traffic volumes as generated by the LOCAL GOVERNMENT as provided for in paragraph 7b and approved by the DEPARTMENT. The concept report shall be approved by the DEPARTMENT prior to the LOCAL GOVERNMENT beginning further development of the PROJECT plans. It is recognized by the parties that the approved concept may be updated or modified by the LOCAL GOVERNMENT as required by the DEPARTMENT and re-approved by the DEPARTMENT during the course of PE due to updated guidelines, public input, environmental requirements, Value Engineering recommendations, Public Interest

Determination (PID) for utilities, utility/railroad conflicts, or right of way considerations.

b. Prepare a Traffic Study for the PROJECT that includes Average Daily Traffic, hereinafter referred to as "ADT", volumes for the base year (year the PROJECT is expected to be open to traffic) and design year (base year plus 20 years) along with Design Hour Volumes, hereinafter referred to as "DHV", for the design year. DHV includes morning (AM) and evening (PM) peaks and other significant peak times. The Study shall show all through and turning movement volumes at intersections for the ADT and DHV volumes and shall indicate the percentage of trucks on the facility. The Study shall also include signal warrant evaluations for any additional proposed signals on the PROJECT.

c. Prepare environmental studies, documentation, reports, and complete Environmental Document for the PROJECT along with all environmental re-evaluations required that show the PROJECT is in compliance with the provisions of the National Environmental Policy Act or the Georgia Environmental Policy Act as per the DEPARTMENT's Environmental Procedures Manual, as appropriate to the PROJECT funding. This shall include any and all archaeological, historical, ecological, air, noise, community involvement, environmental justice, flood plains, underground storage tanks, and hazardous waste site studies required. The completed Environmental Document approval shall occur prior to Right of Way funding authorization. A re-evaluation is required for any design change as described in Chapter 7 of the Environmental

Procedures Manual. In addition, a re-evaluation document approval shall occur prior to any Federal funding authorizations if the latest approved document is more than 6 months old. The LOCAL GOVERNMENT shall submit to the DEPARTMENT all studies, documents and reports for review and approval by the DEPARTMENT, the FHWA and other environmental resource agencies. The LOCAL GOVERNMENT shall provide Environmental staff to attend all PROJECT related meetings where Environmental issues are discussed. Meetings include, but are not limited to, concept, field plan reviews and value engineering studies.

d. Prepare all PROJECT public hearing and public information displays and conduct all required public hearings and public information meetings with appropriate staff in accordance with DEPARTMENT practice.

e. Perform all surveys, mapping, soil investigations and pavement evaluations needed for design of the PROJECT as per the appropriate DEPARTMENT Manual.

f. Perform all work required to obtain all applicable PROJECT permits, including, but not limited to, Cemetery, TVA and US Army Corps of Engineers permits, Stream Buffer Variances and Federal Emergency Management Agency (FEMA) approvals. The LOCAL GOVERNMENT shall provide all mitigation required for the project, including but not limited to permit related mitigation. All mitigation costs are considered PE costs. PROJECT permits and non-construction related mitigation must be obtained and completed 3 months prior to

the scheduled let date. These efforts shall be coordinated with the DEPARTMENT.

g. Prepare the storm water drainage design for the PROJECT and any required hydraulic studies for FEMA Floodways within the PROJECT limits. Acquire of all necessary permits associated with the Hydraulic Study or drainage design.

h. Prepare utility relocation plans for the PROJECT following the DEPARTMENT's policies and procedures for identification, coordination and conflict resolution of existing and proposed utility facilities on the PROJECT. These policies and procedures, in part, require the Local Government to submit all requests for existing, proposed, and relocated facilities to each utility owner within the project area. Copies of all such correspondence, including executed agreements for reimbursable utility/railroad relocations, shall be forwarded to the DEPARTMENT's Project Manager and the District Utilities Engineer and require that any conflicts with the PROJECT be resolved by the LOCAL GOVERNMENT. If it is determined that the PROJECT is located on an on-system route or is a DEPARTMENT LET PROJECT, the LOCAL GOVERNMENT and the District Utilities Engineer shall ensure that permit applications are approved for each utility company in conflict with the project. If it is determined through the DEPARTMENT's Project Manager and State Utilities Office during the concept or design phases the need to utilize Overhead/Subsurface Utility Engineering, hereinafter referred to as "SUE", to

obtain the existing utilities, the LOCAL GOVERNMENT shall be responsible for acquiring those services. SUE costs are considered PE costs.

i. Prepare, in English units, Preliminary Construction plans, Right of Way plans and Final Construction plans that include the appropriate sections listed in the Plan Presentation Guide, hereinafter referred to as "PPG", for all phases of the PDP. All drafting and design work performed on the project shall be done utilizing Microstation and CAICE software respectively using the DEPARTMENT's Electronic Data Guidelines. The LOCAL GOVERNMENT shall further be responsible for making all revisions to the final right of way plans and construction plans, as deemed necessary by the DEPARTMENT, for whatever reason, as needed to acquire the right of way and construct the PROJECT.

j. Prepare PROJECT cost estimates for construction, Right of Way and Utility/railroad relocation along with a Benefit Cost, hereinafter referred to as "B/C ratio" at the following project stages: Concept, Preliminary Field Plan Review, Right of Way plan approval (Right of Way cost only), Final Field Plan Review and Final Plan submission using the applicable method approved by the DEPARTMENT. The cost estimates and B/C ratio shall also be updated yearly if the noted project stages occur at a longer frequency. Failure of the LOCAL GOVERNMENT to provide timely and accurate cost estimates and B/C ratio may delay the PROJECT's implementation until additional funds can be identified for right of way or construction, as applicable.

k. Provide certification, by a Georgia Registered Professional Engineer, that the Design and Construction plans have been prepared under the guidance of the professional engineer and are in accordance with AASHTO and DEPARTMENT Design Policies.

l. Provide certification, by a Level II Certified Design Professional that the Erosion Control Plans have been prepared under the guidance of the certified professional in accordance with the current Georgia National Pollutant Discharge Elimination System.

m. Provide a written certification that all appropriate staff (employees and consultants) involved in the PROJECT have attended or are scheduled to attend the Department's PDP Training Course and Local Administered Project Training. The written certification shall be received by the Department no later than the first day of February of every calendar year until all phases have been completed.

8. The Primary Consultant firm or subconsultants hired by the LOCAL GOVERNMENT to provide services on the PROJECT shall be prequalified with the DEPARTMENT in the appropriate area-classes. The DEPARTMENT shall, on request, furnish the LOCAL GOVERNMENT with a list of prequalified consultant firms in the appropriate area-classes. The LOCAL GOVERNMENT shall comply with all applicable state and federal regulations for the procurement of design services and in accordance with the Brooks Architect-Engineers Act of 1972, better known as the Brooks Act, for any consultant hired to perform work on the PROJECT.

9. The DEPARTMENT shall review and has approval authority for all aspects of the PROJECT provided however this review and approval does not relieve the LOCAL GOVERNMENT of its responsibilities under the terms of this agreement. The DEPARTMENT will work with the FHWA to obtain all needed approvals as deemed necessary with information furnished by the LOCAL GOVERNMENT.

10. The LOCAL GOVERNMENT shall be responsible for the design of all bridge(s) and preparation of any required hydraulic and hydrological studies within the limits of this PROJECT in accordance with the DEPARTMENT's policies and guidelines. The LOCAL GOVERNMENT shall perform all necessary survey efforts in order to complete the hydraulic and hydrological studies and the design of the bridge(s). The final bridge plans shall be incorporated into this PROJECT as a part of this Agreement.

11. The LOCAL GOVERNMENT unless otherwise noted in attachment "A" shall be responsible for funding all LOCAL GOVERNMENT owned utility relocations and all other reimbursable utility/railroad costs. The costs include but are not limited to PE, easement acquisition, and construction activities necessary for the utility/railroad to accommodate the PROJECT. The terms for any such reimbursable relocations shall be laid out in an agreement that is supported by plans, specifications, and itemized costs of the work agreed upon and shall be executed prior to certification by the DEPARTMENT. The LOCAL GOVERNMENT shall certify via written letter to the DEPARTMENT's Project Manager and District Utilities Engineer that all Utility owners' existing and proposed facilities are shown on the plans with no conflicts 3 months prior to advertising the PROJECT for bids and that any required agreements for reimbursable utility/railroad

costs have been fully executed. Further, this certification letter shall state that the LOCAL GOVERNMENT understands that it is responsible for the costs of any additional reimbursable utility/railroad conflicts that arise on construction.

12. The DEPARTMENT will be responsible for all railroad coordination on DEPARTMENT Let and/or State Route (On-System) projects; the LOCAL GOVERNMENT shall address concerns, comments, and requirements to the satisfaction of the Railroad and the DEPARTMENT. If the LOCAL GOVERNMENT is shown to LET the construction in Attachment "A" on off-system routes, the LOCAL GOVERNMENT shall be responsible for all railroad coordination and addressing concerns, comments, and requirements to the satisfaction of the Railroad and the DEPARTMENT for PROJECT.

13. The LOCAL GOVERNMENT shall be responsible for acquiring a Value Engineering Consultant for the DEPARTMENT to conduct a Value Engineering Study if the total estimated PROJECT cost is \$10 million or more. The Value Engineering Study cost is considered a PE cost. The LOCAL GOVERNMENT shall provide project related design data and plans to be evaluated in the study along with appropriate staff to present and answer questions about the PROJECT to the study team. The LOCAL GOVERNMENT shall provide responses to the study recommendations indicating whether they will be implemented or not. If not, a valid response for not implementing shall be provided. Total project costs include PE, right of way, and construction, reimbursable utility/railroad costs.

14. The LOCAL GOVERNMENT, unless shown otherwise on Attachment A, shall acquire the Right of way in accordance with the law and the rules and regulations of the FHWA including, but not limited to, Title 23, United States Code; 23 CFR 710, et. Seq., and 49 CFR Part 24 and the rules and regulations of the DEPARTMENT. Upon the DEPARTMENT's approval of the PROJECT right of way plans, verification that the approved environmental document is valid and current, a written notice to proceed will be provided by the DEPARTMENT for the LOCAL GOVERNMENT to stake the right of way and proceed with all pre-acquisition right of way activities. The LOCAL GOVERNMENT shall not proceed to property negotiation and acquisition whether or not the right of way funding is Federal, State or Local, until the right of way agreement named "Contract for the Acquisition of Right of Way" prepared by the DEPARTMENT's Office of Right of Way is executed between the LOCAL GOVERNMENT and the DEPARTMENT. Failure of the LOCAL GOVERNMENT to adhere to the provisions and requirements specified in the acquisition contract may result in the loss of Federal funding for the PROJECT and it will be the responsibility of the LOCAL GOVERNMENT to make up the loss of that funding. Right of way costs eligible for reimbursement include land and improvement costs, property damage values, relocation assistance expenses and contracted property management costs. Non reimbursable right of way costs include administrative expenses such as appraisal, consultant, attorney fees and any in-house property management or staff expenses. The LOCAL GOVERNMENT shall certify that all required right of way is obtained and cleared of obstructions, including underground storage tanks, 3 months prior to advertising the PROJECT for bids.

15. The DEPARTMENT unless otherwise shown in Attachment "A" shall be responsible for Letting the PROJECT to construction, solely responsible for executing any agreements with all applicable utility/railroad companies and securing and awarding the construction contract for the PROJECT when the following items have been completed and submitted by the LOCAL GOVERNMENT:

a. Submittal of acceptable PROJECT PE activity deliverables noted in this agreement.

b. Certification that all needed rights of way have been obtained and cleared of obstructions.

c. Certification that the environmental document is current and all needed permits and mitigation for the PROJECT have been obtained.

d. Certification that all Utility/Railroad facilities, existing and proposed, within the PROJECT limits are shown, any conflicts have been resolved and reimbursable agreements, if applicable, are executed.

If the LOCAL GOVERNMENT is shown to LET the construction in Attachment "A", the LOCAL GOVERNMENT shall provide the above deliverables and certifications and shall follow the requirements stated in Chapter 10 of the DEPARTMENT's Local Administered Project Manual.

16. The LOCAL GOVERNMENT shall provide a review and recommendation by the engineer of record concerning all shop drawings prior to the DEPARTMENT review and approval. The DEPARTMENT shall have final authority concerning all shop drawings.

17. The LOCAL GOVERNMENT agrees that all reports, plans, drawings, studies, specifications, estimates, maps, computations, computer files and printouts, and any other data prepared under the terms of this Agreement shall become the property of the DEPARTMENT if the PROJECT is being let by the DEPARTMENT. This data shall be organized, indexed, bound, and delivered to the DEPARTMENT no later than the advertisement of the PROJECT for letting. The DEPARTMENT shall have the right to use this material without restriction or limitation and without compensation to the LOCAL GOVERNMENT.

18. The LOCAL GOVERNMENT shall be responsible for the professional quality, technical accuracy, and the coordination of all reports, designs, drawings, specifications, and other services furnished by or on behalf of the LOCAL GOVERNMENT pursuant to this Agreement. The LOCAL GOVERNMENT shall correct or revise, or cause to be corrected or revised, any errors or deficiencies in the reports, designs, drawings, specifications, and other services furnished for this PROJECT. Failure by the LOCAL GOVERNMENT to address the errors or deficiencies within 30 days of notification shall cause the LOCAL GOVERNMENT to assume all responsibility for construction delays caused by the errors and deficiencies. All revisions shall be coordinated with the DEPARTMENT prior to issuance. The LOCAL GOVERNMENT

shall also be responsible for any claim, damage, loss or expense, to the extent allowed by law that is attributable to errors, omissions, or negligent acts related to the designs, drawings, specifications, and other services furnished by or on behalf of the LOCAL GOVERNMENT pursuant to this Agreement.

This Agreement is made and entered into in FULTON COUNTY, GEORGIA, and shall be governed and construed under the laws of the State of Georgia.

The covenants herein contained shall, except as otherwise provided, accrue to the benefit of and be binding upon the successors and assigns of the parties hereto.

IN WITNESS WHEREOF, the DEPARTMENT and the LOCAL GOVERNMENT have caused these presents to be executed under seal by their duly authorized representatives.

DEPARTMENT OF
TRANSPORTATION

THE CITY OF ROSWELL

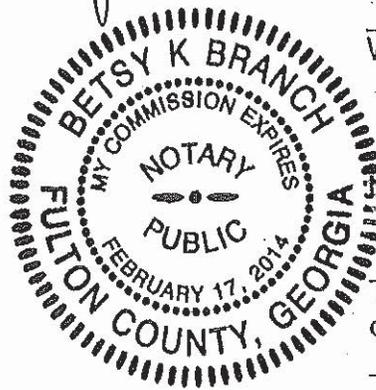
BY: *Thomas C. Smith, Jr.*
Commissioner *(TS)*

BY: *Kay M. Love*
Name *Kay Love*
Title *City Administrator*

ATTEST: *Kathryn Pfuman* *(AP)*
Treasurer

Signed, sealed and delivered this
12 day of *October*,
20*10*, in the presence of:

Kathleen Baker
Witness



Betsy K. Branch
Notary Public

This Agreement approved by The City
of Roswell, the *5th* day of
April, 20*10*.

Attest
Alice H. Crook, City Clerk
Name and Title

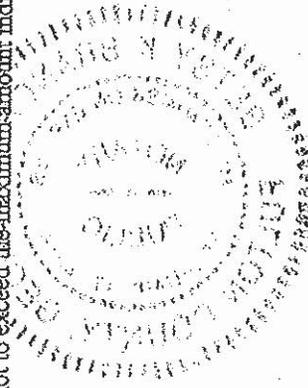
FEIN: *58-6000655*

ATTACHMENT "A"

Project Number: - 0009640 County

Project (PI#, Project #, Description)	Preliminary Engineering		Right of Way		Construction		Utility Relocation		
	Funding	PE Activity by	*Funding of Real Property	Acq. by	Acq. Fund by	*Funding	Letting by	Utility Funding by	Railroad Funding by
PI# 0009640, SR 9 @ CHATTAHOOCHEE RIVER IN ROSWELL - ENHANCEMENTS	(\$0%) Federal (\$400,000) (20%) LCL GOV (\$100,000) >(\$500,000) 100% Local Gov.	Local Gov.	100% Local Gov.	Local Gov.	Local Gov.	(\$0%) Federal (\$2,580,500) (20%) LCL GOV (\$645,125) >(\$3,225,625) 100% Local Gov.	GDOT	100% Local Gov.	100% Local Gov.

Note: Maximum allowable GDOT participating amounts for PE category shall be shown above. Local Government will only be reimbursed the percentage of the accrued invoiced amounts up to but not to exceed the maximum amount indicated. *RW and Construction amounts shown are estimates for budget planning purposes only.



Memorandum

To: File 2011.011
From: Mark Holmberg
CC: John Heath, Rob Dell-Ross
Date: 7-7-2011
Re: Project: SR 9 Pedestrian Bridge over Chattahoochee
P.I. No. 0009640 Concept Meeting at CRNRA-Island Ford

This meeting was held to discuss the National Park Service's requirements and preferences for the location of the pedestrian bridge over the Chattahoochee River along SR 9. The project managing is shared by the cities of Roswell and Sandy Springs, but will be led by Roswell:

1. Rob Dell-Ross opened up the meeting with a brief description of the project. He explained that the purpose of the project is to connect the multi-use trails along the Roswell side of the Chattahoochee to the Sandy Spring side. He spoke on how the project is envisioned to connect with the Gateway project running south from the Roswell square to the bridge. It was also noted that the project is federally funded with earmark money for "a SR 9 bridge over the Chattahoochee River".
2. The group discussed the merit of the bridge location (east or west of the roadway bridge).
 - a. Patty and Rick mentioned the fact that the parcel in the northeast corner is zoned as historic and that landing on that parcel would result in a longer process at a minimum and not be possible.
 - b. The general consensus of Michael, Patty, and Rick was that the State of Georgia owns the river bed. The NPS is charged with management of the river in accordance with the enabling Federal legislation.
 - c. Scott suggested looking into a possible sewer easement on the southeast quadrant that may be a crossing location. However, Rob questioned whether the FHWA would consider that location "SR 9".

