

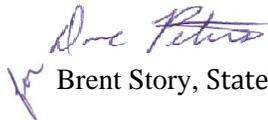
ORIGINAL TO GENERAL FILES

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA**

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

**FILE** P.I. #245320- & 245325- **OFFICE** Design Policy & Support  
STP00-1105-00(004) &  
BHSLB-1105-00(005)  
Richmond County **DATE** February 11, 2010  
CR 65/Windsor Spring Rd from  
SR 88 to Willis Foreman Rd

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

**TO** SEE DISTRIBUTION

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

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

Attachment

DISTRIBUTION:

Ron Wishon, State Project Review Engineer  
Glenn Bowman, State Environmental Administrator  
Ken Thompson, Statewide Location Bureau Chief  
Michael Henry, Systems & Classification Branch Chief  
Keith Golden, State Traffic Operations Engineer  
Angela Alexander, State Transportation Planning Administrator  
Paul Liles, State Bridge Engineer  
Bobby Hilliard, State Program Delivery Engineer  
George Brewer, Tennille District Preconstruction Engineer  
Tony Collins, Tennille District Engineer  
Krystal Stovall-Dixon, Project Manager  
BOARD MEMBER

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA**

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**INTERDEPARTMENT CORRESPONDENCE**

**FILE**      STP00-1105-00(004) & BHSLB-1105-00(005),      **OFFICE** Program Delivery  
                Richmond County  
                P.I. Numbers 245320- & 245325-  
                CR 65/Windsor Spring Road from State Route 88 to Willis Foreman Road

**DATE**      11/18/2009

**FROM**      Bobby K. Hilliard, PE, State Program Delivery Engineer *B.K.H.*

**TO**          Genetha Rice-Singleton, Program Control Administrator

**SUBJECT**   Revised 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).

Revisions to the typical section include reducing the 12-foot wide lanes to 11-foot wide lanes, reducing the width of the median from 20 feet to 19 feet, and removing the 4-foot wide bike lanes. The 5-foot wide concrete sidewalk will be replaced by an 8-foot wide asphalt multi-use trail on both sides of the roadway. The width of the shoulder will remain 16 feet.

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

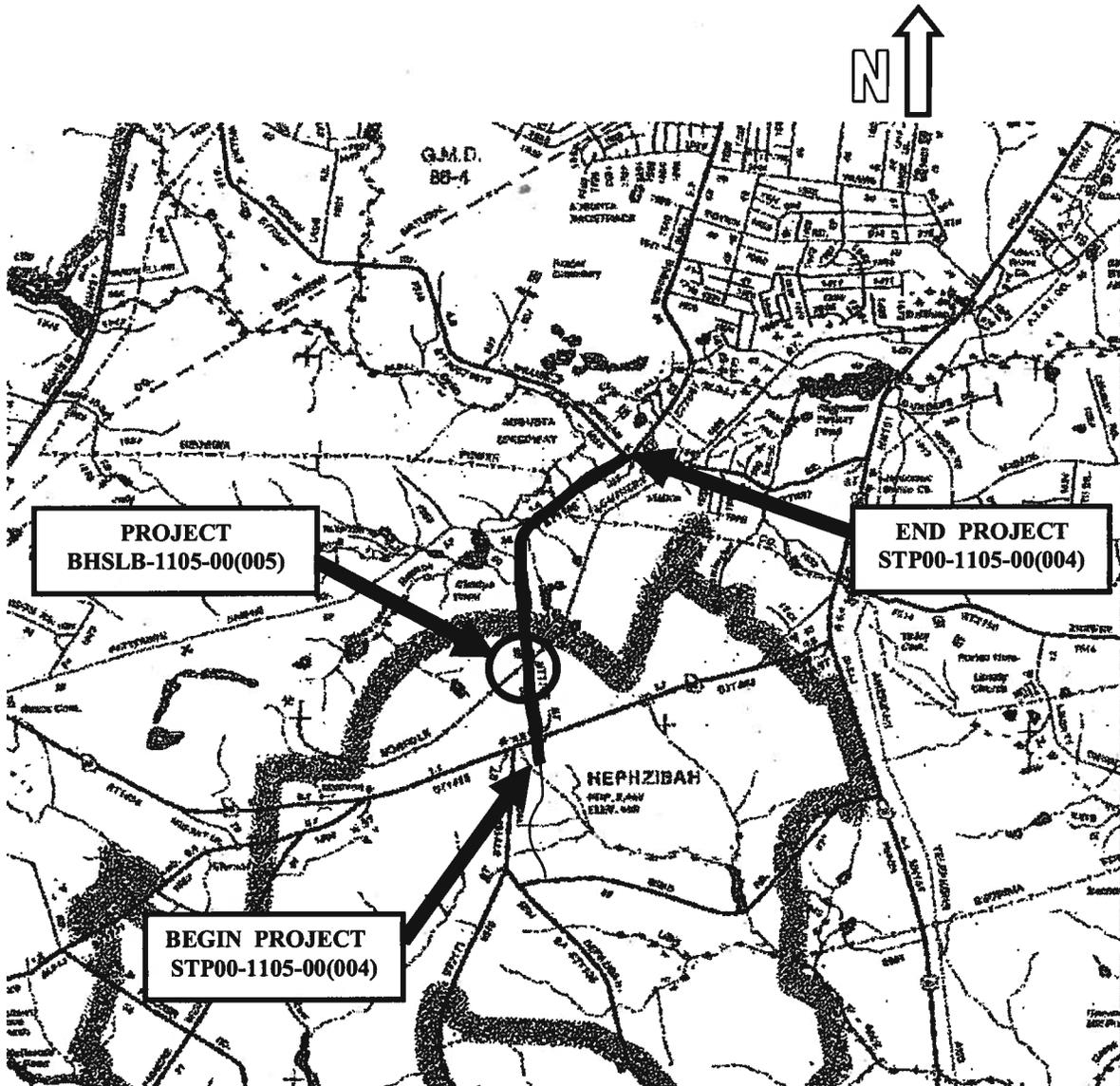
**DATE** 1-16-2010

  
\_\_\_\_\_  
State Transportation Planning Administrator

BKH:MAH:KESD

**Distribution:**

Ron Wishon, Project Review Engineer  
Glenn S. Bowman, State Environment Engineer  
Keith Golden, State Traffic Operations Engineer  
Angela T. Alexander, State Transportation Planning Administrator  
Angela Whitworth, State Transportation Financial Management Administrator  
Kent L. Sager, District Engineer  
Paul Liles, State Bridge Design Engineer



**Need and Purpose:**

See attachment for approved need and purpose statement.

