ORIGINAL TO GENERAL FILES

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE P.I. No. 771275-, Fulton County
BRZLB-0121-00(022)
CR 1392/Mill Road over Pea Creek
Bridge Replacement

OFFICE: Program Control

DATE September 11, 2009

FROM Genetha Rice-Singleton, Program Control Administrator

TO SEE DISTRIBUTION

SUBJECT APPROVED REVISED PROJECT CONCEPT REPORT

Attached for your files is the approval for subject project.

Attachment

DISTRIBUTION:

Ron Wishon
Glenn Bowman
Ken Thompson
Michael Henry
Keith Golden
Rachel Brown
Paul Liles
Mike Lobdell
Scott Lee
BOARD MEMBER

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE BRZLB-121(22) Fulton County
P. I. Number 771275

OFFICE: District 7
DATE: May 5, 2009

FROM: Rachel Brown
TO: Genetha Rice-Singleton
SUBJECT Project Concept Report

Attached is the original copy of the Revised Concept Report for your further handling for approval in accordance with the Plan Development Process (PDP).

The original concept report called for an 80' single span bridge. The revision changes that to a 60' prefabricated arch culvert. The reasons for this change include: improved traffic control, ability to accommodate future road widening, and reduced cost.

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

Date 7/28/08

State Transportation Planning Administrator

Distribution:

Ron Wishon	Project Review Engineer
Glen Bowman	State Environment/Location Engineer
Keith Golden	State Traffic Safety and Design Engineer
Angela Alexander	State Transportation Planning Administrator
Angela Whitworth	State Transportation Financial Management Administrator
Paul Liles	State Bridge Design Engineer

State of Georgia
Department of Transportation

REVISED PROJECT CONCEPT REPORT

Need and Purpose:
Bridge Project BRZLB-121(22) will replace the structurally deficient bridge located on Cochran Mill Road (CR 1392) at Pea Creek in Fulton County. The existing bridge was constructed in 1935. The bridge structure is in poor condition with deterioration of the timber deck. The steel superstructure has extensive corrosion with section loss. The Office of Bridge Maintenance has determined that any structure with a sufficiency rating less than 50 should be replaced rather than improved. The bridge's sufficiency rating is 21.44. Replacing this bridge will bring it up to current design standards and in doing so will improve the operation and safety of this roadway.

Cochran Mill Road (CR 1392) is functionally classified as a Rural Minor Collector. The posted speed limit along Cochran Mill Road is 45 mph. The section where the proposed project would take place is not a school bus route. Cochran Mill Road is not part of the Statewide Bicycle Plan; however it is considered a South Fulton Scenic By-Way (P.I. 0001196). Currently listed in the Georgia Department of Transportation's Statewide Improvement Program is one additional bridge replacement on Cochran Mill Rd. (CR 1392) in Fulton County. P.I. 771276 consists of replacing the bridge over Little Pea Creek 10.5 miles southwest of the city of Atlanta, also in Fulton County.

Project Location:
Cochran Mill Road is located in Fulton County between SR 70 (Cedar Grove Rd.) and SR 154 (Cascade-Palmetto Hwy.), approximately 10.3 miles southwest of the city of Atlanta. This project is 13th Congressional District and Ga. Militia Districts 2 and 3. Project begins at ML 2.05 and extends north approximately 0.21 miles to ML 2.26. The proposed project will be approximately 0.21 miles in length.

Description of the approved concept (27 April, 2004): This project will replace the structurally deficient bridge on Cochran Mill Road (CR 1392) over Pea Creek with a new reinforced concrete bridge. This project is located in Fulton County, 10.3 miles southwest of Atlanta in the 13th Congressional District and Ga. Militia Districts 2 and 3. The proposed project will be approximately 0.21 miles in length.

PDP Classification: Major ☐, Minor ☒

Federal Oversight: Full Oversight ☐, Exempt ☒, State Funded ☐, or Others ☐

Functional Classification: Minor Collector

U. S. Route Number(s): N/A **State Route Number(s):** N/A

Traffic (AADT) as shown in the approved concept report:
Current Year: (2005) 1,400 Design Year: (2025) 3,070

Proposed features to be revised:

- Typical Section: Two 12-foot travel lanes with 10-foot shoulders and rural side ditch sections.
- Bridge Typical Section: Two 12-foot travel lanes with 7-foot shoulders. (no sidewalks)
- Major structures: 80' x 38' Concrete Bridge

Describe the revised features to be approved:

- Typical Section: Two 12-foot travel lanes with 10-foot shoulders (6.5 feet paved) and rural side ditch sections.
- Bridge Typical Section: Two 12- foot travel lanes with 2-foot shoulders and 10-foot sidewalks.
- Major structures: 60' x 52' bottomless culvert (included barriers)

The projected ADT for this section of highway in 2010 is 1,740 and the projected traffic in 2030 is 3,410. Trucks represent an average of 1% of traffic during a twenty-four hour traffic count and an ~~average of 1%~~ of traffic during a peak hour traffic count. With the design speed of 45 mph and design year ADT less than 4,000 the required bridge width clear distance is 38 feet (TOPPS 4265-9).

The typical section originally did not include the 6.5' paved shoulders, which is required for collector roadways. This additional width may be used for bike traffic, which is provided for on the bridge section. Sidewalks are also provided for any future development.

The proposed structure will be a prefabricated arch bridge with a span length of 60' and width of 45'6". The 45'6" culvert width will allow for an onsite detour during the bridge replacement and also provides addition width for bike traffic.

The right-of way width was reduced from the original concept to fit the permanent drainage and roadway features only. Any additional width will be within permanent or temporary easements.

While the revised concept does alter the project footprint in some ways, it does not change the overall area of potential effect covered in the current environmental document. Therefore the revised concept will not have an effect on future environmental reevaluations.

Updated traffic data (AADT):

Current Year: (2010) 1,740 Design Year: (2030) 3,410

Programmed/Schedule:

PE: 2009 Right of Way: 2010 Construction: 2010

VE Study Required Yes( ) No(X)

Revised Cost Estimates: (attached) PREFERRED ALT "2"

1. Construction cost including ~~inflation~~ and E&C, $785,557
2. Right-of-way, and $84,000
3. Utilities $50,000

ABL
8/27/09

Is the project located in a Non-attainment area _X_ Yes ____ No.
The project is strictly a bride replacement and does not add capacity. The project limits have not changed. The number of through lanes will not change from the existing condition. Sidewalks will be added to the shoulders of the bridge. The proposed construction is now 2010, from 2005 in the previous concept report. Construction should take less than one year.

Alternatives considered:

1) 80 foot Single Span Bridge. (original approved concept)
   Advantages: Cost.
   Disadvantages: Construction would require detour, bridge maintenance.
2) 60 foot Arch Bridge. **(preferred alternative)**
   Advantages: Cost, no detour during construction, structure could be widened in the future, less maintenance.
   Disadvantages: May require larger footings.
3) 110 foot 3-Span Bridge.
   Advantages: None.
   Disadvantages: Cost.
4) Five barrel 10 foot by 12 foot Box Culvert.
   Advantages: Cost.
   Disadvantages: Does not pass flood requirements, leaves obstructions in the channel.

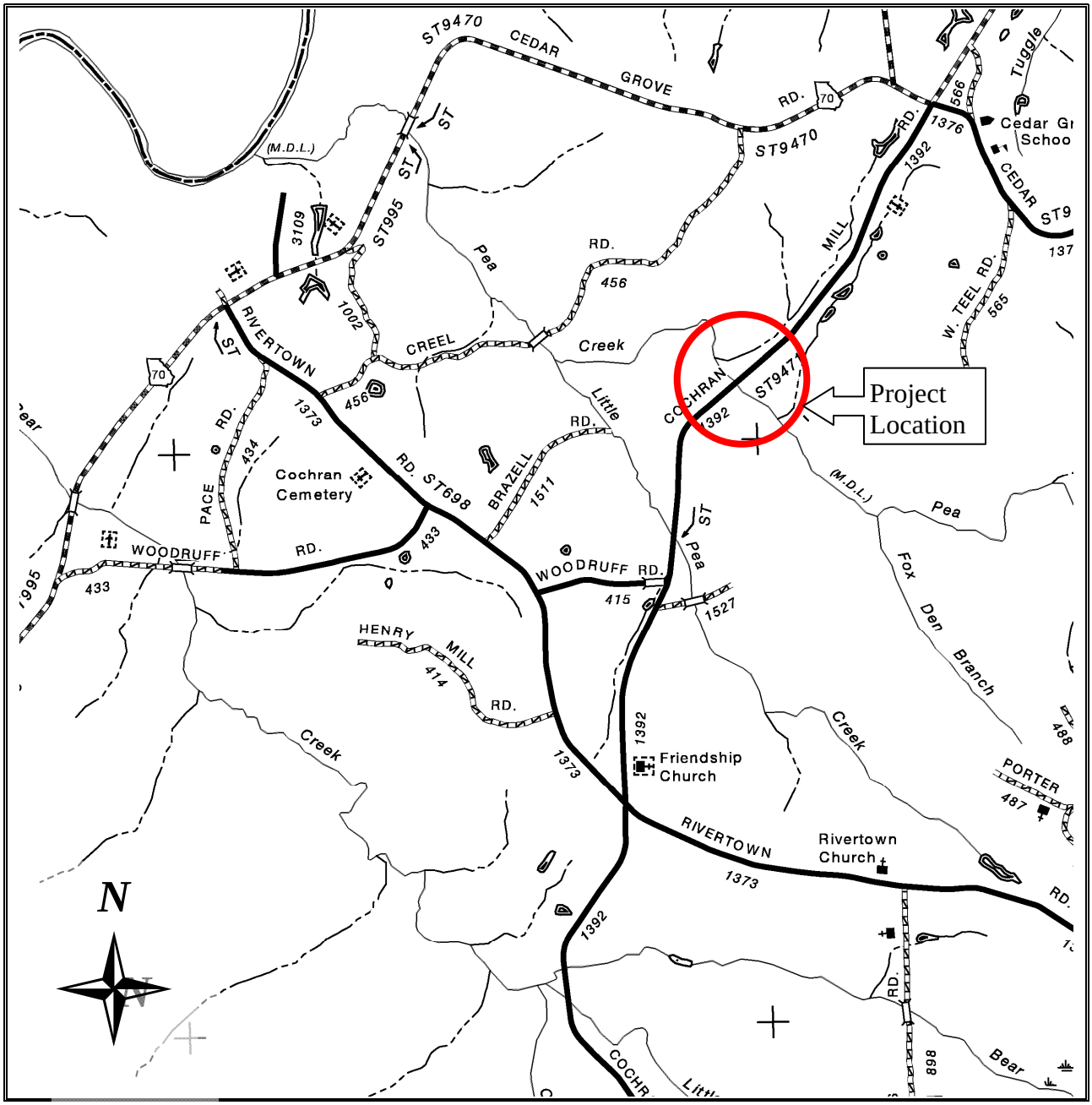
Recommendation: Recommend that the proposed revision to the concept be approved for implementation.