- d. Rob suggested the possibility of a hawk signal at Roberts Dr and SR 9 for pedestrian crossing.
3. Patty mentioned the NPS's desire to enhance and promote the Ivy and Laurel Mills Historic Ruins.
4. NPS spoke about the importance of all parties following the National Environmental Policy Act (NEPA) procedures. They believe that most likely an Environmental Assessment (EA) will be required, but will confirm. The process was said to be approximately 12 months, and that the process would be easier for a crossing on the west side of the existing roadway bridge.

Action required:

1. HLE, in coordination with Roswell, Sandy Springs, GDOT, and NPS, will schedule a public meeting to collect citizen input on several alternates.
2. HLE and Josh Earhart, in coordination with OES, will request to be on the agenda for the standard GDOT FHWA meeting in September so that this project and the Gateway project may be presented jointly.

Attendees:

John Heath – Heath & Lineback Engineers
Mark Holmberg – Heath & Lineback Engineers
Patrick Peters – Heath & Lineback Engineers
Rick Slade – National Park Service
Patty Wissinger – National Park Service
Nancy Walther – National Park Service
Richard Lutz – National Park Service
Scott Pfeninger – National Park Service
Josh Earhart – Edwards-Pitman Environmental
Michael Hester - GDOT

Memorandum

To: File 2011.011
From: Mark Holmberg
CC: John Heath, Rob Dell-Ross
Date: 10/4/2011
Re: Project: SR 9 Pedestrian Bridge over Chattahoochee
P.I. No. 0009640 Public Meeting Dry Run Meeting

Attendees:

Steve Acenbrak - Roswell

David Low – Roswell

Franco DeMarco – Roswell

Rob Dell-Ross – Roswell

Kristen Wescott – Sandy Springs

Katina Lear – Sandy Springs

Joe Glujen – Roswell

Patrick Peters – H&L

Mark Holmberg – H&L

This meeting was held to discuss the public input meetings scheduled for 10/6 and 10/11.

5. The displays were discussed and Mark Holmberg briefly explained the three alternate alignments.
6. Kristen Wescott questioned the pedestrian hybrid beacon light shown at the intersection of SR9 and Roberts Road. (Note: 2009 MUTCD requires 100' minimum separation between side streets and driveways that are controlled by Stop or Yield signs.)
7. Kristen mentioned that sidewalks along the west side of SR 9 on the Sandy Springs side are planned. She said she would check to see if those are planned short or long range.

8. David Low asked if benches and observation areas can be incorporated in the project. Mark responded yes, and ideas like that is the purpose of the public input meeting.
9. Steve Acenbrak suggested showing pictures of several different types of bridges for the public to view and discuss.
10. The group stated that there should be no mention of a preference in alignments and that we should be completely neutral in the public input meeting.
11. The group discussed Alternate 2B, which includes a ramp on National Park Service property.
12. Katina Lear suggested that we formulate a list of pros and cons for each alternate. She also mentioned describing the existing bridge section with regards to pedestrian and bicycle access.
13. Rob Dell-Ross mentioned that there are currently six different intersection options being considered at SR 9 and Riverside Rd/Azalea Dr. Because of that he mentioned the possibility of the project including a second phase which would be a spur continuing up SR 9.
14. Steve mentioned his concern about the possibility of buzzing power lines being a negative to the west side alignment.
15. David spoke on constructability issues on replacement or widening of the existing SR 9 bridge. Mark responded that there are no plans to replace the bridge and the sufficiency ratings of the arch bridge and the AASHTO girder widening are acceptable.
16. Mark suggested that we record comments on newsprint.
17. Katina suggested that we also bring sticky notes for citizen comments to be attached to displays.

Action required:

3. Rob Del-Ross will contact Rick Slade and ask if he plans to attend the meetings.
4. Rob will review handout information and let H&L know if changes are necessary.
5. H&L will bring bridge type displays to the 10/6 meeting.

Heath & Lineback Engineers

MEETING SUMMARY

October 25, 2011

SR 9 @ Chattahoochee River Enhancements

LOCATION: Roswell City Hall

Attendees: Charner Rodgers – GDOT
Steve Acenbrak – Roswell
Franco DeMarco – Roswell
Kristen Wescott – Sandy Springs
Rob Dell-Ross – Roswell
Walt Rekuc – Sandy Springs
Katina Lear – Sandy Springs
Josh Earhart – Edwards-Pitman
Mark Holmberg – H&L

The meeting was held to discuss public input from the 10/6 and 10/11 meetings and the next steps for Concept Development and Environmental Assessment.

- Public comments received to date are all in favor of the project and all prefer the east side Alternate 2A or 2B alignments.
- The group discussed the environmental ramifications of the east side alignment and coordination with the National Park Service. Josh Earhart said that the east alignment will likely take much longer to permit compared to a west side alignment.
- Steve Acebrack and Rob Dell-Ross suggested a trail alignment paralleling Riverside Drive east to the park on the north side of the river. This alignment will require an additional bridge spanning the creek.
- The group discussed the PIOH meeting. We agreed that two meetings will be held, in Roswell at the Roswell Landing venue and one at a location in Sandy Springs. Mark Holmberg will send an e-mail to Charner Rodgers requesting that Jonathan Cox and OES provide guidance if both PIOH meetings need to be advertised per GDOT requirements.
- H&L will submit a draft Concept Report prior to requesting the PIOH meeting.

Action Items:

1. Mark Holmberg sent an e-mail to Charner requesting OES input. No response from Jonathan Cox as of 10/27/11.
2. H&L will complete the bridge type study, coordinate recommendations with Roswell and Sandy Springs and finalize the Concept Report following that coordination.
3. H&L revised the project schedule to include two years for EA approval following Concept approval. This pushed the projected let date approximately seven months to 12/2014. Mark sent Rob Dell-Ross a revised schedule.

Concept Team Meeting Minutes

To: File 2011.011
From: Patrick Peters
CC: John Heath, Mark Holmberg, Josh Earhart, Rob Dell-Ross,
Kristen Wescott
Date: 4-17-2012
Re: Project: SR 9 Pedestrian Bridge over Chattahoochee
Concept Team Meeting at Roswell City Hall
P.I. No. 0009640

This meeting was held to review the Concept Report and discuss potential issues with the pedestrian and bicycle bridge over the Chattahoochee River along SR 9. The project managing is shared by the cities of Roswell and Sandy Springs, but is led by Roswell:

1. Rick Slade said the National Park Service has discussed the project and likes the idea of the bridge on the east side of the SR 9 roadway bridge. He stated that the bridge appearance would be a big deal and that he has some information he will pass on to the team from a landscape architect within the NPS that shows examples of what the NPS would be looking for.
2. Steve Acenbrak mentioned Roswell would like architectural features to be studied for dressing up the bridge. He mentioned a pedestrian bridge in Greenville, SC as an example.
3. Charner Rodgers-Register, on behalf of Jonathan Cox with OES, asked if the project was a water trial. Rick responded yes, but that it was not a 4(f) impact.
4. Rick mentioned that the project limits need to remain in existing right-of-way and to expect coordination with the NPS to add to the project schedule.
5. Mark Holmberg gave a brief overview of the project and the Concept Report.
 - a. He mentioned that the project was 80% funded with a Federal earmark with the rest being split between the cities of Roswell and Sandy Springs totaling \$3.5 mm.
6. Charner stated that there are no plans to widen the SR 9 roadway bridge (sufficiency rating is 77.50).

7. Walt Rekuć verified that the south termini of the project should be the intersection of Roberts Road – Steve and Rob agreed. Walt also said the city would like the 10-foot trail to continue to Roberts Drive, and not taper down to the five-foot sidewalk. Mark mentioned that there could be increases in cost and environmental impacts.
8. Mark requested the most recent concept of the Gateway project that the pedestrian bridge will tie-in to; Rob said he would supply.
9. The team agreed with the proposed 12-foot width of the bridge. The team discussed the best way to separate pedestrians and bicyclists for safety and comfort across the bridge. Some of the suggestions are as follows:
 - a. Striped centerline
 - b. Striped lanes designating one-way bike lanes and two-way pedestrian lane
 - c. Signing on bridge ends indicating low speeds for bikes
 - d. Physical barrier separating bicyclists from pedestrians
10. Walt mentioned the possibility of stairs on the north side of the Chattahoochee River to connect walkers with the existing trail until the Gateway project is built. The team agreed to leave stairs out for now since they create additional challenges.
11. Walt asked if “bulb-outs” or observation areas would be incorporated into the design of the bridge. Mark replied that one observation area was currently proposed at the center of the bridge with the current budget. Steve stated his desire for multiple observation areas along the bridge.
12. Mark verified with the team that all right-of-way would be acquired using local money.
13. Josh Earhart told Rick that Jennifer with FHWA had been introduced to the project and agreed to a single EA document, with the NPS as lead agency with FHWA requesting review and comment to the document.
14. The team discussed holding the PIOH prior to the approval of the Concept Report. Charner suggested that the team wait until she had received all comments on the submitted Concept Report before scheduling the PIOH. Rick mentioned the importance of NPS involvement in the PIOH, and Rob verified that there would be only one PIOH meeting.
15. Several comments were made about the Concept Report:
 - a. There are a couple of typos at the bottom of page 7
 - b. FHWA and Upper Chattahoochee Riverkeeper should be added to the Major Stakeholders list

16. Mark mentioned the potential difficulties with construction of the project. He stated the options for construction would be a temporary work bridge or rock jetties. He discussed dismissing the use of a barge due to the normal water depth of the channel (6-8'). However, Rick mentioned that coordination with the Corps might be possible to discuss additional discharge from Lake Lanier to be able to support a barge in the channel.
17. Rick expressed his concern of potential staging equipment and clearing on the NPS property on the northeast quadrant of the project that would be required for the rock jetties and bridge construction. Whichever option is preferred for construction of the bridge, the impacts will need to be discussed with the NPS beforehand, and impacts from the temporary construction discussed fully in the EA.
18. Mark discussed the cost estimate of the project. He mentioned that the current estimate was approximately \$700,000 over the project budget. Kristen Wescott and Walt said they would discuss potentially paying more with the Sandy Springs city council. Steve and Rob had left the meeting prior to the cost discussion.

Action required:

1. H&L will revise Concept Report and send out meeting minutes to attendees for review.
2. H&L will submit revised Concept Report to GDOT.
3. EPEI to coordinate a meeting with GDOT, FHWA, and NPS to discuss environmental issues and NEPA document requirements.

Attendees:

Mark Holmberg – Heath & Lineback Engineers

Patrick Peters – Heath & Lineback Engineers

Rick Slade – National Park Service

Josh Earhart – Edwards-Pitman Environmental

Steve Acenbrak – Roswell

Rob Dell-Ross – Roswell

Kristen Wescott – Sandy Springs

Walt Rekuc – Sandy Springs

Charner Rodgers-Register - GDOT

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CITIES OF ROSWELL & SANDY SPRINGS

SR 9/Chattahoochee River Bridge Pedestrian Improvements

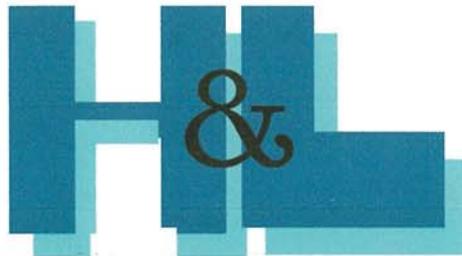
Project Location and Bridge Type Study

P.I. NO.: 0009640

FULTON COUNTY

December 2011

Prepared by



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SR 9/Chattahoochee River Bridge Pedestrian Improvements

1. INTRODUCTION

1.1 General

The Cities of Roswell and Sandy Springs are jointly sponsoring the design of a bridge for pedestrians and bicyclists across the Chattahoochee River at the existing SR9 bridge crossing. Existing pedestrian and cycling facilities on the existing SR9 bridge are minimal and not considered safe. The construction of the project will be paid for by a Federal set aside allocation of \$3 mm. Because of the Federal funding the project is subject to oversight review by GDOT and must meet all requirements of the National Environment Protection Act (NEPA).

The purpose of this document is to identify the criteria which must be met with the design and the constraints which condition possible design solutions. Public Opinion is a vital element for a successful project and initial public opinion comment is summarized and evaluated in the document. Options are developed for the bridge and associated tie in of the bridge ends to existing facilities. The options are priced and compared and recommendation for project development concludes the document.

The document will be used by Roswell DOT and Sandy Springs Public Works in selecting the “best” concept to be used in building the Project Concept Report which eventually becomes the document that identifies and specifies the layout and character of the final design.

1.2 Need and Purpose

The Need & Purpose of the project is to provide a safe pedestrian and bicycle crossing of the Chattahoochee River on the SR9 corridor. The need and purpose can be discussed under two major headings as follows:

1.2.1 Improve Safety and Operations

- Improve deficient bicycle and pedestrian facilities at SR9 over Chattahoochee River
- Provide safe separation of pedestrians and bicyclists from vehicular traffic

Separation of the cyclists and pedestrians from the road traffic on the SR 9 Bridge will encourage use of the facility. Safe operation of the mixed use facility itself is an important consideration. Safety extends to security and visibility, particularly at night. If the project requires pedestrians and bicyclists to cross SR9 at grade any crossing must be designed with safety in mind.

1.2.2 Increase Connectivity

- Encourage use of facility as a commuter alternative

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- Enhance linkage of trail systems and facilities

A well-conceived project would encourage the use of the project by commuters travelling to and from work and home destinations separated by the river, recreational bicyclists, and recreational walkers and joggers. Both Cities have been active in promoting the use of pedestrian and cycling facilities, combined with transit options, to provide mobility and recreational opportunity. The linkage provided by this project should strengthen these options. The connectivity offered by the new facility should provide increased mobility for pedestrians and bicyclists using the existing SR9 roadway and adjoining side roads north and south of the river. Increased recreational opportunity for users of the Riverwalk Trail is an important consideration.

The City of Roswell is in the initial planning and concept stage for a Gateway project that will reconstruct SR9 from the north end of the bridge, north to Roswell Square. This project may reconstruct the interchange of SR9 with Azalea Road/ Riverside Drive immediately at the bridge end. This project may include the addition of sidewalks, bicycle lanes on SR9, and a parallel off route trail with a trailhead located several hundred feet east of SR9 on Riverside Road. The likelihood is the SR9/Chattahoochee River Bridge project will be built first. A complexity of the project therefore is the interface of the new bridge facility with existing and possible future facilities.

Existing bicycle and pedestrian facilities on SR9 are not fully developed. There is existing sidewalk on the east side of SR9, immediately south of the river and on the west side several hundred feet further south. There is no sidewalk on SR9 north of the river. The Riverwalk recreational mixed use trail along the north river bank is grade separated from SR9 (the trail is located in a back span of the bridge).

1.3 Additional Opportunities

- **Aesthetics**

A well-proportioned, graceful bridge is appropriate for this beautiful and historic site and could provide a landmark “Gateway”.

- **Community Needs and Values**

The two Cities have instructed that Community needs and values be considered in the design as follows:

- Provide a ‘gateway’ treatment
 - Coordinate with designers of the “Historic Gateway Project”
 - Provide Pedestrian scale lighting
 - Provide Aesthetic treatments
- Apply sustainability best practices

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- Offer Environmentally Sensitive design

Public Involvement will be a vital element of the effort to the task of identifying, designing for, and satisfying such community values. Public Involvement is also a requirement of the NEPA process.

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2. LOCATION/PROJECT SETTING/HISTORICAL CONNECTION

The project is located in northern Metropolitan Atlanta, Georgia. The Chattahoochee River flows generally east to west and is the boundary between the Cities of Roswell to the north and Sandy Springs to the south.

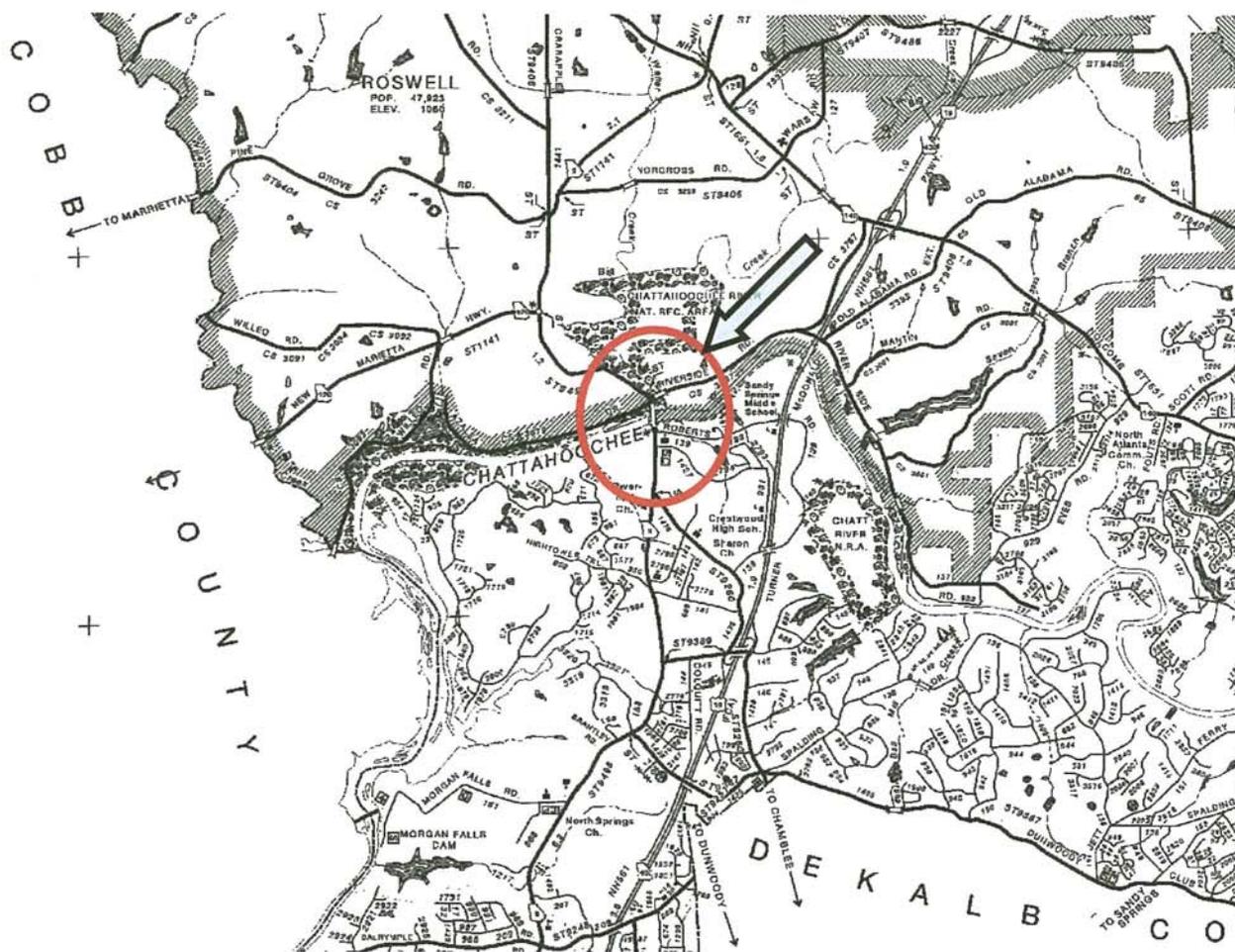
SR9 crosses the Chattahoochee at the apex of a large bend in the river, some 4.5 miles upstream of Morgan Falls Dam and immediately downstream of the confluence with Vickery Creek. The river is approximately 600' wide at normal water. The river bed consists of a layer of alluvial material which overlays partially weathered rock with hard rock beneath. The river is generally shallow across its width varying from zero to 8 feet at normal water with an average depth of about 4 feet.

