

ORIGINAL TO GENERAL FILES

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

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

FILE P.I. #0000409
STP00-0000-00(409)
GDOT District 3 - Thomaston
Spalding County
SR 16 @ CR 496/688/Old 85
Connector/Hollonville Road

OFFICE Design Policy & Support

DATE November 8, 2011

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:

Genetha Rice-Singleton, Program Control Administrator
Bobby Hilliard, State Program Delivery Engineer
Cindy VanDyke, State Transportation Planning Administrator
Angela Robinson, Financial Management Administrator
Glenn Bowman, State Environmental Administrator
Kathy Zahul, State Traffic Engineer
Georgene Geary, State Materials & Research Engineer
Ron Wishon, State Project Review Engineer
Jeff Baker, State Utilities Engineer
Ken Thompson, Statewide Location Bureau Chief
Michael Henry, Systems & Classification Branch Chief
David Millen, District Engineer
Bill Rountree, District Preconstruction Engineer
Kerry Gore, District Utilities Engineer
Kimberly Nesbitt, Project Manager
BOARD MEMBER - 3rd Congressional District

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

REVISED PROJECT CONCEPT REPORT

Project Number: STP00-0000-00(409)

County: Spalding

P. I. Number: 0000409

Federal Route Number: N/A

State Route Number: S.R. 16

A four-legged, two-way stop controlled intersection redesigned into a roundabout. The proposed length of project is approximately 0.16 miles.

Submitted for approval:

DATE 8-26-11

C. Sandy Coney
Design Phase Office Head

DATE 9-16-2011

Bobby Hilliard
Office Head (Project Manager's Office)

DATE 9-16-2011

Kimberly Norbitt
Project Manager

Recommendation for approval:

DATE 10-7-2011

* Glenn Bowman
State Environmental Administrator

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

DATE 9-29-11

Cynthia D. Naegele
State Transportation Planning Administrator

*Recommendation on file

REVISED PROJECT CONCEPT REPORT

Project Justification: There is a need to reduce the frequency and severity of crashes at the intersection of SR 16 and Old 85 Connector/Hollonville Road where the crash and injury rates for SR 16 were above the statewide average in 2006, 2007, 2008 and in 2009.

There is also a need to improve the operations of the intersection of SR 16 and Old 85 Connector/Hollonville Road where the northbound and southbound intersection approach level of service (LOS) is anticipated to be "F" in the future year (2035) conditions.

Project location: The proposed length of the project is approximately 0.16 miles, from mile log 0.39 to mile log 0.55. The intersection of S.R. 16 at Old S.R. 85 Connector/Hollonville Road is located approximately 13 miles west of the City of Griffin and ½ mile east of the Coweta County Line.

Description of the approved concept: S.R. 16 will be widened six feet symmetrically to provide right and left-turn lanes in both the eastbound and westbound directions. The Hollonville Road approach will be realigned six feet to the west and a right-turn lane will be constructed. The vertical alignment on the westbound approach of S.R. 16 will be improved to provide greater sight distance.

PDP Classification: Minor Existing

Federal Oversight: Full Oversight (), Exempt (X), State Funded (), or Other ()

Functional Classification:

S.R. 16	Rural Minor Arterial
Old S.R. 85 Connector	Rural Major Collector
Hollonville Road	Rural Major Collector

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

State Route Number(s): S.R. 16

Traffic (AADT or ADT) as shown in the approved concept:

S.R. 16	5,993 (2001 ADT)
Old S.R. 85 Connector	1,500 (1998 ADT)
Hollonville Road	1,700 (1998 ADT)

Updated traffic data (AADT or ADT):

Alignment	Base Year:	Design Year:
S.R. 16	9,400 (2015 ADT)	15,000 (2035 ADT)
Old S.R. 85 Connector	2,000 (2015 ADT)	3,400 (2035 ADT)
Hollonville Road	3,000 (2015 ADT)	5,000 (2035 ADT)

Approved/Programmed Schedule:

P.E. FY 2003

R/W: FY 2013

Construction: FY 2014

VE Study Required Yes () No (X)

Benefit/Cost Ratio N/A

Is the project located in an Ozone Non-attainment area? Yes (X) No ()

Is the project in a PM2.5 Non-Attainment area? Yes (X) No ()

This is an intersection safety project that will improve operations. It proposes the construction of a roundabout to replace the current four legged intersection that has 2-way stop control on the minor streets. It is approximately 0.16 log miles long. The proposed roundabout will be designed as a single lane circulatory roadway. The build year is 2015.

<p>Approved Features:</p> <ul style="list-style-type: none"> • Typical section, S.R. 16 <ul style="list-style-type: none"> ○ One 12-ft. travel lane in each direction, one 12-ft. left turn lane and one 12-ft. right turn lane in each direction with curb and gutter in the eastbound direction. 10.5-ft. shoulders, 6.5 ft. paved and 4 ft. grassed. • Old S.R. 85 Connector <ul style="list-style-type: none"> ○ 2-12 ft. travel lanes with 10 ft. shoulders, 4 ft. paved and 6 ft. grassed. • Hollonville Road <ul style="list-style-type: none"> ○ 2-12 ft. travel lanes with 10 ft. shoulders, 4 ft. paved and 6 ft. grassed. A 12 ft. right turn lane with curb and gutter. • Project termini: <ul style="list-style-type: none"> S.R. 16 From M.P. 0.34 To M.P. 0.64 Old S.R. 85 Connector From M.P. 0.00 To M.P. 0.01 Hollonville Road From M.P. 4.68 To M.P. 4.77 • Right-of-Way: Approximately 106,308 square feet of right-of-way would be required. 	<p>Proposed Features:</p> <ul style="list-style-type: none"> • Typical Sections: <ul style="list-style-type: none"> ○ One 12-ft. lane in each direction transitioning at the approaches to 18.5-ft. lanes. ○ 20-Ft. wide, single lane, Circulatory roadway. ○ 18-Ft. wide Truck Apron ○ 74-Ft. diameter Non-mountable Central Island ○ Splitter Island on all approaches ○ Curb & Gutter on all approaches ○ 12-Ft shoulder w/sidewalk around circulatory roadway ○ Lighting on all approaches • Project Termini: <ul style="list-style-type: none"> S.R. 16 Begin mile log: 0.39 End mile log: 0.55 Old S.R. 85 Connector Begin mile log: 0.00 End mile log: 0.01 Hollonville Road Begin mile log: 4.69 End mile log: 4.77 • Right of Way Limits: It is estimated that the proposed roundabout would require approximately 71,987 fewer square feet of right-of-way than the current design.
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Reason for Change:
Subsequent to the Department's approved Project Concept Report, a Traffic Analysis Tool, namely the Highway Capacity Software, was used to analyze the intersection with updated base and design year traffic volumes in a Two-Way Stop Control no-build analysis, Two-Way Stop Control build analysis with previously proposed turn lanes incorporated, and a Roundabout Analysis. The analyses identified the roundabout to be the most appropriate intersection control type for this location. The results of the analyses show that a roundabout improved the operation at this intersection both in the AM/PM base year and design year. An analysis of crashes within the project area, approximately 0.25 miles in each direction of the intersection, was performed (see table below for more details). The proposed diameter of the inscribed circle is 150-feet. In

addition, this roundabout design may decrease the amount of right-of-way as proposed in the original design, by reducing the impacts in the east and west direction of S.R. 16.

Crash Data:

The following is a summary of the crash data for SR 16 @ Old SR 85 Connector/Hollonville Road during 2006, 2007, 2008 and 2009.

Year	2006		2007		2008		2009	
	Corr.	State	Corr.	State	Corr.	State	Corr.	State
Crashes	12		4		12		6	
Crash Rate	981	197	300	194	901	186	1055	187
Injuries	10		4		28		10	
Injury Rate	818	68	300	66	2,102	62	1759	62
Fatalities	0		0		2		0	
Fatality Rate	0.00	2.95	0.00	2.48	150.12	2.65	0.00	2.35

In comparison to the statewide average for similar facility types, the crash and injury rates were higher for SR 16 than the statewide average in all four analysis years (2006, 2007, 2008 and 2009). The fatality rate was higher than the statewide average for SR 16 in 2008. When categorizing crash types, angled collisions were the greatest, rear end collisions next and head on collisions were the least.

Potential Environmental Impacts of Proposed Revision:

This revision proposes a reduced project footprint/length.

Have Proposed Revisions Been Reviewed by Environmental Staff? (x) Yes () No

Environmental Responsibilities (Studies/Documents/Permits):

NEPA: *Will the environmental document need to be reevaluated due to the proposed concept changes? Yes*

Ecology: *List possible effects to protected species and their habitats, streams, wetlands, etc. Are additional surveys required? If so, are there seasonal survey requirements that may affect the project schedule? Reduced footprint, no additional survey is required. At present, it is not anticipated that endangered species or their habitats, streams, wetlands, etc., will be disturbed. Once the environmental document has been reevaluated, should issues arise, they will be addressed.*

Archeology: *List possible effects to archeological resources. Are additional surveys required? No, reduced footprint.*

History: *List possible effects to historic resources. Are additional surveys required? To be determined, reduced footprint.*

Air/Noise: *List possible effects to Air/Noise analyses. Will additional modeling be required? To be determined, reduced footprint.*

Public Involvement: *Will additional public outreach be required as a result of the proposed revision? Additional public outreach is anticipated.*

Updated Cost Estimate	
Base Construction Cost	\$580,977.82
Engineering and Inspection (5%)	\$29,048.89
Fuel & Asphalt Adjustment	\$73,991.84
<u>Total Construction Cost</u>	<u>\$684,018.55</u>
Right-of-Way	\$300,000.00
Utilities (reimbursable)*	\$110,000.00
*The total Preliminary Utility Cost is \$150,000.00.	