Attachments:

1. Sketch Map
2. Cost Estimates
   a) Alternative 1
   b) Alternative 2
   c) Alternative 3
   d) Alternative 4
3. Typical Sections
   a) Roadway Typical Section
   b) Bridge Typical Section
4. Hydraulic Information
   a) Hydraulic information for concept alternatives
   b) Flood elevation chart for concept preferred alternative

Concur: Henrietta Rice-Sylvester for Pinto
Director of Preconstruction

Approve: Paul Mr
Chief Engineer



Scale: 1 inch = 1 mile

Location Map

Project: BRZLB-121(22) Fulton County **PI No.:** 771275

Description: Cochran Mill Road (CR 1392) over Pea Creek, 10.3 mi SW of Atlanta

Cost Estimates

PRELIMINARY COST ESTIMATE – Alternative 1

Single Span Bridge 80 feet

PROJECT NUMBER: BRZLB-121-(22)

COUNTY: Fulton

DATE: April 21, 2009

ESTIMATED LETTING DATE: 2010

PREPARED BY: Qk4

PROJECT LENGTH: 0.21 miles

( ) PROGRAMMING PROCESS

(X) **CONCEPT DEVELOPMENT**

( ) DURING PROJECT DEVELOPMENT

PROJECT COST	
A. RIGHT-OF-WAY:	
1. PROPERTY (LAND & EASEMENT LAND ONLY PARCELS $10K/ACRE)	$13,000
2. PROPERTY (LAND & EASEMENT RESIDENTIAL PARCELS $60K/ACRE)	$54,000
3. DISPLACEMENTS; RES:0, BUS;0, M.H.:0	$0
4. OTHER COST (ADM./COST, INFLATION)	$17,000
SUBTOTAL A:	**$84,000**
B. REIMBURSABLE UTILITIES: (LGPA)	
1. RAILROAD	$0
2. TRANSMISSION LINES	$0
3. SERVICES	$50,000
SUBTOTAL B:	**$50,000**
C. CONSTRUCTION	
MAJOR STRUCTURES:	
1. RETAINING WALLS	$0
2. BRIDGE (80’ x 51’3” @ $95/SF)	$389,500
3. BRIDGE CULVERTS	$0
SUBTOTAL C:	$0
	$389,500

GRADING AND DRAINAGE	
1. EARTHWORK	
a. BORROW: (9,800 cu.yd. @ $5.00)	$50,000
b. EXCAVATION: (330 cu.yd. @ $3.50)	$500
SUBTOTAL D-1:	$50,500
2. DRAINAGE	
a. SLOPE DRAIN PIPE	$1,000
b. SPILLWAY TYPE 1	$0
SUBTOTAL D-2:	$1,000
SUBTOTAL D:	**$51,500**
BASE AND PAVING	
1. AGGREGATE BASE (800 sq. yd. of 8” @ $15)	$12,000
2. ASHPALT BASE (500 tons @ $60)	$30,000
3. ASPHALT PAVING	
a. Surface (200 tons @ $70)	$14,000
b. Binder (400 tons @ $70)	$28,000
c. Tack Coat (300 gals @ $2.50)	$750
SUBTOTAL E-3:	$84,750
4. CONCRETE APPROACH SLABS (227 SY @ $144 /SY)	$32,688
SUBTOTAL E:	**$117,438**

LUMP ITEMS	
1. TRAFFIC CONTROL	$30,000
2. CLEARING AND GRUBBING	$30,000
3. GRASSING	$20,000
4. EROSION CONTROL	$10,000
5. TEMP. EROSION CONTROL	$25,000
6. REMOVE EXISTING BRIDGE	$10,000
SUBTOTAL F:	**$125,000**

MISCELLANEOUS	
1. SIGNING	
a. SIGNS	$300
b. POSTS	$700
SUBTOTAL G-1:	$1,000
2. STRIPING	
a. 5 IN WHITE SOLID (1400 FT @ $0.75)	$1,050
b. 5 IN YELLOW SOLID (1400 FT @ $0.75)	$1,050
SUBTOTAL G-2:	$2,100
a. TYPE W (800 FT @ $12)	$9,600
c. TYPE 12 ANCHORS (2 @ $1600)	$3,200
d. TYPE 1 ANCHORS (2 @ $450)	$900
SUBTOTAL G-3:	$13,700
SUBTOTAL G:	
	$16,800

Date 8/11/2009

P.I. Number **771275** County **Fulton**

Project Number **BRZLB-0121-00(022)** **Alternative 1**

Special Provision, Section 109-Measurement and Payment

FUEL PRICE ADJUSTMENT *(ENGLISH 125% MAX)*

ENTER FPL DIESEL	2.506
ENTER FPM DIESEL	5.639

ENTER FPL UNLEADED	2.436
ENTER FPM UNLEADED	5.481

http://www.dot.ga.gov/doingbusiness/Materials/Pages/asphaltcementindex.aspx

INCREASE ADJUSTMENT
125.00%

INCREASE ADJUSTMENT
125.00%

ROADWAY ITEMS	QUANTITY	DIESEL FACTOR	GALLONS DIESEL	UNLEADED FACTOR	GALLONS UNLEADED	REMARKS
Excavations paid as specified by Sections 205 **(CUBIC YARD)**		0.29		0.15		
Excavations paid as specified by Sections 206 **(CUBIC YARD)**		0.29		0.15		
GAB paid as specified by the ton under Section 310 **(TON)**	2850.000	0.29	826.50	0.24	684.00	
Hot Mix Asphalt paid as specified by the ton under Sections 400 **(TON)**		2.90		0.71		
Hot Mix Asphalt paid as specified by the ton under Sections 402 **(TON)**	3954.000	2.90	11466.60	0.71	2807.34	
PCC Pavement paid as specified by the square yard under Section 430 **(SY)**		0.25		0.20		

BRIDGE ITEMS	Quantity	Unit Price	QF/1000	Diesel Factor	Gallons Diesel	Unleaded Factor	Gallons Unleaded	REMARKS
Bridge Excavation (CY) Section 211	100.00	100.00	10.0000	8.00	80.00	1.50	15.00	
Class __Concrete (CY) Section 500	76.00	470.98	35.7945	8.00	286.36	1.50	53.69	
Class __Concrete (CY) Section 500				8.00		1.50		
Class __Concrete (CY) Section 500				8.00		1.50		
Superstru Con Class__(CY) Section 500	65.00	738.02	47.9713	8.00	383.77	1.50	71.96	
Superstru Con Class__(CY) Section 500				8.00		1.50		
Superstru Con Class__(CY) Section 500				8.00		1.50		
Concrete Handrail (LF) Section 500				8.00		1.50		
Concrete Barrier (LF) Section 500	160.00	39.86	6.3776	8.00	51.02	1.50	9.57	

BRIDGE ITEMS	Quantity	Unit Price	QF/1000	Diesel Factor	Gallons Diesel	Unleaded Factor	Gallons Unleaded	REMARKS

Stru Steel Plan Quantity (LB) Section 501				8.00		1.50		
Stru Steel Plan Quantity (LB) Section 501				8.00		1.50		
PSC Beams_____ (LF) Section 507				8.00		1.50		
PSC Beams_____ (LF) Section 507				8.00		1.50		
PSC Beams_____ (LF) Section 507				8.00		1.50		
Stru Reinf Plan Quantity(LB) Section 511				8.00		1.50		
Stru Reinf Plan Quantity(LB) Section 511				8.00		1.50		
Bar Reinf Steel (LB) Section 511	9330.00	0.89	8.3037	8.00	66.43	1.50	12.46	
Piling___inch (LF) Section 520				8.00		1.50		
Piling___inch (LF) Section 520				8.00		1.50		
Piling___inch (LF) Section 520				8.00		1.50		
Piling___inch (LF) Section 520				8.00		1.50		
Piling___inch (LF) Section 520				8.00		1.50		
Piling___inch (LF) Section 520				8.00		1.50		
Drilled Caisson,___ (LF) Section 524				8.00		1.50		
Drilled Caisson,___ (LF) Section 524				8.00		1.50		
Drilled Caisson,___ (LF) Section 524				8.00		1.50		
Pile Encasement,___(LF) Section 547				8.00		1.50		
Pile Encasement,___(LF) Section 547				8.00		1.50		