**Project location:**

Projects STP00-1105-00(004) and BHSLB-1105-00(005) on Windsor Spring Road are located in the southern region of the greater Augusta area and City of Hephzibah. This phase of the project is approximately 2.15 miles long. Project STP00-1105-00(004) begins south of the intersection of CR 65/Windsor Spring Road/Temp. SR 1017 and SR 88 and terminates south of the intersection of CR 65/Windsor Spring Road/Temp. SR 1017 and Willis Foreman Road. Project BHSLB-1105-00(005) is the reconstruction of the bridge over Norfolk Southern Railroad.

**Description of the approved concept:**

The existing two-lane, 6-foot graded shoulder Urban Minor Arterial facility will be widened to four 12-foot wide lanes (two lanes in each direction) separated by a 20-foot wide raised median. 16-foot shoulders with curb and gutter, a 4-foot wide bike lane, and 5-foot wide sidewalks will also be constructed on both sides of the roadway. Left and right-turn lanes will be provided at the major intersections as required. The existing two-lane bridge over Norfolk Southern Railroad will be replaced with four 12-foot wide lanes (two lanes in each direction) separated by a 20-foot wide raised median. A 4-foot wide bike lane and 6-foot wide sidewalks will be constructed on both sides of the bridge.

**PDP Classification:** Major Project, Existing Location  
 Full Oversight ( ), Exempt(X), State Funded( ), or Other ( )

**Functional Classification:**

CR 65/Windsor Spring Road: Urban Minor Arterial

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

State Route Number(s): N/A

**Traffic (AADT):**

ROAD	CURRENT YEAR (2005)	DESIGN YEAR (2025)
CR 65/Windsor Spring Road	7140	17955

**Proposed features to be revised:**

Revisions to the typical section include reducing the 12-foot wide lanes to 11-foot wide lanes, reducing the width of the median from 20 feet to 19 feet, and removing the 4-foot wide bike lanes. The 5-foot wide concrete sidewalk will be replaced by an 8-foot wide asphalt multi-use trail on both sides of the roadway. The width of the shoulder will remain 16 feet.

**Describe the revised features to be approved:**

The existing roadway will be widened to four 11-foot lanes (two in each direction) separated by a 19-foot wide raised median. 16-foot shoulders with curb and gutter and an 8-foot wide multi-

Revised Project Concept Report - Page 4  
 Project Numbers: STP00-1105-00(004), BHS LB-1105-00(005)  
 P. I. Numbers: 245320, 245325  
 County: Richmond

use trail will also be constructed on both sides of the roadway. The existing two-lane bridge over Norfolk Southern Railroad will be replaced with six 11-foot wide lanes (two lanes southbound and four lanes northbound including a left and right turn lane) separated by an 8-foot wide raised median. Eight-foot wide sidewalks will be constructed on both sides of the bridge.

A Value Engineering Study was held in October 2007 and the recommendations to be implemented were approved February 26, 2008. The approved recommendations revised the typical section of CR 65/Windsor Spring Road/Temp. SR 1017 to reduce the required right of way.

**Traffic (AADT):**

ROAD	CURRENT YEAR (2014)	DESIGN YEAR (2034)
CR 65/Windsor Spring Road	10000	14200

**Programmed/Schedule:**

P.E. 2000 & 2001 R/W: June 2010 Construction: Long Range

VE Study Required: Yes (  ) No (  )

Is the project located in a Non-attainment area?  Yes  No

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

**Attachments:**

1. Sketch Map
2. Need and Purpose Statement
3. Revised Typical Section
4. Cost Estimates:
  - a. Construction including E&I and contingency: ~~\$15,416,212~~ \$11,930,200
  - b. Bridge including E&I and contingency: \$1,919,038
  - c. ~~Right of Way: \$4,878,938~~
  - d. ~~Reimbursable Utilities including contingency: \$1,950,000~~ > Not Attached

**Exempt Projects**

Concur: \_\_\_\_\_  
 Program Control Administrator

Concur: \_\_\_\_\_  
 Director of Engineering

Approve: \_\_\_\_\_  
 Chief Engineer

## **Need and Purpose Statement**

Project STP00-1105-00(004) and BHSLB-1105-00(005), RICHMOND COUNTY  
P.I. Numbers 245320 and 245325  
WINDSOR SPRING RD/CR 65 FROM SR 88 TO WILLIS FOREMAN RD

### **Project History**

Project STP00-1105-00(004) consists of improvements to Windsor Spring Road/ CR 65 from just south of State Route 88 (Milepost 9.89) to Willis Foreman Road (Milepost 7.74) in Richmond County, Georgia. Windsor Spring Road is currently functionally classified as an Urban Minor Arterial. Project BHSLB-1105-00(005) consists of replacing the existing bridge over the Norfolk Southern Railroad.

The project corridor is primarily rural and suburban residential with commercial areas at the southern end in the City of Hephzibah.

