

ORIGINAL TO GENERAL FILES

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

OFFICE OF DESIGN POLICY & SUPPORT INTERDEPARTMENTAL CORRESPONDENCE

FILE P.I. # 532780-
STP00-0111-01(028)
Chatham County
GDOT District 5 - Jesup

OFFICE Design Policy & Support

DATE April 2, 2013

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:

Bobby Hilliard, Program Control Administrator
Genetha Rice-Singleton, State Program Delivery Engineer
Glenn Bowman, State Environmental Administrator
Cindy VanDyke, State Transportation Planning Administrator
Kathy Zahul, State Traffic Engineer
Angela Robinson, Financial Management Administrator
Lisa Myers, State Project Review Engineer
Charles "Chuck" Hasty, State Materials Engineer
Mike Bolden, State Utilities Engineer
Paul Tanner, Asst. State Transportation Data Administrator
Attn: Systems & Classification Branch
Ken Thompson, Statewide Location Bureau Chief
Tamaya Huff, Pedestrian & Bicycle Coordinator
Andy Casey, State Roadway Design Engineer
Attn: Josh Taylor, Design Group Manager
Karon Ivery, District Engineer
Brad Saxon, District Preconstruction Engineer
Stephen Thomas, District Utilities Engineer
David Moyer, Project Manager
BOARD MEMBER - 1st Cong. District
FHWA – attn: Rodney Barry, Georgia Division Administrator

*** 03/07/2013 Resubmission date - FHWA comments addressed*

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

Project Type: Safety P.I. Number: 532780
GDOT District: 5 County: Chatham
Federal Route Number: N/A State Route Number: SR204

The significant changes of the approved Revised Concept Report includes: 1) removing the additional through lane and right turn lane on SR204/Abercorn Street in each direction, 2) removing the dual left turn lane on SR204/Abercorn Street westbound onto CS1149/Largo Drive, and 3) adding an additional right turn lane on CS1149/Largo Drive northbound onto SR204/Abercorn Street.

Submitted for approval:

C. Andy Cury 8/27/12
State Roadway Design Engineer, Office of Roadway Design DATE

Shelley Rice-Lite 9/7/2012
State Program Delivery Engineer, Office of Program Delivery DATE

Daniel H. Moya 8/29/12
GDOT Project Manager DATE

Recommendation for approval:

**Glenn Bowman/mes* 09/23/2012
State Environmental Administrator DATE

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

Cynthia K. Vaupe 9-12-12
State Transportation Planning Administrator DATE

**Recommendation on file*

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENTAL CORRESPONDENCE

FILE: STP00-0111-01(028), Chatham County **OFFICE:** Roadway Design
P. I. No: 532780-
SR204/ Abercorn Street @ Largo Drive **DATE:** August 24, 2012

FROM: C. Andy Casey, P.E., State Roadway Design Engineer

TO: Genetha Rice-Singleton, State Program Delivery Engineer
Attn.: David Moyer, P.E.

7 Revised
SUBJECT: CONCEPT REPORT SUBMITTAL

7 Revised
The Concept Report for the above referenced project is attached for your signature and further processing.

An electronic copy of this report has been submitted via e-mail to the Office of Design Policy and Support in accordance with the PDP for the electronic processing of Concept Reports.

If you have any questions, please contact Albert Welch, Design Engineer Group Manager, at 404-631-1690.

MDL ASID
CAC:DMR:asw
Attachment

PLANNING, APPROVED CONCEPT, & BACKGROUND DATA

PI# 532780 has been identified in the Savannah MPO's TIP as a Safety Lump Sum project to reduce crash frequency and severity at the intersection of SR204 and Largo Drive and was added to the GDOT program on February 2, 1996. SR204 in Chatham County provides connectivity between I-95 and the City of Savannah and serves as a major commuter route for multiple activity centers. At this location, SR204 is functionally classified as an urban principal arterial; it is also on the National Highway System (NHS) and is designated a hurricane evacuation route. Largo Drive is classified as an urban collector street and provides north-south connectivity between SR204 and surrounding residential areas. Neither of these facilities is on a State Bicycle Route or designated a truck route.

Currently, the intersection of SR204 and Largo Drive is signalized. Eastbound and westbound SR204 consists of three through lanes and a single left turn lane at the intersection. Largo Drive consists of one through lane, one right turn lane, and one left turn lane in both northbound and southbound directions.

According to traffic data approved by the Office of Planning, the SR204 corridor operates at LOS "C" in the current year (2010) and is projected to decline to LOS "D" by year 2036. Traffic along Largo Drive operates at LOS "B" in the current year (2010) and is projected to decline to LOS "C" and "D" by year 2036. The intersection of SR204 and Largo Drive currently operates near capacity with a volume-capacity ratio of 0.81 in the AM peak period and 0.71 in the PM. Without any improvements, the intersection is projected to operate over capacity by the year 2036 with a volume-capacity ratio of 1.14 in the AM and 1.01 in the PM. This capacity analysis indicates unacceptable levels of congestion, as defined by performance measures in the 2035 Statewide Transportation Plan.