On the north side, the river bank offers steep bluffs raised some 120 feet above the river. To the south the valley rises more gently from the river.

There is evidence of crossings of the river having occurred at this location throughout history. The historical connection of the site to the Civil War is noted on historical markers at the site indicating that the first bridge was built by John Lowery Wing during the 1850s. This original wooden covered bridge was later burned by a Confederate battalion leaving Roswell during the Civil War in the 1860s. A second wooden covered bridge, shown in the photo below, was built by Charles Dunwoody in 1869. The bridge was replaced in 1925 with an eight arch-span, two-lane concrete bridge and widened to four-lanes via a vintage pre-stressed concrete girder bridge in the 1970s. These bridge remain in service today.



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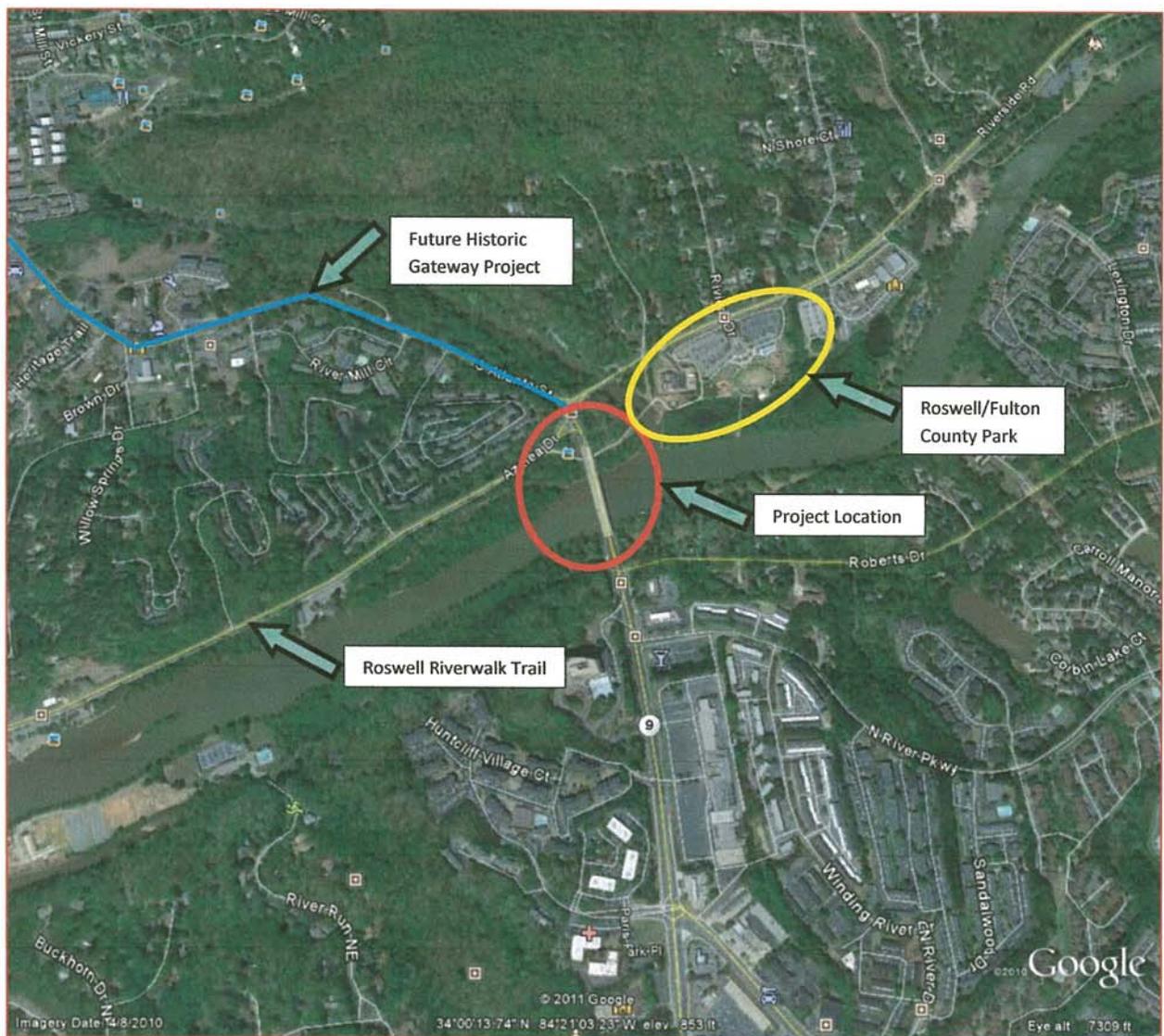
The site is an element of the Chattahoochee River National Recreational Area (CRNRA) which was established by congress in 1978 and signed into law by President Jimmy Carter. The combination of its scenic vistas, urban location, geologic features and biodiversity qualified the area to meet the strict standards of the National Park Service (NPS). The NPS is mandated to preserve and protect the CRNRA for this and future generations while providing a recreational area to a rapidly growing metropolitan area. The historic ruins of Ivy & Laurel Mills stand on the north side of the river immediately east quadrant of SR 9. The mills were famous for their Roswell Grey wool blend used for Confederate uniforms during the Civil War. The mills were burned in 1864 by Federal troops but were rebuilt by James Roswell King after the conclusion of the war. The Chattahoochee River National Recreational Area provides outdoor recreation such as hiking, fishing and camping. Access to the Chattahoochee River is provided for boating, rowing, swimming, etc.

SR9 is a south to north roadway that is classified as an urban principal arterial with a 2010 ADT of 34,150 VPD and 10 % trucks according the Georgia Department of Transportation. SR9 currently operates as a four lane roadway over the bridge with narrow lanes and no allowance for bicycle lanes or sidewalks. Immediately north of the bridge SR9 intersects with Azalea

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Drive/Riverside Road. These roads run parallel to the river along the north bank below the bluffs. To the south Roberts Drive intersects SR9 approximately 250 feet south of the bridge end. Roberts drive runs generally easterly, parallel to the river and gently climbing the valley side.

SR 9 serves as the primary local connection between Roberts Dr. and the business district south of the river and the local roads including Azalea Dr. and Riverside Rd. on the north side of the river and is also user by travelers seeking alternate routes of regional trips between I285 and Sandy Springs and Roswell and SR92. The Roswell Riverwalk Trail System is located parallel to Azalea Dr and Riverside Rd. on the north side of the river and connects to the Roswell/Fulton County Park.



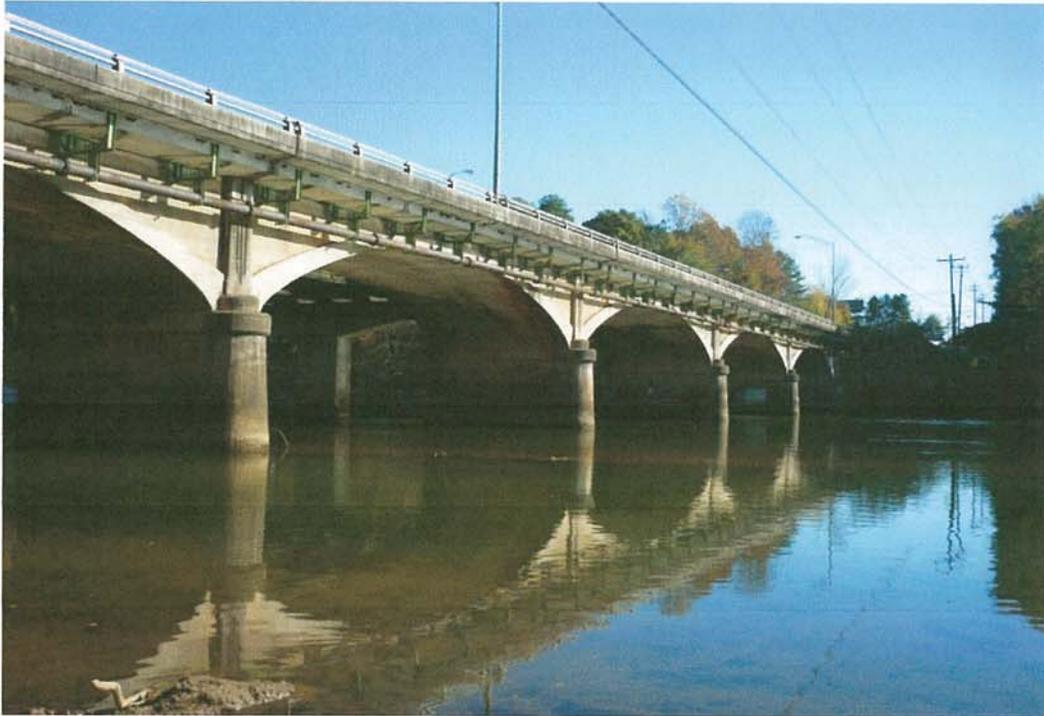
SR 9/Chattahoochee River Bridge Pedestrian Improvements

Currently, pedestrians and cyclists must use the existing SR 9 highway bridge to cross the river. This crossing is dangerous and unwelcoming for such use and “only the brave” venture across. The bridge consists of two parallel structures separated by a narrow open joint at the center of the narrow raised median. The western half of the bridge carries the two south bound lanes on the 1926 vintage multi-span concrete arch bridge, and the eastern half carries the two north bound lanes on the 1970’s vintage pre-stressed concrete girder bridge.



Aerial view of Existing SR 9 bridges

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Existing 1926 arch bridge viewed on the west side of SR 9

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3. CONSTRAINTS

There are numerous constraints that condition the potential solutions for the project. In this section we enumerate and discuss each constraint. Later in Section 6 & 7 we weigh options in terms of their suitability to meet or mitigate the constraints.

3.1 Budget

The total budget for this project has been set at approximately \$3.5 million which includes right-of-way and easement acquisition (\approx 3.0 million designated for construction). The project cost considered in the analysis is initial cost which includes design cost, right-of-way cost, utility cost, and construction. Life cycle costing is considered separately as an element of sustainability.

3.2 Design Code and Criteria

The applicable codes that must be followed with respect to this design are:

- o AASHTO Guide for the Development of Bicycle Facilities
- o LRFD Guide Specification for design of Pedestrian Bridges, 2nd Edition
- o AASHTO LRFD Bridge Design Specifications, 5th Edition, with 2010 Interim Revisions
- o MUTCD
- o GDOT Pedestrian and Streetscape 2003
- o AASHTO A Policy on Geometric Design of Highways and Streets (The “Green Book”) 6th Edition.

The major controlling criteria taken from these documents are summarized in the table.

Major Controlling Design Criteria

Path Width	10' minimum
Shoulders Width	1' minimum 2' desirable
Design Speed	20 mph (typical for cyclists).
Minimum Horizontal Radius	90' (at 2% superelevation and 20° Lean angle) – from Table 1 and 2 of “Guide for the Development of Bicycle Facilities
Grade	5-6% max (for lengths of 800 ft.) 7% max (for lengths of 400 ft.) 8% max (for lengths of 300 ft.) 9% max (for lengths of 200 ft.) 10% max (for lengths of 100 ft.) 11% max (for lengths of 50 ft.) (consider a wider trail when specifying very steep grade)

Sight Distance - per figure 19 of Guide for the Development of Bicycle Facilities

Live Load on Bridge 85 psf

Maintenance Vehicle on bridge 5000 pounds

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Wind Loads on Bridge 50 psf

3.3 Public Opinion

Consideration and satisfaction of Public Opinion is a vital component of the project. Summaries of the stakeholder meetings are included in Appendix J. The public favors a pedestrian bridge located east of SR9. In addition, there were several comments that favored wide rest/overlook areas and covered bridge sections located on approaches to the bridge that resemble the original covered bridge that was located near the project site.

3.4 Environmental

This project is funded with Federal money and a NEPA document will be required to secure approval. The National Park Service has reviewed the initial project scope and has indicated that an Environmental Assessment (EA) is appropriate for the project.

3.4.1 Ecology

Vickery Creek is located approximately 400 feet east of the existing bridge on the north bank. A stream entering the river from the south immediately east of SR9 has been documented by Edwards Pittman Environmental Inc. During project development an aquatic survey for the gulf moccasin shell and shiny-rayed pocketbook would be required. It is highly unlikely that these will be found. It is likely that two state protected (Bluestripe shiner and Highscale shiner) fish and the Chattahoochee crayfish occur within the project area. It is also likely that Barn Swallows nest on the existing bridge and migrating bird protection during construction may be required. Protection of endangered species is unlikely to add significantly to project requirements.

3.4.2 History

There is one house located in the southeast quadrant that dates to 1963. As noted earlier, the remains of the Ivy & Laurel Mills ruins in the northeast quadrant of the project will complicate any project with a bridge sited upstream of existing bridge. Any pedestrian/bicycle facility must avoid adverse impacts on the Ivy & Laurel Mills ruins site. There appears to be no other history issues within the likely Area of Potential Effect (APE) of the project.

3.4.3 Archaeology

Any areas that cross either National Park Service (NPS) or Corps of Engineers property would require an Archaeological Resources Protection Act (ARPA) permit. The nature of the site as a natural river crossing is a good indication that a long history of use should be anticipated. Indeed a large, multicomponent prehistoric site (9FU4) is located in the vicinity of the former Ivy Woolen Mill. This large prehistoric village was recorded by Robert Wauchope during his large-scale survey of Georgia archaeological resources during the 1930s-50s. Two other nearby sites are recorded. Based on the historical

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association of the bridge and our understanding of prehistoric resource exploitation and habitation patterns, it is likely that unidentified sites are located in this area.

More recently the area has supported some type of bridge structure since 1839 when mills were first established in the area by Roswell King. Of particular concern are archaeological resources associated with 1864 Confederate defense of, and eventual Federal occupation of, the area around the bridge. Any areas on either side of the bridge or either side of the river that have not been extensively modified by modern development may yield archaeological evidence of these activities. A high degree of sensitivity is appropriate for the presumed resources in the area.

3.5 Navigation

The NPS has jurisdiction over the river and the project site. Theoretically a Coast Guard Section 10 permit will be required as the river is deemed “navigable”. GADOT has redefined the upstream limit of navigation on the Chattahoochee to be at West Point Reservoir, so consultation with the coastguard will be a formality and the permit will likely be waived.

3.6 Utilities

The existing utilities carried on the outside fascia of both bridges and sewer lines located on both shores will impact existing bridge widening at considerable cost. The overhead power lines on the west side of the existing bridge complicates matters as well. A pedestrian/bicycle bridge on the west side of the existing bridge must be located well downstream of the power lines.

- Bell South – conduits on existing bridge
- Comcast – conduits on existing bridge
- Fulton County – sewer lines north and south
- Georgia Power – overhead power
- Atlanta Gas Light – Gas lines north side

3.7 Existing Bridges

The twin bridges were built in 1926 and 1970 respectively and although they are reported in good condition, (Sufficiency rating of 77.50 according to the GDOT Bridge Inventory Data Sheet) their age would indicate their need for replacement in the mid-term future.

The existing 1926 is a concrete arch structure with 70-ft± spans. Appendix A contains a plan and elevation of this bridge. The overall length of this bridge is 623'-6”.

The existing 1970 bridge was constructed parallel to the 1926 arch and consists of 70-ft± spans. Again, a plan and elevation of this bridge is in Appendix A. The overall length of this bridge is also 623'-6”.

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3.8 Future Projects

The proposed Gateway project along SR9 at the north end of the bridge is in the planning and concept development phase. The Historic Gateway Project proposes to make multimodal transportation and safety improvements along the Atlanta Street corridor that include the removal of the outdated and unsafe reversible lane system beginning at the north end of the bridge over the Chattahoochee. A secondary goal is to improve operations and safety at the intersection of Atlanta Street and Riverside Road/Azalea Drive.

This proposed project will examine a multitude of solutions, and through an extensive public outreach and involvement process, develop a solution that best meets the needs of community residents, businesses, and commuters who rely on quality transportation services in the Atlanta Street corridor. The project will seek context sensitive solutions (CSS) that integrate and balance community, aesthetic, historic and environmental values with transportation safety and efficient performance goals.

Designing the pedestrian bridge in consideration of the proposed Historic Gateway Project should be considered.

3.9 River Hydraulics

The new structure must be designed for appropriate bridge hydraulic considerations and should be high enough to clear flood flows. A current Flood Insurance Study (FIS) was completed and approved for this location, effective June 18, 2010. The Chattahoochee River is a regulated floodway at this location. The floodway width is 896' at 900' upstream of the bridge narrowing to 608' at the existing SR9 bridge crossing. Immediately upstream of the bridge is the confluence of Vickery Creek.

Morgan Falls Dam is about 4 ¾ miles downstream from the project site. Backwater from Morgan Falls Dam has no impact on the project site. The water surface elevation at the project site is normally about 853', approximately 866.7' during the 100-year event and 869' in the 500 year event.