Projects STP00-1105-00(004) and BHSLB-1105-00(005) are included in the Fiscal Year (FY) 2004-2006 Transportation Improvement Program (TIP) as TIP project numbers STP-17 and BRM-1, respectively. Also, bike lanes and sidewalks for Windsor Spring Road are included in the Augusta Regional Transportation Study's (ARTS) Bicycle and Pedestrian Plan.

### **Deficiencies in the System**

The current transportation network in the project area presents multiple deficiencies, including:

- insufficient capacity for future traffic volumes,
- deteriorating levels of service,
- high crash rates,
- pedestrian and bicycle hazards, and
- bridge deficiencies.

These issues are discussed in the following sections.

### **Travel Demand**

The travel demand on Windsor Spring Road has been steadily increasing in traffic due to development in the area such as the Diamond Lakes Regional Park which has been constructed on Windsor Spring Road north of Willis Foreman Road. In addition, Windsor Spring Road provides a direct route from the City of Hephzibah and SR 88 to I-520.

#### *Traffic Counts and Historical Growth*

Several Traffic Counts were collected on Windsor Spring Road in September 2001. In 2001 the existing daily traffic on Windsor Spring Road ranged from 6,400 vehicles per

day (vpd) north of SR 88 to 7,200 vpd south of Willis Foreman Road. The GDOT traffic count station for this section of road, TC 252, is generally collected in the vicinity of Patterson Bridge Road and has shown a historical growth rate of 2.4 percent per year over the last five years (1997 to 2001). Additionally, the ARTS Travel Demand Model has a 1999 base year volume of 7,000 vpd and 2025 demand volume of 15,000 vpd on Windsor Spring Road north of Willis Foreman Road. This is a growth rate of 3 percent per year.

*Population Growth*

In order to help confirm the anticipated growth in the area, census population data for 1990 and 2000 for the City of Hephzibah was analyzed. According to the census data, the City of Hephzibah has had a population growth rate of 4.6 percent for each of the last ten years. The 1990 population was 2,466 and the 2000 population was 3,880.

*Traffic Projections and Level of Service (LOS)*

Table 1 provides opening year and design year projections and LOS for the project corridor.

**Table 1  
Traffic Projections for Windsor Spring Road**

LOCATION	2005		2025		
	VPD	LOS	VPD	LOS	
		No-Build		No-Build	With Widening
North of SR 88	7,420	C	16,310	E	C or better
South of Willis Foreman Road	9,020	C	19,080	E	C or better

Using the growth data previously identified, the opening year traffic (2005) on Windsor Springs Road was projected to range from 7,420 vpd just north of SR 88 to 9,020 vpd south of Willis Foreman Road.

The projected design year (2025) traffic ranges from 16,310 vpd north of SR 88 to 19,080 vpd south of Willis Foreman Road based on the increase in population and forecasted travel demand. The arterial will operate at LOS E under a no-build condition. However with the widening of the roadway to a four-lane facility, it will operate at LOS C or better.

However, with the proposed widening of Windsor Spring Road to four lanes with a median, the facility will operate at LOS C.

**Crash Data**

Table 2 provides crash data for the years 1995, 1996, 1997, and 2001 for the project corridor from SR 88 to Willis Foreman Road (Mile Post 9.64-7.40).

**Table 2**  
**Crash History for Windsor Spring Road**

YEAR	CRASH RATE		INJURY RATE		FATALITY RATE	
	Windsor Spring Rd	Statewide Average	Windsor Spring Rd	Statewide Average	Windsor Spring Rd	Statewide Average
1995	1259	549	437	263	0	1.39
1996	1211	525	874	246	0	1.56
1997	1520	549	582	249	0	1.41
2001	1408	564	805	218	14	1.35

Note: All rates are per 100 million vehicle miles of travel.

The crash rate between SR 88 and Willis Foreman Road has consistently been two to three times higher than the statewide average. The injury rate for the project corridor has fluctuated from being close to the statewide average in 1996 and 2001 to being four to five times higher than the statewide average in 1995 and 1997.

Crash diagrams are included in the appendix of this report. The most common types of crashes were rear-end collisions, which can generally be attributed to insufficient through capacity, non-existent or insufficient turning lanes for storage, and poor traffic progression. The next most common types of crashes were angle collisions and sideswipe collisions and these are likely attributed to side street intersections that do not align properly and insufficient stopping sight distance due to poor horizontal and vertical curvature.

### **Pedestrian and Bicycle Needs**

The project corridor, being primarily residential, has the potential for a significant amount of pedestrian traffic. Pedestrians are currently forced to walk or ride bikes along the shoulder of the road and sometimes in the travel way which is particularly hazardous for the pedestrian. The construction of sidewalks and bike lanes will separate the modes of transportation and bring continuity and connectivity to the Windsor Spring Road corridor to increase pedestrian access and safety.

In addition, Windsor Spring Road from SR 88 to SR 56 (north of the project) is slated for bike lanes and sidewalks in the ARTS Bicycle and Pedestrian Plan. Inclusion of pedestrian and bicycle improvements in this project would be consistent with the ARTS plan.

### **Bridge Deficiencies**

Project BHSLB-1105-00(005) is a bridge replacement over the Norfolk Southern Railroad. The existing bridge has a sufficiency rating of 26.5, and it now requires load limit posting as a caution.

### **Other Programmed Projects and Logical Termini**

Other projects in the area include STP00-7007-00(006), the widening of Windsor Spring Road from Willis Foreman Road to Tobacco Road, and its companion project, BRSLB-7007-00(007), a replacement bridge over Spirit Creek.

The southern terminus of Project STP00-1105-00(004) is in the City of Hephzibah at SR 88, a four lane state route that provides access to US 25 to the east and US 1 to the west. The travel lanes on Windsor Spring Road south of SR 88 will taper back to a two-lane facility approximately 1,500 feet south of SR 88.