For years 2006 through 2008, crash rates at this intersection were significantly greater than the statewide average for similar facility types. Of the crashes during the three year period, approximately 67% were rear-end collisions, 16% were sideswipes, 13% were angle collisions, and 5% involved only one vehicle. A majority of the rear-end crashes involved stopped vehicles, whereas a majority of the sideswipe and angle crashes involved vehicles changing lanes or turning. The crashes at this intersection may be associated with congestion, queuing, and turning movements.

Several other GDOT projects are programmed or under construction near this intersection. Planned for long range, PI# 0002922 proposes to widen SR204 to an eight lane roadway from Rio Road to Harry Truman Parkway. PI# 0002921 is currently under construction and will provide a new alignment roadway connecting SR204 to Whitfield Ave. In addition, the Savannah MPO is using ARRA funds to conduct a planning study that will recommend possible alternatives for reducing congestion along the SR204 corridor.

Improvements are needed to reduce the frequency and severity of crashes at this intersection, where crash rates are above the statewide average. Capacity improvements are also needed at this intersection in order to accommodate the anticipated growth in traffic and improve overall mobility. A project at this intersection is warranted based on the operational conditions stated here.

Description of the approved Concept: The approved Concept Report, dated March 20, 1996 recommended to improve the safety and operational efficiency of the intersection by providing dual left turn lanes for the movement from westbound SR204/ Abercorn Street to southbound CS1149/ Largo Drive. This required construction of an additional turn lane on SR204, reconstruction of CS1149 and re-configuration of the intersection. The project length was 0.41 mile long from M.P. 16.62 to M.P. 16.88 on SR204 and from M.P. 1.82 to M.P. 1.97 on CS1149. The proposed typical section had three (3) through lanes in each direction, two (2) dual left turn lanes westbound, one (1) left turn lane eastbound, and a 5-ft raised grassed median for SR204. CS1149 (North of SR204) only included radius improvements and re-striping. CS1149 (South of SR204) contained two (2) travel lanes with one (1) 4-ft bike lane southbound, and one (1) travel lane with one (1) left turn lane and one (1) right turn lane northbound separated by a 3-ft grassed median. There are 7 parcels impacted.

Description of the approved Revised Concept The approved Revised Concept Report, dated February 5, 2004 recommended to improve the safety and operational efficiency of the intersection to increase the scope of the project by adding two through lanes on SR204, one in each direction, in order to increase the roadway and intersection capacity. The project length was 0.55 mile long from M.P. 16.55 to M.P. 16.95 on SR204 and from M.P. 1.82 to M.P. 1.97 on CS1149. The typical section for SR204 consisted of four (4) through lanes, one (1) right turn lanes in each direction, two (2) left turn lanes westbound, one (1) left turn lane eastbound, and a 5-ft raised grassed median. Due to the additional lanes, the taper lengths extended the project termini on SR204 by approximately 255-ft to the west and 475-ft to the east. The Right of Way impacts increased from seven (7) to eighteen (18) parcels.

PDP Classification: Major Minor

Federal Oversight: Full Oversight Exempt State Funded Other

Projected Traffic AADT as shown in the approved Concept Report:

Open Year (2004) SR204: 48,000	Design Year (2024) SR204: 75,000
CS1149: 10,000	CS1149: 16,600

Updated Traffic ADT:

Open Year (2016) SR204: 43,100	Design Year (2036) SR204: 73,300
CS1149: 10,000	CS1149: 12,400

Functional Classification: SR204/ Abercorn Street - Urban Principal Arterial
 CS1149/ Largo Drive – Urban Collector Street

VE Study anticipated: No Yes Completed – Date:

PROPOSED REVISIONS

Approved Features:	Proposed Features:
<p>The 2004 approved Revised Concept Report proposed features to be revised:</p> <ul style="list-style-type: none"> • Typical Sections <ul style="list-style-type: none"> ➤ Four (4) through lanes on SR204. ➤ Separate right-turn lanes on SR204. ➤ Dual left turn lanes on westbound SR204 to southbound CS1149. ➤ 5-ft bike lane on CS1149. • Project Termini <ul style="list-style-type: none"> ➤ SR204 Mile Post 16.55 – 16.95. • Right-of-Way Limits <ul style="list-style-type: none"> ➤ 18 parcels affected. 	<p>This Revised Concept Report proposes to change the following features:</p> <ul style="list-style-type: none"> • Typical Sections <ul style="list-style-type: none"> ➤ Maintain existing three (3) through lanes on SR204. ➤ No separate right-turn lanes on SR204. ➤ Maintain the existing left turn lane and extending the storage length on westbound SR204. ➤ Maintain the existing north and southbound turning movements and extending the storage lengths on southbound CS1149. ➤ Add one (1) additional right-turn lane on northbound CS1149 to eastbound SR204. ➤ Maintain existing 4-ft bike lanes on CS1149. • Project Termini <ul style="list-style-type: none"> ➤ SR204 Mile Post 16.58 – 16.84 • Right of Way <ul style="list-style-type: none"> ➤ No parcels affected
<p>Reason(s) for change: The proposed changes are in response to the attached Traffic Engineering Study conducted by District 5 Traffic Operations and the traffic analysis conducted by the Office of Roadway Design which is summarized in the attached Intersection Alternative Matrix. Both studies indicate the proposed improvements in the 2004 Revised Concept Report will not improve the intersection delay, particularly along the mainline, SR204/Abercorn Street. Major improvements such as the addition of through lanes are necessary from Rio Road to Truman Parkway to improve the LOS of this intersection. Project PI# 0002922 proposes to widen SR204/Abercorn Street from 6 to 8-lanes but is in long-range. The Chatham County MPO is currently studying the SR204 corridor for different alternatives to project PI# 0002922.</p>	

ENVIRONMENTAL

Air Quality:

Is the project located in a PM 2.5 Non-attainment area? No Yes
 Is the project located in an Ozone Non-attainment area? No Yes

Potential environmental impacts of proposed revision: No anticipated environmental impacts.