SUM QF DIESEL=	**13160.68**	**SUM QF UNLEADED=**	**3654.01**

DIESEL PRICE ADJUSTMENT($)	**$37,927.75**
UNLEADED PRICE ADJUSTMENT($)	**$10,236.35**

ASPHALT CEMENT PRICE ADJUSTMENT
(BITUMINOUS TACK COAT 125% MAX)

APPLICABLE TO CONTRACTS/PROJECTS CONTAINING THE 413 SPECIFICATION, SECTION 413.5.01 ADJUSTMENTS
ASPHALT PRICE ADJUSTMENT FOR BITUMINOUS TACK COAT

http://www.dot.ga.gov/doingbusiness/Materials/Pages/asphaltcementindex.aspx

ENTER APL 389 **ENTER APM** 875.25

125.00%	INCREASE ADJUSTMENT

L.I.N.	TYPE	TACK (GALLONS)	TACK (TONS)	REMARKS
413-1000	PG 58-22	414	1.7782	

TMT = 1.7782

PRICE ADJUSTMENT($)	$830.05

400 / 402 ASPHALT CEMENT PRICE ADJUSTMENT 125% MAX

ENTER APL 389 **ENTER APM** 875.25

http://www.dot.ga.gov/doingbusiness/Materials/Pages/asphaltcementindex.aspx

125.00%	INCREASE ADJUSTMENT

L.I.N. / Spec Number	MIX TYPE	HMA	JMF AC%	AC	REMARKS
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			TMT =		

PRICE ADJUSTMENT($)	

ASPHALT CEMENT PRICE ADJUSTMENT FOR BITUMINOUS TACK COAT(Surface Treatment 125% MAX)

APPLICABLE TO CONTRACTS CONTAINING THE 413 SPEC. SECTION 413.5.01 ADJUSTMENTS ASPHALT PRICE ADJUSTMENT FOR BITUMINOUS TACK COAT

http://www.dot.ga.gov/doingbusiness/Materials/Pages/asphaltcementindex.aspx

ENTER APL 389

ENTER APM 875.25

125.00%	INCREASE ADJUSTMENT

Use this side for Asphalt Emulsion Only

L.I.N.	TYPE	ASPHALT EMULSION (GALLONS)

TMT =

REMARKS:

Use this side for Asphalt Cement Only

L.I.N.	TYPE	TACK (GALLONS)

TMT =

REMARKS:

MONTHLY PRICE ADJUSTMENT($)	

ADJUSTMENT SUMMARY

FUEL PRICE ADJUSTMENT *(ENGLISH 125% MAX)*

DIESEL PRICE ADJUSTMENT($)	$37,927.75
UNLEADED PRICE ADJUSTMENT($)	$10,236.35
ASPHALT CEMENT PRICE ADJUSTMENT (BITUMINOUS TACK COAT 125% MAX)	$830.05
400 / 402 ASPHALT CEMENT PRICE ADJUSTMENT 125% MAX	
ASPHALT CEMENT PRICE ADJUSTMENT FOR BITUMINOUS TACK COAT(Surface Treatment 125% MAX)	

REMARKS:

TOTAL ADJUSTMENTS	$48,994.15

DWM 10/08

ESTIMATE SUMMARY – Alternative 1 Single Span Bridge – 80 feet	
A. RIGHT-OF-WAY	**$84,000**
B. REIMBURSABLE UTILITIES	**$50,000**
C. CONSTRUCTION	
MAJOR STRUCTURES	$389,500
GRADING AND DRAINAGE	$51,500
BASE AND PAVING	$117,438
LUMP ITEMS	$125,000
MISCELLANEOUS	$16,800
FUEL ADJUSTMENT	$48,994.15
SUBTOTAL: CONSTRUCTION COST	*$749,232.15*
ENGINEERING AND INSPECTION (4%)	*$29,969.29*
CONTINGENCY (3%)	$22,476.96
TOTAL CONSTRUCTION COST	**$801,476.96**
GRAND TOTAL PROJECT COST – Alternative 1	**$935,678.40**

PRELIMINARY COST ESTIMATE – Alternative 2

60 Foot Prefabricated Arch Bridge

PROJECT NUMBER: BRZLB-121-(22)

COUNTY: Fulton

DATE: April 21, 2009

ESTIMATED LETTING DATE: 2010

PREPARED BY: Qk4

PROJECT LENGTH: 0.21 miles

( ) PROGRAMMING PROCESS

(X) **CONCEPT DEVELOPMENT**

( ) DURING PROJECT DEVELOPMENT

PROJECT COST	
A. RIGHT-OF-WAY:	
1. PROPERTY (LAND & EASEMENT LAND ONLY PARCELS $10K/ACRE)	$13,000
2. PROPERTY (LAND & EASEMENT RESIDENTIAL PARCELS $60K/ACRE)	$54,000
3. DISPLACEMENTS; RES:0, BUS;0, M.H.:0	$0
4. OTHER COST (ADM./COST, INFLATION)	$17,000
SUBTOTAL A:	**$84,000**
B. REIMBURSABLE UTILITIES: (LGPA)	
1. RAILROAD	$0
2. TRANSMISSION LINES	$0
3. SERVICES	$50,000
SUBTOTAL B:	**$50,000**
C. CONSTRUCTION	
MAJOR STRUCTURES:	
1. RETAINING WALLS	$0
2. BRIDGE FOUNDATION	$67,750
3. BRIDGE CULVERTS (60’ X 51’3”)	$352,284
SUBTOTAL C:	**$420,034**

GRADING AND DRAINAGE	
1. EARTHWORK	
a. BORROW: (10,000 cu.yd. @ $5.00)	$50,000
b. EXCAVATION: (130 cu.yd. @ $3.50)	$500
SUBTOTAL D-1:	$50,500
2. DRAINAGE	
a. SLOPE DRAIN PIPE	$1,000
b. SPILLWAY TYPE 1	$0
SUBTOTAL D-2:	$1,000
SUBTOTAL D:	**$51,500**
BASE AND PAVING	
1. AGGREGATE BASE (800 sq. yd. of 8” @ $15)	$12,000
2. ASHPALT BASE (500 tons @ $60)	$30,000
3. ASPHALT PAVING	
a. Surface (200 tons @ $70)	$14,000
b. Binder (400 tons @ $70)	$28,000
c. Tack Coat (300 gals @ $2.50)	$750
SUBTOTAL E-3:	$84,750
4. CONCRETE APPROACH SLABS (260 SY @ $105 /SY)	$0
SUBTOTAL E:	**$84,750**

LUMP ITEMS	
1. TRAFFIC CONTROL	$20,000
2. CLEARING AND GRUBBING	$30,000
3. GRASSING	$20,000
4. EROSION CONTROL	$10,000
5. TEMP. EROSION CONTROL	$25,000
6. REMOVE EXISTING BRIDGE	$10,000
SUBTOTAL F:	**$115,000**

MISCELLANEOUS	
1. SIGNING	
a. SIGNS	$300
b. POSTS	$700
SUBTOTAL G-1:	$1,000
2. STRIPING	
a. 5 IN WHITE SOLID (1400 FT @ $0.75)	$1,050
b. 5 IN YELLOW SOLID (1400 FT @ $0.75)	$1,050
SUBTOTAL G-2:	$2,100
a. TYPE W (800 FT @ $12)	$9,600
c. TYPE 12 ANCHORS (2 @ $1600)	$3,200
d. TYPE 1 ANCHORS (2 @ $450)	$900
SUBTOTAL G-3:	$13,700
SUBTOTAL G:	
	$16,800

Date 8/11/2009

P.I. Number **771275** County **Fulton**

Project Number **BRZLB-0121-00(022)** **Alternative 2**

Special Provision, Section 109-Measurement and Payment

FUEL PRICE ADJUSTMENT *(ENGLISH 125% MAX)*

ENTER FPL DIESEL	2.506
ENTER FPM DIESEL	5.639

ENTER FPL UNLEADED	2.436
ENTER FPM UNLEADED	5.481

http://www.dot.ga.gov/doingbusiness/Materials/Pages/asphaltcementindex.aspx

INCREASE ADJUSTMENT
125.00%

INCREASE ADJUSTMENT
125.00%

ROADWAY ITEMS	QUANTITY	DIESEL FACTOR	GALLONS DIESEL	UNLEADED FACTOR	GALLONS UNLEADED	REMARKS
Excavations paid as specified by Sections 205 **(CUBIC YARD)**		0.29		0.15		
Excavations paid as specified by Sections 206 **(CUBIC YARD)**		0.29		0.15		
GAB paid as specified by the ton under Section 310 **(TON)**	2850.000	0.29	826.50	0.24	684.00	
Hot Mix Asphalt paid as specified by the ton under Sections 400 **(TON)**		2.90		0.71		
Hot Mix Asphalt paid as specified by the ton under Sections 402 **(TON)**	3954.000	2.90	11466.60	0.71	2807.34	
PCC Pavement paid as specified by the square yard under Section 430 **(SY)**		0.25		0.20		

BRIDGE ITEMS	Quantity	Unit Price	QF/1000	Diesel Factor	Gallons Diesel	Unleaded Factor	Gallons Unleaded	REMARKS
Bridge Excavation (CY) Section 211	100.00	100.00	10.0000	8.00	80.00	1.50	15.00	
Class __Concrete (CY) Section 500				8.00		1.50		
Class __Concrete (CY) Section 500				8.00		1.50		
Class __Concrete (CY) Section 500				8.00		1.50		
Superstru Con Class__(CY) Section 500				8.00		1.50		
Superstru Con Class__(CY) Section 500				8.00		1.50		
Superstru Con Class__(CY) Section 500				8.00		1.50		
Concrete Handrail (LF) Section 500				8.00		1.50		
Concrete Barrier (LF) Section 500				8.00		1.50		