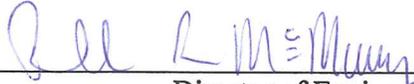
Environmental Mitigation	
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Recommendation: This office recommends that the proposed revisions to the concept be approved for implementation.

Attachments:

1. Sketch Map,
2. Preliminary Concept Layout
3. Conforming plan's network schematics showing thru lanes, (Note: This attachment is required for non-attainment areas only).
4. Preliminary Cost Estimates (Construction, including E &I, Fuel and Liquid AC ; Right-of-Way and Utility)
5. Roundabout Analysis Tool
6. Spalding County Support Letter

Concur:



Director of Engineering

Approve:



Chief Engineer

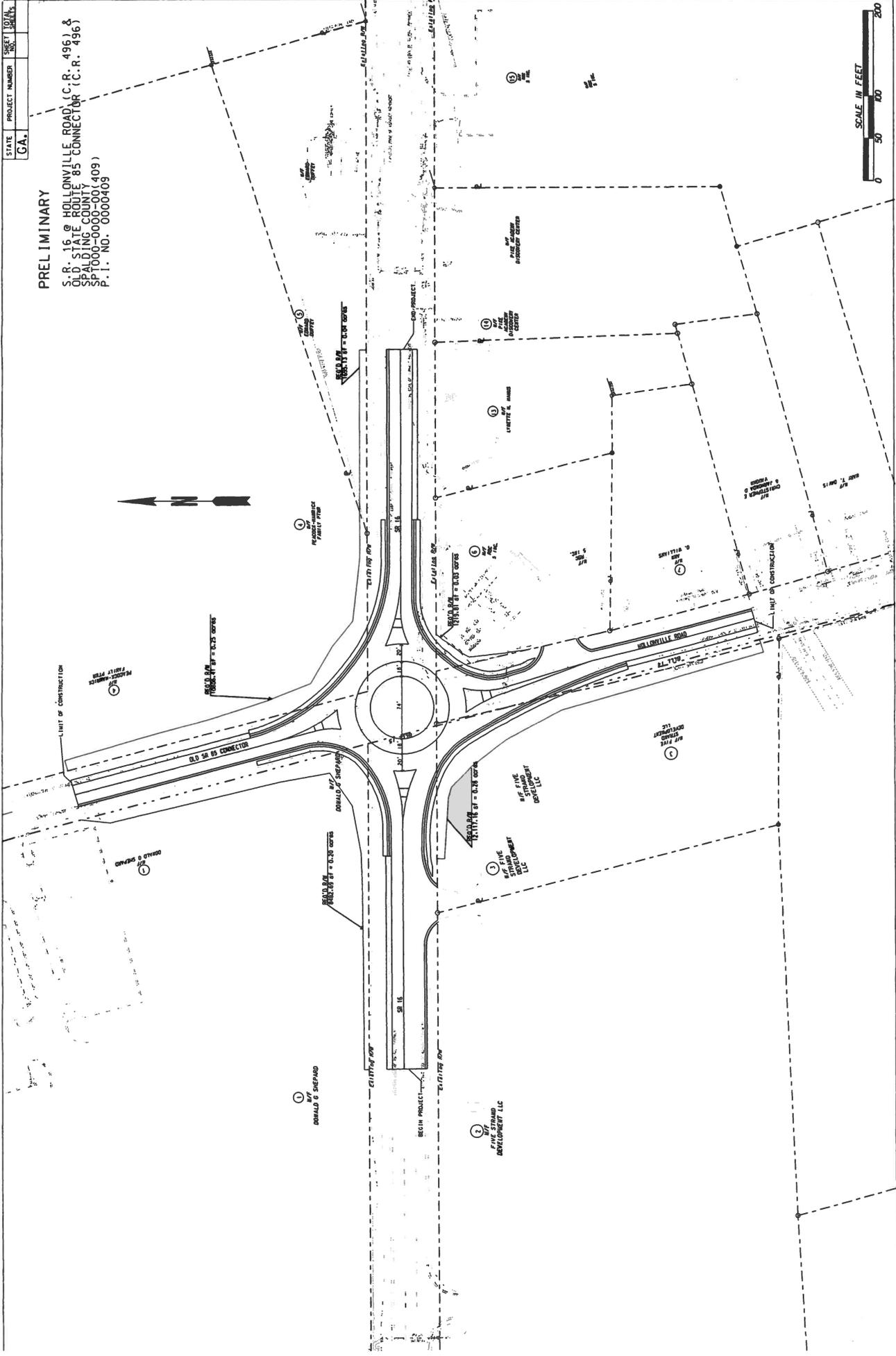
Date:

11-7-11

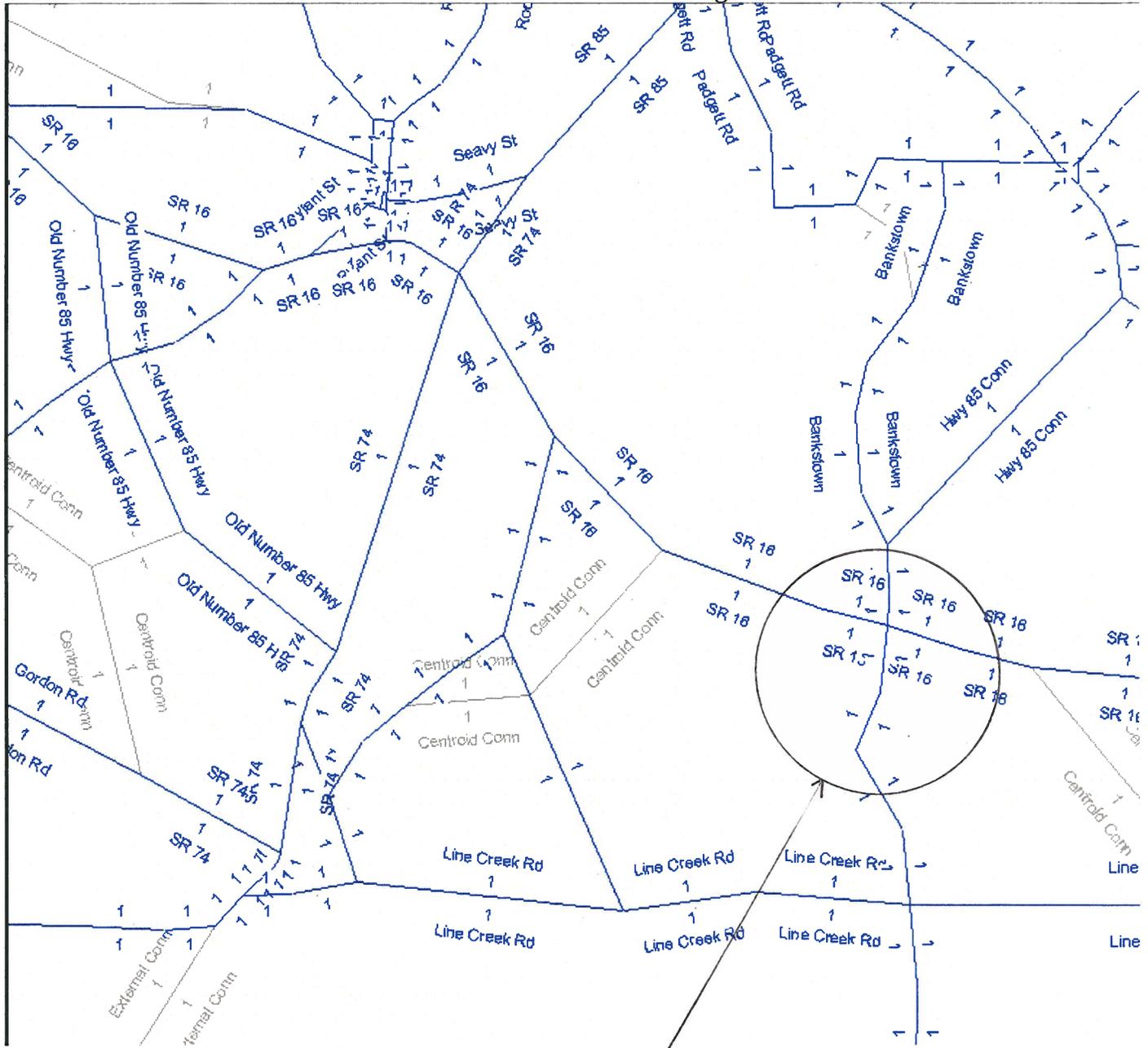
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

PRELIMINARY

S.R. 16 @ HOLLONVILLE ROAD (C.R. 496) &
 OLD STATE ROUTE 85 CONNECTOR (C.R. 496)
 SPALDING COUNTY
 SP1000-0000-00(409)
 P. I. NO. 0000409



**Network Schematic w/thru lanes for S.R. 16 @ Hollonville Rd & Old S.R. 85 Connector,
Spalding County
2010 ARC Envision 6 Model - Existing**