Have proposed revisions been reviewed by environmental staff? No Yes

Environmental responsibilities (Studies/Documents/Permits): All Environmental Studies and reports will be conducted by GDOT personnel.

Environmental impacts by section:

NEPA: The level of Environmental documentation is anticipated to be a Programmatic Categorical Exclusion (PCE).

Ecology: Ecology field survey will be conducted. Anticipate No effects to habitat or Wildlife. Do not anticipate 404 permit or mitigation credits.

Archeology: This project was cleared by TRC in 2001. That report and its findings still stand.

History: No Historic Properties Affected document went to SHPO. Because there are no historic resources in the APE, no concurrence from SHPO is needed. History is clear.

Air & Noise: Air and Noise Studies will be conducted and are scheduled for December 2012. Do not anticipate any mitigation or abatement measures.

Public Involvement: Do not anticipate Public Out Reach for this type project.

PROJECT COST & ADDITIONAL INFORMATION

Updated Cost Estimate		Date of Estimate
Base Construction Cost:	\$507,406.36	07/06/2012
Engineering and Inspection (5%):	\$25,370.32	07/06/2012
Liquid AC Adjustment:	\$9,792.81	07/06/2012
<u>Total Construction Cost:</u>	<u>\$542,569.49</u>	<u>07/06/2012</u>
Right-of-Way:	0	
Utilities (reimbursable costs):	0	
Utilities (Non-reimbursable costs):	\$10,000	11/30/2011
TOTAL PROJECT COST:	\$552,569.49	07/06/2012

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

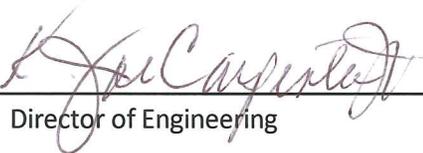
Comments:

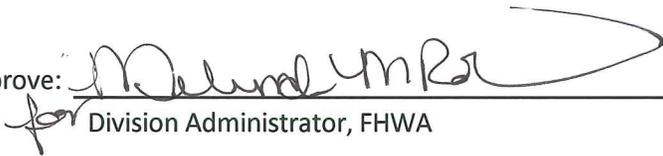
Although the Justification Statement states that SR204/Abercorn Street and CS1149/Largo Drive are not on designated State Bicycle Routes, the Office of Roadway Design proposes to maintain the current 4-ft bike lane on CS1149/Largo Drive (see attached Typical Section).

Attachments:

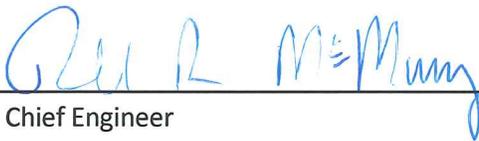
- 1. Project Lay Out
- 2. Typical Sections
- 3. Intersection Alternative Matrix
- 4. Preliminary Detailed Cost Estimates
- 5. Traffic Study – District 5 Traffic Engineer
- 6. Traffic Diagram
- 7. Highway Safety Manual Analysis