The northern terminus of Project STP00-1105-00(004) is the above mentioned Project STP00-7007-00(006), the widening of Windsor Spring Road from Willis Foreman Road to Tobacco Road.

### **Need and Purpose**

The **need** for these improvements is supported by the alarmingly high crash rates, projected poor level of service due to the increasing traffic demand, unsatisfactory bike and pedestrian accommodations, and projected expectations associated with the proposed ARTS Pedestrian and Bicycle plan. The crash rate for this section of Windsor Spring Road is two to three times higher than the statewide average for this type of facility. With no improvements, the projected LOS for the 2025 design year is E.

The **purpose** of projects STP00-1105-00(004) and BHSLB-1105(5) is to address the aforementioned existing deficiencies and improve the existing north-south connectivity between the City of Hephzibah and the commercial and industrial resources of the greater Augusta area.

These proposed projects will address and correct these deficiencies.

STATE	PROJECT NUMBER	SHEET NO.	TOTAL
CA.	STP00-1105-001(0041, BWSLB-1105-001(005)	6	6/42

**PAVEMENT DESIGN**

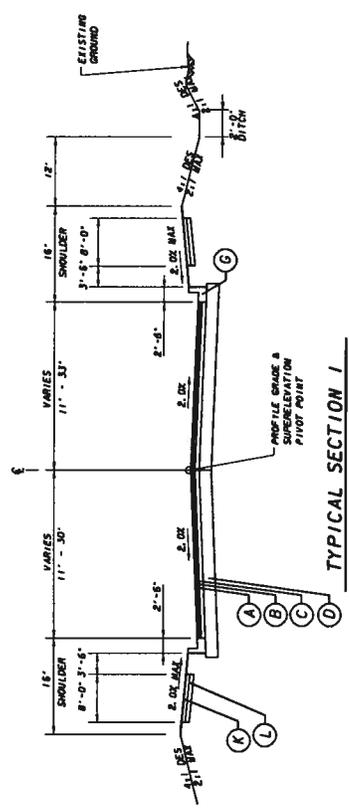
- (A) RECYCLED ASPH CONC 12.5 MM SUPERPAVE, GP 2 ONLY, INCL BITUM MATL & H LIME 185 LBS/YD2
- (B) RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME 220 LBS/YD2
- (C) RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME 330 LBS/YD2
- (D) CR AGCR BASE CRS, INCL MATL (12")
- (E) CONG SIDEWALK, 4 IN
- (F) CONG CURB & GUTTER, 8 IN X 30 IN, TP 7
- (G) CONG CURB & GUTTER, 8 IN X 30 IN, TP 2
- (H) WHERE  $\geq$  6" GRASS
- (I) WHERE  $<$  6", CONCRETE MEDIAN, 6 IN
- (J) MILL ASPH CONC PAVT VARIABLE DEPTH, 1/2" MINIMUM
- (K) RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME 330 LBS/YD2
- (L) CR AGCR BASE CRS, INCL MATL (4")
- (M) RECYCLED ASPH CONC LEVELING, INCL BITUM MATL & H LIME
- (N) CONCRETE V GUTTER
- (O) GR AGCR BASE CRS, INCL MATL (10")

SLOPE CONTROLS	
SLOPE	CONC
3:1	OVER 30" OVER 30"
2:1	OVER 30" OVER 30"

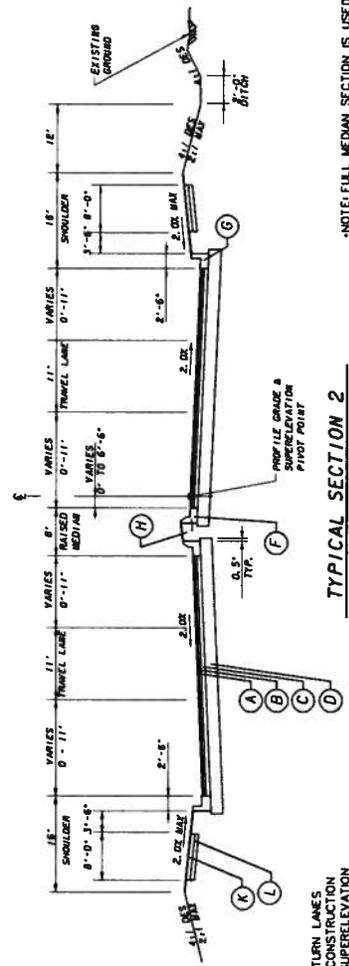
\* 2:1 SLOPES  $>$  6 FT IN HEIGHT REQUIRE GUARDRAIL

**NOTES:**

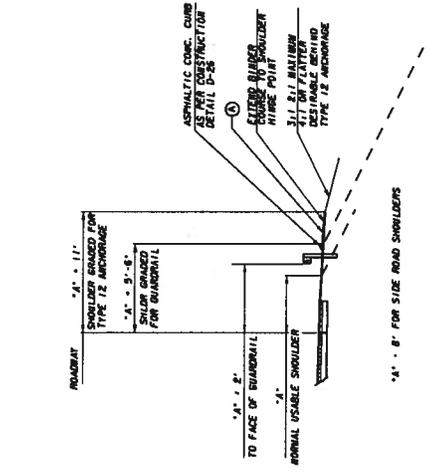
1. TYPICAL SECTIONS SHOWING SUPERELEVATION AND TURN LANES ALSO APPLY TO OPPOSITE HAND SECTIONS - SEE CONSTRUCTION PLAN SHEETS FOR LOCATIONS AND DIRECTION OF SUPERELEVATION AND LOCATIONS AND DIMENSIONS OF TURN LANES.
2. FOR RURAL SHOULDERS, SHOULDER TO SLOPE AT 6% OR SUPERELEVATION RATE, WHICHEVER IS GREATER.
3. FOR RURAL SHOULDERS, SHOULDER TO SLOPE AT 6% HOWEVER, THE ALGEBRAIC DIFFERENCE IN PAVING SLOPE AND SHOULDER SLOPE SHALL NOT EXCEED 8% MINIMUM SHOULDER SLOPE TO BE 7%.