BRIDGE ITEMS	Quantity	Unit Price	QF/1000	Diesel Factor	Gallons Diesel	Unleaded Factor	Gallons Unleaded	REMARKS

Stru Steel Plan Quantity (LB) Section 501				8.00		1.50		
Stru Steel Plan Quantity (LB) Section 501				8.00		1.50		
PSC Beams_____ (LF) Section 507				8.00		1.50		
PSC Beams_____ (LF) Section 507				8.00		1.50		
PSC Beams_____ (LF) Section 507				8.00		1.50		
Stru Reinf Plan Quantity(LB) Section 511				8.00		1.50		
Stru Reinf Plan Quantity(LB) Section 511				8.00		1.50		
Bar Reinf Steel (LB) Section 511				8.00		1.50		
Piling___inch (LF) Section 520				8.00		1.50		
Piling___inch (LF) Section 520				8.00		1.50		
Piling___inch (LF) Section 520				8.00		1.50		
Piling___inch (LF) Section 520				8.00		1.50		
Piling___inch (LF) Section 520				8.00		1.50		
Piling___inch (LF) Section 520				8.00		1.50		
Drilled Caisson,___ (LF) Section 524				8.00		1.50		
Drilled Caisson,___ (LF) Section 524				8.00		1.50		
Drilled Caisson,___ (LF) Section 524				8.00		1.50		
Pile Encasement,___(LF) Section 547				8.00		1.50		
Pile Encasement,___(LF) Section 547				8.00		1.50		

SUM QF DIESEL=	**12373.10**	**SUM QF UNLEADED=**	**3506.34**

DIESEL PRICE ADJUSTMENT($)	**$35,658.04**
UNLEADED PRICE ADJUSTMENT($)	**$9,822.66**

ASPHALT CEMENT PRICE ADJUSTMENT
(BITUMINOUS TACK COAT 125% MAX)

APPLICABLE TO CONTRACTS/PROJECTS CONTAINING THE 413 SPECIFICATION, SECTION 413.5.01 ADJUSTMENTS
ASPHALT PRICE ADJUSTMENT FOR BITUMINOUS TACK COAT

http://www.dot.ga.gov/doingbusiness/Materials/Pages/asphaltcementindex.aspx

ENTER APL 389 **ENTER APM** 875.25

125.00%	INCREASE ADJUSTMENT

L.I.N.	TYPE	TACK (GALLONS)	TACK (TONS)	REMARKS
413-1000	PG 58-22	300	1.2885	

TMT = 1.2885

PRICE ADJUSTMENT($)	$601.49

400 / 402 ASPHALT CEMENT PRICE ADJUSTMENT 125% MAX

ENTER APL 389 **ENTER APM** 875.25

http://www.dot.ga.gov/doingbusiness/Materials/Pages/asphaltcementindex.aspx

125.00%	INCREASE ADJUSTMENT

L.I.N. / Spec Number	MIX TYPE	HMA	JMF AC%	AC	REMARKS
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			TMT =		

PRICE ADJUSTMENT($)	

ASPHALT CEMENT PRICE ADJUSTMENT FOR BITUMINOUS TACK COAT(Surface Treatment 125% MAX)

APPLICABLE TO CONTRACTS CONTAINING THE 413 SPEC. SECTION 413.5.01 ADJUSTMENTS ASPHALT PRICE ADJUSTMENT FOR BITUMINOUS TACK COAT

http://www.dot.ga.gov/doingbusiness/Materials/Pages/asphaltcementindex.aspx

ENTER APL 389 ENTER APM 875.25

125.00%	INCREASE ADJUSTMENT

Use this side for Asphalt Emulsion Only

L.I.N.	TYPE	ASPHALT EMULSION (GALLONS)

TMT =

REMARKS:

Use this side for Asphalt Cement Only

L.I.N.	TYPE	TACK (GALLONS)

TMT =

REMARKS:

MONTHLY PRICE ADJUSTMENT($)	

ADJUSTMENT SUMMARY

FUEL PRICE ADJUSTMENT *(ENGLISH 125% MAX)*

DIESEL PRICE ADJUSTMENT($)	$35,658.04
UNLEADED PRICE ADJUSTMENT($)	$9,822.66
ASPHALT CEMENT PRICE ADJUSTMENT (BITUMINOUS TACK COAT 125% MAX)	$601.49
400 / 402 ASPHALT CEMENT PRICE ADJUSTMENT 125% MAX	
ASPHALT CEMENT PRICE ADJUSTMENT FOR BITUMINOUS TACK COAT(Surface Treatment 125% MAX)	

REMARKS:

TOTAL ADJUSTMENTS	$46,082.18

DWM 10/08

ESTIMATE SUMMARY – Alternative 2 60 Foot Prefabricated Arch Bridge	
A. RIGHT-OF-WAY	**$84,000**
B. REIMBURSABLE UTILITIES	**$50,000**
C. CONSTRUCTION	
MAJOR STRUCTURES	$420,034
GRADING AND DRAINAGE	$51,500
BASE AND PAVING	$84,750
LUMP ITEMS	$115,000
MISCELLANEOUS	$16,800
FUEL ADJUSTMENT	$46,082.18
SUBTOTAL: CONSTRUCTION COST	*$734,166.18*
ENGINEERING AND INSPECTION (4%)	*$29,366.65*
CONTINGENCY (3%)	$22,024.99
TOTAL CONSTRUCTION COST	**$785,557.81**
GRAND TOTAL PROJECT COST – Alternative 2	**$919,557.81**

PRELIMINARY COST ESTIMATE – Alternative 3

Three Span Bridge – 110 feet

PROJECT NUMBER: BRZLB-121-(22)

COUNTY: Fulton

DATE: April 21, 2009

ESTIMATED LETTING DATE: 2009

PREPARED BY: Qk4

PROJECT LENGTH: 0.21 miles

( ) PROGRAMMING PROCESS

(X) **CONCEPT DEVELOPMENT**

( ) DURING PROJECT DEVELOPMENT

PROJECT COST	
A. RIGHT-OF-WAY:	
1. PROPERTY (LAND & EASEMENT LAND ONLY PARCELS $10K/ACRE)	$13,000
2. PROPERTY (LAND & EASEMENT RESIDENTIAL PARCELS $60K/ACRE)	$54,000
3. DISPLACEMENTS; RES:0, BUS;0, M.H.:0	$0
4. OTHER COST (ADM./COST, INFLATION)	$17,000
SUBTOTAL A:	**$84,000**
B. REIMBURSABLE UTILITIES: (LGPA)	
1. RAILROAD	$0
2. TRANSMISSION LINES	$0
3. SERVICES	$50,000
SUBTOTAL B:	**$50,000**
C. CONSTRUCTION	
MAJOR STRUCTURES:	
1. RETAINING WALLS	$0
2. BRIDGE (110’ x 51’3” @ $95/SF)	$535,563
3. BRIDGE CULVERTS	$0
SUBTOTAL C:	**$535,563**

GRADING AND DRAINAGE	
1. EARTHWORK	
a. BORROW: (9,500 cu.yd. @ $5.00)	$50,000
b. EXCAVATION: (630 cu.yd. @ $3.50)	$500
SUBTOTAL D-1:	$50,500
2. DRAINAGE	
a. SLOPE DRAIN PIPE	$1,000
b. SPILLWAY TYPE 1	$0
SUBTOTAL D-2:	$1,000
SUBTOTAL D:	**$51,500**
BASE AND PAVING	
1. AGGREGATE BASE (800 sq. yd. of 8” @ $15)	$12,000
2. ASHPALT BASE (500 tons @ $60)	$30,000
3. ASPHALT PAVING	
a. Surface (200 tons @ $70)	$14,000
b. Binder (400 tons @ $70)	$28,000
c. Tack Coat (300 gals @ $2.50)	$750
SUBTOTAL E-3:	$84,750
4. CONCRETE APPROACH SLABS (227 SY @ $144 /SY)	$32,688
SUBTOTAL E:	**$117,438**

LUMP ITEMS	
1. TRAFFIC CONTROL	$30,000
2. CLEARING AND GRUBBING	$30,000
3. GRASSING	$20,000
4. EROSION CONTROL	$10,000
5. TEMP. EROSION CONTROL	$25,000
6. REMOVE EXISTING BRIDGE	$10,000
SUBTOTAL F:	**$125,000**

MISCELLANEOUS	
1. SIGNING	
a. SIGNS	$300
b. POSTS	$700
SUBTOTAL G-1:	$1,000
2. STRIPING	
a. 5 IN WHITE SOLID (1400 FT @ $0.75)	$1,050
b. 5 IN YELLOW SOLID (1400 FT @ $0.75)	$1,050
SUBTOTAL G-2:	$2,100
3. GUARDRAIL	
a. TYPE W (800 FT @ $12)	$9,600
c. TYPE 12 ANCHORS (2 @ $1600)	$3,200
d. TYPE 1 ANCHORS (2 @ $450)	$900
SUBTOTAL G-3:	$13,700
SUBTOTAL G:	**$16,800**