PROPOSED PROJECT LOCATION

DETAILED COST ESTIMATE



Job: 0000409

JOB NUMBER: 0000409

FED/STATE PROJECT NUMBER

SPEC YEAR: 01

**DESCRIPTION: SR 16 AT CR 496/688/OLD 85 CONN./HOLLONVILLE RD.
STP00-0000-00(409)**

ITEMS FOR JOB 0000409

0010 - ROADWAY

line Number	ITEM	QUANTITY	UNITS	PRICE	DESCRIPTION	AMOUNT
0005	150-1000	1.000	LS	\$50,000.00	TRAFFIC CONTROL - STP00-0000-00(409)	\$50,000.00
0010	210-0100	1.000	LS	\$50,000.00	GRADING COMPLETE - STP00-0000-00(409)	\$50,000.00
0015	310-1101	1781.000	TN	\$20.04	GR AGGR BASE CRS, INCL MATL	\$35,690.90
0020	402-3103	416.000	TN	\$69.51	REC AC 9.5 MM SP,TPII,GP2, INCL BM & H L	\$28,917.16
0025	402-3121	617.000	TN	\$66.00	RECYL AC 25MM SP,GP1/2,BM&HL	\$40,723.83
0030	402-3190	311.000	TN	\$70.22	RECYL AC 19 MM SP,GP 1 OR 2 ,INC BM&HL	\$21,837.02
0035	413-1000	409.000	GL	\$2.43	BITUM TACK COAT	\$992.23
0195	432-5010	4738.000	SY	\$3.50	MILL ASPH CONC PVMT,VARB DEPTH	\$16,565.14
0250	439-0022	559.000	SY	\$66.00	PLN PC CONC PVMT CL3 10" THK	\$36,896.43
0034	441-0018	130.000	SY	\$38.92	DRIVEWAY CONCRETE, 8 IN TK	\$5,060.19
0049	441-0104	695.000	SY	\$36.51	CONC SIDEWALK, 4 IN	\$25,375.36
0050	441-0303	4.000	EA	\$1,773.15	CONC SPILLWAY, TP 3	\$7,092.62
0055	441-0754	254.000	SY	\$44.54	CONC MEDIAN, 7 1/2 IN	\$11,313.75
0060	441-5008	233.000	LF	\$11.18	CONC HEADER CURB, 6 IN, TP 7	\$2,604.94
0065	441-5011	344.000	LF	\$11.23	CONC HDR CURB, 6 IN, TP 9A	\$3,863.12
0070	441-6222	2225.000	LF	\$14.21	CONC CURB & GUTTER/ 8"X30"TP2	\$31,616.45
0075	446-1100	1061.000	LF	\$4.48	PVMT REF FAB STRIPS, TP2,18 INCH WIDTH	\$4,751.22
0085	500-3200	11.000	CY	\$432.30	CL B CONC	\$4,755.30
0190	550-1180	80.000	LF	\$32.95	STM DR PIPE 18",H 1-10	\$2,636.02
0080	634-1200	28.000	EA	\$102.75	RIGHT OF WAY MARKERS	\$2,877.05
SUBTOTAL FOR ROADWAY:						\$383,568.73

0020 - PERMANENT EROSION CONTROL

line Number	ITEM	QUANTITY	UNITS	PRICE	DESCRIPTION	AMOUNT
0185	163-0240	24.000	TN	\$242.45	MULCH	\$5,818.81
0090	700-6910	1.800	AC	\$643.86	PERMANENT GRASSING	\$1,158.94
0095	700-7000	5.400	TN	\$32.38	AGRICULTURAL LIME	\$174.86
0100	700-8000	2.520	TN	\$403.20	FERTILIZER MIXED GRADE	\$1,016.06
0105	700-8100	90.000	LB	\$1.79	FERTILIZER NITROGEN CONTENT	\$160.83
SUBTOTAL FOR PERMANENT EROSION CONTROL:						\$8,329.50

0030 - TEMPORARY EROSION CONTROL

line Number	ITEM	QUANTITY	UNITS	PRICE	DESCRIPTION	AMOUNT
0110	163-0232	0.900	AC	\$64.42	TEMPORARY GRASSING	\$57.98
0115	163-0240	12.000	TN	\$263.64	MULCH	\$3,163.66
0120	163-0300	4.000	EA	\$1,213.87	CONSTRUCTION EXIT	\$4,855.47
0125	165-0010	1631.000	LF	\$0.58	MAINT OF TEMP SILT FENCE, TP A	\$944.95
0130	165-0101	4.000	EA	\$472.41	MAINT OF CONST EXIT	\$1,889.64
0135	171-0010	3262.000	LF	\$1.64	TEMPORARY SILT FENCE, TYPE A	\$5,354.96
SUBTOTAL FOR TEMPORARY EROSION CONTROL:						\$16,266.66

0040 - SIGNING & MARKING

line Number	ITEM	QUANTITY	UNITS	PRICE	DESCRIPTION	AMOUNT
0145	653-1501	2836.000	LF	\$0.44	THERMO SOLID TRAF ST 5 IN, WHI	\$1,250.70
0140	653-1502	2263.000	LF	\$0.42	THERMO SOLID TRAF ST, 5 IN YEL	\$953.49
SUBTOTAL FOR SIGNING & MARKING:						\$2,204.19

DETAILED COST ESTIMATE



Job: 0000409

0050 - LANDSCAPING

line Number	ITEM	QUANTITY	UNITS	PRICE	DESCRIPTION	AMOUNT
0170	700-9300	2000.000	SY	\$3.72	SOD	\$7,444.40
0150	702-0105	3.000	EA	\$63.45	BETULA NIGRA - HERITAGE RIVER BIRCH, 3 INCH CALIPER	\$190.34
0155	702-0330	215.000	EA	\$10.00	HEMEROCALLIS SPECIES - DAYLILY, 1-GALLON	\$2,150.00
0160	702-0471	72.000	EA	\$140.00	ILEX VOMITORIA NANA - LAGERSTROEMIA INDICA - ACMA DWRF CRPEMRTL,6-8FT	\$10,080.00
0165	702-0542	9.000	EA	\$107.47	TREE-FMMIN3ST	\$967.20
0180	702-9005	100.000	LB	\$8.16	SPRING APPLICATION FERTILIZER	\$815.82
0175	702-9025	136.000	SY	\$5.61	LANDSCAPE MULCH	\$762.56
SUBTOTAL FOR LANDSCAPING:						\$22,410.32

0060 - LIGHTING

line Number	ITEM	QUANTITY	UNITS	PRICE	DESCRIPTION	AMOUNT
0205	615-1200	660.000	LF	\$11.10	DIRECTIONAL BORE - CONDUIT, NONMETAL, 2 IN	\$7,325.54
0210	647-2120	24.000	EA	\$285.57	PULL BOX, PB-2	\$6,853.79
0215	681-4230	12.000	EA	\$4,840.00	LT STD, 50' MH, POST TOP	\$58,080.00
0220	681-6446	48.000	EA	\$727.53	LUMINAIRE, TP 4, 250W,HP SODIUM	\$34,921.20
0225	682-1505	6000.000	LF	\$1.30	CABLE, TP RHH/RHW, AWG NO 8	\$7,800.00
0230	682-6222	720.000	LF	\$8.39	CONDUIT, NONMETL, TP 2, 2 IN	\$6,042.88
0235	682-6233	1320.000	LF	\$2.20	CONDUIT, NONMETL, TP 3, 2 IN	\$2,901.56
0240	682-9000	1.000	LS	\$17,033.70	MAIN SVC PICK UP POINT	\$17,033.70
0245	682-9010	12.000	EA	\$603.31	SVC POLE RISER	\$7,239.75
SUBTOTAL FOR LIGHTING:						\$148,198.42

TOTALS FOR JOB 0000409

ITEMS COST:	\$580,977.82
COST GROUP COST:	\$0.00
ESTIMATED COST:	\$580,977.82
CONTINGENCY PERCENT:	0.00
ENGINEERING AND INSPECTION:	0.05
ESTIMATED COST WITH CONTINGENCY AND E&I:	\$610,026.71

Department of Transportation State of Georgia

Interdepartmental Correspondence

FILE R/W Cost Estimate **OFFICE** Atlanta
DATE June 22, 2011

FROM Phil Copeland, Right of Way Administrator
LaShone Alexander, Right of Way Cost Estimator

TO Bobby K. Hilliard, PE

SUBJECT **Preliminary Right of Way Cost Estimate**
Project: STP00-0000-00(409) Spalding County
P.I. No.: 0000409
Description: SR 16 @ CR 496/688/Old 85 Conn./Hollonville Road

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

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

PC:LA
Attachments
c: File

Preliminary Right of Way Cost Estimate



Phil Copeland
 Right of Way Administrator
 By: LaShone B. Alexander

Date: June 22, 2011
Project: STP00-0000-00(409) Spalding
Existing/Required R/W: Varies/Varies
Project Termini : SR 16 @ CR 496/688/old 85 Conn/Hollonville Road
Project Description: SR 16 @ CR 496/688/old 85 Conn/Hollonville Road

P.L Number: 0000409
No. Parcels: 7

Land:

Res/ Agricultural	0.50 acres @ \$ 23,000/acre	\$ 11,500
Com	0.30 acres @ \$150,000/acre	45,000
		<u>56,500</u>

Improvements : landscaping , misc. site improvements 60,000

Relocation: Commercial (0) 25,000
 Residential (0) 40,000 0

Damage : Proximity
 Consequential
 Cost to Cure 0

Net Cost \$ 116,500

Net Cost		\$ 116,500
Scheduling Contingency	55 %	64,075
Adm/Court Cost	60 %	<u>108,345</u>
		\$ 288,920

Total Cost \$ 300,000

Note: The Market Appreciation (40%) is not included in the updated Preliminary Cost Estimate.