The SR9 bridge deck sits at elevation 879±. The new bridge must clear the 100 year storm with a 2' freeboard and clear the 500 year storm. Also, the proposed pedestrian bridge piers will be located to match the existing SR 9 bridge piers. This will help in the demonstration of a "no-rise" condition in the hydraulic analysis. We believe all this is readily achievable. The soffit of the low beams should be no lower than 869' to provide the necessary freeboard.

3.10 Sustainability

Sustainability must be considered in the design. One sustainability consideration is to separate the new pedestrian bridge from the existing SR9 bridges. Setting the new pedestrian bridge sufficiently offset in plan from the existing would allow demolition and reconstruction of the SR9 bridges to be independent of the pedestrian structure.

A prudent choice of construction materials will reduce energy costs associated with production of construction materials and thereby reduce the carbon footprint of the built project.

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Recycled construction materials should be specified, where appropriate. Landscaping should include native species that do not require irrigation. Storm water should be responsibly managed. Local products should be given preference in order to minimize transportation cost and fuel consumption during construction. Pedestrian scale lighting should be designed to be energy efficient, reduce glare and not cause night time driver safety problems.

Good sustainable design should consider life cycle costs. The selection of durable, low maintenance construction materials will ensure a long life and low cost structure life. Unpainted pre-stressed concrete is an obvious example of an efficient and durable construction product.

3.11 Coordination with Others

Georgia DOT and the National Park Service are the primary agencies that require close coordination. The project must also be coordinated with other projects at SR 9 including the Roswell Historic Gateway Project. Coordination with utility companies affected by the project is required as well. These include Georgia Power and Fulton County Water & Sewer Department. Other stakeholders involved are as follows

- City of Roswell
- City of Sandy Springs
- Atlanta Rowing Club
- Corp. of Engineers
- EPD
- US Fish and Wildlife
- SHPO
- HUB Properties
- Roswell Parks & Recreation Department
- Cycling groups

3.12 Other Projects

The Gateway project has been described in Section 3.8

3.13 Geotechnical

An initial investigation of geotechnical conditions at the site has been made by United Consulting group (Appendix K). A site inspection shows rock exposed at the river surface overlaid with a layer of alluvial soil. The blueprints for the existing SR9 bridge shows that the design assumed spread foundations on rock at the river bed elevation with an allowed bearing pressure of 10 ksf. The initial Geotechnical Report recommends 10ksf allowable bearing on partially weathered rock (PWR) and 20 ksf bearing on hard rock that lies below the PWR. Our cost comparisons assume bearing on PWR.

3.14 Aesthetics

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The chosen solution must be aesthetically pleasing. Elements of landscaping and lighting are important in this consideration.

3.16 Existing Sidewalk/Trail Tie-In

The Riverwalk trail, future Roswell Greenway, and future Roswell Gateway pedestrian facilities are destinations on the north side of the proposed pedestrian bridge. Obviously, accommodating future tie-ins is not possible. However, as these projects evolve, we will continue to coordinate with the designer and refine our northern project tie-in.

On the south side of the proposed pedestrian bridge, sidewalk located on the east side at the existing SR 9 bridge extending south. Sidewalk is located several hundred feet south of the project terminus on the west side of SR 9. The City of Sandy Springs has a vision to provide pedestrian access on Roberts Drive from SR 9 to the Island Ford National Park.

4. LOCATION OF THE BRIDGE

The bridge could be placed to either east or west of the existing bridge at a variety of offsets.

Some consideration for bridge location (east or west) and offset are as follows.

Building the new bridge attached to or immediately adjacent to the existing shoulder should not be considered because.

- The 1920's bridge (arch) does not lend itself to widening because of the unique nature of the structure
- The 1960's bridge could be widened but a 12' ± widening would require an independent substructure – there would be no advantage to widening.
- The ages of the existing bridges indicate that they will be scheduled for replacement many years before the pedestrian bridge.
- Utilities carried on the fascia of the existing bridges would have to be relocated if widening was recommended. This utility relocation would represent an unnecessary cost burden to the project.

With widening eliminated then the minimum offset to the east is controlled by the desire to separate the new from the existing to allow for unimpeded construction and for future demolition of the existing bridges to take place without impacting the pedestrian bridge. We suggest a 10' offset minimum.

On the west side of the bridge the overhead power line adds an additional constraint. Permanent bridge construction should not be placed immediately under the lines (allow, say, 15' offset either side of the lines.) Building a bridge between the power line and the existing bridge would require avoidable extra cost burden due to the need for safe construction operations (crane boom

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operation) close to the power lines. Bridge offsets to the west should be “outside” of the power line safe zone.

Figures 1 and 2 captures the viable locations for bridges set east or west.

The profile of the bridge will vary based upon the offset from the existing bridge. For offsets close to the existing bridge it will be important for the bridge to be set relatively high (at or close to existing deck elevation) so that a view shed is established over the top of the bridge. Walking or cycling on an elevation immediately below the bridge deck elevation would offer an unacceptable experience and concern for safety. As the offset increases these concerns reduce and the bridge profile could be lowered. The low profile is set by the need to clear the 100 year flood as discussed in the constraints section of this report.

Figure 3 details the profile issues.

There are further constraints to bridge location. These are illustrated in figure 1.

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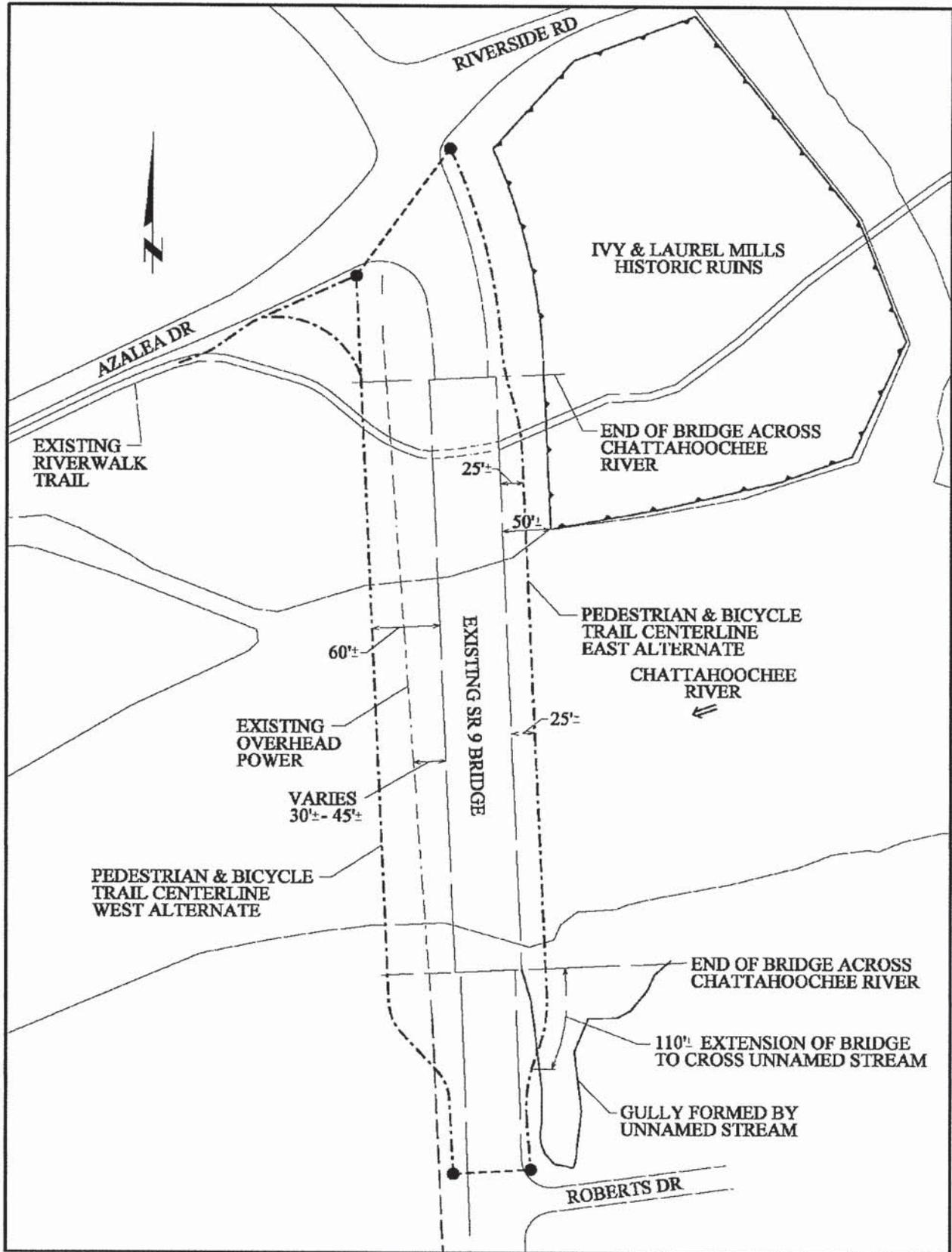


Figure 1

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On the east side the gully that enters from the south has been characterized as a perennial stream by Edwards Pittman Environmental Inc. In that case our project must bridge over the water of the creek. This will lengthen any bridge options on the east side by approximately 110 feet as shown on the figure.

On the east side of the historic property to the north offers an offset constraint to the location of the trail. The trail must be squeezed between the property and the existing roadway. In order to maintain a desirable straight alignment for the bridge we recommend setting any bridge built to the east side at the 25 foot offset shown on the figure.

The trail must connect back to tie in to existing facilities. As discussed in the constraints section there are limited facilities currently built and the plans for the Gateway project are not fully developed. Any work considered for the tie in at the north end of the project could be impacted by the plans later developed for the Gateway project. Ultimately the City of Roswell may desire to connect to the planned new trailhead for the Gateway trail on the west bank of Vickery Creek. Ultimately it may be most desirable to connect to a future trail built on Roberts Drive.

Whichever side (east or west) the trail is built it will be necessary to provide a safe crossing over SR9 to the opposite so that bicyclists can continue their journey in the appropriate travel lane on the roadway. For the purpose of this report therefore we have assumed the origin and destination points shown on the figure. All options would be provided with a crossing at the north end of the bridge controlled by the traffic signal and a crossing at Roberts Drive controlled by a new signal (possibly a "Hawk" beacon.) It should be recognized that the installation of a signal at Roberts Drive may not be favored by GDOT – but a crossing must be provided somewhere on SR9 south of the bridge. Our pricing analysis assumes a new crossing at Roberts drive with a new signal and includes for the cost of tying each option at grade back to the origin and destination points.

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5. CONSTRUCTABILITY

Irrespective of the bridge type the construction contractor will have to access the river to build bridge piers and potentially to pick and place beams, and set falsework etc.

It is possible that he could use the existing bridge to position cranes for placing beams using short (overnight?) possessions but GDOT would be very circumspect of the need for this and may not allow it. Give the volume of traffic on SR9 potential possession of part of the bridge for construction equipment would not be allowed. Construction of the piers would have to be "from the water" and we have therefore assumed that beam placement would be from the water too.

Crane Operations from the water would be typically from cranes on floating barges. We do not believe that there is sufficient depth of water to assume floating equipment and therefore a work bridge or walk jetty should be considered with the base pricing assumptions.

A work bridge trestle could be built low to the water above, say, the 2 year storm and would require multiple foundation piles or piers. Typically multiple pile are chosen for work trestles but for this site, with rock at the surface, piles could only work if placed in pre drilled holes and concreted in place. This is not a sensible choice. We think that rock jetties, built with multiple culvert pipes to maintain river flow offer the most likely solution here. This would require environmental approval but we believe this is feasible.

The rock jetties would not extend across the river but could be built as jetties out to the piers. This favors the longer span solution where the length of the rock jetties is reduced. Our pricing therefore assumes rock jetties as necessary to access all piers.

The pier foundations will most likely be spread footings on rock. This will require the construction of cofferdam in the shallow water. Construction of conventional steel sheet pile cofferdams is complex on rock. There are options available for renting portable fabric cofferdams that would be ideal for this situation.

Our pricing includes an allowance for cofferdam at all water piers of the bridges. Again this favors the longer span options.

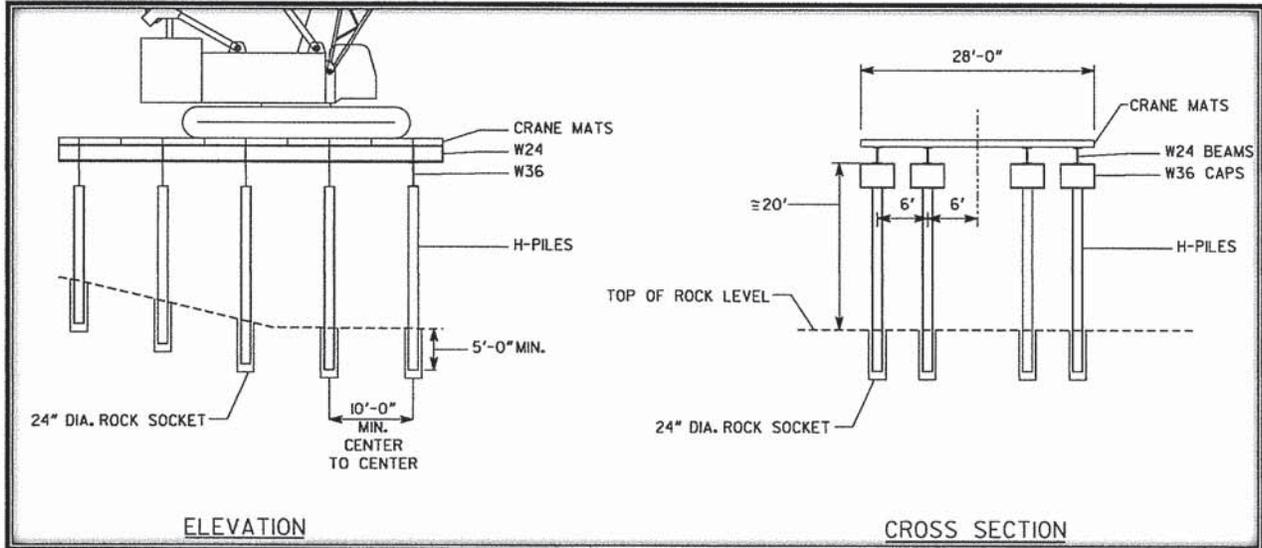
Detailed discussion of the options for work bridges and cofferdams follow.

SR 9/Chattahoochee River Bridge Pedestrian Improvements

5.1 Work Bridge Details

5.1.1 Schematic

5.1



5.1.2 Construction Sequence

Top-down construction method must be used to minimize impact to the river bed. The drill rig will utilize previously completed spans to reach ahead and drill new shafts, drop casing and piles, and pour concrete in shaft, install pile caps, install beams and braces and place crane mats. Advanced crane to new span and repeat procedure until bridge is completed. A span can be completed approximately every two days.

5.1.3 Removal

Crane placed on back span, remove mats, beams and braces, remove piles using divers to cut off at bottom of river elevation. A span can be removed approximately every day, subject to water conditions permitting diver access.

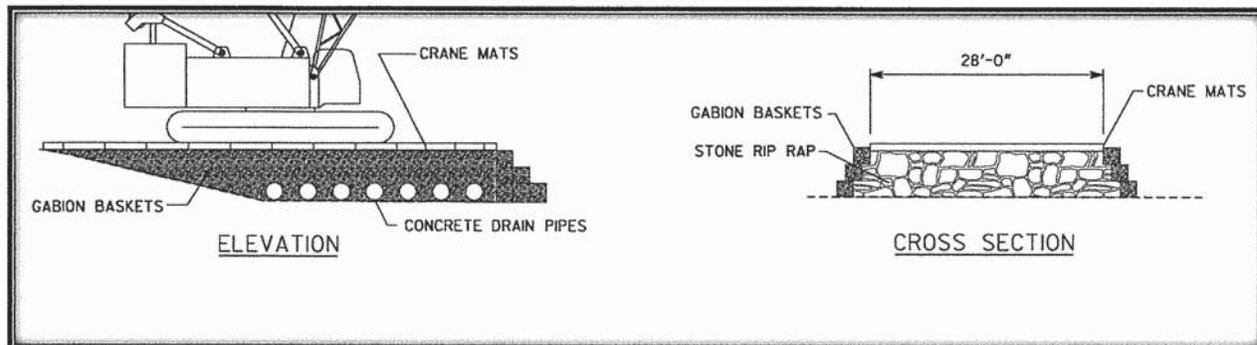
5.1.4 Cost Assumptions

The work bridge is designed to handle a large enough crane for all construction activities at a minimum 65,000 lbs pick at 70 ft. Cost of steel structure reflects a 30% salvage value reduction and removal costs. Cost is approximately between \$2600 - \$3000 per linear foot of work bridge.

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5.2 Rock Jetty Details

5.2.2 Schematic



5.2.3 Construction Sequence

The material for the rip rap will be specified as Type 1 stone rip rap in accordance to GDOT specification. The rip rap material placed below the river water elevation at the time of installation can be placed in small sections to minimize disturbance. Once the rip rap material is in the dry, it can be dumped in place. Intermittent concrete cross pipe will be placed to help convey the flow intersected by the jetties. Stone filled gabion baskets will then be placed to confine the stone rip rap. Once the desired elevation is obtained, crane mats will be placed on top of the jetty. This work is anticipated to take 1 week to perform.

5.2.4 Removal

Once demolition activities for the main spans of the existing bridge are completed, the rock jetties will be removed. The crane mats will be removed. The rip rap will be removed using excavators or clam buckets. The gabion baskets will then be removed. The work is anticipated to take 1 week to perform.

5.2.5 Permeability

Rock jetties will consist of Type 1 rip rap and will have a gradation of 100% passing 4.2 cubic feet (700 pounds), 50%-90% passing 1.8 cubic feet (300 pounds) and none passing 0.8 cubic feet (125 pounds). The large stones and poor gradation will provide inherently permeable jetty structures. The permeability of the rip rap will be supplemented with pipes to maintain flows and velocities very near the existing flows and velocities during low flows, and well within the ranges of the natural flow and velocity variations.