Date 8/11/2009

P.I. Number **771275** County **Fulton**

Project Number **BRZLB-0121-00(022)** **Alternative 3**

Special Provision, Section 109-Measurement and Payment

FUEL PRICE ADJUSTMENT *(ENGLISH 125% MAX)*

ENTER FPL DIESEL	2.506
ENTER FPM DIESEL	5.639

ENTER FPL UNLEADED	2.436
ENTER FPM UNLEADED	5.481

http://www.dot.ga.gov/doingbusiness/Materials/Pages/asphaltcementindex.aspx

INCREASE ADJUSTMENT
125.00%

INCREASE ADJUSTMENT
125.00%

ROADWAY ITEMS	QUANTITY	DIESEL FACTOR	GALLONS DIESEL	UNLEADED FACTOR	GALLONS UNLEADED	REMARKS
Excavations paid as specified by Sections 205 **(CUBIC YARD)**		0.29		0.15		
Excavations paid as specified by Sections 206 **(CUBIC YARD)**		0.29		0.15		
GAB paid as specified by the ton under Section 310 **(TON)**	2850.000	0.29	826.50	0.24	684.00	
Hot Mix Asphalt paid as specified by the ton under Sections 400 **(TON)**		2.90		0.71		
Hot Mix Asphalt paid as specified by the ton under Sections 402 **(TON)**	3954.000	2.90	11466.60	0.71	2807.34	
PCC Pavement paid as specified by the square yard under Section 430 **(SY)**		0.25		0.20		

BRIDGE ITEMS	Quantity	Unit Price	QF/1000	Diesel Factor	Gallons Diesel	Unleaded Factor	Gallons Unleaded	REMARKS
Bridge Excavation (CY) Section 211	100.00	100.00	10.0000	8.00	80.00	1.50	15.00	
Class __Concrete (CY) Section 500	105.00	470.98	49.4529	8.00	395.62	1.50	74.18	
Class __Concrete (CY) Section 500				8.00		1.50		
Class __Concrete (CY) Section 500				8.00		1.50		
Superstru Con Class__(CY) Section 500	90.00	738.00	66.4200	8.00	531.36	1.50	99.63	
Superstru Con Class__(CY) Section 500				8.00		1.50		
Superstru Con Class__(CY) Section 500				8.00		1.50		
Concrete Handrail (LF) Section 500				8.00		1.50		
Concrete Barrier (LF) Section 500	220.00	39.86	8.7692	8.00	70.15	1.50	13.15	

BRIDGE ITEMS	Quantity	Unit Price	QF/1000	Diesel Factor	Gallons Diesel	Unleaded Factor	Gallons Unleaded	REMARKS

Stru Steel Plan Quantity (LB) Section 501				8.00		1.50		
Stru Steel Plan Quantity (LB) Section 501				8.00		1.50		
PSC Beams_____ (LF) Section 507				8.00		1.50		
PSC Beams_____ (LF) Section 507				8.00		1.50		
PSC Beams_____ (LF) Section 507				8.00		1.50		
Stru Reinf Plan Quantity(LB) Section 511				8.00		1.50		
Stru Reinf Plan Quantity(LB) Section 511				8.00		1.50		
Bar Reinf Steel (LB) Section 511	12839.00	0.89	11.4267	8.00	91.41	1.50	17.14	
Piling___inch (LF) Section 520				8.00		1.50		
Piling___inch (LF) Section 520				8.00		1.50		
Piling___inch (LF) Section 520				8.00		1.50		
Piling___inch (LF) Section 520				8.00		1.50		
Piling___inch (LF) Section 520				8.00		1.50		
Piling___inch (LF) Section 520				8.00		1.50		
Drilled Caisson,___ (LF) Section 524				8.00		1.50		
Drilled Caisson,___ (LF) Section 524				8.00		1.50		
Drilled Caisson,___ (LF) Section 524				8.00		1.50		
Pile Encasement,___(LF) Section 547				8.00		1.50		
Pile Encasement,___(LF) Section 547				8.00		1.50		

SUM QF DIESEL=	**13461.65**	**SUM QF UNLEADED=**	**3710.44**

DIESEL PRICE ADJUSTMENT($)	**$38,795.13**
UNLEADED PRICE ADJUSTMENT($)	**$10,394.44**

ASPHALT CEMENT PRICE ADJUSTMENT
(BITUMINOUS TACK COAT 125% MAX)

APPLICABLE TO CONTRACTS/PROJECTS CONTAINING THE 413 SPECIFICATION, SECTION 413.5.01 ADJUSTMENTS
ASPHALT PRICE ADJUSTMENT FOR BITUMINOUS TACK COAT

http://www.dot.ga.gov/doingbusiness/Materials/Pages/asphaltcementindex.aspx

ENTER APL 389 **ENTER APM** 875.25

125.00%	INCREASE ADJUSTMENT

L.I.N.	TYPE	TACK (GALLONS)	TACK (TONS)	REMARKS
413-1000	PG 58-22	414	1.7782	

TMT = 1.7782

PRICE ADJUSTMENT($)	$830.05

400 / 402 ASPHALT CEMENT PRICE ADJUSTMENT 125% MAX

ENTER APL 389 **ENTER APM** 875.25

http://www.dot.ga.gov/doingbusiness/Materials/Pages/asphaltcementindex.aspx

125.00%	INCREASE ADJUSTMENT

L.I.N. / Spec Number	MIX TYPE	HMA	JMF AC%	AC	REMARKS
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			TMT =		

PRICE ADJUSTMENT($)	

ASPHALT CEMENT PRICE ADJUSTMENT FOR BITUMINOUS TACK COAT(Surface Treatment 125% MAX)

APPLICABLE TO CONTRACTS CONTAINING THE 413 SPEC. SECTION 413.5.01 ADJUSTMENTS ASPHALT PRICE ADJUSTMENT FOR BITUMINOUS TACK COAT

http://www.dot.ga.gov/doingbusiness/Materials/Pages/asphaltcementindex.aspx

ENTER APL 389 ENTER APM 875.25

125.00%	INCREASE ADJUSTMENT

Use this side for Asphalt Emulsion Only

L.I.N.	TYPE	ASPHALT EMULSION (GALLONS)

TMT =

REMARKS:

Use this side for Asphalt Cement Only

L.I.N.	TYPE	TACK (GALLONS)

TMT =

REMARKS:

MONTHLY PRICE ADJUSTMENT($)	

ADJUSTMENT SUMMARY

FUEL PRICE ADJUSTMENT *(ENGLISH 125% MAX)*

DIESEL PRICE ADJUSTMENT($)	$38,795.13
UNLEADED PRICE ADJUSTMENT($)	$10,394.44
ASPHALT CEMENT PRICE ADJUSTMENT (BITUMINOUS TACK COAT 125% MAX)	$830.05
400 / 402 ASPHALT CEMENT PRICE ADJUSTMENT 125% MAX	
ASPHALT CEMENT PRICE ADJUSTMENT FOR BITUMINOUS TACK COAT(Surface Treatment 125% MAX)	

REMARKS:

TOTAL ADJUSTMENTS	$50,019.62

DWM 10/08

ESTIMATE SUMMARY – Alternative 3 Three Span Bridge – 110 feet	
A. RIGHT-OF-WAY	**$84,000**
B. REIMBURSABLE UTILITIES	**$50,000**
C. CONSTRUCTION	
MAJOR STRUCTURES	$535,563
GRADING AND DRAINAGE	$51,500
BASE AND PAVING	$117,438
LUMP ITEMS	$125,000
MISCELLANEOUS	$16,800
FUEL ADJUSTMENT	$50,019.62
SUBTOTAL: CONSTRUCTION COST	*$896,320.12*
ENGINEERING AND INSPECTION (4%)	*$35,852.80*
CONTINGENCY (3%)	$26,889.60
TOTAL CONSTRUCTION COST	**$959,062.53**
GRAND TOTAL PROJECT COST – Alternative 3	**$1,093,062.53**

PRELIMINARY COST ESTIMATE – Alternative 4

5 Barrel Box Culvert 10 feet by 12 feet

PROJECT NUMBER: BRZLB-121-(22)

COUNTY: Fulton

DATE: April 21, 2009

ESTIMATED LETTING DATE: 2009

PREPARED BY: Qk4

PROJECT LENGTH: 0.21 miles

( ) PROGRAMMING PROCESS

(X) **CONCEPT DEVELOPMENT**

( ) DURING PROJECT DEVELOPMENT

PROJECT COST	
A. RIGHT-OF-WAY:	
1. PROPERTY (LAND & EASEMENT LAND ONLY PARCELS $10K/ACRE)	$13,000
2. PROPERTY (LAND & EASEMENT RESIDENTIAL PARCELS $60K/ACRE)	$54,000
3. DISPLACEMENTS; RES:0, BUS;0, M.H.:0	$0
4. OTHER COST (ADM./COST, INFLATION)	$17,000
SUBTOTAL A:	**$84,000**
B. REIMBURSABLE UTILITIES: (LGPA)	
1. RAILROAD	$0
2. TRANSMISSION LINES	$0
3. SERVICES	$50,000
SUBTOTAL B:	**$50,000**
C. CONSTRUCTION	
MAJOR STRUCTURES:	
1. RETAINING WALLS	$0
2. BRIDGE	$0
3. BRIDGE CULVERTS (5 – 10’ X 12’)	$400,500
SUBTOTAL C:	**$400,500**

GRADING AND DRAINAGE	
1. EARTHWORK	
a. BORROW: (10,000 cu.yd. @ $5.00)	$50,000
b. EXCAVATION: (130 cu.yd. @ $3.50)	$500
SUBTOTAL D-1:	$50,500
2. DRAINAGE	
a. SLOPE DRAIN PIPE	$1,000
b. SPILLWAY TYPE 1	$0
SUBTOTAL D-2:	$1,000
SUBTOTAL D:	**$51,500**
BASE AND PAVING	
1. AGGREGATE BASE (800 sq. yd. of 8” @ $15)	$12,000
2. ASHPALT BASE (500 tons @ $60)	$30,000
3. ASPHALT PAVING	
a. Surface (200 tons @ $70)	$14,000
b. Binder (400 tons @ $70)	$28,000
c. Tack Coat (300 gals @ $2.50)	$750
SUBTOTAL E-3:	$84,750
4. CONCRETE APPROACH SLABS (260 SY @ $105 /SY)	$0
SUBTOTAL E:	**$84,750**