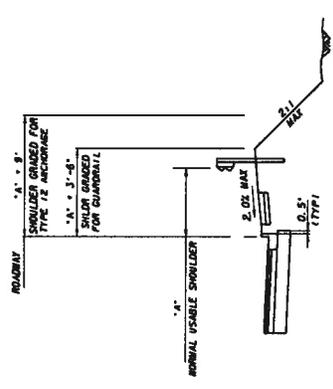
**TYPICAL SECTION 1**  
WINDSOR SPRING ROAD  
NORMAL CROWN  
N. T. S.  
STA. 105+00.00 TO 114+00.00



**TYPICAL SECTION 2**  
WINDSOR SPRING ROAD  
NORMAL CROWN  
WITH RAISED MEDIAN  
N. T. S.  
STA. 114+00.00 TO 120+40.00



**SHOULDER SECTION W/GUARDRAIL**  
N. T. S.  
SEE PLAN FOR LOCATION



**GUARDRAIL SHOULDER DETAIL - URBAN**  
CURB & GUTTER

SEE CONSTRUCTION PLANS FOR LOCATIONS  
SEE GA. DOT STD. 4880 FOR ADDITIONAL DETAILS  
① DISTANCE TO FACE OF GUARDRAIL VARIES FOR EACH ALIGNMENT!

**JORDAN JONES & GOULDING**

<p>WINDSOR SPRING ROAD - PHASE V SR 88 TO WILLIS FOREMAN ROAD</p>	<p>TYPICAL SECTIONS</p>
<p>REV. DATE DESCRIPTION OF REVISION</p>	<p>CHECKED: DATE: 5-01 DRAWN: AS SHOWN</p>

SUMMARY

Date: November 17, 2009  
 Project # STP00-1105-00(004)  
 County: Richmond County  
 Project Description:  
 PI # 245320  
 Alternate:  
 Estimate For - Revised Concept Report

	<u>Estimate</u>	<u>COMMENTS</u>
CONSTRUCTION COST (w/o 10% E&C)	\$10,945,158.00	SEE ATTACHED CONSTRUCTION COST ESTIMATE
ENGINEERING & INSPECTION (5%)	\$547,257.90	
CONSTRUCTION CONTINGENCY (4%)	\$437,806.32	Contingency: Major Widening
UTILITY COST	\$1,500,000.00	
UTILITY CONTINGENCY (30%)	\$450,000.00	
FUEL COST ADJUSTMENT	\$1,535,990.15	
	<hr/>	
TOTAL	\$15,416,212.37	

Prepared by:

SUMMARY

Date: November 17, 2009  
 Project # BHSLB-1105-00(005)  
 County: Richmond County  
 Project Description:  
 Pl # 245325  
 Alternate:  
 Estimate For - Revised Concept Report

	<u>Estimate</u>	<u>COMMENTS</u>
CONSTRUCTION COST (w/o 10% E&C)	\$1,744,580.00	SEE ATTACHED CONSTRUCTION COST ESTIMATE
ENGINEERING & INSPECTION (5%)	\$87,229.00	
CONSTRUCTION CONTINGENCY (5%)	\$87,229.00	Contingency: Bridge replacement w/added capacity
UTILITY COST	\$0.00	
UTILITY CONTINGENCY (30%)	\$0.00	
FUEL COST ADJUSTMENT	\$0.00	
	<hr/>	
TOTAL	\$1,919,038.00	

Prepared by:

**Estimate Report for file "245320 STP00-1105-00(004)"**

<b>Section ROADWAY</b>					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
150-1000	1	LS	600000.0	TRAFFIC CONTROL -	600000.0
153-1300	1	EA	75000.0	FIELD ENGINEERS OFFICE TP 3	75000.0
201-1500	1	LS	1500000.0	CLEARING & GRUBBING -	1500000.0
207-0203	2460	CY	47.0	FOUND BKFLI MATL, TP II	115620.0
208-0100	89400	CY	4.0	IN PLACE EMBANKMENT	357600.0
310-1101	69900	TN	18.0	GR AGGR BASE CRS, INCL MATL	1258200.0
318-3000	2000	TN	23.0	AGGR SURF CRS	46000.0
402-1812	1960	TN	71.0	RECYCLED ASPH CONC LEVELING, INCL BITUM MATL & H LIME	139160.0
402-3121	12000	TN	63.0	RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME	756000.0
402-3130	16100	TN	68.0	RECYCLED ASPH CONC 12.5 MM SUPERPAVE, GP 2 ONLY, INCL BITUM MATL & H LIME	1094800.0
402-3190	11500	TN	72.0	RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME	828000.0
413-1000	13700	GL	3.0	BITUM TACK COAT	41100.0
432-5010	8450	SY	2.0	MILL ASPH CONC PVMT, VARIABLE DEPTH	16900.0
433-1100	610	SY	148.0	REINF CONC APPROACH SLAB, INCL CURB	90280.0
441-0016	410	SY	45.0	DRIVEWAY CONCRETE, 6 IN TK	18450.0
441-0104	2160	SY	33.0	CONC SIDEWALK, 4 IN	71280.0
441-0303	3	EA	1779.0	CONC SPILLWAY, TP 3	5337.0
441-0740	370	SY	35.0	CONCRETE MEDIAN, 4 IN	12950.0
441-0748	2060	SY	58.0	CONCRETE MEDIAN, 6 IN	119480.0
441-4020	980	SY	47.0	CONC VALLEY GUTTER, 6 IN	46060.0
441-4030	520	SY	47.0	CONC VALLEY GUTTER, 8 IN	24440.0
441-5002	370	LF	14.0	CONCRETE HEADER CURB, 6 IN, TP 2	5180.0
441-6222	23130	LF	16.0	CONC CURB & GUTTER, 8 IN X 30 IN, TP 2	370080.0
441-6740	19310	LF	14.0	CONC CURB & GUTTER, 8 IN X 30 IN, TP 7	270340.0
446-1100	320	LF	5.0	PVMT REINF FABRIC STRIPS, TP 2, 18 INCH WIDTH	1600.0
500-0100	68	SY	5.0	GROOVED CONCRETE	340.0
500-3101	390	CY	250.0	CLASS A CONCRETE	97500.0
500-3800	49	CY	687.0	CLASS A CONCRETE, INCL REINF STEEL	33663.0
511-1000	41500	LB	1.0	BAR REINF STEEL	41500.0
550-1180	13270	LF	39.0	STORM DRAIN PIPE, 18 IN, H 1-10	517530.0
550-1240	1440	LF	44.0	STORM DRAIN PIPE, 24 IN, H 1-10	63360.0
550-1241	600	LF	57.0	STORM DRAIN PIPE, 24 IN, H 10-15	34200.0
550-1300	2101	LF	56.0	STORM DRAIN PIPE, 30 IN, H 1-10	117656.0
550-1360	916	LF	66.0	STORM DRAIN PIPE, 36 IN, H 1-10	60456.0
550-1420	328	LF	93.0	STORM DRAIN PIPE, 42 IN, H 1-10	30504.0
550-1540	20	LF	119.0	STORM DRAIN PIPE, 54 IN, H 1-10	2380.0
550-1541	217	LF	120.0	STORM DRAIN PIPE, 54 IN, H 10-15	26040.0
550-1600	133	LF	160.0	STORM DRAIN PIPE, 60 IN, H 1-10	21280.0
550-1601	109	LF	175.0	STORM DRAIN PIPE, 60 IN 10-15	19075.0
550-1842	55	LF	275.0	STORM DRAIN PIPE, 84 IN 15-20	15125.0
550-2180	140	LF	35.0	SIDE DRAIN PIPE, 18 IN, H 1-10	4900.0
550-2240	35	LF	34.0	SIDE DRAIN PIPE, 24 IN, H 1-10	1190.0
550-3418	8	EA	591.0	SAFETY END SECTION 18 IN, SIDE DRAIN, 4:1 SLOPE	4728.0
550-3424	2	EA	523.0	SAFETY END SECTION 24 IN, SIDE DRAIN, 4:1 SLOPE	1046.0
550-4118	8	EA	399.0	FLARED END SECTION 18 IN, SIDE DRAIN	3192.0
550-4218	13	EA	579.0	FLARED END SECTION 18 IN, STORM DRAIN	7527.0
550-4224	5	EA	676.0	FLARED END SECTION 24 IN, STORM DRAIN	3380.0
550-4230	2	EA	800.0	FLARED END SECTION 30 IN, STORM DRAIN	1600.0
550-4236	4	EA	1109.0	FLARED END SECTION 36 IN, STORM DRAIN	4436.0
550-4242	3	EA	2076.0	FLARED END SECTION 42 IN, STORM DRAIN	6228.0
573-2006	1000	LF	10.0	UNDDR PIPE INCL DRAINAGE AGGR, 6 IN	10000.0
634-1200	263	EA	99.0	RIGHT OF WAY MARKERS	26037.0
641-1100	100	LF	55.0	GUARDRAIL, TP T	5500.0
641-1200	3200	LF	19.0	GUARDRAIL, TP W	60800.0
641-5001	15	EA	707.0	GUARDRAIL ANCHORAGE, TP 1	10605.0
641-5012	5	EA	1851.0	GUARDRAIL ANCHORAGE, TP 12	9255.0
668-1100	130	EA	2552.0	CATCH BASIN, GP 1	331760.0
668-1110	31	LF	177.0	CATCH BASIN, GP 1, ADDL DEPTH	5487.0
668-1200	9	EA	3244.0	CATCH BASIN, GP 2	29196.0
668-1210	35	LF	230.0	CATCH BASIN, GP 2, ADDL DEPTH	8050.0
668-2100	48	EA	2479.0	DROP INLET, GP 1	118992.0
668-2110	3	LF	206.0	DROP INLET, GP 1, ADDL DEPTH	618.0
668-4300	9	EA	2384.0	STORM SEWER MANHOLE, TP 1	21456.0
668-4311	10	LF	222.0	STORM SEWER MANHOLE, TP 1, ADDL DEPTH, CL 1	2220.0
668-4400	1	EA	2963.0	STORM SEWER MANHOLE, TP 2	2963.0
668-4411	4	LF	267.0	STORM SEWER MANHOLE, TP 2, ADDL DEPTH, CL 1	1068.0
668-5000	5	EA	1955.0	JUNCTION BOX	9775.0
668-8011	10	SF	109.0	SAFETY GRATE, TP 1	1090.0
<b>Section Sub Total:</b>					<b>\$9,637,565.00</b>