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

ENTER FPL DIESEL	3.959
ENTER FPM DIESEL	8.908

ENTER FPL UNLEADED	3.714
ENTER FPM UNLEADED	8.3565

<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)	1781.000	0.29	516.49	0.24	427.44	
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)	1344.000	2.90	3897.60	0.71	954.24	
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
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=			4414.09	SUM QF UNLEADED=			1381.68	
DIESEL PRICE ADJUSTMENT(\$)					\$20,096.69			
UNLEADED PRICE ADJUSTMENT(\$)					\$5,901.29			

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

MISSING APL OR APM **MISSING APL OR 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)
	PG 64-22*	
TMT =		<input style="width: 100px;" type="text"/>
REMARKS:		

MONTHLY PRICE ADJUSTMENT(\$) **MISSING APL OR APM**

ADJUSTMENT SUMMARY

FUEL PRICE ADJUSTMENT (ENGLISH 125% MAX)	
DIESEL PRICE ADJUSTMENT(\$)	<u>\$20,096.69</u>
UNLEADED PRICE ADJUSTMENT(\$)	<u>\$5,901.29</u>
ASPHALT CEMENT PRICE ADJUSTMENT (BITUMINOUS TACK COAT 125% MAX)	<u>\$1,222.66</u>
400 / 402 ASPHALT CEMENT PRICE ADJUSTMENT 125% MAX	<u>\$46,771.20</u>
ASPHALT CEMENT PRICE ADJUSTMENT FOR BITUMINOUS TACK COAT(Surface Treatment 125% MAX)	<u>MISSING APL OR APM</u>

REMARKS:

TOTAL ADJUSTMENTS **\$73,991.84**

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Doing Business

Consultants

Contractors

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Asphalt & Fuel Index

In accordance with Special Provision (dated September 15, 2005), Section 400.5.01 Adjustments, the asphalt price index for the month of the Letting will be posted here.

The Fuel Adjustment Index (Georgia Average Prices) is posted in accordance with Special Provision 109 - Measurement and Payment.

Beginning with awarded contracts in the September 17, 2009 Letting, payments under Section 109 "Monthly Asphalt Cement Price" on eligible projects will be made using the Georgia Base Asphalt Price. Please see the [August 19, 2009 bulletin](#) (.pdf, 526K) regarding this change.

Asphalt Cement Price Index

2011 (projects let after September 2009)

- August: \$580/ton (English); \$639/MG (Metric)
- July: \$605/ton (English); \$667/MG (Metric)
- June: \$614/ton (English); \$677/MG (Metric)
- May: \$604/ton (English); \$666/MG (Metric)
- April: \$530/ton (English); \$584/MG (Metric)
- March: \$500/ton (English); \$551/MG (Metric)
- February: \$480/ton (English); \$529/MG (Metric)
- January: \$460/ton (English); \$507/MG (Metric)

2011 (projects let prior to September 2009)

- August: \$582/ton (English); \$642/MG (Metric)
- July: \$604/ton (English); \$666/MG (Metric)
- June: \$607/ton (English); \$669/MG (Metric)
- May: \$573/ton (English); \$632/MG (Metric)
- April: \$517/ton (English); \$570/MG (Metric)
- March: \$481/ton (English); \$530/MG (Metric)
- February: \$461/ton (English); \$508/MG (Metric)
- January: \$446/ton (English); \$492/MG (Metric)

2010 (projects let after September 2009)

- December: \$456/ton (English); \$503/MG (Metric)
- November: \$449/ton (English); \$494/MG (Metric)
- October: \$450/ton (English); \$496/MG (Metric)
- September: \$453/ton (English); \$499/MG (Metric)
- August: \$458/ton (English); \$505/MG (Metric)
- July: \$478/ton (English); \$527/MG (Metric)
- June: \$493/ton (English); \$543/MG (Metric)
- May: \$509/ton (English); \$561/MG (Metric)
- April: \$504/ton (English); \$556/MG (Metric)
- March: \$494/ton (English); \$545/MG (Metric)
- February: \$485/ton (English); \$535/MG (Metric)
- January: \$426/ton (English); \$470/MG (Metric)

2010 (projects let prior to September 2009)

- December: \$445/ton (English); \$491/MG (Metric)
- November: \$442/ton (English); \$487/MG (Metric)
- October: \$450/ton (English); \$496/MG (Metric)
- September: \$455/ton (English); \$502/MG (Metric)
- August: \$464/ton (English); \$511/MG (Metric)
- July: 479/ton (English); \$528/MG (Metric)
- June: \$489/ton (English); \$539/MG (Metric)
- May: \$497/ton (English); \$548/MG (Metric)
- April: \$496/ton (English); \$547/MG (Metric)
- March: \$479/ton (English); \$528/MG (Metric)
- February: \$466/ton (English); \$514/MG (Metric)
- January: \$430/ton (English); \$474/MG (Metric)

View archive [Asphalt Cement Price Indexes](#)

See [Special Provision](#) (.pdf, 121K) (dated September 15, 2005) Section 400.5.01 for additional information.

Fuel Price Index (Georgia Average Price)

2011

- August: \$3.714/gal (regular); \$3.959/gal (diesel)
- July: \$3.455/gal (regular); \$3.861/gal (diesel)

- **June:** \$3.664/gal (regular); \$3.923/gal (diesel)
- **May:** \$3.862/gal (regular); \$4.079/gal (diesel)
- **April:** \$3.502/gal (regular); \$3.865/gal (diesel)
- **March:** \$3.314/gal (regular); \$3.669/gal (diesel)
- **February:** \$3.008/gal (regular); \$3.403/gal (diesel)
- **January:** \$2.99/gal (regular); \$3.254/gal (diesel)

2010

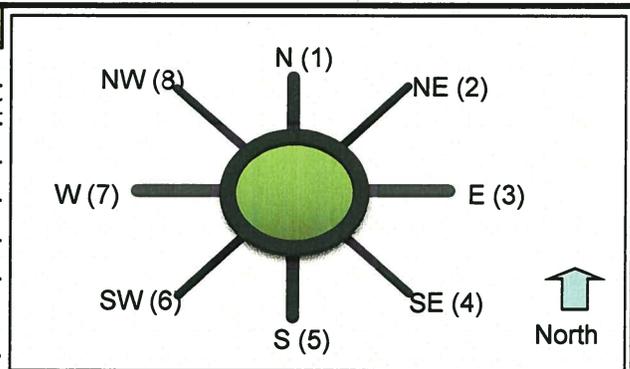
- **December:** \$2.776/gal (regular); \$3.092/gal (diesel)
- **November:** \$2.672/gal (regular); \$2.986/gal (diesel)
- **October:** \$2.620/gal (regular); \$2.933/gal (diesel)
- **September:** \$2.532/gal (regular); \$2.881/gal (diesel)
- **August:** \$2.625/gal (regular); \$2.886/gal (diesel)
- **July:** \$2.602/gal (regular); \$2.890/gal (diesel)
- **June:** \$2.608/gal (regular); \$2.926/gal (diesel)
- **May:** \$2.804/gal (regular); \$3.018/gal (diesel)
- **April:** \$2.716/gal (regular); \$2.877/gal (diesel)
- **March:** \$2.647/gal (regular); \$2.814/gal (diesel)
- **February:** \$2.538/gal (regular); \$2.772/gal (diesel)
- **January:** \$2.551/gal (regular); \$2.731/gal (diesel)

View archive [Fuel Price Indexes](#)

Average prices can be found at <http://www.fuelgaugereport.com>

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General & Site Information	
Analyst:	Sonya Ibeh
Agency/Company:	SDOT Roadway Design ~ Group
Date:	2/10/2011
Project Name or PI#:	PI 0000409
Year, Peak Hour:	2015 AM BUILD
County/District:	Spalding
Intersection:	SR 16 and Hollonville Road/Old SR 85 Connector



Volumes		Entry Legs (FROM)							
		N (1)	NE (2)	E (3)	SE (4)	S (5)	SW (6)	W (7)	NW (8)
Exit Legs (TO)	N (1), vph			20		75		20	
	NE (2), vph								
	E (3), vph	35				20		360	
	SE (4), vph								
	S (5), vph	30		15				55	
	SW (6), vph								
	W (7), vph	15		295		95			
	NW (8), vph								
Output	Total Vehicles	80	0	330	0	190	0	435	0

Volume Characteristics	N	NE	E	SE	S	SW	W	NW
% Cars	89%	100%	89%	100%	89%	100%	89%	100%
% SU/ Bus	0%	0%	0%	0%	0%	0%	0%	0%
% Trucks/ Combin.	11%	0%	11%	0%	11%	0%	11%	0%
% Bicycle	0%	0%	0%	0%	0%	0%	0%	0%
PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
F _{HV}	0.901	1.000	0.901	1.000	0.901	1.000	0.901	1.000

Entry/Conflicting Flows	N	NE	E	SE	S	SW	W	NW
Flow to Leg # N (1), pcu/h	0	0	25	0	95	0	25	0
NE (2), pcu/h	0	0	0	0	0	0	0	0
E (3), pcu/h	44	0	0	0	25	0	454	0
SE (4), pcu/h	0	0	0	0	0	0	0	0
S (5), pcu/h	38	0	19	0	0	0	69	0
SW (6), pcu/h	0	0	0	0	0	0	0	0
W (7), pcu/h	19	0	372	0	120	0	0	0
NW (8), pcu/h	0	0	0	0	0	0	0	0
Entry flow, pcu/h	101	0	416	0	240	0	549	0
Conflicting flow, pcu/h	511	0	240	0	523	0	101	0