LUMP ITEMS	
1. TRAFFIC CONTROL	$30,000
2. CLEARING AND GRUBBING	$30,000
3. GRASSING	$20,000
4. EROSION CONTROL	$10,000
5. TEMP. EROSION CONTROL	$25,000
6. REMOVE EXISTING BRIDGE	$10,000
SUBTOTAL F:	**$125,000**

MISCELLANEOUS	
1. SIGNING	
a. SIGNS	$300
b. POSTS	$700
SUBTOTAL G-1:	$1,000
2. STRIPING	
a. 5 IN WHITE SOLID (1400 FT @ $0.75)	$1,050
b. 5 IN YELLOW SOLID (1400 FT @ $0.75)	$1,050
SUBTOTAL G-2:	$2,100
3. GUARDRAIL	
a. TYPE W (800 FT @ $12)	$9,600
c. TYPE 12 ANCHORS (2 @ $1600)	$3,200
d. TYPE 1 ANCHORS (2 @ $450)	$900
SUBTOTAL G-3:	$13,700
SUBTOTAL G:	**$16,800**

Date 8/11/2009

P.I. Number **771275** County **Fulton**

Project Number **BRZLB-0121-00(022)** **Alternative 4**

Special Provision, Section 109-Measurement and Payment

FUEL PRICE ADJUSTMENT *(ENGLISH 125% MAX)*

ENTER FPL DIESEL	2.506
ENTER FPM DIESEL	5.639

ENTER FPL UNLEADED	2.436
ENTER FPM UNLEADED	5.481

http://www.dot.ga.gov/doingbusiness/Materials/Pages/asphaltcementindex.aspx

INCREASE ADJUSTMENT
125.00%

INCREASE ADJUSTMENT
125.00%

ROADWAY ITEMS	QUANTITY	DIESEL FACTOR	GALLONS DIESEL	UNLEADED FACTOR	GALLONS UNLEADED	REMARKS
Excavations paid as specified by Sections 205 **(CUBIC YARD)**		0.29		0.15		
Excavations paid as specified by Sections 206 **(CUBIC YARD)**		0.29		0.15		
GAB paid as specified by the ton under Section 310 **(TON)**	2850.000	0.29	826.50	0.24	684.00	
Hot Mix Asphalt paid as specified by the ton under Sections 400 **(TON)**		2.90		0.71		
Hot Mix Asphalt paid as specified by the ton under Sections 402 **(TON)**	3954.000	2.90	11466.60	0.71	2807.34	
PCC Pavement paid as specified by the square yard under Section 430 **(SY)**		0.25		0.20		

BRIDGE ITEMS	Quantity	Unit Price	QF/1000	Diesel Factor	Gallons Diesel	Unleaded Factor	Gallons Unleaded	REMARKS
Bridge Excavation (CY) Section 211	100.00	100.00	10.0000	8.00	80.00	1.50	15.00	
Class __Concrete (CY) Section 500				8.00		1.50		
Class __Concrete (CY) Section 500				8.00		1.50		
Class __Concrete (CY) Section 500				8.00		1.50		
Superstru Con Class__(CY) Section 500				8.00		1.50		
Superstru Con Class__(CY) Section 500				8.00		1.50		
Superstru Con Class__(CY) Section 500				8.00		1.50		
Concrete Handrail (LF) Section 500				8.00		1.50		
Concrete Barrier (LF) Section 500				8.00		1.50		

BRIDGE ITEMS	Quantity	Unit Price	QF/1000	Diesel Factor	Gallons Diesel	Unleaded Factor	Gallons Unleaded	REMARKS

Stru Steel Plan Quantity (LB) Section 501				8.00		1.50		
Stru Steel Plan Quantity (LB) Section 501				8.00		1.50		
PSC Beams_____ (LF) Section 507				8.00		1.50		
PSC Beams_____ (LF) Section 507				8.00		1.50		
PSC Beams_____ (LF) Section 507				8.00		1.50		
Stru Reinf Plan Quantity(LB) Section 511				8.00		1.50		
Stru Reinf Plan Quantity(LB) Section 511				8.00		1.50		
Bar Reinf Steel (LB) Section 511				8.00		1.50		
Piling___inch (LF) Section 520				8.00		1.50		
Piling___inch (LF) Section 520				8.00		1.50		
Piling___inch (LF) Section 520				8.00		1.50		
Piling___inch (LF) Section 520				8.00		1.50		
Piling___inch (LF) Section 520				8.00		1.50		
Piling___inch (LF) Section 520				8.00		1.50		
Drilled Caisson,___ (LF) Section 524				8.00		1.50		
Drilled Caisson,___ (LF) Section 524				8.00		1.50		
Drilled Caisson,___ (LF) Section 524				8.00		1.50		
Pile Encasement,___(LF) Section 547				8.00		1.50		
Pile Encasement,___(LF) Section 547				8.00		1.50		

SUM QF DIESEL=	**12373.10**	**SUM QF UNLEADED=**	**3506.34**

DIESEL PRICE ADJUSTMENT($)	**$35,658.04**
UNLEADED PRICE ADJUSTMENT($)	**$9,822.66**

ASPHALT CEMENT PRICE ADJUSTMENT
(BITUMINOUS TACK COAT 125% MAX)

APPLICABLE TO CONTRACTS/PROJECTS CONTAINING THE 413 SPECIFICATION, SECTION 413.5.01 ADJUSTMENTS
ASPHALT PRICE ADJUSTMENT FOR BITUMINOUS TACK COAT

http://www.dot.ga.gov/doingbusiness/Materials/Pages/asphaltcementindex.aspx

ENTER APL 389 **ENTER APM** 875.25

125.00%	INCREASE ADJUSTMENT

L.I.N.	TYPE	TACK (GALLONS)	TACK (TONS)	REMARKS
413-1000	PG 58-22	300	1.2885	

TMT = 1.2885

PRICE ADJUSTMENT($)	$601.49

400 / 402 ASPHALT CEMENT PRICE ADJUSTMENT 125% MAX

ENTER APL 389 **ENTER APM** 875.25

http://www.dot.ga.gov/doingbusiness/Materials/Pages/asphaltcementindex.aspx

125.00%	INCREASE ADJUSTMENT

L.I.N. / Spec Number	MIX TYPE	HMA	JMF AC%	AC	REMARKS
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			TMT =		

PRICE ADJUSTMENT($)	

ASPHALT CEMENT PRICE ADJUSTMENT FOR BITUMINOUS TACK COAT(Surface Treatment 125% MAX)

APPLICABLE TO CONTRACTS CONTAINING THE 413 SPEC. SECTION 413.5.01 ADJUSTMENTS ASPHALT PRICE ADJUSTMENT FOR BITUMINOUS TACK COAT

http://www.dot.ga.gov/doingbusiness/Materials/Pages/asphaltcementindex.aspx

ENTER APL 389 ENTER APM 875.25

125.00%	INCREASE ADJUSTMENT

Use this side for Asphalt Emulsion Only

L.I.N.	TYPE	ASPHALT EMULSION (GALLONS)

TMT =

REMARKS:

Use this side for Asphalt Cement Only

L.I.N.	TYPE	TACK (GALLONS)

TMT =

REMARKS:

MONTHLY PRICE ADJUSTMENT($)	

ADJUSTMENT SUMMARY

FUEL PRICE ADJUSTMENT *(ENGLISH 125% MAX)*

DIESEL PRICE ADJUSTMENT($)	$35,658.04
UNLEADED PRICE ADJUSTMENT($)	$9,822.66
ASPHALT CEMENT PRICE ADJUSTMENT (BITUMINOUS TACK COAT 125% MAX)	$601.49
400 / 402 ASPHALT CEMENT PRICE ADJUSTMENT 125% MAX	
ASPHALT CEMENT PRICE ADJUSTMENT FOR BITUMINOUS TACK COAT(Surface Treatment 125% MAX)	

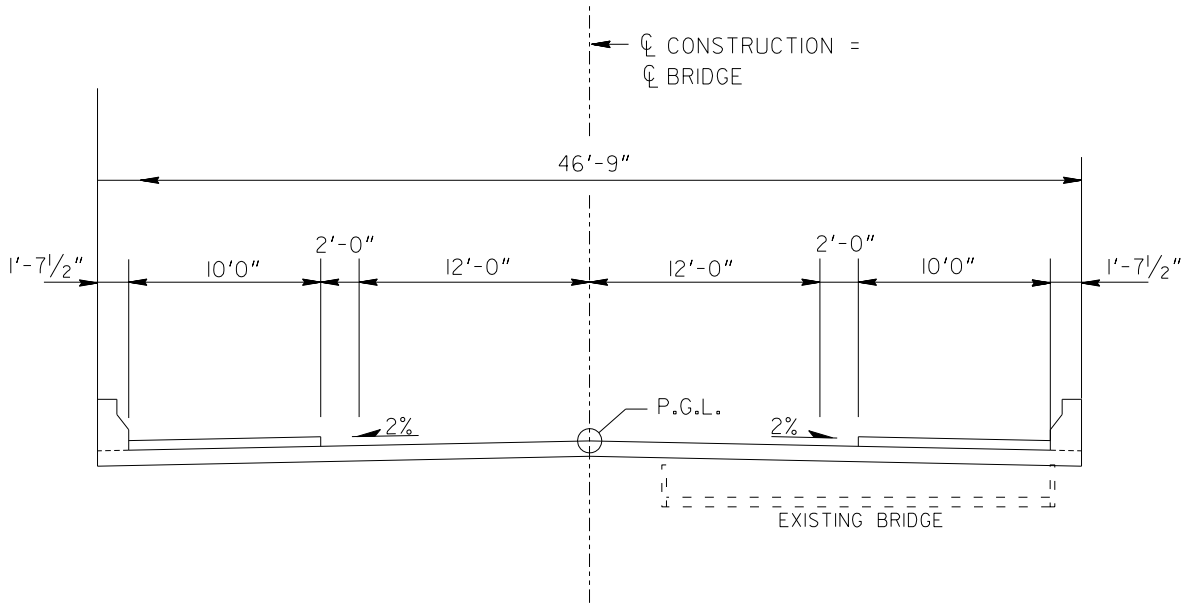
REMARKS:

TOTAL ADJUSTMENTS	$46,082.18

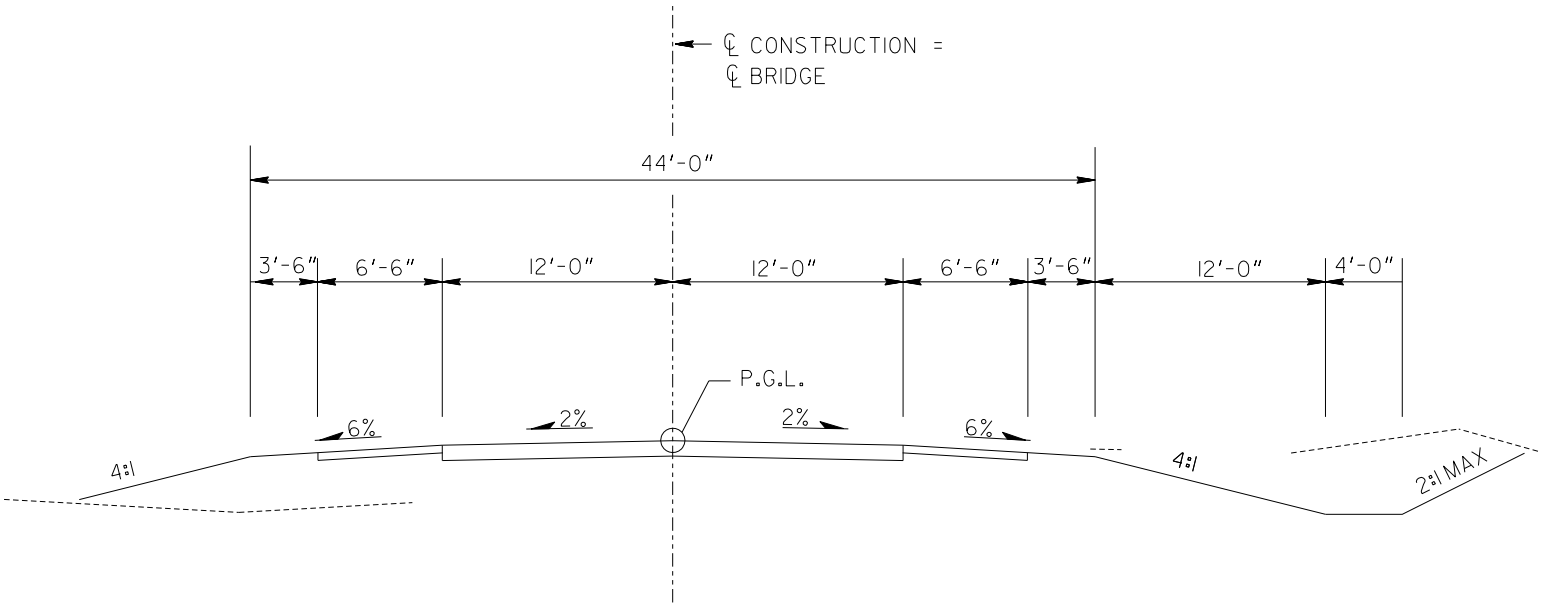
DWM 10/08

ESTIMATE SUMMARY – Alternative 4 5 Barrel Box Culvert 10 feet by 12 feet		
A. RIGHT-OF-WAY		**$84,000**
B. REIMBURSABLE UTILITIES		**$50,000**
C. CONSTRUCTION		
MAJOR STRUCTURES		$400,500
GRADING AND DRAINAGE		$51,500
BASE AND PAVING		$84,750
LUMP ITEMS		$125,000
MISCELLANEOUS		$16,800
FUEL ADJUSTMENT		$46,082.18
SUBTOTAL: CONSTRUCTION COST		*$724,632.18*
ENGINEERING AND INSPECTION		*$28,985.29*
CONTINGENCY	**2**	$21,738.97
TOTAL CONSTRUCTION COST		**$775,356.43**
GRAND TOTAL PROJECT COST – Alternative 4		**$909,356.43**

Typical Sections



BRIDGE TYPICAL SECTION



ROADWAY TYPICAL SECTION

SCALE 1"=10'

FULTON COUNTY
DEPARTMENT OF TRANSPORTATION
COCHRAN MILL ROAD OVER PEA CREEK
TYPICAL SECTIONS
BRZLB-121(22) 04/20/09

Hydraulic Information

Meets Minimum Hydraulic Design Criteria
USGS Regression Equation used for Hydrology Calculations
BRIDGE HYDRAULIC DESIGN CRITERIA

COCHRAN MILL ROAD OVER PEA CREEK
Plan
Project name file name Natural Pea Creek Exist Pea Creek
V:\Eng-Land Proj Files\09600 Cochran Mill Bridge Over Pea Creek\HEC-RAS\Qk4 Study\9000.prj
50 YEAR STORM (Minimum Design Storm)

Bridge construction cost Conceptual Cost Estimate			$355,300.00	$372,760.00	$488,540.00	$361,400.00
50 YEAR STORM						
CREEK FLOODS	NATURAL CONDITIONS	EXISTING BRIDGE L = 29'	ALTERNATIVE #1 BRIDGE L = 80' (single span)	ALTERNATIVE # 2 Arch Bridge L = 60'	ALTERNATIVE #3 BRIDGE L = 110' (3 span)	ALTERNATIVE #4 BOX CULVERT 5 - 10' X 12' (20 % buried)
FLOOD STAGE AT FULL VALLEY	**763.20**	**763.19**	**763.20**	**763.20**	**763.20**	**763.20**
TOTAL DISCHARGE (CFS)	**2928**	**2928**	**2928**	**2928**	**2928**	**2928**
DISCHARGE THRU BRIDGE (CFS)		**2928**	**2928**	**2928**	**2928**	**2928**
BRIDGE OPEN AREA (FT^2)		**247.44**	**402.35**	**490.91**	**707.87**	**444**
VELOCITY THRU BRIDGE (FPS)		**10.01**	**7.28**	**5.96**	**6.20**	**6.6**
CHANNEL VELOCITY (FPS)	**3.55**	**16.54**	**7.38**	**5.34**	**7.55**	**7.6**
MAXIMUM BACKWATER (FT)		**4.24**	**0.79**	**0.81**	**0.73**	**0.93**
WS ELEV APPROACH SECTION	**766.01**	**770.25**	**766.8**	**766.82**	**766.74**	**766.94**
US WS ELEV AT STRUCTURE		**768.5**	**765.32**	**765.71**	**765.41**	**765.54**
STRUCTURE LOW CHORD (FT)		**767.2**	**767.67**	**769.00**	**767.67**	**766.41**
FREEBOARD (FT)		**-1.3**	**2.35**	**3.29**	**2.26**	**0.87**

100 YEAR STORM

CREEK FLOODS	NATURAL CONDITIONS	EXISTING BRIDGE L = 29'	ALTERNATE #3 BRIDGE L = 80' (single span)	ALTERNATE #2 Arch Bridge L = 60'	ALTERNATE #4 BRIDGE L = 110' (3 span)	ALTERNATE #1 BOX CULVERT 5 - 10' X 12' (20 % buried)
FLOOD STAGE AT FULL VALLEY	**763.65**	**763.62**	**763.65**	**763.63**	**763.65**	**763.63**
TOTAL DISCHARGE (CFS)	**3493**	**3493**	**3493**	**3493**	**3493**	**3493**
DISCHARGE THRU BRIDGE (CFS)		**1612.02**	**3493**	**3493**	**3493**	**3493**
BRIDGE OPEN AREA (FT^2)		**247.44**	**433.17**	**512.09**	**707.87**	**472**
VELOCITY THRU BRIDGE (FPS)		**10.52**	**8.06**	**6.82**	**7.02**	**7.76**
CHANNEL VELOCITY (FPS)	**3.57**	**17.53**	**8.04**	**5.95**	**8.32**	**8.35**
MAXIMUM BACKWATER (FT)		**5.34**	**1.08**	**1.11**	**0.98**	**1.27**
WS ELEV APPROACH SECTION	**766.39**	**771.73**	**767.47**	**767.5**	**767.37**	**767.66**
US WS ELEV AT STRUCTURE		**771.43**	**766.09**	**766.44**	**765.96**	**766.10**
STRUCTURE LOW CHORD (FT)		**767.2**	**767.67**	**769.00**	**767.67**	**766.66**
FREEBOARD (FT)		**-4.23**	**1.58**	**2.56**	**1.71**	**0.56**