APPROVALS

Concur: 
Director of Engineering

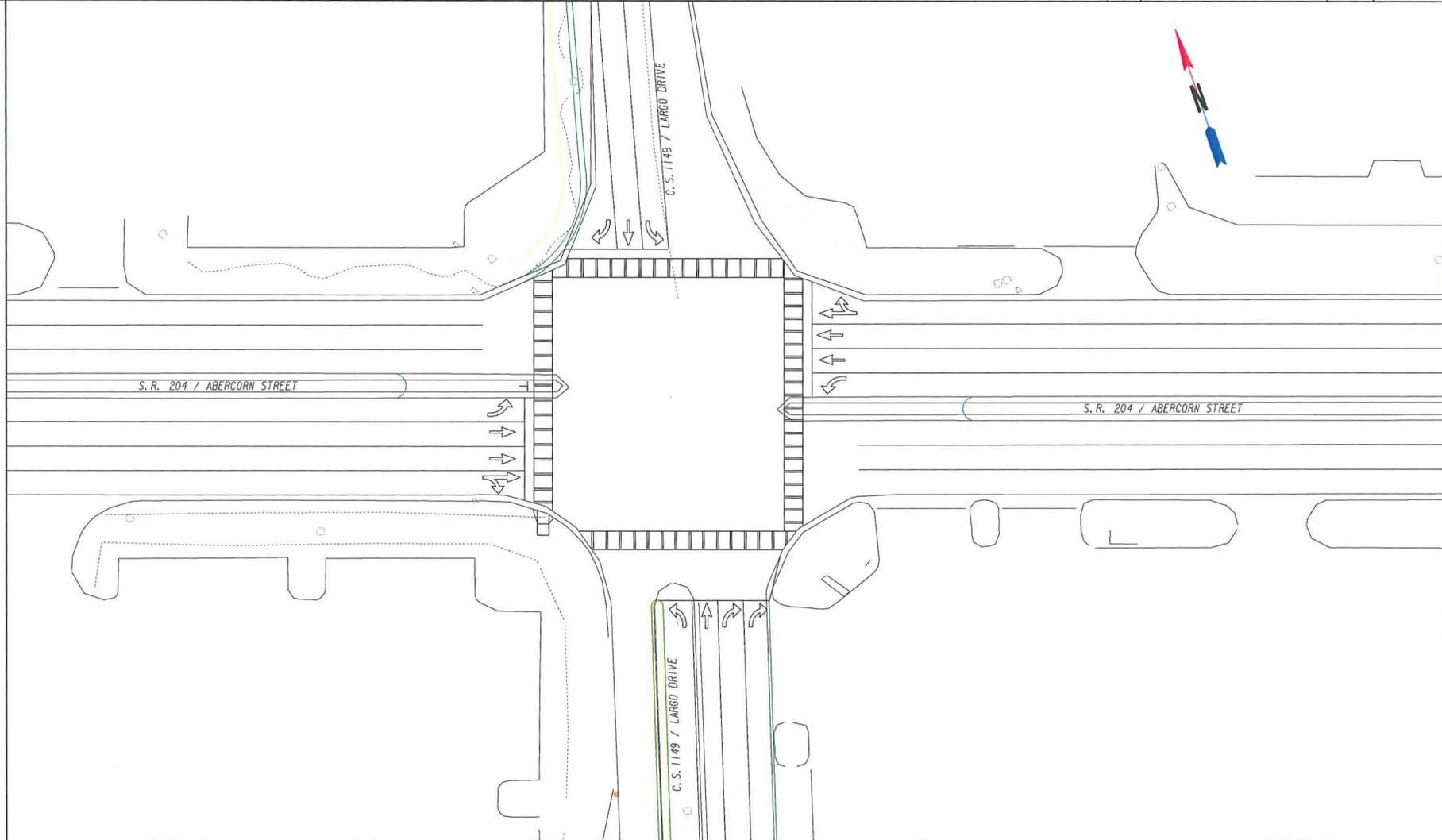
Approve: 
for Division Administrator, FHWA

3/25/13
Date

Approve: 
Chief Engineer

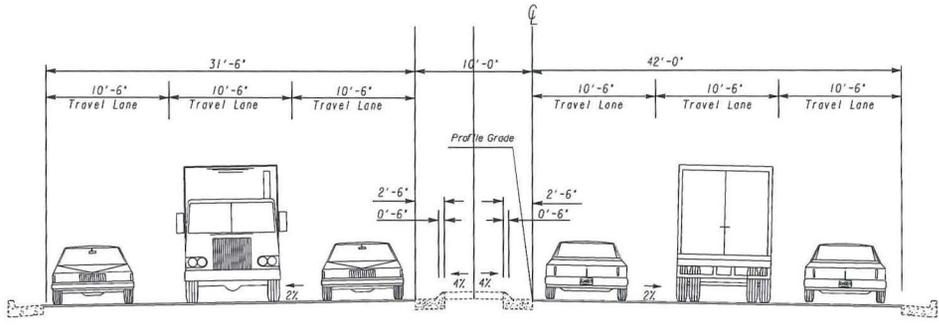
4/1/13
Date

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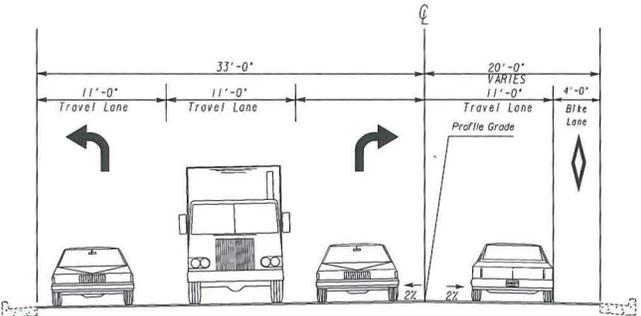


REVISION DATES		STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION	
		OFFICE: ROADWAY DESIGN	
		DRAWING No.	

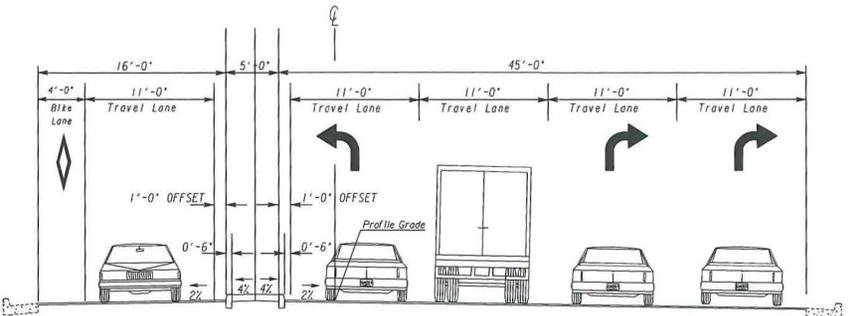
8/9/2012 USER:annaltrfc	3:23:32 PM SPL01-V8 sp1elborder-V81-P0.1b1	C:\iaRoads Data\52780\05207801\PSCR.dgn	STATE GA	PROJECT NUMBER STP00-0111-01102B1	SHEET NO.	TOTAL SHEETS
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S. R. 204