Roundabout Type Urban Compact=1 Standard Single Lane =2

Enter type here... 2

Results: Approach Measures of Effectiveness								
NCHRP-572 Model	N	NE	E	SE	S	SW	W	NW
Entry Capacity, pcu/h	678	NA	889	NA	669	NA	1022	NA
V/C ratio	0.15		0.47		0.36		0.54	
Control Delay, sec/pcu	6		8		8		8	
LOS	A		A		A		A	
95th % Queue (ft)	14		70		45		91	
UK Model	N	NE	E	SE	S	SW	W	NW
Entry Capacity, pcu/h	934	NA	1081	NA	927	NA	1157	NA
V/C ratio	0.11		0.38		0.26		0.47	
Control Delay, sec/pcu	4		5		5		6	
LOS	A		A		A		A	
95th % Queue (ft)	10		51		29		73	

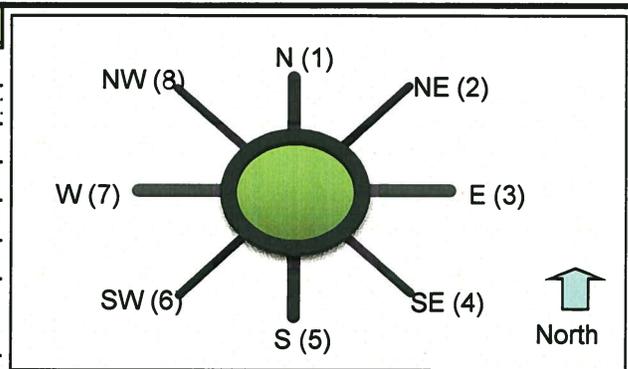
Notes:

Unit Legend:

vph = vehicles per hour
PHF = peak hour factor
F_{HV} = heavy vehicle factor
pcu = passenger car unit

Bypass Lane Merge Point Analysis (if applicable)						
Bypass Characteristics	Bypass #1	Bypass #2	Bypass #3	Bypass #4	Bypass #5	Bypass #6
Select Entry Leg from Bypass (FROM)						
Select Exit Leg for Bypass (TO)						
<i>Volumes</i>						
Right Turn Volume removed from Entry Leg						
<i>Volume Characteristics (for entry leg)</i>						
PHF						
F _{HV}						
<i>NOTE: Volume Characteristics for Exit Leg are already taken into account</i>						
<i>Entry/Conflicting Flows</i>						
Entry Flow						
Conflicting Flow						
Bypass Lane Results (NCHRP-572 Model)						
Entry Capacity at bypass mergepoint, pcu/hr						
V/C ratio						
Control Delay, sec/pcu						
LOS						
95th % Queue (ft)						

General & Site Information	
Analyst:	Sonya Ibeh
Agency/Company:	SDOT Roadway Design ~ Group
Date:	2/10/2011
Project Name or PI#:	PI 0000409
Year, Peak Hour:	2015 PM BUILD
County/District:	Spalding
Intersection:	SR 16 and Hollonville Road/Old SR 85 Connector



Volumes		Entry Legs (FROM)							
		N (1)	NE (2)	E (3)	SE (4)	S (5)	SW (6)	W (7)	NW (8)
Exit Legs (TO)	N (1), vph			35		30		15	
	NE (2), vph								
	E (3), vph	20				15		295	
	SE (4), vph								
	S (5), vph	75		20				95	
	SW (6), vph								
	W (7), vph	20		360		55			
	NW (8), vph								
Output	Total Vehicles	115	0	415	0	100	0	405	0

Volume Characteristics	N	NE	E	SE	S	SW	W	NW
% Cars	89%	100%	89%	100%	89%	100%	89%	100%
% SU/ Bus	0%	0%	0%	0%	0%	0%	0%	0%
% Trucks/ Combin.	11%	0%	11%	0%	11%	0%	11%	0%
% Bicycle	0%	0%	0%	0%	0%	0%	0%	0%
PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
F _{HV}	0.901	1.000	0.901	1.000	0.901	1.000	0.901	1.000

Entry/Conflicting Flows	N	NE	E	SE	S	SW	W	NW
Flow to Leg # N (1), pcu/h	0	0	44	0	38	0	19	0
NE (2), pcu/h	0	0	0	0	0	0	0	0
E (3), pcu/h	25	0	0	0	19	0	372	0
SE (4), pcu/h	0	0	0	0	0	0	0	0
S (5), pcu/h	95	0	25	0	0	0	120	0
SW (6), pcu/h	0	0	0	0	0	0	0	0
W (7), pcu/h	25	0	454	0	69	0	0	0
NW (8), pcu/h	0	0	0	0	0	0	0	0
Entry flow, pcu/h	145	0	523	0	126	0	511	0
Conflicting flow, pcu/h	549	0	126	0	416	0	145	0

Roundabout Type	Urban Compact=1 Standard Single Lane =2
Enter type here...	2

Results: Approach Measures of Effectiveness								
NCHRP-572 Model	N	NE	E	SE	S	SW	W	NW
Entry Capacity, pcu/h	653	NA	996	NA	745	NA	977	NA
V/C ratio	0.22		0.53		0.17		0.52	
Control Delay, sec/pcu	7		8		6		8	
LOS	A		A		A		A	
95th % Queue (ft)	23		88		17		87	
UK Model	N	NE	E	SE	S	SW	W	NW
Entry Capacity, pcu/h	913	NA	1143	NA	985	NA	1133	NA
V/C ratio	0.16		0.46		0.13		0.45	
Control Delay, sec/pcu	5		6		4		6	
LOS	A		A		A		A	
95th % Queue (ft)	16		68		12		66	

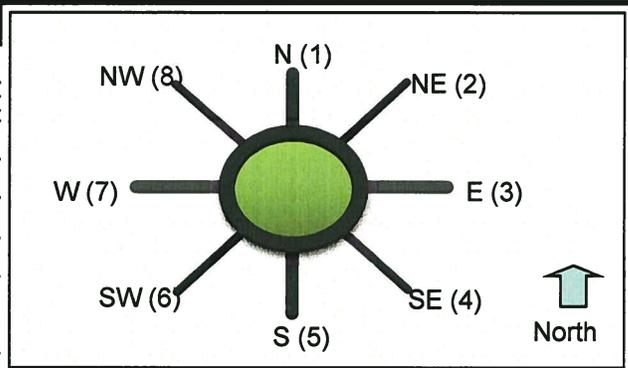
Notes:

Unit Legend:

vph = vehicles per hour
PHF = peak hour factor
F_{HV} = heavy vehicle factor
pcu = passenger car unit

Bypass Lane Merge Point Analysis (if applicable)						
Bypass Characteristics	Bypass #1	Bypass #2	Bypass #3	Bypass #4	Bypass #5	Bypass #6
Select Entry Leg from Bypass (FROM)						
Select Exit Leg for Bypass (TO)						
<i>Volumes</i>						
Right Turn Volume removed from Entry Leg						
<i>Volume Characteristics (for entry leg)</i>						
PHF						
F _{HV}						
<i>NOTE: Volume Characteristics for Exit Leg are already taken into account</i>						
<i>Entry/Conflicting Flows</i>						
Entry Flow						
Conflicting Flow						
Bypass Lane Results (NCHRP-572 Model)						
Entry Capacity at bypass mergepoint, pcu/hr						
V/C ratio						
Control Delay, sec/pcu						
LOS						
95th % Queue (ft)						

General & Site Information	
Analyst:	Sonya Ibeh
Agency/Company:	SDOT Roadway Design ~ Group
Date:	2/10/2011
Project Name or PI#:	PI 0000409
Year, Peak Hour:	2035 AM Build
County/District:	Spalding
Intersection:	SR 16 and Hollonville Road/Old SR 85 Connector



Volumes		Entry Legs (FROM)							
		N (1)	NE (2)	E (3)	SE (4)	S (5)	SW (6)	W (7)	NW (8)
Exit Legs (TO)	N (1), vph			35		120		35	
	NE (2), vph								
	E (3), vph	60				35		580	
	SE (4), vph								
	S (5), vph	55		25				85	
	SW (6), vph								
	W (7), vph	25		480		155			
	NW (8), vph								
Output	Total Vehicles	140	0	540	0	310	0	700	0

Volume Characteristics	N	NE	E	SE	S	SW	W	NW
% Cars	89%	100%	89%	100%	89%	100%	89%	100%
% SU/ Bus	0%	0%	0%	0%	0%	0%	0%	0%
% Trucks/ Combin.	11%	0%	11%	0%	11%	0%	11%	0%
% Bicycle	0%	0%	0%	0%	0%	0%	0%	0%
PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
F _{HV}	0.901	1.000	0.901	1.000	0.901	1.000	0.901	1.000

Entry/Conflicting Flows	N	NE	E	SE	S	SW	W	NW
Flow to Leg # N (1), pcu/h	0	0	44	0	151	0	44	0
NE (2), pcu/h	0	0	0	0	0	0	0	0
E (3), pcu/h	76	0	0	0	44	0	732	0
SE (4), pcu/h	0	0	0	0	0	0	0	0
S (5), pcu/h	69	0	32	0	0	0	107	0
SW (6), pcu/h	0	0	0	0	0	0	0	0
W (7), pcu/h	32	0	605	0	196	0	0	0
NW (8), pcu/h	0	0	0	0	0	0	0	0
Entry flow, pcu/h	177	0	681	0	391	0	883	0
Conflicting flow, pcu/h	833	0	391	0	851	0	177	0