500 YEAR STORM

	NATURAL CONDITIONS	EXISTING BRIDGE L = 29'	ALTERNATE #3 BRIDGE L = 80' (single span)	ALTERNATE #2 CONSPAN L = 60'	ALTERNATE #4 BRIDGE L = 110' (3 span)	ALTERNATE #1 BOX CULVERT 5 - 10' X 12' (20 % buried)
FLOOD STAGE AT FULL VALLEY	**764.61**	**764.52**	**764.55**	**764.52**	**764.55**	**764.52**
TOTAL DISCHARGE (CFS)	**5060**	**5060**	**5060**	**5060**	**5060**	**5060**
DISCHARGE THRU BRIDGE (CFS)		**1226.76**	**5060**	**5060**	**5060**	**5060**
BRIDGE OPEN AREA (FT^2)		**247.44**	**553.01**	**579.13**	**707.87**	**500**
VELOCITY THRU BRIDGE (FPS)		**1.52**	**8.68**	**9.15**	**7.15**	**10.12**
CHANNEL VELOCITY (FPS)	**4.39**	**10.46**	**7.30**	**7.30**	**9.03**	**9.49**
MAXIMUM BACKWATER (FT)		**5.77**	**3.04**	**1.95**	**2.6**	**2.64**
WS ELEV APPROACH SECTION	**767.16**	**772.93**	**770.2**	**769.11**	**769.76**	**769.8**
US WS ELEV AT STRUCTURE		**772.75**	**767.67**	**768.03** #	**767.67**	**768.06**
STRUCTURE LOW CHORD (FT)		**767.2**	**767.67**	**769.00**	**767.67**	**766.66**
FREEBOARD (FT)		**-5.55**	**0**	**0.97**	**0**	**-1.4**

60 foot Arch Bridge flood elevations vs. Existing Bridge

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Cochran Mill Rd	2209	100-year storm	60' Arch Bridge	3493	756.94	767.5		767.57	0.000703	3.67	3650.78	1021.34	0.22
Cochran Mill Rd	2209	100-year storm	Exist Pea Creek	3493	756.94	771.73		771.74	0.000075	1.55	8510.93	1328.07	0.08
Cochran Mill Rd	2050	100-year storm	60' Arch Bridge	3493	756.94	767.42	765.13	767.49	0.000627	3.48	3818.77	1160.87	0.21
Cochran Mill Rd	2050	100-year storm	Exist Pea Creek	3493	756.94	771.73	765.12	771.73	0.000059	1.38	9583.67	1442.64	0.07
Cochran Mill Rd	2007	100-year storm	60' Arch Bridge	3493	756.78	767.38	765.03	767.46	0.00063	3.81	3710.51	1149.08	0.22
Cochran Mill Rd	2007	100-year storm	Exist Pea Creek	3493	756.78	771.72	765	771.73	0.000058	1.49	9646.88	1418.96	0.07
Cochran Mill Rd	1961	100-year storm	60' Arch Bridge	3493	756.39	767.36	764.98	767.43	0.000742	3.88	3476.43	1139.33	0.22
Cochran Mill Rd	1961	100-year storm	Exist Pea Creek	3493	756.39	771.72	764.94	771.73	0.000062	1.43	9654.7	1411.22	0.07
Cochran Mill Rd	1907	100-year storm	60' Arch Bridge	3493	757.17	767.33	764.3	767.39	0.000575	3.4	3312.83	1123.13	0.2
Cochran Mill Rd	1907	100-year storm	Exist Pea Creek	3493	757.17	771.72	764.3	771.72	0.000048	1.28	10019.95	1384.05	0.06
Cochran Mill Rd	1876	100-year storm	60' Arch Bridge	3493	756.83	767.29	764.03	767.37	0.000578	3.49	2981.79	1116.91	0.21
Cochran Mill Rd	1876	100-year storm	Exist Pea Creek	3493	756.83	771.72	764.06	771.72	0.000044	1.26	10061.89	1366.75	0.06
Cochran Mill Rd	1837	100-year storm	60' Arch Bridge	3493	756.59	767.22	763.93	767.34	0.000715	4.01	2514.43	1114.94	0.23
Cochran Mill Rd	1837	100-year storm	Exist Pea Creek	3493	756.59	771.71	763.94	771.72	0.000044	1.29	10122.62	1350.65	0.06
Cochran Mill Rd	1770	100-year storm	60' Arch Bridge	3493	756.74	767.03	764.26	767.26	0.001636	5.3	1597.37	1106.82	0.32
Cochran Mill Rd	1770	100-year storm	Exist Pea Creek	3493	756.74	771.71	764.4	771.72	0.000038	1.09	10663.5	1346.61	0.05
Cochran Mill Rd	1743	100-year storm	60' Arch Bridge	3493	756.86	766.63	764.6	767.18	0.002757	7.37	1066.24	1119.26	0.45
Cochran Mill Rd	1743	100-year storm	Exist Pea Creek	3493	756.86	771.71	764.68	771.72	0.000037	1.17	10770.95	1358.78	0.06
Cochran Mill Rd	1720	100-year storm	60' Arch Bridge	3493	756.36	766.65	763.93	767.12	0.002054	6.44	1026.22	1060.73	0.39
Cochran Mill Rd	1720	100-year storm	Exist Pea Creek	3493	756.36	771.71	764.03	771.72	0.000045	1.31	9899.6	1383.75	0.06
Cochran Mill Rd	1701	100-year storm	60' Arch Bridge	3493	756.58	766.38	763.18	767.06	0.002771	7.74	854.05	777.65	0.47
Cochran Mill Rd	1701	100-year storm	Exist Pea Creek	3493	756.58	771.7	763.18	771.72	0.000068	1.68	8449.52	1351.59	0.08
Cochran Mill Rd	1675	100-year storm	60' Arch Bridge	3493	756.66	766.44	761.59	766.98	0.001448	5.95	649.57	223.5	0.34
Cochran Mill Rd	1675	100-year storm	Exist Pea Creek	3493	756.66	771.65	763.57	771.71	0.000173	2.65	5090.84	1216.33	0.13
Cochran Mill Rd	1650			Bridge									
Cochran Mill Rd	1641	100-year storm	Exist Pea Creek	3493	756.73	766.58	766.58	771.08	0.011963	17.53	231.17	28.63	1
Cochran Mill Rd	1618	100-year storm	60' Arch Bridge	3493	753.94	766.36	759.24	766.73	0.000642	4.88	729.6	762.73	0.25
Cochran Mill Rd	1618	100-year storm	Exist Pea Creek	3493	753.94	765.83	761.48	766.8	0.002324	7.92	451.68	536.91	0.44
Cochran Mill Rd	1580	100-year storm	60' Arch Bridge	3493	754.31	765.59	762.16	766.62	0.003285	8.37	533.41	1105.91	0.49
Cochran Mill Rd	1580	100-year storm	Exist Pea Creek	3493	754.31	765.63	762.16	766.68	0.00331	8.42	505.62	1108.27	0.49
Cochran Mill Rd	1552	100-year storm	60' Arch Bridge	3493	753.56	765.48	762.57	766.52	0.003608	8.67	598.42	1124.14	0.5
Cochran Mill Rd	1552	100-year storm	Exist Pea Creek	3493	753.56	765.46	762.49	766.58	0.003801	8.89	551.31	1122.69	0.52
Cochran Mill Rd	1490	100-year storm	60' Arch Bridge	3493	754.21	764.8	764.29	766.21	0.00582	10.29	596.37	998.19	0.64
Cochran Mill Rd	1490	100-year storm	Exist Pea Creek	3493	754.21	764.79	764.24	766.25	0.006002	10.43	568.49	990.9	0.65
Cochran Mill Rd	1389	100-year storm	60' Arch Bridge	3493	753.95	764.93	763.72	765.57	0.002932	7.83	1062.19	1053.82	0.45
Cochran Mill Rd	1389	100-year storm	Exist Pea Creek	3493	753.95	764.91	763.7	765.59	0.003038	7.96	1021.54	1049.78	0.46
Cochran Mill Rd	1349	100-year storm	60' Arch Bridge	3493	753.92	764.75	763.86	765.44	0.003401	8.15	1053.28	996.8	0.49
Cochran Mill Rd	1349	100-year storm	Exist Pea Creek	3493	753.92	764.75	763.85	765.46	0.003489	8.25	1022.03	994.05	0.49
Cochran Mill Rd	1309	100-year storm	60' Arch Bridge	3493	753.3	763.9	763.9	765.2	0.0063	10.01	731.1	671.13	0.65
Cochran Mill Rd	1309	100-year storm	Exist Pea Creek	3493	753.3	763.89	763.89	765.21	0.006373	10.06	715.1	668.74	0.65
Cochran Mill Rd	1253	100-year storm	60' Arch Bridge	3493	754.05	763.81	763	764.35	0.003286	7.47	1241.64	814.07	0.47
Cochran Mill Rd	1253	100-year storm	Exist Pea Creek	3493	754.05	763.79	763	764.36	0.003417	7.6	1200.61	809.9	0.48
Cochran Mill Rd	1205	100-year storm	60' Arch Bridge	3493	753.85	763.61	762.94	764.2	0.003267	7.64	1245.43	764.16	0.47
Cochran Mill Rd	1205	100-year storm	Exist Pea Creek	3493	753.85	763.59	762.93	764.2	0.003352	7.73	1214.55	760.66	0.48
Cochran Mill Rd	1144	100-year storm	60' Arch Bridge	3493	753.67	763.64	762.46	763.95	0.002147	6.2	1638.82	835.89	0.38
Cochran Mill Rd	1144	100-year storm	Exist Pea Creek	3493	753.67	763.62	762.49	763.95	0.002272	6.36	1580.75	831.75	0.39
Cochran Mill Rd	1093	100-year storm	60' Arch Bridge	3493	753.67	763.55	762.35	763.84	0.001958	6.2	1874.49	854.41	0.38
Cochran Mill Rd	1093	100-year storm	Exist Pea Creek	3493	753.67	763.52	762.37	763.83	0.002068	6.36	1811.95	850.36	0.39
Cochran Mill Rd	1019	100-year storm	60' Arch Bridge	3493	753.13	763.12	762.06	763.63	0.003145	7.57	1502.71	644.31	0.47
Cochran Mill Rd	1019	100-year storm	Exist Pea Creek	3493	753.13	763.11	762.06	763.62	0.003145	7.57	1490.17	641.9	0.47