LARGO DRIVE
NORTHERN APPROACH



LARGO DRIVE
SOUTHERN APPROACH

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: ROADWAY DESIGN
TYPICAL SECTIONS
SR 204 / ABERCORN ST
@ LARGO DRIVE

DRAWING No.
05-01

Diagram	Modifications	Turning Movements with corresponding LOS and Delays			Modified Intersection 'PM'	
					LOS	Approach Delay
A. EXISTING '2010' CONDITION						
SR 204 IS 6 LANES EAST AND WESTBOUND WITH DEDICATED LEFT TURN LANES (LTLs) LARGO DRIVE IS 2 LANES WITH DEDICATED LEFT AND RIGHT TURN LANES (RTLs)						
	Eastbound	F	B		D	36.30
		277.3	12.8			
	Eastbound				D	36.30
	Westbound	F	B		F	80.10
		438.9	14.5			
	Westbound				F	80.10
	Northbound	E	E	B	D	54.10
		78.4	77.2	10.3		
	Northbound				D	54.10
	Southbound	E	E	B	E	55.80
		60.7	78.5	17.6		
	Southbound				E	55.80
Intersection LOS						E
Intersection Signal Delay						59.30

B. NO BUILD '2036' CONDITION						
SR 204 IS 6 LANES EAST AND WESTBOUND WITH DEDICATED LTLs LARGO DRIVE IS 2 LANES WITH DEDICATED LEFT AND RTLs						
	Eastbound	F	C		D	41.90
		324.4	24.6			
	Eastbound				D	41.90
	Westbound	F	E		F	102.60
		465.8	57.2			
	Westbound				F	102.60
	Northbound	F	E	E	F	100.30
		133.1	78.5	67.3		
	Northbound				F	100.30
	Southbound	E	E	C	E	59.20
		62.8	79.3	24.7		
	Southbound				E	59.20
Intersection LOS						E
Intersection Signal Delay						76.30

Diagram	Modifications	Turning Movements with corresponding LOS and Delays			Modified Intersection 'PM'	
					LOS	Approach Delay
C. '1996' APPROVED CONCEPT REPORT DUAL LTLs WESTBOUND ON SR 204						
	Eastbound	F	C		D	38.20
		311.2	21.5			
	Westbound	F	D		E	74.40
		389.1	35			
	Northbound	F	E	E	F	89.80
		116.4	78.1	60.3		
	Southbound	E	E	C	E	59.00
		62.5	79.1	24.6		
Intersection LOS						E
Intersection Signal Delay						60.30

D. '2004' APPROVED REVISED CONCEPT REPORT FOUR THRU LANES, A RTL, AND DUAL WESTBOUND LTLs ON SR 204						
	Eastbound	F	B	A	C	32.60
		311.2	15.9	2.2		
	Westbound	F	B	A	E	60.10
		389.1	19.3	3.2		
	Northbound	F	E	E	F	89.80
		116.4	78.1	60.3		
	Southbound	E	E	C	E	59.00
		62.5	79.1	24.6		
Intersection LOS						D
Intersection Signal Delay						51.10

Diagram	Modifications	Turning Movements with corresponding LOS and Delays			Modified Intersection 'PM'	
					LOS	Approach Delay
E. '2013' DISTRICT 5 RECOMMENDATION						
INCREASE STORAGE LENGTH FOR THE LTLs ON THE NORTHBOUND AND WESTBOUND						
	Eastbound	F	C		D	41.90
		324.4	24.6			
	Westbound	F	E		F	102.60
		465.8	57.2			
	Northbound	F	E	E	F	94.70
		124.3	78.3	63.3		
	Southbound	E	E	C	E	59.20
		62.8	79.3	24.7		
Intersection LOS						E
Intersection Signal Delay						75.90

F. DISTRICT 5 RECOMMENDATION MODIFICATION #1						
INCREASE STORAGE LENGTH FOR THE LTLs ON THE NORTHBOUND AND WESTBOUND, INCREASE STORAGE LENGTH FOR THE LTL AND RTL ON THE SOUTHBOUND, AND DUAL NORTHBOUND RTLs ON LARGO DRIVE						
	Eastbound	F	C		D	41.90
		324.4	24.6			
	Westbound	F	E		F	102.60
		465.8	57.2			
	Northbound	F	E	B	E	78.30
		124.3	78.3	18.7		
	Southbound	E	E	B	E	57.10
		62.8	79.3	15.3		
Intersection LOS						E
Intersection Signal Delay						74.60

Diagram	Modifications	Turning Movements with corresponding LOS and Delays			Modified Intersection 'PM'	
					LOS	Approach Delay
G. DISTRICT 5 RECOMMENDATION MODIFICATION #2						
INCREASE STORAGE LENGTH FOR THE LTLs NORTHBOUND AND WESTBOUND, INCREASE STORAGE LENGTH FOR THE LTL AND RTL SOUTHBOUND, AND DUAL LTLs WESTBOUND ON SR 204						
	Eastbound	F	C		D	41.90
		324.4	24.6			
	Westbound	F	E		F	95.10
		398.3	57.2			
	Northbound	F	E	E	F	94.70
		124.3	78.3	63.3		
	Southbound	E	E	B	E	57.10
		62.8	79.3	15.3		
Intersection LOS						E
Intersection Signal Delay						72.10