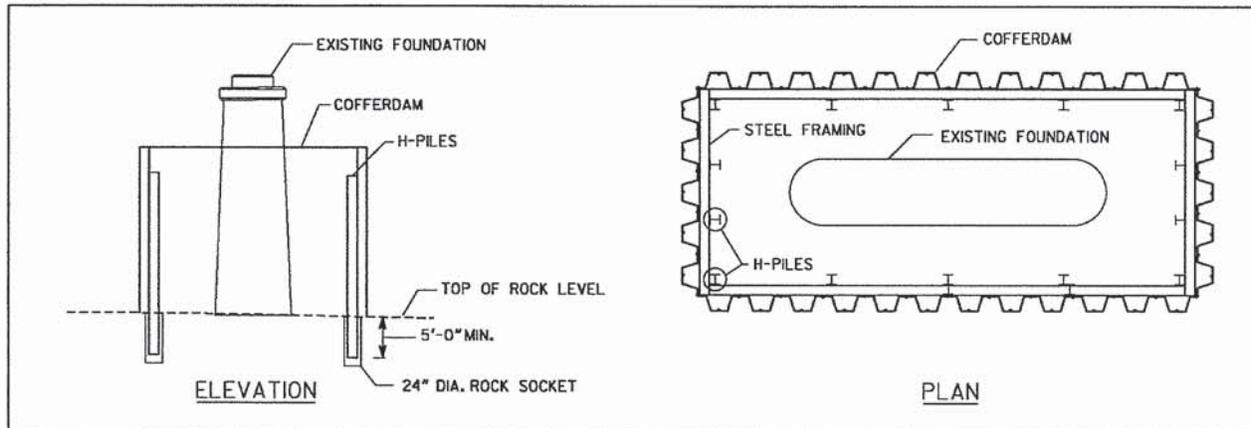
5.2.6 Cost Assumptions

The placement and removal of the stone rip rap and gabion baskets is approximately \$70/cy including the cost of the filter fabric material. The cost for the concrete cross drain pipes is estimated at approximately \$100/ft. The cost for removal of the jetty is estimated at \$10/cy of

SR 9/Chattahoochee River Bridge Pedestrian Improvements

jetty. On this basis the rock jetty costs are estimated at \$1200 per linear foot of jetty. Our pricing assumes rock jetties of appropriate length for each bridge option considered.

5.3 Conventional Steel Sheet Pile Cofferdams



5.3.1 Construction Method

A drill rig will be used to socket in 16 supporting piles. Once this is done, a steel sheet pile is built to provide a work zone around the proposed foundation.

5.3.2 Removal

Once the existing foundations are removed from the river, a crane will remove the sheet piling from around the cofferdam. Then the piles will be removed using divers to cut the piles at the riverbed elevation.

5.3.3 Cost Assumptions

We estimate the cost of each "conventional" cofferdam at \$125,000 per each for installation and removal and assuming a 30% salvage value reduction.

5.4 Portable Fabric Cofferdam

Steel framed fabric cofferdams are available for rent and adjust well to variable depth rock grade, work in waters of up to 10 feet in depth and can be installed in flowing water. We estimate the cost of such a method at \$40,000 per each and have used this number in estimating construction cost for each bridge option.

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6. "SPECIAL STRUCTURE" OPTIONS – SCREENING LEVEL

Three "special structure" pedestrian bridge alternates were initially considered:

- Cable Stay Bridge
- Suspension Bridge
- Stress Ribbon Bridge

The cost of the Cable Stay and Suspension bridge options were eliminated because the estimated cost of each is estimated at \$4 mm (\$500/square foot) not including the cost of approach trail, which is well excess of the \$3 mm project budget.

The cost of the Stress Ribbon bridge \$3 mm (\$375/square foot), again not including the cost of approach trail. However, because the initial cost is close to the project budget this option will be studied in greater detail, as outlined below.

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7. BRIDGE OPTIONS

7.1 Introduction

Following are descriptions of the viable bridge types that meet the project budget constraints:

- Stress Ribbon – This is not a “standard” or “usual” bridge type and would require a contractor with specialized skill and equipment. This structure type will yield high initial cost with reasonable maintenance cost due to durability precast, pre-stressed concrete superstructure segments and encasement of steel suspension cables in grout filled ducts. 210-ft spans are used for this cost estimate, which are reasonable for this type structure. Finally, we note that the longitudinal stream at the southeast side of the existing bridge will complicate the anchorage of the two main support cables for the proposed east side location. This is not an issue for the proposed west side location.
- Pre-Fabricated Steel Truss – This is a “standard” type pedestrian bridge. It will yield a low initial cost structure with low maintenance cost and moderate durability assuming weathering type steel that does not require painting. There is a large field of contractors qualified to construct this type bridge. Pre-fabricated steel truss structures are economical in the 70-ft to 140-ft span range required for this project.
- Pre-Stressed Concrete Girder – Again a “standard” bridge type for both road and pedestrian bridge construction. This type bridge offers both low initial and maintenance costs and there is a large pool of contractors qualified to build this type structure. A drawback of this type bridge is poor visual aesthetics, although this is subjective. Type 2 AASHTO girders at 70-ft ± spans and 54” Bulb Tee AASHTO girders at 140-ft ± spans are compared below.
- Post-Tensioned Arch Beam – This option offers the advantage of mimicking the arched look on the west side of the existing SR 9 bridge. This bridge type yields low initial and low maintenance costs similar to the Pre-Stressed Concrete Girder option described above. We judge this structure more aesthetically pleasing compared the Pre-Fabricated Steel Truss or AASHTO girder options. 70-ft spans are used for estimating the cost of this structure.

7.2 Bridge Geometry

A 625-ft, 13-ft wide (12’-0” clear between handrails) is use to compare the cost of the three options. The cost of approach trail for east and west side locations will be added to the selected bridge type cost to determine overall project cost.

7.2.1 Typical Section

The minimum width for recreation trails and shared use paths per GDOT’s *Pedestrian & Streetscape Guide* is 10’-0 with 12’ desirable. A total width of 13’ out to out is used assuming 6” each side for handrail and attachment.

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7.2.2 Profile

It is assumed that the bridge deck of the pedestrian bridge will closely match the elevation the existing SR 9 bridge.

7.3 Approach Spans

The bridge must cross the Riverwalk trail on the north shore and, if the bridge is situated in the east side of SR9, it must span a stream on the southeast sine of SR 9.

7.4 Bridge Options

Following are descriptions of the bridge type options that are compared:

7.4.1 Option 1 – Stress Ribbon (210' Max. Span)

The span layout, articulation, and typical section for the proposed bridge are shown in Appendix D. The span layout is dictated by the location of every third existing SR 9 bridge bent locations. Wall type piers are proposed for the proposed bridge. For this option, two piers must be constructed in the river with two piers located on the banks to either side of the river. The center of each span will be specially designed to accommodate a wide rest/overlook area. The abutments are deep with parallel wing walls extending back to grade on the south and north ends.

Construction of spread footings in the river requires river access (i.e, rock jetties) cofferdams to create a dry work environment.

Appendix D contains the concept level design and costs.

7.4.2 Option 2 – Pre-Fabricated Steel Truss (140' Max. Span)

The span layout and typical section for the proposed bridge are shown in Appendix E. The span layout assumes that the bridge piers in the river channel match the location of every other piers of the existing SR 9 bridge. Again, wall type piers are proposed. For this option, three piers must be constructed in the river with two piers located on the banks to either side of the river. The pier located near the center of the river must be specially designed pier to accommodate a wide rest/overlook area. The abutments are deep with parallel wing walls extending back to grade on the south and north ends.

Construction of this bridge is requires the need to pick and place long trusses over the river. This will likely require a large crawler crane (total pick \approx 157,000 lbs.) on a rock jetty.

Construction of spread footings in the river requires cofferdams to create a dry work environment accessed from a rock jetty.

Appendix E contains the concept level design and costs.

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7.4.3 Option 3 – Pre-Fabricated Steel Truss (70'± Max. Span)

The span layout and typical section for the proposed bridge are shown in Appendix F.

The span layout assumes that the bridge piers in the river channel match the location of existing SR 9 bridge bents. For this option, five wall type piers must be constructed in the river with two piers located on the banks to either side of the river. The pier located near the center of the river must be specially designed pier to accommodate a wide rest/overlook area. The abutments are deep with parallel wing walls extending back to grade on the south and north ends.

Construction of this bridge is requires a 79,000 lb.± to pick and place trusses with a crane located on a rock jetty.

Construction of spread footings in the river requires cofferdams.

Appendix F contains the concept level design and costs.

7.4.4 Option 4 – Type 2 AASHTO Girders (70'± Max. Span)

The span layout and typical section for the proposed bridge are shown in Appendix G. Similar to the truss option described above, the wall type piers will match existing SR9 bridge bent locations with five piers located in river.

Construction of this bridge requires a 27,000± lb. pick to place beams with a crane located on a rock jetty.

Construction of spread footings in the river requires cofferdams.

Appendix G contains the concept level design costs.

7.4.5 Option 5 – 54" Bulb Tee AASHTO Girders (140'± Max Span)

The span layout and typical section for the proposed bridge are shown in Appendix H. The span layout assumes that wall type bridge piers are located at every other SR 9 bridge bent. For this option, three wall type piers must be constructed in the river with two piers located on the banks to either side of the river. The abutments are deep with parallel wing walls extending back to grade on the south and north ends.

Construction of this bridge requires a 96,000± lb. pick to place beams with a crane located on a rock jetty.

Again, construction of spread footings in the river requires cofferdams.

Appendix H contains the concept level design and costs.

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7.4.6 Option 6 – Post-Tensioned Arch Beam (70'± Max. Span)

The span layout and typical section for the proposed bridge are shown in Appendix I. Pier locations and abutment types are similar to Option 3. The abutments are deep with parallel wing walls extending back to grade on the south and north ends.

Construction of this bridge requires a 83,000± lb. pick with a crane located on a rock jetty.

Construction of spread footings in the river requires cofferdams.

Appendix I contains the concept level design costs.

7.5 Comparison Matrix of Options

Constraint	Stress Ribbon (210' Spans)	Pre-Fabricated Steel Truss (140' Spans)	Pre-Fabricated Steel Truss (70' Spans)
Cost *	\$2.6 million	\$2.2 million	\$2.6 million
Maximize Durability	√	√	√
Minimize Environmental Impacts			
Ecology	√	√	
Public	√	√	√
Aesthetics	√		
Maximize Constructability			
River Const.	√	√	√

Constraint	Type 2 AASHTO Girder (70' Spans)	54" Bulb Tee AASHTO Girder (140' Spans)	Post-Tensioned Arch Beam (70' Spans)
Cost *	\$2.0 million	\$1.6 million	\$2.1 million
Maximize Durability	√	√	√
Minimize Environmental Impacts			
Ecology		√	
Public	√	√	√
Aesthetics			√
Maximize Constructability			
River Const.	√	√	√

* Costs are bridge structure only for comparison purposes and do not represent total project cost.

√ Respects the constraint

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8.0 RECOMMENDATION

Based on both cost and aesthetics we recommend the Post-Tensioned Arch Beam option. Its low initial and low maintenance costs construction type, and aesthetics make it the ideal option for this project.

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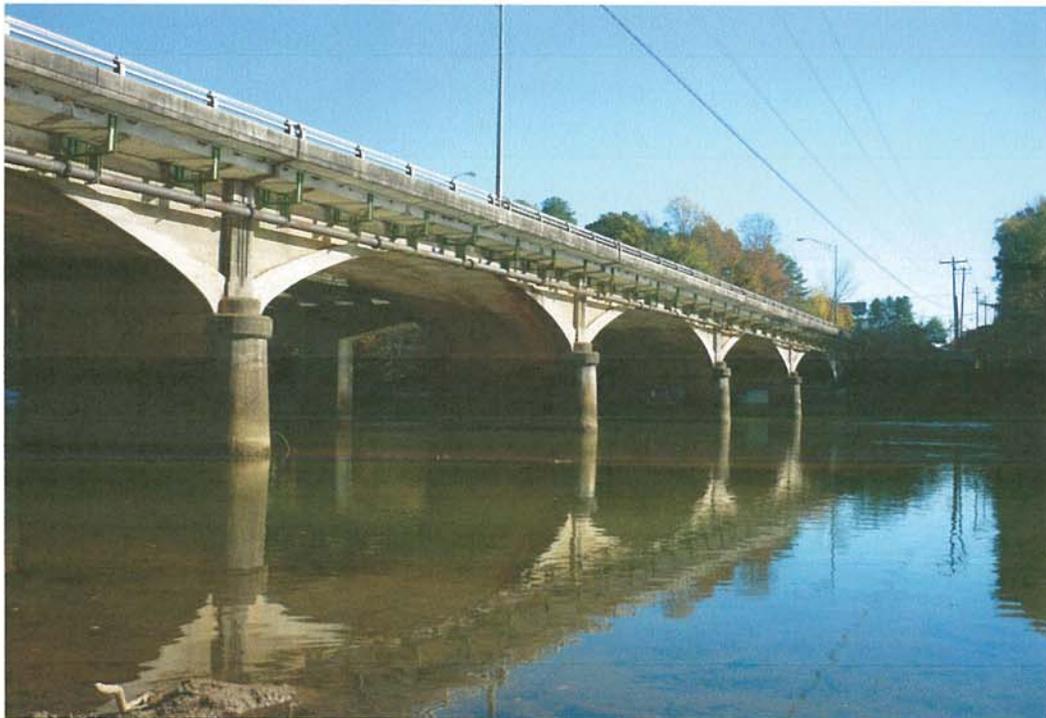
APPENDIX A

**Photos, Existing Bridge Plans and Bridge
Inventory Report**

SR 9/Chattahoochee River Bridge Pedestrian Improvements



Existing SR 9 bridge viewed from the top of deck



Existing SR 9 bridges viewed from the east looking west

SR 9/Chattahoochee River Bridge Pedestrian Improvements



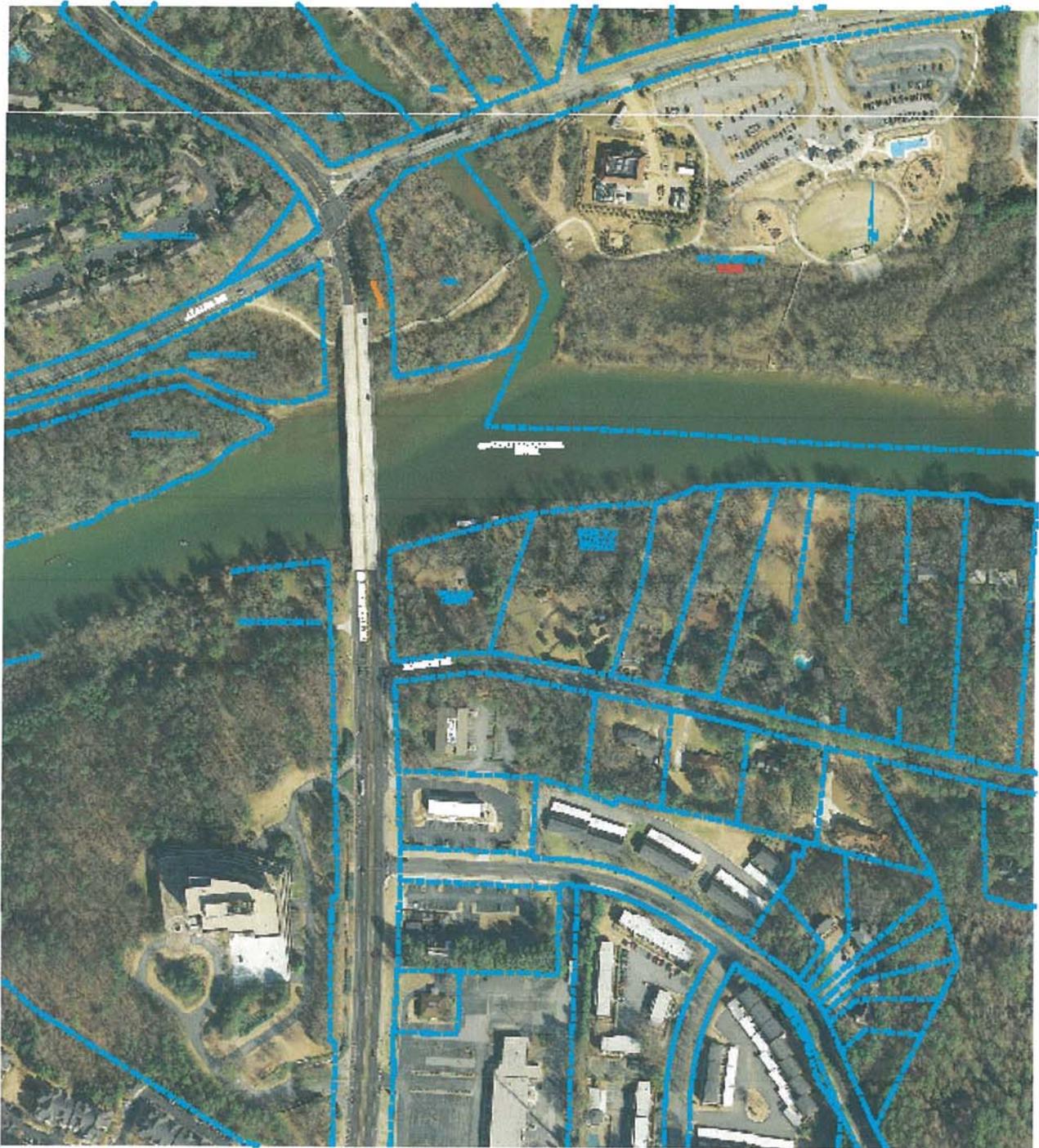
Existing SR 9 bridges viewed from underneath looking south

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APPENDIX B

Property Map

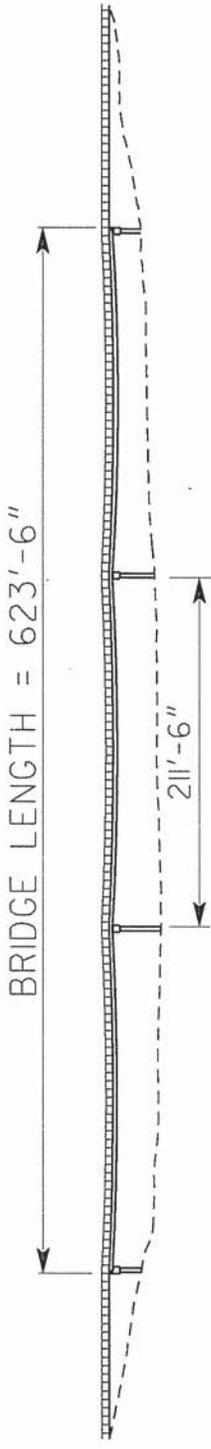
SR 9/Chattahoochee River Bridge Pedestrian Improvements