Roundabout Type	Urban Compact=1 Standard Single Lane =2
Enter type here...	2

Results: Approach Measures of Effectiveness								
NCHRP-572 Model	N	NE	E	SE	S	SW	W	NW
Entry Capacity, pcu/h	492	NA	764	NA	482	NA	947	NA
V/C ratio	0.36		0.89		0.81		0.93	
Control Delay, sec/pcu	11		30		32		31	
LOS	B		D		D		D	
95th % Queue (ft)	45		322		213		406	
UK Model	N	NE	E	SE	S	SW	W	NW
Entry Capacity, pcu/h	759	NA	999	NA	748	NA	1116	NA
V/C ratio	0.23		0.68		0.52		0.79	
Control Delay, sec/pcu	6		11		10		14	
LOS	A		B		A		B	
95th % Queue (ft)	25		156		85		243	

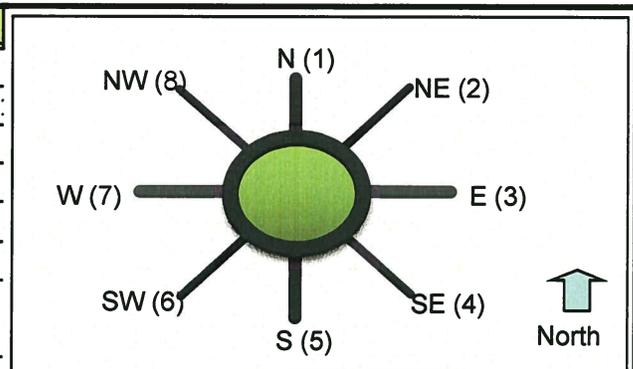
Notes:

Unit Legend:

vph = vehicles per hour
PHF = peak hour factor
F_{HV} = heavy vehicle factor
pcu = passenger car unit

Bypass Lane Merge Point Analysis (if applicable)						
Bypass Characteristics	Bypass #1	Bypass #2	Bypass #3	Bypass #4	Bypass #5	Bypass #6
Select Entry Leg from Bypass (FROM)						
Select Exit Leg for Bypass (TO)						
Volumes						
Right Turn Volume removed from Entry Leg						
Volume Characteristics (for entry leg)						
PHF						
F _{HV}						
NOTE: Volume Characteristics for Exit Leg are already taken into account						
Entry/Conflicting Flows						
Entry Flow						
Conflicting Flow						
Bypass Lane Results (NCHRP-572 Model)						
Entry Capacity at bypass mergepoint, pcu/hr						
V/C ratio						
Control Delay, sec/pcu						
LOS						
95th % Queue (ft)						

General & Site Information	
Analyst:	Sonya Ibeh
Agency/Company:	GDOT Roadway Design ~ Group
Date:	2/10/2011
Project Name or PI#:	PI 0000409
Year, Peak Hour:	2035 PM Build
County/District:	Spalding
Intersection:	SR 16 and Hollonville Road/Old SR 85 Connector



Volumes		Entry Legs (FROM)							
		N (1)	NE (2)	E (3)	SE (4)	S (5)	SW (6)	W (7)	NW (8)
Exit Legs (TO)	N (1), vph			60		55		25	
	NE (2), vph								
	E (3), vph	35				25		480	
	SE (4), vph								
	S (5), vph	120		35				155	
	SW (6), vph								
	W (7), vph	35		580		85			
	NW (8), vph								
Output	Total Vehicles	190	0	675	0	165	0	660	0

Volume Characteristics	N	NE	E	SE	S	SW	W	NW
% Cars	89%	100%	89%	100%	89%	100%	89%	100%
% SU/ Bus	0%	0%	0%	0%	0%	0%	0%	0%
% Trucks/ Combin.	11%	0%	11%	0%	11%	0%	11%	0%
% Bicycle	0%	0%	0%	0%	0%	0%	0%	0%
PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
F _{HV}	0.901	1.000	0.901	1.000	0.901	1.000	0.901	1.000

Entry/Conflicting Flows	N	NE	E	SE	S	SW	W	NW
Flow to Leg # N (1), pcu/h	0	0	76	0	69	0	32	0
NE (2), pcu/h	0	0	0	0	0	0	0	0
E (3), pcu/h	44	0	0	0	32	0	605	0
SE (4), pcu/h	0	0	0	0	0	0	0	0
S (5), pcu/h	151	0	44	0	0	0	196	0
SW (6), pcu/h	0	0	0	0	0	0	0	0
W (7), pcu/h	44	0	732	0	107	0	0	0
NW (8), pcu/h	0	0	0	0	0	0	0	0
Entry flow, pcu/h	240	0	851	0	208	0	833	0
Conflicting flow, pcu/h	883	0	208	0	681	0	240	0

Roundabout Type	Urban Compact=1	Standard Single Lane =2
Enter type here...	2	

Results: Approach Measures of Effectiveness								
NCHRP-572 Model	N	NE	E	SE	S	SW	W	NW
Entry Capacity, pcu/h	467	NA	918	NA	572	NA	889	NA
V/C ratio	0.51		0.93		0.36		0.94	
Control Delay, sec/pcu	16		31		10		33	
LOS	C		D		A		D	
95th % Queue (ft)	80		394		46		402	
UK Model	N	NE	E	SE	S	SW	W	NW
Entry Capacity, pcu/h	731	NA	1099	NA	841	NA	1081	NA
V/C ratio	0.33		0.77		0.25		0.77	
Control Delay, sec/pcu	7		14		6		13	
LOS	A		B		A		B	
95th % Queue (ft)	40		227		27		222	

Notes:

Unit Legend:

vph = vehicles per hour

PHF = peak hour factor

F_{HV} = heavy vehicle factor

pcu = passenger car unit

Bypass Lane Merge Point Analysis (if applicable)						
Bypass Characteristics	Bypass #1	Bypass #2	Bypass #3	Bypass #4	Bypass #5	Bypass #6
Select Entry Leg from Bypass (FROM)						
Select Exit Leg for Bypass (TO)						
Volumes						
Right Turn Volume removed from Entry Leg						
Volume Characteristics (for entry leg)						
PHF						
F _{HV}						
NOTE: Volume Characteristics for Exit Leg are already taken into account						
Entry/Conflicting Flows						
Entry Flow						
Conflicting Flow						
Bypass Lane Results (NCHRP-572 Model)						
Entry Capacity at bypass mergepoint, pcu/hr						
V/C ratio						
Control Delay, sec/pcu						
LOS						
95th % Queue (ft)						

BUILD AS TWO-WAY AM-2015

TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	S. Ibeh			Intersection	S.R. 16 @ Hollonville Rd.			
Agency/Co.	GDOT			Jurisdiction	Spalding			
Date Performed	2/11/2011			Analysis Year	2015			
Analysis Time Period	AM							
Project Description 0000409								
East/West Street: S.R. 16				North/South Street: Hollonville Rd				
Intersection Orientation: East-West				Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments								
Major Street	Eastbound			Westbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)	20	360	55	15	295	20		
Peak-Hour Factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88		
Hourly Flow Rate, HFR (veh/h)	22	409	62	17	335	22		
Percent Heavy Vehicles	11	--	--	11	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	1	1	1	1	1	1		
Configuration	L	T	R	L	T	R		
Upstream Signal		0			0			
Minor Street	Northbound			Southbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)	95	75	20	35	30	15		
Peak-Hour Factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88		
Hourly Flow Rate, HFR (veh/h)	107	85	22	39	34	17		
Percent Heavy Vehicles	11	11	11	11	11	11		
Percent Grade (%)	0			0				
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	1	1	0	1	0		
Configuration	LT		R		LTR			
Delay, Queue Length, and Level of Service								
Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L	L	LT		R		LTR	
v (veh/h)	22	17	192		22		90	
C (m) (veh/h)	1153	1045	249		623		242	
v/c	0.02	0.02	0.77		0.04		0.37	
95% queue length	0.06	0.05	5.64		0.11		1.64	
Control Delay (s/veh)	8.2	8.5	55.5		11.0		28.4	
LOS	A	A	F		B		D	
Approach Delay (s/veh)	--	--	50.9			28.4		
Approach LOS	--	--	F			D		

PM 2015 2-WAY BUILD

TWO-WAY STOP CONTROL SUMMARY								
General Information					Site Information			
Analyst	S. Ibeh				Intersection	S.R. 16 @ Hollonville Rd.		
Agency/Co.	GDOT				Jurisdiction	Spalding		
Date Performed	2/11/2011				Analysis Year	2015		
Analysis Time Period	PM							
Project Description 0000409								
East/West Street: S.R. 16					North/South Street: Hollonville Rd			
Intersection Orientation: East-West					Study Period (hrs): 0.25			
Vehicle Volumes and Adjustments								
Major Street	Eastbound			Westbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)	15	295	95	20	360	35		
Peak-Hour Factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88		
Hourly Flow Rate, HFR (veh/h)	17	335	107	22	409	39		
Percent Heavy Vehicles	11	--	--	11	--	--		
Median Type	Undivided							
RT Channelized			0				0	
Lanes	1	1	1	1	1	1		
Configuration	L	T	R	L	T	R		
Upstream Signal		0			0			
Minor Street	Northbound			Southbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)	55	30	15	20	75	20		
Peak-Hour Factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88		
Hourly Flow Rate, HFR (veh/h)	62	34	17	22	85	22		
Percent Heavy Vehicles	11	11	11	11	11	11		
Percent Grade (%)	0			0				
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	1	1	0	1	0		
Configuration	LT		R		LTR			
Delay, Queue Length, and Level of Service								
Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L	L	LT		R		LTR	
v (veh/h)	17	22	96		17		129	
C (m) (veh/h)	1066	1072	200		687		269	
v/c	0.02	0.02	0.48		0.02		0.48	
95% queue length	0.05	0.06	2.35		0.08		2.43	
Control Delay (s/veh)	8.4	8.4	38.6		10.4		30.1	
LOS	A	A	E		B		D	
Approach Delay (s/veh)	--	--	34.3			30.1		
Approach LOS	--	--	D			D		