H. FHWA RECOMMENDATION						
INCREASE STORAGE LENGTH FOR THE LTLs NORTHBOUND AND WESTBOUND, DUAL LTLs WESTBOUND ON SR 204, AND DUAL RTLs NORTHBOUND ON LARGO DRIVE						
	Eastbound	F	C		D	41.90
		324.4	24.6			
	Westbound	F	E		F	95.10
		398.3	57.2			
	Northbound	F	E	B	E	78.30
		124.3	78.3	18.7		
	Southbound	E	E	C	E	59.20
		62.8	79.3	24.7		
Intersection LOS						E
Intersection Signal Delay						71.00

-The above data is from the worst case scenario which is the 'PM Peak Hour' traffic

-All conditions are based on the same cycle length and signal phases which was determined by the best case

-The Alternative's Summary Analysis

-The Chosen Alternative

PROJ. NO.: STP00-0111-01(028)
P.I. NO. 532780
DATE: August 9, 2012

Base Construction Cost	\$	507,406.36
Engineering & Inspection	5% \$	25,370.32
Subtotal Construction Cost	\$	532,776.68
Liquid AC Adjustment (60 % Max. Cap)	\$	9,792.81
Total Construction Cost	\$	<u>542,569.48</u>

DETAILED COST ESTIMATE



Job: 532780

ATTACHMENT #4 PAGE 2 OF 5

JOB NUMBER: 532780

FED/STATE PROJECT NUMBER STP00-0111-01(028)

SPEC YEAR: 01

DESCRIPTION: SR 204/ABERCORN ST. AT LARGO DRIVE IN SAVANNAH

ITEMS FOR JOB 532780

0001 - ROADWAY

Line Number	ITEM	QUANTITY	UNITS	PRICE	DESCRIPTION	AMOUNT
0165	150-1000	1.000	LS	\$150,000.00	TRAFFIC CONTROL - STP00-0111-01(028)	\$150,000.00
0155	310-5120	877.000	SY	\$31.24	GR AGGR BS CRS 12IN INCL MATL	\$27,394.19
0020	402-3121	193.000	TN	\$83.15	RECYL AC 25MM SP,GP1/2,BM&HL	\$16,048.26
0010	402-3130	73.000	TN	\$101.35	RECYL AC 12.5MM SP,GP2,BM&HL	\$7,398.36
0015	402-3190	193.000	TN	\$92.39	RECYL AC 19 MM SP,GP 1 OR 2 ,INC BM&HL	\$17,831.20
0025	413-1000	876.000	GL	\$2.74	BITUM TACK COAT	\$2,403.46
0030	432-5010	15747.000	SY	\$2.12	MILL ASPH CONC PVMT,VARB DEPTH	\$33,420.80
0195	441-0104	10.000	SY	\$61.95	CONC SIDEWALK, 4 IN	\$619.47
0205	441-0740	307.000	SY	\$31.05	CONC MEDIAN, 4 IN	\$9,533.79
0210	441-5001	887.000	LF	\$7.31	CONC HEADER CURB, 4", TP 1	\$6,486.21
0125	441-6222	307.000	LF	\$18.98	CONC CURB & GUTTER/ 8"X30"TP2	\$5,827.89
0120	441-6740	366.000	LF	\$16.17	CONC CURB & GUTTER/ 8"X30" TP7	\$5,917.08
0200	500-9999	89.000	CY	\$171.61	CL B CONC,BASE OR PVMT WIDEN	\$15,273.15
0160	687-1000	1.000	LS	\$50,000.00	TRAFFIC SIGNAL TIMING - STP00-0111-01(028)	\$50,000.00
SUBTOTAL FOR ROADWAY:						\$348,153.86

0004 - SIGNING AND MARKING

Line Number	ITEM	QUANTITY	UNITS	PRICE	DESCRIPTION	AMOUNT
0185	652-0094	4.000	EA	\$48.61	PVMT MARKING, SYMBOL, TP 4	\$194.42
0080	653-0110	4.000	EA	\$78.41	THERM PVMT MARK, ARROW, TP 1	\$313.62
0085	653-0120	26.000	EA	\$78.28	THERM PVMT MARK, ARROW, TP 2	\$2,035.22
0075	653-1501	7396.000	LF	\$0.42	THERMO SOLID TRAF ST 5 IN, WHI	\$3,073.85
0100	653-1704	187.000	LF	\$4.41	THERM SOLID TRAF STRIPE,24",WH	\$824.36
0130	653-2502	0.900	LM	\$1,609.23	THERMO SOLID TRAF ST, 5 IN YE	\$1,448.31
0170	653-2804	0.400	LM	\$10,027.01	THERM SOLID TRAF STRIPE, 8",WH	\$4,010.80
0070	653-3501	5492.000	GLF	\$0.29	THERMO SKIP TRAF ST, 5 IN, WHI	\$1,607.67
0110	654-1001	17.000	EA	\$4.92	RAISED PVMT MARKERS TP 1	\$83.70
0115	654-1003	179.000	EA	\$4.10	RAISED PVMT MARKERS TP 3	\$733.01
SUBTOTAL FOR SIGNING AND MARKING:						\$14,324.96