<b>Section PERMANENT EROSION CONTROL</b>					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
441-0204	150	SY	37.0	PLAIN CONC DITCH PAVING, 4 IN	5550.0
603-2180	40	SY	32.0	STN DUMPED RIP RAP, TP 3, 12 IN	1280.0
603-2182	140	SY	47.0	STN DUMPED RIP RAP, TP 3, 24 IN	6580.0
603-7000	170	SY	4.0	PLASTIC FILTER FABRIC	680.0
700-6910	27	AC	708.0	PERMANENT GRASSING	19116.0
700-7000	119	TN	64.0	AGRICULTURAL LIME	7616.0
700-7010	99	GL	22.0	LIQUID LIME	2178.0
700-8000	19	TN	431.0	FERTILIZER MIXED GRADE	8189.0
700-8100	1320	LB	3.0	FERTILIZER NITROGEN CONTENT	3960.0
710-9000	3000	SY	3.0	PERMANENT SOIL REINFORCING MAT	9000.0
715-2200	1500	SY	2.0	BITUMINOUS TREATED ROVING, WATERWAYS	3000.0
716-2000	12100	SY	1.0	EROSION CONTROL MATS, SLOPES	12100.0
999-9999	1	Lump Sum	35000.0	DETENTION POND	35000.0
<b>Section Sub Total:</b>					<b>\$114,249.00</b>

<b>Section TEMPORARY EROSION CONTROL</b>					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
163-0232	14	AC	298.0	TEMPORARY GRASSING	4172.0
163-0240	120	TN	137.0	MULCH	16440.0
163-0300	6	EA	1207.0	CONSTRUCTION EXIT	7242.0
163-0502	3	EA	420.0	CONSTRUCT AND REMOVE SILT CONTROL GATE, TP 2	1260.0
163-0503	14	EA	465.0	CONSTRUCT AND REMOVE SILT CONTROL GATE, TP 3	6510.0
163-0527	89	EA	83.0	CONSTRUCT AND REMOVE RIP RAP CHECK DAMS, STONE PLAIN RIP RAP/SAND BAGS	7387.0
163-0529	500	LF	4.0	CONSTRUCT AND REMOVE TEMPORARY SEDIMENT BARRIER OR BALED STRAW CHECK DAM	2000.0
163-0550	179	EA	198.0	CONSTRUCT AND REMOVE INLET SEDIMENT TRAP	35442.0

165-0030	42700	LF	1.0	MAINTENANCE OF TEMPORARY SILT FENCE, TP C	42700.0
165-0041	89	LF	2.0	MAINTENANCE OF CHECK DAMS - ALL TYPES	178.0
165-0071	250	LF	2.0	MAINTENANCE OF SEDIMENT BARRIER - BALED STRAW	500.0
165-0086	3	EA	210.0	MAINTENANCE OF SILT CONTROL GATE, TP 2	630.0
165-0087	14	EA	120.0	MAINTENANCE OF SILT CONTROL GATE, TP 3	1680.0
165-0101	6	EA	506.0	MAINTENANCE OF CONSTRUCTION EXIT	3036.0
165-0105	179	EA	83.0	MAINTENANCE OF INLET SEDIMENT TRAP	14857.0
167-1000	2	EA	484.0	WATER QUALITY MONITORING AND SAMPLING	968.0
167-1500	24	MO	721.0	WATER QUALITY INSPECTIONS	17304.0
171-0030	85400	LF	4.0	TEMPORARY SILT FENCE, TYPE C	341600.0
643-8200	1000	LF	3.0	BARRIER FENCE (ORANGE), 4 FT	3000.0
<b>Section Sub Total:</b>					<b>\$506,906.00</b>

**Section LIGHTING**

Item Number	Quantity	Units	Unit Price	Item Description	Cost
999-9999	1	Lump Sum	396000.0	LIGHTING	396000.0
<b>Section Sub Total:</b>					<b>\$396,000.00</b>

**Section SIGNING AND MARKING**

Item Number	Quantity	Units	Unit Price	Item Description	Cost
636-1020	236	SF	18.0	HIGHWAY SIGNS, TP 1 MATL, REFL SHEETING, TP 3	4248.0
636-1033	365	SF	22.0	HIGHWAY SIGNS, TP 1 MATL, REFL SHEETING, TP 9	8030.0
636-1041	353	SF	40.0	HIGHWAY SIGNS, TP 2 MATL, REFL SHEETING, TP 9	14120.0
636-2070	1254	LF	10.0	GALV STEEL POSTS, TP 7	12540.0
636-2080	317	LF	13.0	GALV STEEL POSTS, TP 8	4121.0
653-0120	59	EA	77.0	THERMOPLASTIC PVMT MARKING, ARROW, TP 2	4543.0
653-0170	22	EA	96.0	THERMOPLASTIC PVMT MARKING, ARROW, TP 7	2112.0
653-0210	1	EA	109.0	THERMOPLASTIC PVMT MARKING, WORD, TP 1	109.0
653-1501	37950	LF	1.0	THERMOPLASTIC SOLID TRAF STRIPE, 5 IN, WHITE	37950.0
653-1502	27230	LF	1.0	THERMOPLASTIC SOLID TRAF STRIPE, 5 IN, YELLOW	27230.0
653-1704	320	LF	4.0	THERMOPLASTIC SOLID TRAF STRIPE, 24 IN, WHITE	1280.0
653-1804	4440	LF	2.0	THERMOPLASTIC SOLID TRAF STRIPE, 8 IN, WHITE	8880.0
653-3501	23010	GLF	1.0	THERMOPLASTIC SKIP TRAF STRIPE, 5 IN, WHITE	23010.0
653-3502	20	GLF	1.0	THERMOPLASTIC SKIP TRAF STRIPE, 5 IN, YELLOW	20.0
653-6004	1170	SY	3.0	THERMOPLASTIC TRAF STRIPING, WHITE	3510.0
653-6006	890	SY	3.0	THERMOPLASTIC TRAF STRIPING, YELLOW	2670.0
654-1001	72	EA	4.0	RAISED PVMT MARKERS TP 1	288.0
654-1003	654	EA	4.0	RAISED PVMT MARKERS TP 3	2616.0
657-1054	790	LF	4.0	PREFORMED PLASTIC SOLID PVMT MKG, 5 IN, WHITE, TP PB	3160.0
657-3054	470	GLF	3.0	PREFORMED PLASTIC SKIP PVMT MKG, 5 IN, WHITE, TP PB	1410.0
657-5017	3	EA	557.0	PREFORMED PLASTIC PVMT MKG, WORDS AND/OR SYM, ARROW TP 2, WHITE, TP PB	1671.0
657-6054	480	LF	4.0	PREFORMED PLASTIC SOLID PVMT MKG, 5 IN, YELLOW, TP PB	1920.0
<b>Section Sub Total:</b>					<b>\$165,438.00</b>