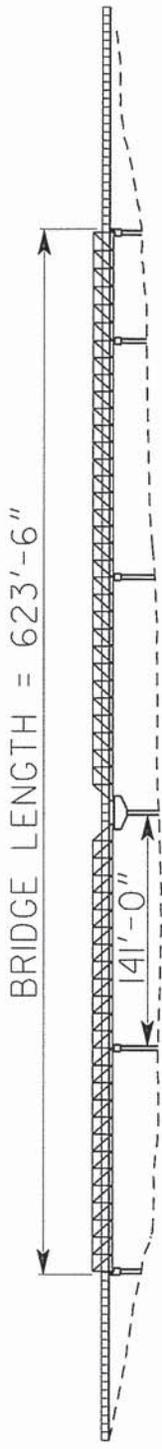


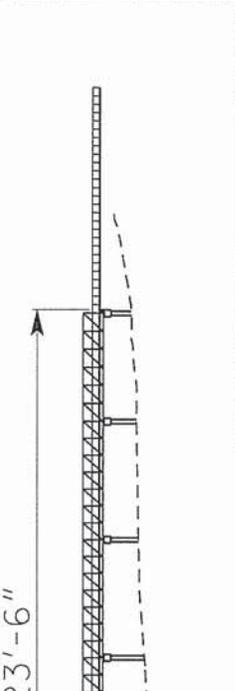
SR 9/Chattahoochee River Bridge Pedestrian Improvements

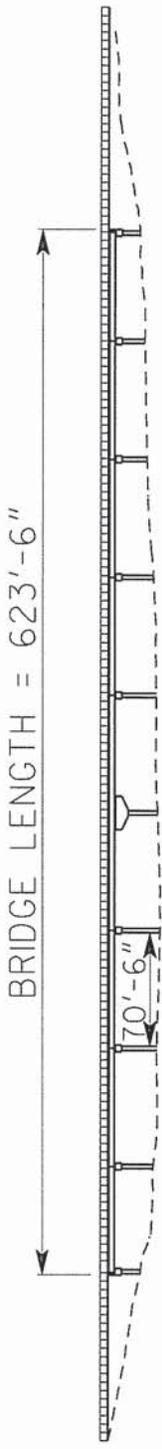
APPENDIX C

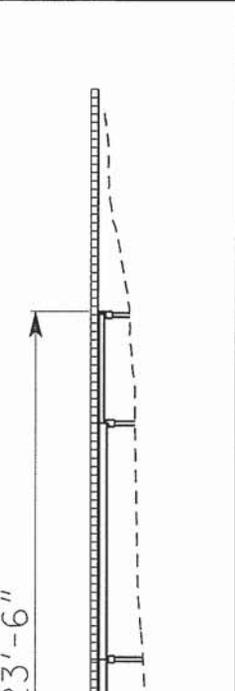
Screening Studies

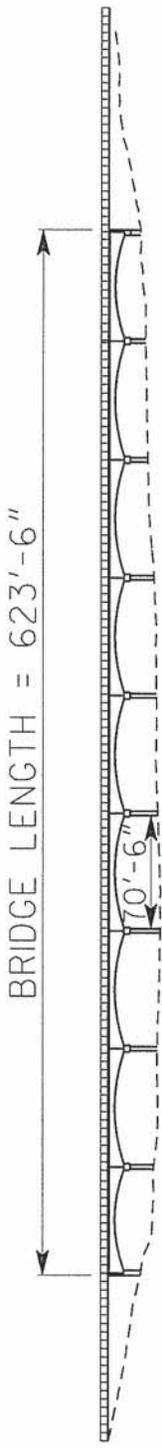
BRIDGE TYPE	STRESS RIBBON
AESTHETICS	 <p>BRIDGE LENGTH = 623'-6"</p> <p>21'-6"</p>
COST	APPROX. \$2.6 MILLION
ENVIRONMENTAL IMPACTS	PERMANENT WORK IN THE WATER WOULD REQUIRE A WORK BRIDGE FOR GIRDER PLACEMENT
DESIGN TIME	LONG
CONSTRUCTION TIME	AVERAGE
MAINTENANCE COSTS - BY CITY	LOW
COMMENTARY	AESTHETIC VALUE.

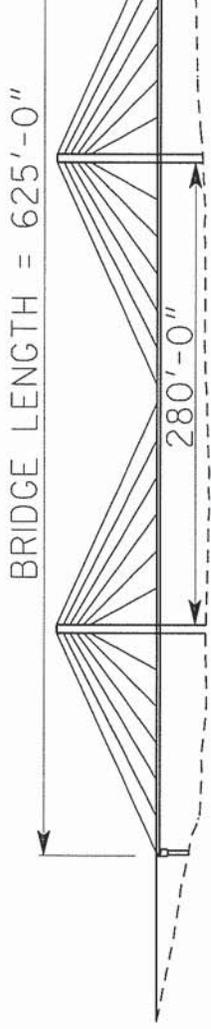
BRIDGE TYPE	PRE-FABRICATED STEEL TRUSS - 140' SPANS
AESTHETICS	 <p>The diagram shows a side elevation of a steel truss bridge. A horizontal dimension line above the bridge indicates a total length of 623'-6". A vertical dimension line on the right side indicates a height of 141'-0" from the base to the top of the truss. The bridge is supported by two piers. A dashed line represents the ground profile, which is higher on the right side.</p>
COST	APPROX. \$2.2 MILLION
ENVIRONMENTAL IMPACTS	PERMANENT WORK IN THE WATER WOULD REQUIRE A WORK BRIDGE FOR GIRDER PLACEMENT
DESIGN TIME	SHORT
CONSTRUCTION TIME	SHORT
MAINTENANCE COSTS - BY CITY	MODERATE
COMMENTARY	WEATHERING STEEL WOULD BE USED TO CUT MAINTENANCE COST

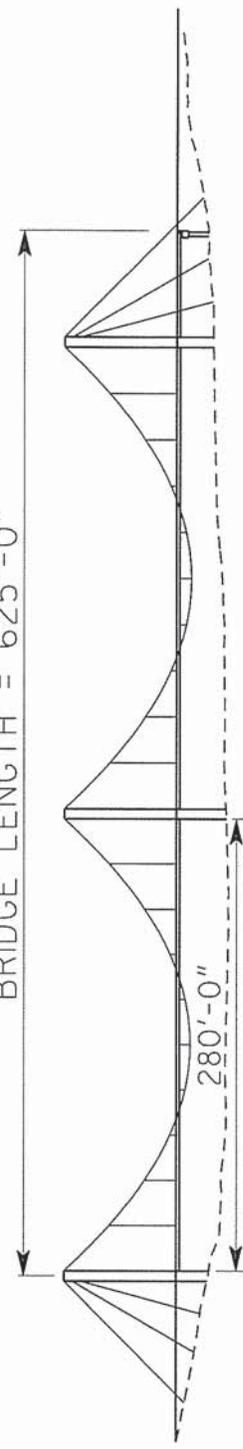
BRIDGE TYPE	PRE-FABRICATED STEEL TRUSS - 70' SPANS
AESTHETICS	 <p>BRIDGE LENGTH = 623'-6"</p> <p>70'-6"</p>
COST	APPROX. \$2.6 MILLION
ENVIRONMENTAL IMPACTS	PERMANENT WORK IN THE WATER WOULD REQUIRE A WORK BRIDGE FOR GIRDER PLACEMENT
DESIGN TIME	SHORT
CONSTRUCTION TIME	SHORT
MAINTENANCE COSTS - BY CITY	MODERATE
COMMENTARY	WEATHERING STEEL WOULD BE USED TO CUT MAINTENANCE COST

BRIDGE TYPE	<p style="text-align: center;">TYPE II AASHTO GIRDERS</p>  <p style="text-align: center;">BRIDGE LENGTH = 623'-6"</p> <p style="text-align: center;">70'-6"</p>
AESTHETICS	<p style="text-align: center;">APPROX. \$2.0 MILLION</p> <p style="text-align: center;">PERMANENT WORK IN THE WATER WOULD REQUIRE A WORK BRIDGE FOR GIRDER PLACEMENT</p>
COST	<p style="text-align: center;">SHORT</p>
ENVIRONMENTAL IMPACTS	<p style="text-align: center;">AVERAGE</p>
DESIGN TIME	<p style="text-align: center;">LOW</p>
CONSTRUCTION TIME	<p style="text-align: center;">LONGER CONSTRUCTION TIME IN THE WATER</p>
MAINTENANCE COSTS - BY CITY	
COMMENTARY	

BRIDGE TYPE	54" AASHTO BULB TEE
AESTHETICS	 <p>BRIDGE LENGTH = 623'-6"</p> <p>141'-0"</p>
COST	APPROX. \$1.6 MILLION
ENVIRONMENTAL IMPACTS	PERMANENT WORK IN THE WATER WOULD REQUIRE A WORK BRIDGE FOR GIRDER PLACEMENT
DESIGN TIME	SHORT
CONSTRUCTION TIME	SHORT
MAINTENANCE COSTS - BY CITY	LOW
COMMENTARY	END SPAN REQUIRES A TYPE 2 AASHTO GIRDER

BRIDGE TYPE	PRESTRESSED ARCH BEAM
AESTHETICS	 <p>BRIDGE LENGTH = 623'-6"</p> <p>10'-6"</p>
COST	APPROX. \$2.1 MILLION
ENVIRONMENTAL IMPACTS	PERMANENT WORK IN THE WATER WOULD REQUIRE A WORK BRIDGE FOR GIRDER PLACEMENT
DESIGN TIME	SHORT
CONSTRUCTION TIME	AVERAGE
MAINTENANCE COSTS - BY CITY	LOW
COMMENTARY	AESTHETIC VALUE. WOULD MIMIC WEST SIDE OF EXISTING SR 9 BRIDGE. LONGER CONSTRUCTION TIME IN THE WATER.

BRIDGE TYPE	CABLE STAY
AESTHETICS	 <p>BRIDGE LENGTH = 625'-0"</p> <p>280'-0"</p>
COST	\$\$\$\$\$
ENVIRONMENTAL IMPACTS	PERMANENT WORK IN THE WATER WOULD REQUIRE A WORK BRIDGE
DESIGN TIME	LONG
CONSTRUCTION TIME	LONG
MAINTENANCE COSTS - BY CITY	HIGH
COMMENTARY	AESTHETIC VALUE ONLY "SIGNATURE BRIDGE"

BRIDGE TYPE	<p style="text-align: center;">SUSPENSION</p>  <p style="text-align: center;">BRIDGE LENGTH = 625'-0"</p> <p style="text-align: center;">280'-0"</p>
AESTHETICS	<p style="text-align: center;">\$\$\$\$\$</p>
COST	<p style="text-align: center;">PERMANENT WORK IN THE WATER WOULD REQUIRE A WORK BRIDGE</p>
ENVIRONMENTAL IMPACTS	<p style="text-align: center;">LONG</p>
DESIGN TIME	<p style="text-align: center;">LONG</p>
CONSTRUCTION TIME	<p style="text-align: center;">HIGH</p>
MAINTENANCE COSTS - BY CITY	<p style="text-align: center;">AESTHETIC VALUE ONLY "SIGNATURE BRIDGE"</p>
COMMENTARY	

SR 9/Chattahoochee River Bridge Pedestrian Improvements

APPENDIX D

Viabile Option 1 – Stress Ribbon

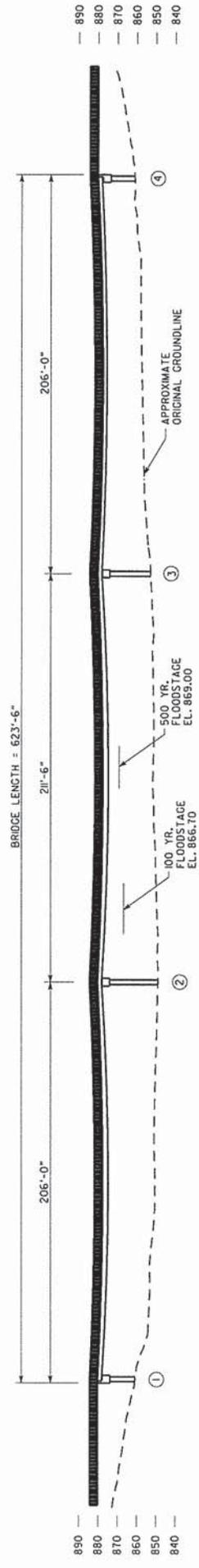
Figures	D-1	Preliminary Layout
	D-2	Cost Estimate

SR 9/Chattahoochee River Bridge Pedestrian Improvements

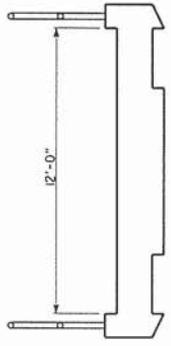
Figure D-1 Preliminary Layout



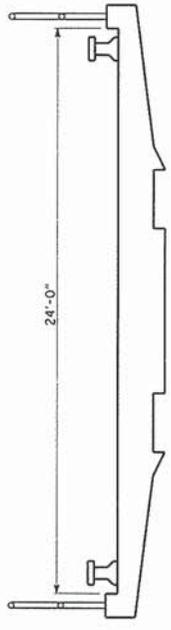
PLAN
NO SCALE



ELEVATION
NO SCALE



TYPICAL BRIDGE SECTION
NO SCALE



SECTION THROUGH OVERLOOK AREAS
NO SCALE

BRIDGE CONSISTS OF

- 2 - 206'-0" STRESS RIBBON SPAN SPECIAL DESIGN
- 1 - 211'-6" STRESS RIBBON SPAN SPECIAL DESIGN
- 2 - CONCRETE END BENTS SPECIAL DESIGN
- 2 - CONCRETE INTERMEDIATE BENTS SPECIAL DESIGN

SR 9/Chattahoochee River Bridge Pedestrian Improvements

Figure D-2 Cost Estimates

14' Wide Stress Ribbon (210' Spans on Spread Footings)

	units	quantity	/sf	unit cost	item cost
Construction					
Foundations					
Drilled Shafts	lf	0		1000	\$ -
Footings					
concrete	cyds	inc below			
reinforcing steel	lbs	inc below			
Piers & Abutments					
concrete	cyds	124		500	\$ 62,000.00
reinforcing steel	lbs	15000		1	\$ 15,000.00
Bridge Excavation	cyds	60		30	\$ 1,800.00
Cofferdam	each	2		85000	\$ 170,000.00
Superstructure					
Stress Ribbon	sf	8200		200	\$ 1,640,000.00
Allowance for special finishes					
Allowance for cost of future maintenance	lump	1		100000	\$ 100,000.00
Allowance for rock jetty	lf	200		1200	\$ 240,000.00
Allowance for construction in the water	lump	1		150000	\$ 150,000.00
Right of Way					
South End of Bridge	sf	8000		30	\$ 240,000.00

TOTAL	\$	2,618,800.00
10% Contingencies	\$	261,880.00
TOTAL	\$	2,880,680.00

SR 9/Chattahoochee River Bridge Pedestrian Improvements

APPENDIX E

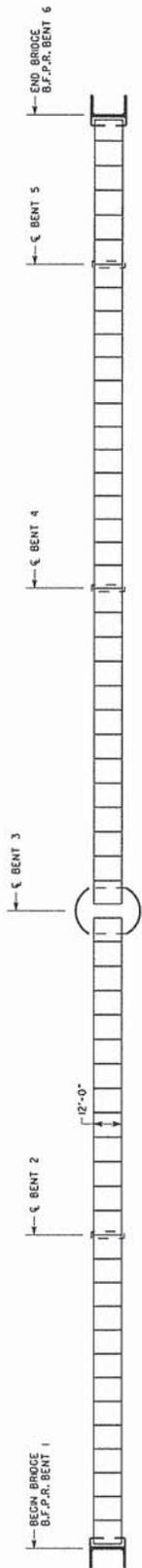
Viable Option 2 – 140' Pre-Fabricated Steel Truss

Figures	E-1	Preliminary Layout
	E-2	Cost Estimate
		Calculations

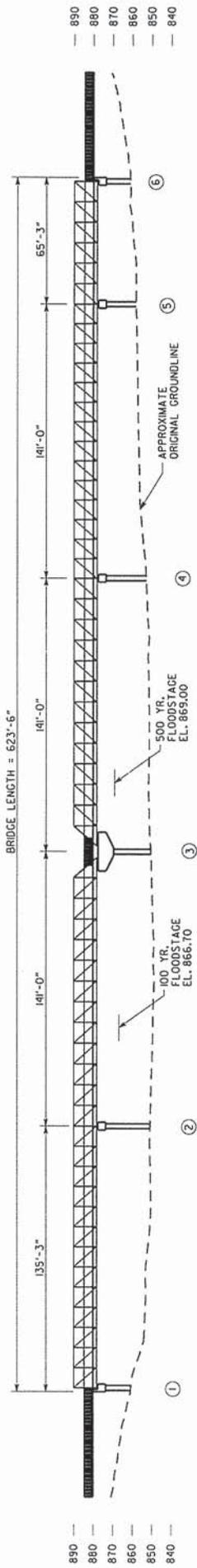
SR 9/Chattahoochee River Bridge Pedestrian Improvements