COST GROUP FOR JOB 532780

LINE NUMBER	UNIT	CALCULATION RULE	QUANTITY	PRICE	COST GROUP ID	DESCRIPTION	AMOUNT
00000004	SY	PCTO	1449.275	\$18.00	EROCPCO	EROSION CONTROL (PERCENT OF JOB)	\$26,086.96
00000005	LS	NORM	1.000	\$100,000.00	ERTHLS	EARTHWORK (LS)	\$100,000.00
00000006	LF	PCTO	1449.275	\$8.00	DRNGPCTO	DRAINAGE (PERCENT OF JOB)	\$11,594.20
00000007	EA	PCTO	1449.275	\$5.00	SIGNPCTO	SIGNS (PERCENT OF JOB)	\$7,246.38
SUBTOTAL:							\$144,927.54

TOTALS FOR JOB 532780

ITEMS COST:	\$362,478.82
COST GROUP COST:	\$144,927.54
ESTIMATED COST:	\$507,406.36
CONTINGENCY PERCENT:	0.00
ENGINEERING AND INSPECTION:	0.00
ESTIMATED COST WITH CONTINGENCY AND E&I:	\$507,406.36

PROJ. NO.	STP00-0111-01(028)
P.I. NO.	532780
DATE	7/6/2012

CALL NO.

INDEX (TYPE)	DATE	INDEX
REG. UNLEADED	Jul-12	\$ 3.137
DIESEL		\$ 3.602
LIQUID AC		\$ 611.00

Link to Fuel and AC Index:
<http://www.dot.ga.gov/doingbusiness/Materials/Pages/asphaltcementindex.aspx>

LIQUID AC ADJUSTMENTS

$PA = \left(\frac{APM - APL}{APL} \right) \times TMT \times APL$

Asphalt

Price Adjustment (PA)				8413.47	\$	8,413.47
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	\$	977.60		
Monthly Asphalt Cement Price month project let (APL)			\$	611.00		
Total Monthly Tonnage of asphalt cement (TMT)				22.95		

ASPHALT	Tons	%AC	AC ton
Leveling		5.0%	0
12.5 OGFC		5.0%	0
12.5 mm	73	5.0%	3.65
9.5 mm SP		5.0%	0
25 mm SP	193	5.0%	9.65
19 mm SP	193	5.0%	9.65
	459		22.95

BITUMINOUS TACK COAT

Price Adjustment (PA)				\$ 1,379.34	\$	1,379.34
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	\$	977.60		
Monthly Asphalt Cement Price month project let (APL)			\$	611.00		
Total Monthly Tonnage of asphalt cement (TMT)				3.762508408		

Bitum Tack		
Gals	gals/ton	tons
876	232.8234	3.76250841

PROJ. NO. STP00-0111-01(028)
P.I. NO. 532780
DATE 7/6/2012

CALL NO.

BITUMINOUS TACK COAT (surface treatment)

Price Adjustment (PA)					0	\$	-
Monthly Asphalt Cement Price month placed (APM)		Max. Cap	60%	\$	977.60		
Monthly Asphalt Cement Price month project let (APL)				\$	611.00		
Total Monthly Tonnage of asphalt cement (TMT)					0		

Bitum Tack	SY	Gals/SY	Gals	gals/ton	tons
Single Surf. Trmt.		0.20	0	232.8234	0
Double Surf. Trmt.		0.44	0	232.8234	0
Triple Surf. Trmt		0.71	0	232.8234	0
					0

TOTAL LIQUID AC ADJUSTMENT						\$	9,792.81
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DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE STP-111-1(28) Chatham
P.I. # 532780

OFFICE Jesup
DATE 11/30/11

FROM Stephen Thomas, Asst. District Utility Engineer

TO Aisha Moultrie, TEA Urban Design

SUBJECT REVISED PRELIMINARY UTILITY COST (ESTIMATE)

As requested by your office, we are furnishing you with a Revised Preliminary Utility Cost estimate of each utility with facilities potentially located within the above project limits.

Facility Owner	Non-Reimbursable	Reimbursable	Comments
Atlanta Gas Light	\$0	\$0	*
Bellsouth/ATT	\$0	\$0	*
City of Savannah (W & S)	\$0	\$0	*
Comcast	\$0	\$0	*
Georgia Power- Transmission	\$0	\$0	*
Georgia Power- Distribution	\$10,000	\$0	*
Totals	\$10,000		
Total Reimbursement		\$0	

*- This revised estimate is based upon a revised foot print that does extend beyond existing edge of paving. All proposed work on this revised concept is to increase the storage capacity on the westbound & northbound left turn lanes. There appears to be 1 lighting structure in conflict with project @ Largo on County R/W.

CC: Angie Robinson, Office of Financial Management;
Terry Brigman, Assistant State Utilities Engineer
District Office File
Utilities Office File

**TE STUDY
SR 204 AT LARGO DRIVE.
CHATHAM COUNTY**



**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

August 29, 2011 (Revised 1-6-13)

M.P. 10.41

Prepared by

**District 5
Traffic Operations**

SR 204 AT LARGO DRIVE CHATHAM COUNTY

STUDY LOCATION

The intersection of SR 204 and Largo Drive is scheduled to be improved under STP00-0111-01(028) Chatham County (PI 532780). The intersection is a major connection to the Windsor Forest Area from SR 204. It serves the commercial area south of the intersection along with Windsor Forest High School as well as the residential area.