**Section SIGNALS**

Item Number	Quantity	Units	Unit Price	Item Description	Cost
647-1000	1	Lump Sum	125000.0	TRAFFIC SIGNAL INSTALLATION NO - 1	125000.0
<b>Section Sub Total:</b>					<b>\$125,000.00</b>

**Total Estimated Cost: \$10,945,158.00**

**Estimate Report for file "245325 BHSLB-1105-00(005)"**

<b>Section BRIDGE</b>					
<b>Item Number</b>	<b>Quantity</b>	<b>Units</b>	<b>Unit Price</b>	<b>Item Description</b>	<b>Cost</b>
999-9999	18364	SF	95.0	BRIDGE	1744580.0
<b>Section Sub Total:</b>					<b>\$1,744,580.00</b>

**Total Estimated Cost: \$1,744,580.00**

P.I. Number 245320

County Richmond

Date 11/17/2009

Project Number STP00-1105-00(004)

**Special Provision, Section 109-Measurement and Payment  
FUEL PRICE ADJUSTMENT (ENGLISH 125% MAX)**

ENTER FPL DIESEL	2.517
ENTER FPM DIESEL	5.663

ENTER FPL UNLEADED	2.268
ENTER FPM UNLEADED	5.103

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

<b>INCREASE ADJUSTMENT</b>
<b>125.00%</b>

<b>INCREASE ADJUSTMENT</b>
<b>125.00%</b>

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)	69900.000	0.29	20271.00	0.24	16776.00	
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)	41560.000	2.90	120524.00	0.71	29507.60	
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				8.00		1.50		
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
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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	
<b>SUM QF DIESEL=</b>		<b>140795.00</b>		<b>SUM QF UNLEADED=</b>		<b>46283.60</b>	
<b>DIESEL PRICE ADJUSTMENT(\$)</b>				<b>\$407,538.17</b>			
<b>UNLEADED PRICE ADJUSTMENT(\$)</b>				<b>\$120,716.89</b>			



## 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

ENTER APM

<b>125.00%</b>	<b>INCREASE ADJUSTMENT</b>
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Use this side for Asphalt Emulsion Only		
L.I.N.	TYPE	ASPHALT EMULSION (GALLONS)
TMT = <input style="width: 100px;" type="text"/>		
REMARKS:		

Use this side for Asphalt Cement Only		
L.I.N.	TYPE	TACK (GALLONS)
TMT = <input style="width: 100px;" type="text"/>		
REMARKS:		

<b>MONTHLY PRICE ADJUSTMENT(\$)</b>	
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### ADJUSTMENT SUMMARY

FUEL PRICE ADJUSTMENT (ENGLISH 125% MAX)

DIESEL PRICE ADJUSTMENT(\$) \$407,538.17

UNLEADED PRICE ADJUSTMENT(\$) \$120,716.89

ASPHALT CEMENT PRICE ADJUSTMENT (BITUMINOUS TACK COAT 125% MAX) \$27,750.30

400 / 402 ASPHALT CEMENT PRICE ADJUSTMENT 125% MAX \$979,984.80

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

REMARKS:	
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<b>TOTAL ADJUSTMENTS</b>	<b>\$1,535,990.15</b>
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P.I. Number 245325

County Richmond

Date 11/17/2009

Project Number BHSLB-1105-00(005)

**Special Provision, Section 109-Measurement and Payment  
FUEL PRICE ADJUSTMENT (ENGLISH 125% MAX)**

ENTER FPL DIESEL	2.517
ENTER FPM DIESEL	5.663

ENTER FPL UNLEADED	2.268
ENTER FPM UNLEADED	5.103

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

<b>INCREASE ADJUSTMENT</b>
<b>125.00%</b>

<b>INCREASE ADJUSTMENT</b>
<b>125.00%</b>

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)		0.29		0.24		
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)		2.90		0.71		
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				8.00		1.50		
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
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Stru Steel <u>Plan Quantity</u> (LB) Section 501				8.00		1.50	
Stru Steel <u>Plan Quantity</u> (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 <u>Plan Quantity</u> (LB) Section 511				8.00		1.50	
Stru Reinf <u>Plan Quantity</u> (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	
<b>SUM QF DIESEL=</b>				<b>SUM QF UNLEADED=</b>			
<b>DIESEL PRICE ADJUSTMENT(\$)</b>							
<b>UNLEADED PRICE ADJUSTMENT(\$)</b>							



## 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

ENTER APM

### Use this side for Asphalt Emulsion Only

L.I.N.	TYPE	ASPHALT EMULSION (GALLONS)
TMT =		<input style="width: 100px;" type="text"/>
REMARKS:		

### Use this side for Asphalt Cement Only

L.I.N.	TYPE	TACK (GALLONS)
TMT =		<input style="width: 100px;" type="text"/>
REMARKS:		

### ADJUSTMENT SUMMARY

FUEL PRICE ADJUSTMENT (*ENGLISH 125% MAX*)

DIESEL PRICE ADJUSTMENT(\$)

UNLEADED PRICE ADJUSTMENT(\$)

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

400 / 402 ASPHALT CEMENT PRICE ADJUSTMENT 125% MAX

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

REMARKS:

**TOTAL ADJUSTMENTS**