AM 2035 BUILD 7-WAY

TWO-WAY STOP CONTROL SUMMARY

General Information			Site Information					
Analyst	S. Ibeh		Intersection	S.R. 16 @ Hollonville Rd.				
Agency/Co.	GDOT		Jurisdiction	Spalding				
Date Performed	2/11/2011		Analysis Year	2035				
Analysis Time Period	AM							
Project Description 0000409								
East/West Street: S.R. 16			North/South Street: Hollonville Rd					
Intersection Orientation: East-West			Study Period (hrs): 0.25					
Vehicle Volumes and Adjustments								
Major Street	Eastbound			Westbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)	35	589	85	25	480	35		
Peak-Hour Factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88		
Hourly Flow Rate, HFR (veh/h)	39	669	96	28	545	39		
Percent Heavy Vehicles	11	--	--	11	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	1	1	1	1	1	1		
Configuration	L	T	R	L	T	R		
Upstream Signal		0			0			
Minor Street	Northbound			Southbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)	155	120	35	60	55	20		
Peak-Hour Factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88		
Hourly Flow Rate, HFR (veh/h)	176	136	39	68	62	22		
Percent Heavy Vehicles	11	11	11	11	11	11		
Percent Grade (%)	0			0				
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	1	1	0	1	0		
Configuration	LT		R		LTR			
Delay, Queue Length, and Level of Service								
Approach	Eastbound	Westbound	Northbound		Southbound			
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L	L	LT		R		LTR	
v (veh/h)	39	28	312		39		152	
C (m) (veh/h)	948	809	77		442		0	
v/c	0.04	0.03	4.05		0.09			
95% queue length	0.13	0.11	32.93		0.29			
Control Delay (s/veh)	9.0	9.6	1485		13.9			
LOS	A	A	F		B		F	
Approach Delay (s/veh)	--	--	1321					
Approach LOS	--	--	F					

~~2035 PM BUILD~~ 2-WAY STOP

TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	S. Ibeh			Intersection	S.R. 16 @ Hollonville Rd.			
Agency/Co.	GDOT			Jurisdiction	Spalding			
Date Performed	2/11/2011			Analysis Year	2035			
Analysis Time Period	PM							
Project Description 0000409								
East/West Street: S.R. 16				North/South Street: Hollonville Rd				
Intersection Orientation: East-West				Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments								
Major Street	Eastbound			Westbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)	25	480	155	35	580	60		
Peak-Hour Factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88		
Hourly Flow Rate, HFR (veh/h)	28	545	176	39	659	68		
Percent Heavy Vehicles	11	--	--	11	--	--		
Median Type	Undivided							
RT Channelized			0					0
Lanes	1	1	1	1	1	1		
Configuration	L	T	R	L	T	R		
Upstream Signal		0			0			
Minor Street	Northbound			Southbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)	85	55	25	35	120	35		
Peak-Hour Factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88		
Hourly Flow Rate, HFR (veh/h)	96	62	28	39	136	39		
Percent Heavy Vehicles	11	11	11	11	11	11		
Percent Grade (%)	0			0				
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0					0
Lanes	0	1	1	0	1	0		
Configuration	LT		R		LTR			
Delay, Queue Length, and Level of Service								
Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L	L	LT		R		LTR	
v (veh/h)	28	39	158		28		214	
C (m) (veh/h)	836	841	0		521		102	
v/c	0.03	0.05			0.05		2.10	
95% queue length	0.10	0.15			0.17		18.37	
Control Delay (s/veh)	9.5	9.5			12.3		594.5	
LOS	A	A	F		B		F	
Approach Delay (s/veh)	--	--					594.5	
Approach LOS	--	--					F	

2015 AM NO BUILD

TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	Sonya Ibeh			Intersection	S.R. 16 @ Hollonville Rd			
Agency/Co.	GDOT			Jurisdiction	Spalding County			
Date Performed	2/11/2011			Analysis Year	2015			
Analysis Time Period	AM							
Project Description 0000409								
East/West Street: S.R. 16				North/South Street: Old S.R. 85/Hollonville Road				
Intersection Orientation: East-West				Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments								
Major Street	Eastbound			Westbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)	20	360	55	15	295	20		
Peak-Hour Factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88		
Hourly Flow Rate, HFR (veh/h)	22	409	62	17	335	22		
Percent Heavy Vehicles	11	--	--	11	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration	LTR			LTR				
Upstream Signal		0			0			
Minor Street	Northbound			Southbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)	95	75	20	35	30	15		
Peak-Hour Factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88		
Hourly Flow Rate, HFR (veh/h)	107	85	22	39	34	17		
Percent Heavy Vehicles	11	11	11	11	11	11		
Percent Grade (%)	0			0				
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration		LTR				LTR		
Delay, Queue Length, and Level of Service								
Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR	LTR			LTR		
v (veh/h)	22	17	214			90		
C (m) (veh/h)	1153	1045	250			233		
v/c	0.02	0.02	0.86			0.39		
95% queue length	0.06	0.05	6.99			1.72		
Control Delay (s/veh)	8.2	8.5	68.2			29.9		
LOS	A	A	F			D		
Approach Delay (s/veh)	--	--	68.2			29.9		
Approach LOS	--	--	F			D		

2015PM NOBUILD

TWO-WAY STOP CONTROL SUMMARY									
General Information				Site Information					
Analyst	Sonya Ibeh			Intersection	S.R. 16 @ Hollonville Rd				
Agency/Co.	GDOT			Jurisdiction	Spalding County				
Date Performed	2/11/2011			Analysis Year	2015				
Analysis Time Period	PM								
Project Description 0000409									
East/West Street: S.R. 16				North/South Street: Old S.R. 85/Hollonville Road					
Intersection Orientation: East-West				Study Period (hrs): 0.25					
Vehicle Volumes and Adjustments									
Major Street	Eastbound			Westbound					
Movement	1	2	3	4	5	6			
	L	T	R	L	T	R			
Volume (veh/h)	15	295	95	20	360	35			
Peak-Hour Factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88			
Hourly Flow Rate, HFR (veh/h)	17	335	107	22	409	39			
Percent Heavy Vehicles	11	-	-	11	-	-			
Median Type	Undivided								
RT Channelized			0					0	
Lanes	0	1	0	0	1	0			
Configuration	LTR			LTR					
Upstream Signal		0			0				
Minor Street	Northbound			Southbound					
Movement	7	8	9	10	11	12			
	L	T	R	L	T	R			
Volume (veh/h)	55	30	15	20	75	20			
Peak-Hour Factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88			
Hourly Flow Rate, HFR (veh/h)	62	34	17	22	85	22			
Percent Heavy Vehicles	11	11	11	11	11	11			
Percent Grade (%)	0			0					
Flared Approach		N			N				
Storage		0			0				
RT Channelized			0			0			
Lanes	0	1	0	0	1	0			
Configuration		LTR			LTR				
Delay, Queue Length, and Level of Service									
Approach	Eastbound	Westbound	Northbound			Southbound			
Movement	1	4	7	8	9	10	11	12	
Lane Configuration	LTR	LTR	LTR			LTR			
v (veh/h)	17	22	113			129			
C (m) (veh/h)	1066	1072	202			259			
v/c	0.02	0.02	0.56			0.50			
95% queue length	0.05	0.06	3.00			2.57			
Control Delay (s/veh)	8.4	8.4	43.3			31.9			
LOS	A	A	E			D			
Approach Delay (s/veh)	--	--	43.3			31.9			
Approach LOS	--	--	E			D			

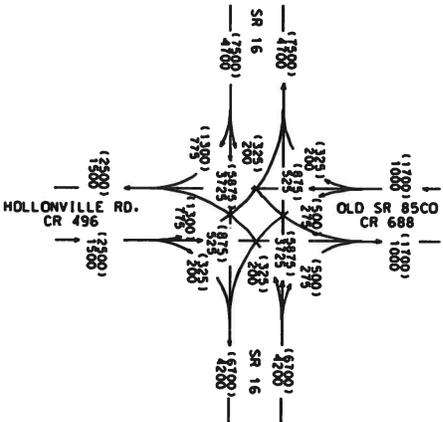
2035 AM NO BULLD

TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	Sonya Ibeh			Intersection	S.R. 16 @ Hollonville Rd			
Agency/Co.	GDOT			Jurisdiction	Spalding County			
Date Performed	2/11/2011			Analysis Year	2035			
Analysis Time Period	AM							
Project Description 0000409								
East/West Street: S.R. 16				North/South Street: Old S.R. 85/Hollonville Road				
Intersection Orientation: East-West				Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments								
Major Street	Eastbound			Westbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)	35	580	85	25	480	35		
Peak-Hour Factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88		
Hourly Flow Rate, HFR (veh/h)	39	659	96	28	545	39		
Percent Heavy Vehicles	11	--	--	11	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration	LTR			LTR				
Upstream Signal		0			0			
Minor Street	Northbound			Southbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)	155	120	35	60	55	20		
Peak-Hour Factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88		
Hourly Flow Rate, HFR (veh/h)	176	136	39	68	62	22		
Percent Heavy Vehicles	11	11	11	11	11	11		
Percent Grade (%)	0			0				
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration		LTR			LTR			
Delay, Queue Length, and Level of Service								
Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR	LTR			LTR		
v (veh/h)	39	28	351			152		
C (m) (veh/h)	948	816	73			0		
v/c	0.04	0.03	4.81					
95% queue length	0.13	0.11	38.20					
Control Delay (s/veh)	9.0	9.6	1828					
LOS	A	A	F			F		
Approach Delay (s/veh)	--	--	1828					
Approach LOS	--	--	F					