Figure E-1

Preliminary Layout



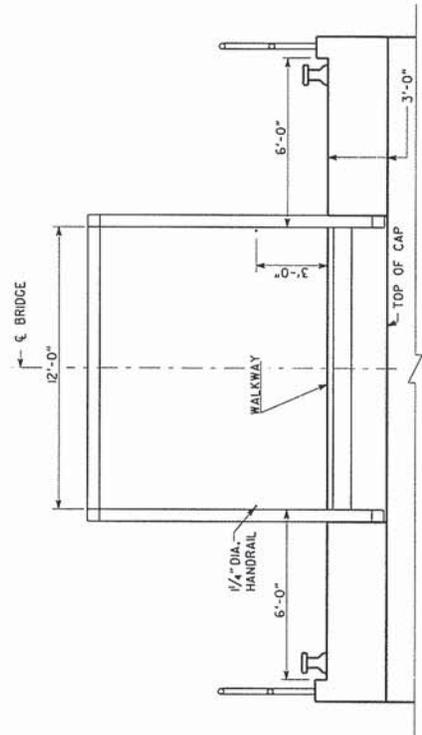
PLAN
NO SCALE



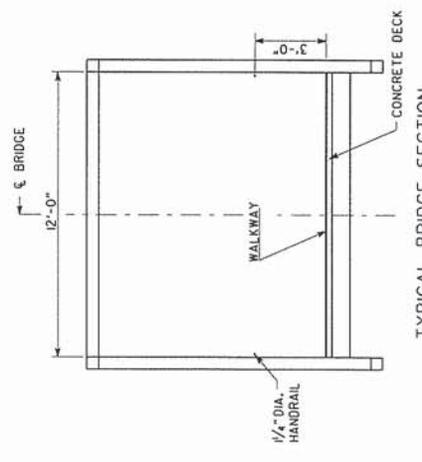
ELEVATION
NO SCALE

BRIDGE CONSISTS OF

- 1 - 135'-3" X 12'-0" PRE-ENGINEERED STEEL TRUSS SPAN - SPECIAL DESIGN
- 3 - 141'-0" X 12'-0" PRE-ENGINEERED STEEL TRUSS SPAN - SPECIAL DESIGN
- 1 - 65'-3" X 12'-0" PRE-ENGINEERED STEEL TRUSS SPAN - SPECIAL DESIGN
- 2 - CONCRETE END BENTS - SPECIAL DESIGN
- 4 - CONCRETE INTERMEDIATE BENTS - SPECIAL DESIGN



SECTION THROUGH OVERLOOK AREA
NO SCALE



TYPICAL BRIDGE SECTION
NO SCALE

SR 9/Chattahoochee River Bridge Pedestrian Improvements

Figure E-2

Cost Estimates

12' x 140' Pre-Fabricated Steel Truss on Spread Footings

Construction	units	quantity	/sf	unit cost	item cost
Foundations					
Drilled Shafts	If	0		3000 \$	-
Footings					
concrete	cyds	inc below			
reinforcing steel	lbs	inc below			
Piers & Abutments					
concrete	cyds	248		500 \$	124,000.00
reinforcing steel	lbs	30000		1 \$	30,000.00
Bridge Excavation	cyds	109		30 \$	3,270.00
Cofferdam	each	4		85000 \$	340,000.00
Superstructure					
Pre-Fab Steel Truss	sf	8200		100 \$	820,000.00
Allowance for special finishes	lump	1		100000 \$	100,000.00
Allowance for cost of future maintenance	lump	1		0 \$	-
Allowance for rock jetty	If	310		1200 \$	372,000.00
Allowance for construction in the water	lump	1		150000 \$	150,000.00
Right of Way					
South End of Bridge	sf	8000		30 \$	240,000.00

TOTAL \$ 2,179,270.00

10% Contingencies \$ 217,927.00

TOTAL \$ 2,397,197.00

SR 9/Chattahoochee River Bridge Pedestrian Improvements

APPENDIX F

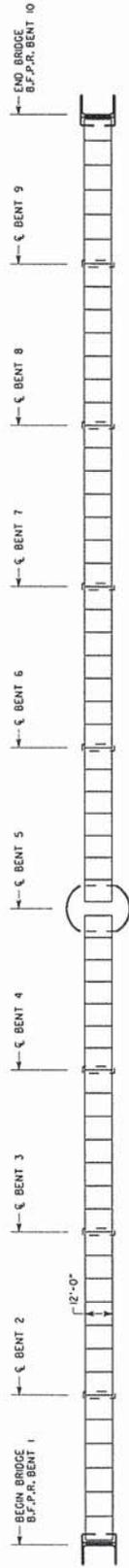
Viabile Option 3 – 70' Pre-Fabricated Steel Truss

Figures	F-1	Preliminary Layout
	F-2	Cost Estimate

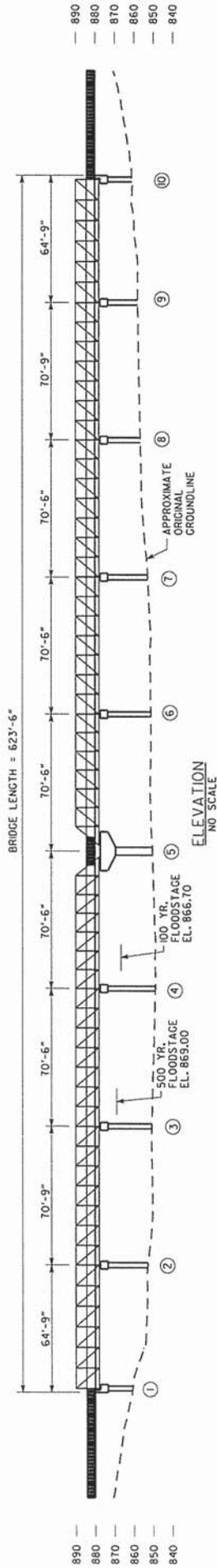
SR 9/Chattahoochee River Bridge Pedestrian Improvements

Figure F-1

Preliminary Layout



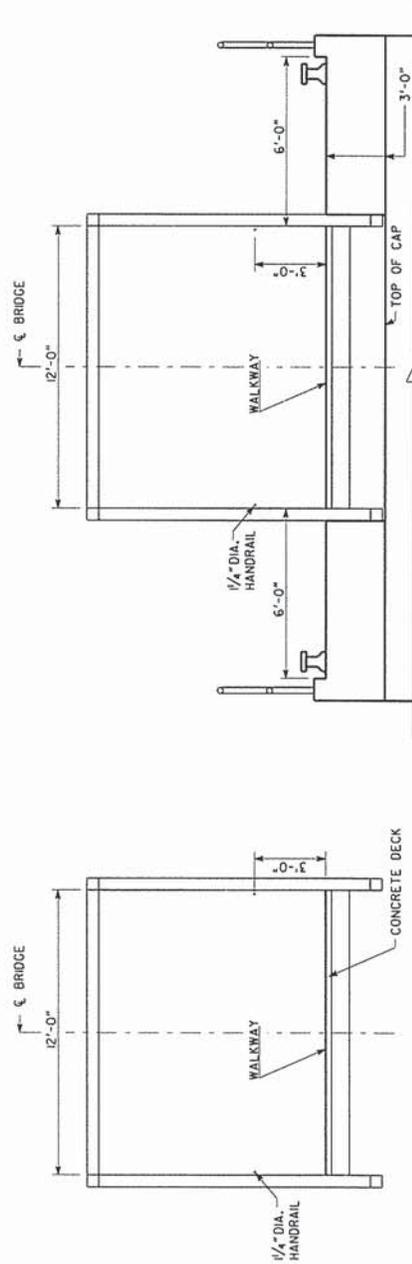
PLAN
NO SCALE



ELEVATION
NO SCALE

BRIDGE CONSISTS OF

- 2 - 64'-9" X 12'-0" PRE-ENGINEERED STEEL TRUSS SPAN -- SPECIAL DESIGN
- 2 - 70'-9" X 12'-0" PRE-ENGINEERED STEEL TRUSS SPAN -- SPECIAL DESIGN
- 5 - 70'-8" X 12'-0" PRE-ENGINEERED STEEL TRUSS SPAN -- SPECIAL DESIGN
- 2 - CONCRETE END BENTS ----- SPECIAL DESIGN
- 8 - CONCRETE INTERMEDIATE BENTS ----- SPECIAL DESIGN



TYPICAL BRIDGE SECTION
NO SCALE

SECTION THROUGH OVERLOOK AREA
NO SCALE

SR 9/Chattahoochee River Bridge Pedestrian Improvements

Figure F-2

Cost Estimates

12' x 70' Pre-Fabricated Steel Truss on Spread Footings

	units	quantity	/sf	unit cost	item cost
Construction					
Foundations					
Drilled Shafts	lf	0		3000	\$ -
Footings					
concrete	cyds	inc below			
reinforcing steel	lbs	inc below			
Piers & Abutments					
concrete	cyds	400		500	\$ 200,000.00
reinforcing steel	lbs	48000		1	\$ 48,000.00
Bridge Excavation	cyds	268		30	\$ 8,040.00
Cofferdam	each	8		85000	\$ 680,000.00
Superstructure					
Pre-Fab Steel Truss	sf	8200		100	\$ 820,000.00
Allowance for special finishes	lump	1		100000	\$ 100,000.00
Allowance for cost of future maintenance	lump	1		0	\$ -
Allowance for rock jetty	lf	310		1200	\$ 372,000.00
Allowance for construction in the water	lump	1		150000	\$ 150,000.00
Right of Way					
South End of Bridge	sf	8000		30	\$ 240,000.00

TOTAL	\$	2,618,040.00
10% Contingencies	\$	261,804.00
TOTAL	\$	2,879,844.00

SR 9/Chattahoochee River Bridge Pedestrian Improvements

APPENDIX G

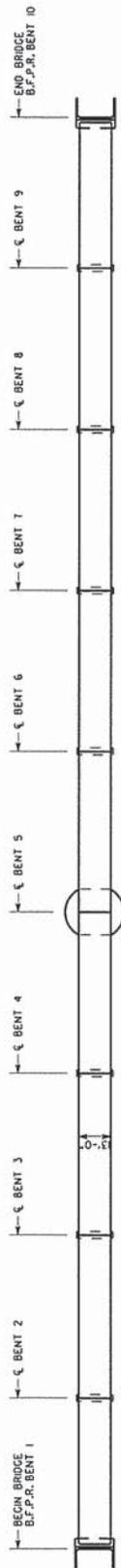
Viable Option 4 – Type 2 AASHTO Girders

Figures	G-1	Preliminary Layout
	G-2	Cost Estimate
		Calculations

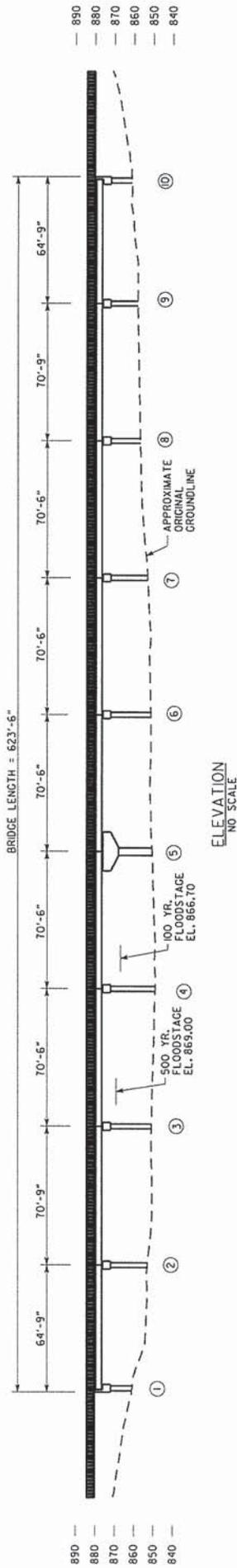
SR 9/Chattahoochee River Bridge Pedestrian Improvements

Figure G-1

Preliminary Layout



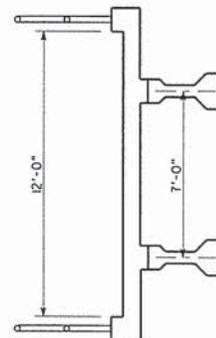
PLAN
NO SCALE



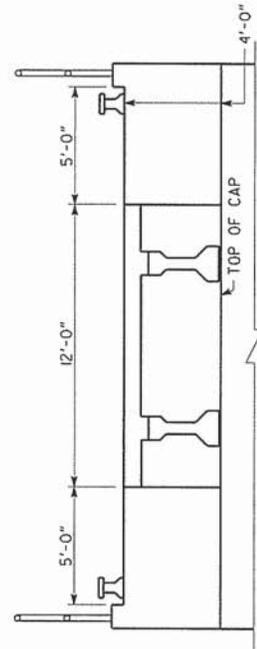
ELEVATION
NO SCALE

BRIDGE CONSISTS OF

- 2 - 64'-9" TYPE II PSC BEAM SPAN ----- SPECIAL DESIGN
- 2 - 70'-9" TYPE II PSC BEAM SPAN ----- SPECIAL DESIGN
- 5 - 70'-6" TYPE II PSC BEAM SPAN ----- SPECIAL DESIGN
- 2 - CONCRETE END BENTS ----- SPECIAL DESIGN
- 8 - CONCRETE INTERMEDIATE BENTS ----- SPECIAL DESIGN



TYPICAL BRIDGE SECTION
NO SCALE



SECTION THROUGH OVERLOOK AREA
NO SCALE

SR 9/Chattahoochee River Bridge Pedestrian Improvements

Figure G-2

Cost Estimates

70' Type 2 AASHTO Girders on Caissons

	units	quantity	/sf	unit cost	item cost
Construction					
Foundations					
Drilled Shafts	lf	350		1000	\$ 350,000.00
Footings					
concrete	cyds	inc below			
reinforcing steel	lbs	inc below			
Piers & Abutments					
concrete	cyds	120		500	\$ 60,000.00
reinforcing steel	lbs	15000		1	\$ 15,000.00
Bridge Excavation	cyds	0		30	\$ -
Cofferdam	each	0		85000	\$ -
Superstructure					
Type 2 Girders	lf	1250		100	\$ 125,000.00
Concrete	cyds	220		700	\$ 154,000.00
Allowance for special finishes					
Allowance for special finishes	lump	1		100000	\$ 100,000.00
Allowance for cost of future maintenance					
Allowance for cost of future maintenance	lump	1		0	\$ -
Allowance for rock jetty					
Allowance for rock jetty	lf	310		1200	\$ 372,000.00
Allowance for construction in the water					
Allowance for construction in the water	lump	1		150000	\$ 150,000.00
Right of Way					
South End of Bridge	sf	8000		30	\$ 240,000.00

TOTAL	\$ 1,566,000.00
10% Contingencies	\$ 156,600.00
TOTAL	\$ 1,722,600.00

SR 9/Chattahoochee River Bridge Pedestrian Improvements

APPENDIX H Viable Option 5 – 54” Bulb Tee AASHTO Girders

Figures	H-1	Preliminary Layout
	H-2	Cost Estimate
		Calculations

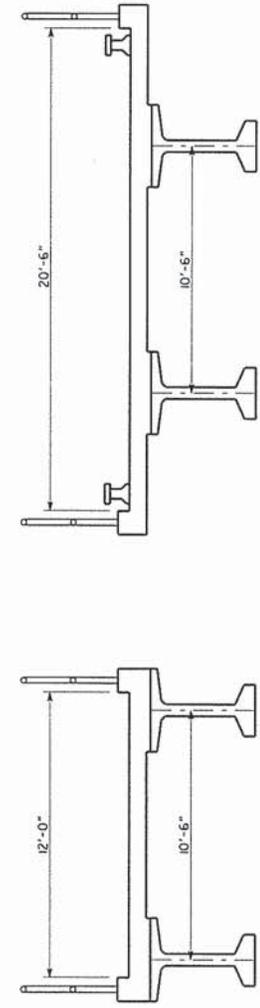
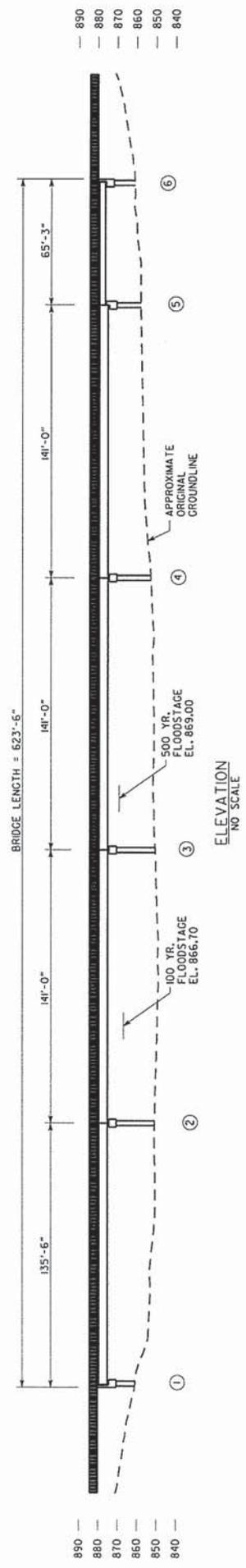
SR 9/Chattahoochee River Bridge Pedestrian Improvements

Figure H-1

Preliminary Layout



PLAN
NO SCALE



BRIDGE CONSISTS OF

- 1 - 135'-3" BULB TEE, 54", PSC BEAM SPAN ----- SPECIAL DESIGN
- 3 - 141'-0" BULB TEE, 54", PSC BEAM SPAN ----- SPECIAL DESIGN
- 1 - 65'-3" TYPE II PSC BEAM SPAN ----- SPECIAL DESIGN
- 2 - CONCRETE END BENTS ----- SPECIAL DESIGN
- 4 - CONCRETE INTERMEDIATE BENTS ----- SPECIAL DESIGN

TYPICAL BRIDGE SECTION
NO SCALE

SECTION THROUGH OVERLOOK AREA
NO SCALE

SR 9/Chattahoochee River Bridge Pedestrian Improvements

Figure H-2

Cost Estimates

140' AASHTO 54" Bulb Tee Girders on Spread Footings

Construction	units	quantity	/sf	unit cost	item cost
Foundations					
Drilled Shafts	lf	0		3000 \$	-
Footings					
concrete	cyds	inc below			
reinforcing steel	lbs	inc below			
Piers & Abutments					
concrete	cyds	250		500 \$	125,000.00
reinforcing steel	lbs	30000		1 \$	30,000.00
Bridge Excavation	cyds	120		30 \$	3,600.00
Cofferdam	each	4		85000 \$	340,000.00
Superstructure					
54" Bulb Tee	lf	1250		150 \$	187,500.00
Concrete	cyds	220		700 \$	154,000.00
Allowance for special finishes	lump	1		100000 \$	100,000.00
Allowance for cost of future maintenance	lump	1		0 \$	-
Allowance for rock jetty	lf	310		1200 \$	372,000.00
Allowance for construction in the water	lump	1		150000 \$	150,000.00
Right of Way					
South End of Bridge	sf	8000		30 \$	240,000.00

TOTAL \$ 1,702,100.00

10% Contingencies \$ 170,210.00

TOTAL \$ 1,872,310.00

SR 9/Chattahoochee River Bridge Pedestrian Improvements

APPENDIX I

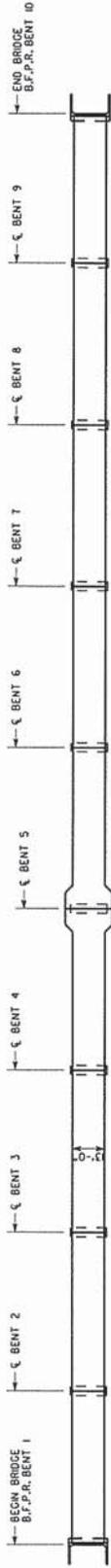
Viabile Option 6 – Prestressed Arch Beams

Figures	I-1	Preliminary Layout
	I-2	Cost Estimate

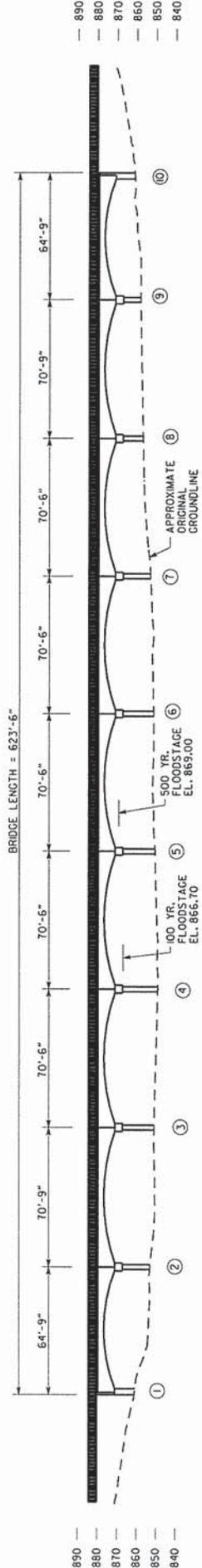
SR 9/Chattahoochee River Bridge Pedestrian Improvements

Figure I-1

Preliminary Layout



PLAN
NO SCALE

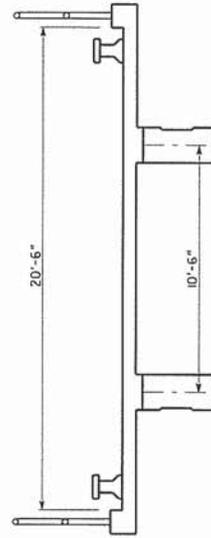


ELEVATION
NO SCALE

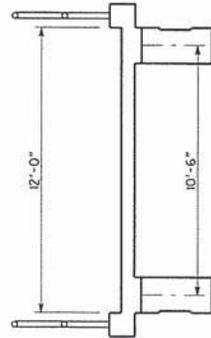
— 890
— 880
— 870
— 860
— 850
— 840

BRIDGE CONSISTS OF

- 2 - 64'-9" PRESTRESSED ARCH BEAM SPAN ----- SPECIAL DESIGN
- 2 - 70'-9" PRESTRESSED ARCH BEAM SPAN ----- SPECIAL DESIGN
- 5 - 70'-6" PRESTRESSED ARCH BEAM SPAN ----- SPECIAL DESIGN
- 2 - CONCRETE END BENTS ----- SPECIAL DESIGN
- 8 - CONCRETE INTERMEDIATE BENTS ----- SPECIAL DESIGN



SECTION THROUGH OVERLOOK AREA
NO SCALE



TYPICAL BRIDGE SECTION
NO SCALE

SR 9/Chattahoochee River Bridge Pedestrian Improvements

Figure I-2

Cost Estimates

70' Prestressed Arch Beam on Spread Footings - West Side

Construction	units	quantity	/sf	unit cost	item cost
Foundations					
Drilled Shafts	lf	0		3000 \$	-
Footings					
concrete	cyds	inc below			
reinforcing steel	lbs	inc below			
Piers & Abutments					
concrete	cyds	240		500 \$	120,000.00
reinforcing steel	lbs	28800		1 \$	28,800.00
Bridge Excavation	cyds	200		30 \$	6,000.00
Cofferdam	each	6		85000 \$	510,000.00
Superstructure					
Arch Beam w/Concrete Deck	lf	1000		200 \$	200,000.00
Concrete	cyds	190		700 \$	133,000.00
Allowance for special finishes	lump	1		100000 \$	100,000.00
Allowance for cost of future maintenance	lump	1		0 \$	-
Allowance for rock jetty	lf	310		1200 \$	372,000.00
Allowance for construction in the water	lump	1		150000 \$	150,000.00
Right of Way					
South End of Bridge	sf	7200		30 \$	216,000.00

TOTAL \$ 1,835,800.00

10% Contingencies \$ 183,580.00

TOTAL \$ 2,019,380.00

SR 9/Chattahoochee River Bridge Pedestrian Improvements

APPENDIX J

Public Involvement

SR 9/Chattahoochee River Bridge Pedestrian Improvements

PUBLIC INPUT MEETINGS SUMMARY

Two Stakeholder Input Meetings were held on 10/6/2011 and 10/11/2011 and resulted in specific public interests.

Alignment Consensus

The overwhelming consensus prefers the east side of the existing SR 9 alignment. The desire of connecting to Roberts Drive and possibly future trail systems in the adjacent area on the east side of the Sandy Springs (south) side of the existing SR 9 bridge was stated to be the most important factor in deciding the alignment location.

A majority of Roswell and Sandy Springs citizens and public officials expressed a desire to have the approach to the proposed pedestrian and bicycle bridge on the Roswell (north) side of the river connect to both the intersection of SR 9 and Riverside Road and the existing trail.

One citizen desires two pedestrian and bicycle bridges to be constructed – one on each side of the existing SR 9 bridge.

Bridge Element Comments

Several comments were made by both citizens and city officials requesting the bridge to be given a gateway treatment welcoming travelers to the City of Roswell or Sandy Springs. Several suggestions for achieving this gateway treatment were a covered bridge look that draws from the original bridge crossing on the bridge approaches, a wide rest/observation area near the center of the bridge, benches, and lighting.

There was also a city official concerned with emergency vehicles having access to all locations of the bridge in case of an emergency. They suggested the use of removable bollards and a minimum width of twelve feet to achieve the desired access.

Favored Bridge Elements

Both Roswell and Sandy Springs favor the gateway treatment of the bridge with cover bridge approaches and overlook elements as do their bosses, City Council members and Mayors. The cities view this project as not only a chance to improve safety and connectivity but also as a visual amenity.

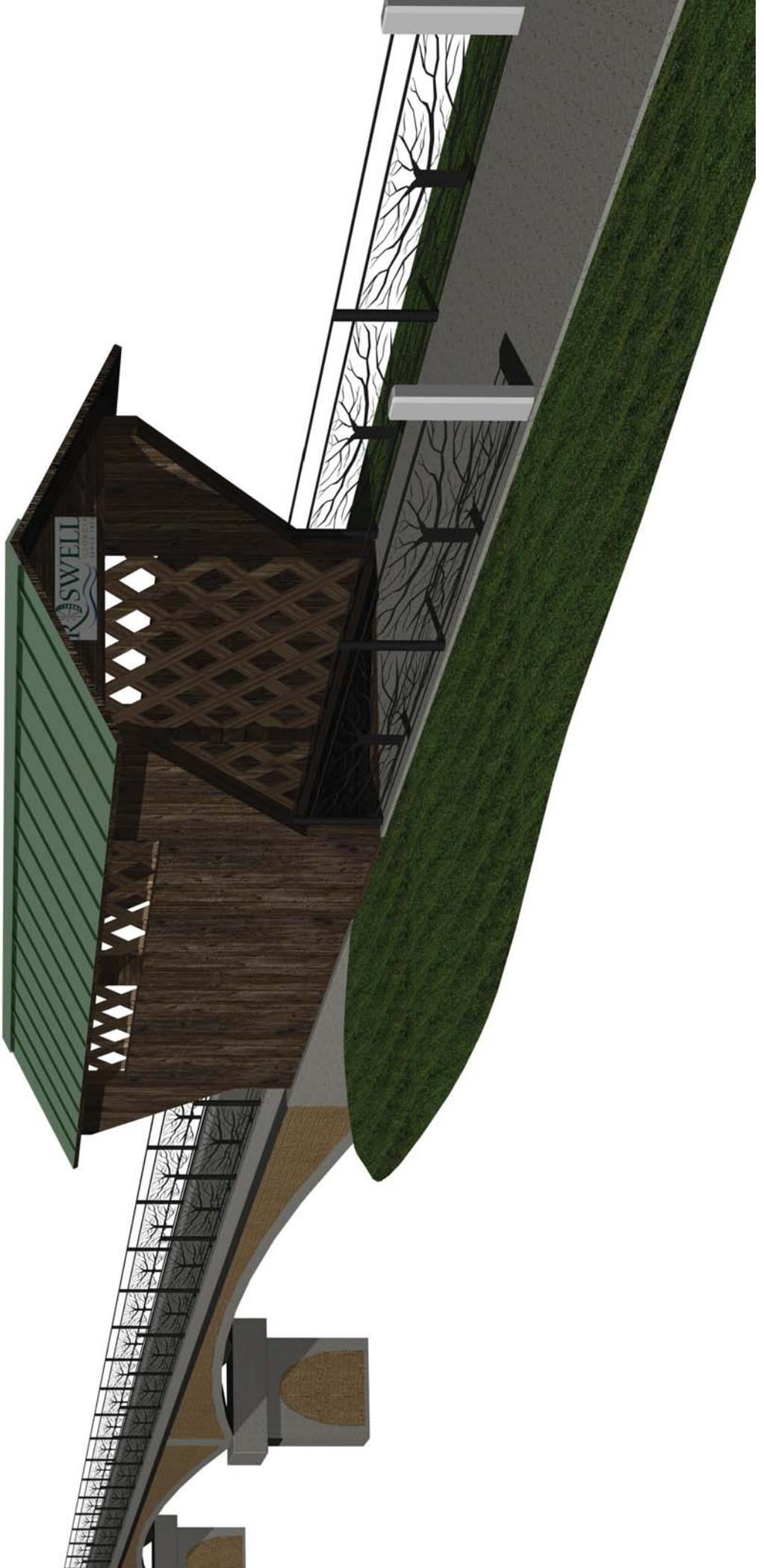
SR 9/Chattahoochee River Bridge Pedestrian Improvements

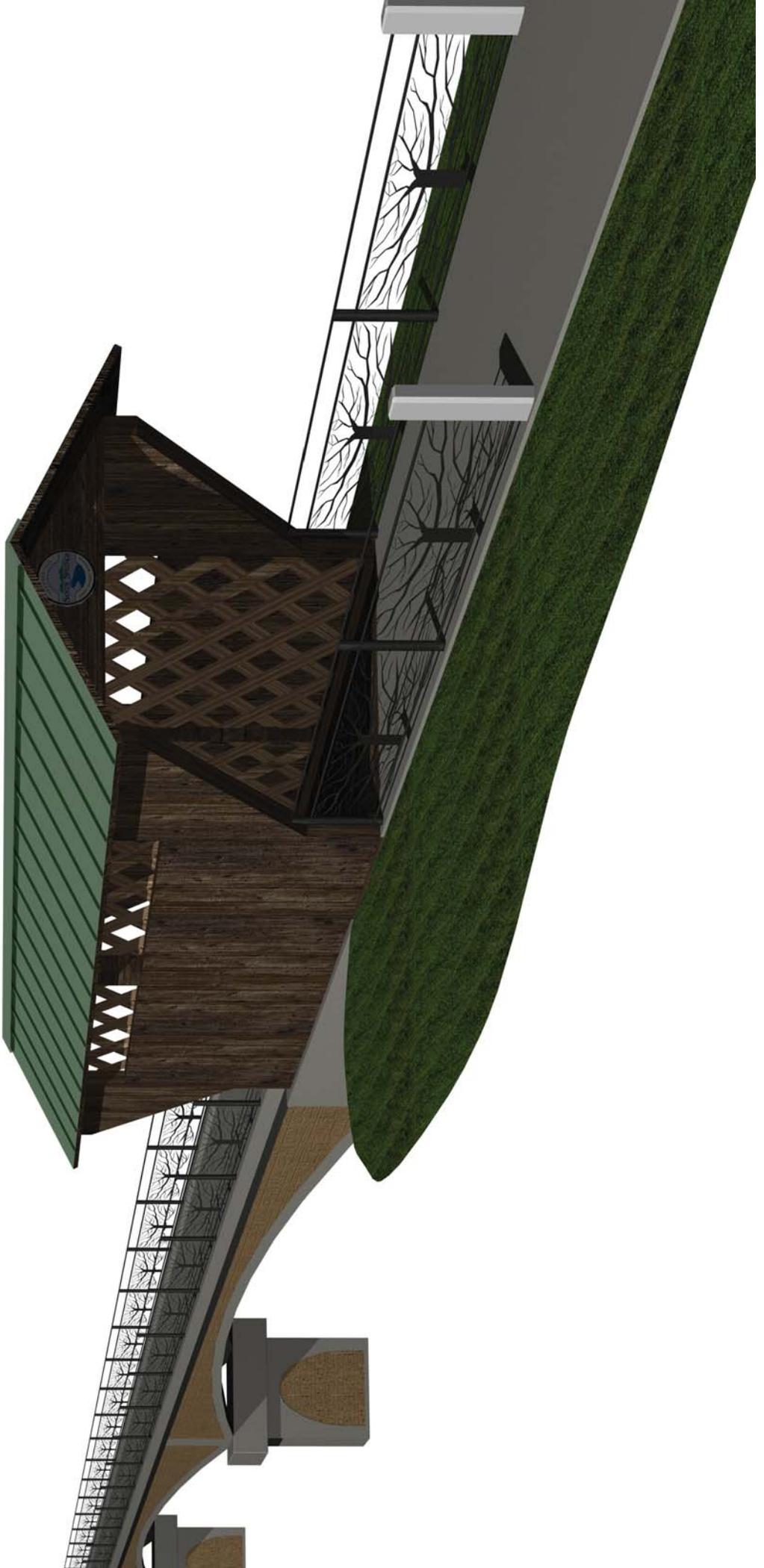
APPENDIX L

Overall Project Cost

	EAST	WEST	
Bridge	\$2,100,000	\$1,800,000	West Bridge at lower profile than East (Both at 623.5' long)
Connect back to SR9 origin/destination			
NORTH	\$240,000	\$350,000	West side ties to Riverwalk Trail
SOUTH	\$380,000	\$150,000	East side requires a bridge
Grade Crossing across SR9			
NORTH	\$ 25,000	\$ 25,000	Modify existing signal
SOUTH	\$ 125,000	\$ 125,000	Adds new signal at Roberts Drive (or "Hawk" Beacon)
R/W	\$ 240,000	\$220,000	
TOTAL	\$3,110,000	\$2,670,000	Summary of Probable Project Cost









October 9, 2012

Ms. Charner Rodgers-Register
Georgia Department of Transportation – Program Delivery
One Georgia Center
600 West Peachtree Street, NW
25th Floor
Atlanta, GA 30308

Subject: SR 9 Pedestrian Improvements at Chattahoochee River (PI 0009640)

Dear Charner:

The City of Roswell will commit to funding the Energy, Operations and Maintenance costs of the installed lighting system. We are currently in the process of investigating alternative light bulbs including LED's and CFL's for this project and several others in order to reduce future operating costs.

If you need any additional information, please contact Rob Dell-Ross (770-594-6292) or myself (770-594-6421).

Sincerely,

A handwritten signature in black ink, appearing to read "Steven D. Acenbrak". The signature is fluid and cursive, with a long horizontal stroke at the end.

Steven D. Acenbrak, P.E., LEED AP
Director of Transportation

P.I. No. 0009640 - ROW Estimates

East (Preferred) Alternate Right-of-Way

Required ROW: 9180 SF / 0.22 AC

Unit Cost: \$5 SF / \$217,800 AC

ROW Cost Estimate: 9180 SF x \$5 = **\$45,900**

West Alternate Right-of-Way

Required ROW: 3280 SF / 0.08 AC

Unit Cost: \$5 SF / \$217,800 AC

ROW Cost Estimate: 3280 SF x \$5 = **\$16,400**

Mark Holmberg

From: Josh Earhart <jearhart@edwards-pitman.com>
Sent: Wednesday, February 06, 2013 4:56 PM
To: Mark Holmberg
Subject: RE: Concept Report for PI#0009640

Mark,

With regards to the environmental mitigation costs, the largest portion of the \$275,000 estimate is from impacts to the stream on the south side of the river. Concept plans show the trail covering almost all the stream. We assumed that the entire 280 foot length of the stream would be impacted. Impacts over 100 lf require mitigation. We based our stream mitigation cost on the cost per stream credit in the Hydrologic Unit Code (HUC) containing the project. Stream mitigation costs per HUC vary from year to year, but based on when we made these calculations, the stream mitigation cost was approximately \$140/stream credit. We also assumed the worst type of impact for the stream mitigation worksheet. The 280 lf of impact would result in 1,400 stream credits. At the \$140/credit fee, that is \$196,000.00.

The remainder of the \$275,000.00 was estimated for mitigating impacts to the Ivey Mill archaeological site. Although the bridge would be outside the Park boundary it would be within the view shed of the site. The Park service had suggested stamped stone siding for the bridge in the vicinity of the site, as one possible context sensitive alternative. The Park Service also discussed certain types of lighting that reduce light pollution.

If you need further information let me know.

Josh Earhart

Edwards-Pitman Environmental, Inc.

1250 Winchester Parkway, Suite 200

Smyrna, Georgia 30080

Phone: 770.333.9484, Fax: 770.333.8277

www.edwards-pitman.com



 Please consider the environment before printing this email.

From: Mark Holmberg [<mailto:mholmberg@heath-lineback.com>]

Sent: Wednesday, February 06, 2013 9:39 AM

To: Josh Earhart

Subject: FW: Concept Report for PI#0009640

Per comments below, we need some backup for mitigation cost.