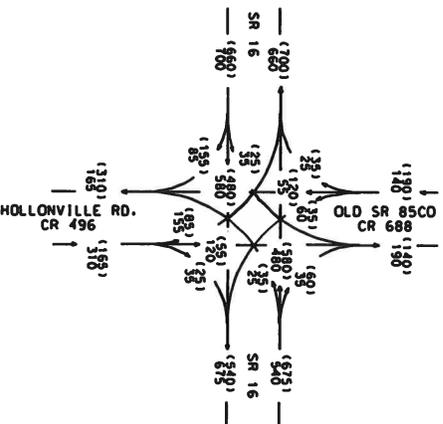
2035 PM NOBUILD

TWO-WAY STOP CONTROL SUMMARY									
General Information				Site Information					
Analyst	Sonya Ibeh			Intersection	S.R. 16 @ Hollonville				
Agency/Co.	GDOT			Jurisdiction	Spalding				
Date Performed	2/11/2011			Analysis Year	2035				
Analysis Time Period	PM								
Project Description 0000409									
East/West Street: S.R. 16				North/South Street: Hollonville					
Intersection Orientation: East-West				Study Period (hrs): 0.25					
Vehicle Volumes and Adjustments									
Major Street	Eastbound			Westbound					
Movement	1	2	3	4	5	6			
	L	T	R	L	T	R			
Volume (veh/h)	25	480	155	35	580	60			
Peak-Hour Factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88			
Hourly Flow Rate, HFR (veh/h)	28	545	176	39	659	68			
Percent Heavy Vehicles	11	--	--	11	--	--			
Median Type	Undivided								
RT Channelized			0					0	
Lanes	0	1	0	0	1	0			
Configuration	LTR			LTR					
Upstream Signal		0			0				
Minor Street	Northbound			Southbound					
Movement	7	8	9	10	11	12			
	L	T	R	L	T	R			
Volume (veh/h)	85	55	25	35	120	35			
Peak-Hour Factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88			
Hourly Flow Rate, HFR (veh/h)	96	62	28	39	136	39			
Percent Heavy Vehicles	11	11	11	11	11				
Percent Grade (%)	0			0					
Flared Approach		N			N				
Storage		0			0				
RT Channelized			0			0			
Lanes	0	1	0	0	1	0			
Configuration		LTR			LTR				
Delay, Queue Length, and Level of Service									
Approach	Eastbound	Westbound	Northbound			Southbound			
Movement	1	4	7	8	9	10	11	12	
Lane Configuration	LTR	LTR	LTR			LTR			
v (veh/h)	28	39	186			214			
C (m) (veh/h)	836	841	0			87			
v/c	0.03	0.05				2.46			
95% queue length	0.10	0.15				19.91			
Control Delay (s/veh)	9.5	9.5				766.8			
LOS	A	A	F			F			
Approach Delay (s/veh)	--	--				766.8			
Approach LOS	--	--				F			

2015 BUILD ADT = 000
2035 BUILD ADT = (000)

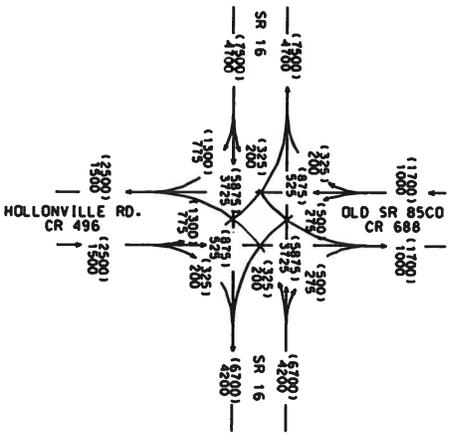


2035 AM BUILD DHV = 000
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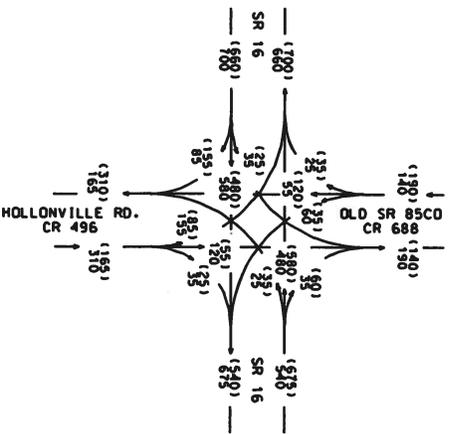


STP-0000-001(409)
P.I.# 0000409
SPALDING COUNTY
SR 16 @ CR 496/688
T = 11%
24 HR. T = 14%
S.I. = 8%
COMB. = 6%
R/M
08/10

2015 NO BUILD ADT = 000
2035 NO BUILD ADT = (000)

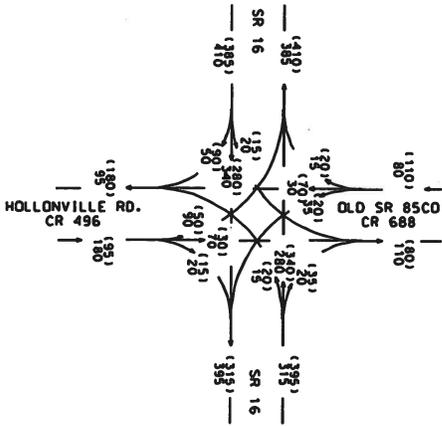
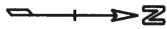


2035 AM NO BUILD DHV = 000
2035 PM NO BUILD DHV = (000)

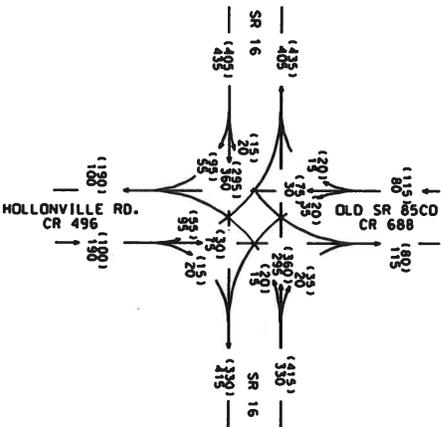


STP-0000-00(409)
P.I.# 0000409
SPALDING COUNTY
SR 16 @ CR 496/688
T = 11%
24 HR. T = 14%
S.U. = 8%
COMB. = 6%
RFN
08/10

2013 AM NO BUILD DHV = 000
2013 PM NO BUILD DHV = (000)



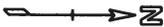
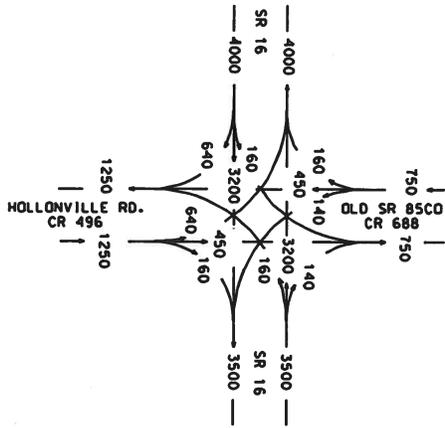
2015 AM NO BUILD DHV = 000
2015 PM NO BUILD DHV = (000)



STP-0000-001(409)
P.I.# 0000409
SPALDING COUNTY
SR 16 @ CR 496/688
T = 11%
24 HR. T = 14 %
S.U. = 8%
COMB. = 6%

RF#1
08/10

EXISTING
2009 ADT



STP-0000-001(409)
 P.I.# 0000409
 SPALDING COUNTY
 SR 16 @ CR 496/688
 T = 11%
 24 HR. T = 14%
 S.U. = 8%
 COMB. = 6%

RF#1
 08/10

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INDICATION OF ROUNDABOUT SUPPORT

To the Georgia Department of Transportation:

Attn: State Traffic Engineer
935 E. Confederate Ave, Building 24
Atlanta, GA 30316

Location

The Board of Commissioners in Spalding County supports the consideration of a roundabout at the location specified below.

Local Street Names: Old 85 Connector at Hollonville Road

State/County Route Numbers: SR 16 at CR 496

Associated Conditions

The undersigned agrees to participate in the following maintenance of the intersection in the event that the roundabout is selected as the preferred concept alternative:

- The full and entire cost of the electric energy used for any lighting installed and the maintenance thereof (if needed)
- Any maintenance costs associated with the landscaping as approved by the local government and the Georgia Department of Transportation (after construction is complete)

We agree to participate in a formal Local Government Lighting Project Agreement during the preliminary design phase. This indication of support is submitted and all of the conditions are hereby agreed to. The undersigned are duly authorized to execute this agreement.

Attest:


Clerk

This is the 17 day of May, 20 11

By:



Title:

Chairman