REASON FOR INVESTIGATION

The Office Roads Design requested that the District Office review the location for possible revisions to the 2004 approved concept.

TOPOGRAPHY

SR 204 is an urban, 6 lane divided highway with 3-12 through lanes and 1-12 left turn lane in each direction.

Largo Drive south is 2-lane divided City Street with a separate through, right and left lane at intersection.

Largo Drive north is a 2-lane city street that transitions to include a separate right, through and left turn lane at the intersection with SR 204.

The closest signal installations are 1300 feet to the west at Mercy Blvd and 1600 feet to the east at Deerfield Avenue.

EXISTING TRAFFIC CONTROL

There is an existing Stop and Go Traffic Signal at this location with pedestrian crossing on three approaches.

VEHICLE VOLUME HISTORY

Table 1- AADT for SR 204 AT LARGO DRIVE.

YEAR	SR 204	Largo Drive
2016	43100	10000
2036	73300	12400

***(Revised to update to current traffic 1-6-13)**

VEHICULAR SPEEDS

The posted speed limit for both approaches of SR 204 is 45 mph while Largo Drive has a speed of 30 mph.

CONCLUSIONS

The intersection was reviewed during the typical AM and PM peak periods. The intersection functioned well with the exception of a 20 minute period during the 3 to 4 PM peak. During this period the northbound left turn and westbound left turn lane had minor back ups queuing outside of the existing turn lane storage.

There was an observed issue with pedestrians crossing the west approach of the signalized intersection. This approach does have pedestrian phasing. In addition, most of the observed pedestrians did not activate pedestrian crossing to cross intersection.

RECOMMENDATIONS

Based on an analysis of traffic data and observed intersection operations, the following action is recommended:

1. It is recommended that an operation improvement project upgrade the existing signal to include pedestrian phasing on the west approach and extend the existing westbound bound left turn lane.
2. It is recommended that the northbound approach of Largo drive be widened to accommodate extending the left and right turn lanes for this approach. Consideration should be given to closing or modify the first median opening to the south on Largo drive.

RECOMMENDED BY: *R. J. McEl* DATE: 1-6-13
District Traffic Engineer

RECOMMENDED BY: _____ DATE: _____
State Traffic Engineer

RECOMMENDED BY: _____ DATE: _____
Director of Operations

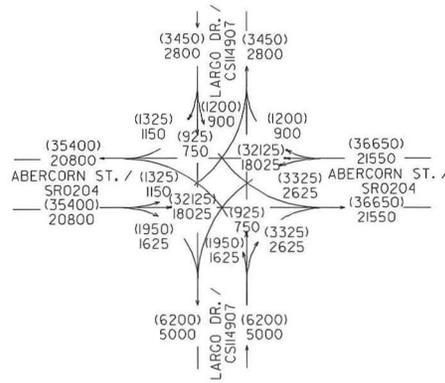
SHEET 1 OF 4

CHATHAM COUNTY IN SAVANNAH

GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE OF PLANNING



24 HR. T = 6.50%
S.U. = 3.25%
COMB. = 3.25%



STP00-QIII-0(028)
PI # 532780
CHATHAM COUNTY
SR 204/ABERCORN ST
@ LARGO DRIVE
IN SAVANNAH
2036 ADT = (000)
2016 ADT = 000
AMW
11/11

SHEET 2 OF 4

CHATHAM COUNTY IN SAVANNAH

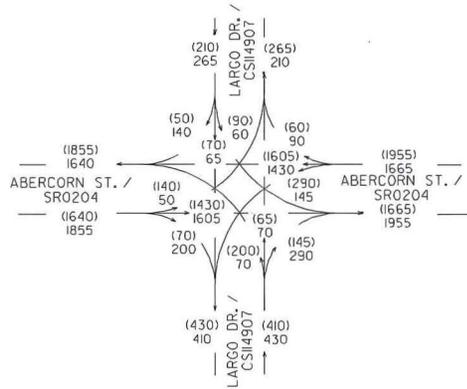
GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE OF PLANNING



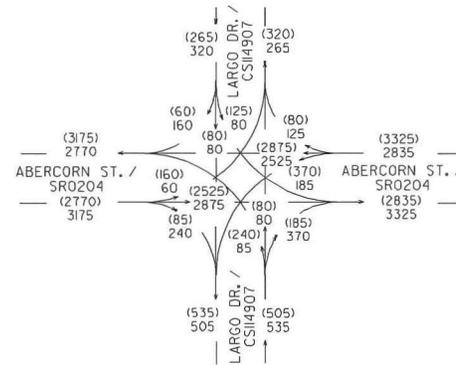
2016 PM DHV = (000)
2016 AM DHV = 000

2036 PM DHV = (000)
2036 AM DHV = 000

T = 7.00%
S.U. = 3.25%
COMB. = 3.75%



T = 7.00%
S.U. = 3.25%
COMB. = 3.75%



STP00-011-01(02B)
PI # 532780
CHATHAM COUNTY
SR 204/ABERCORN ST
@ LARGO DRIVE
IN SAVANNAH

AMW
1/11

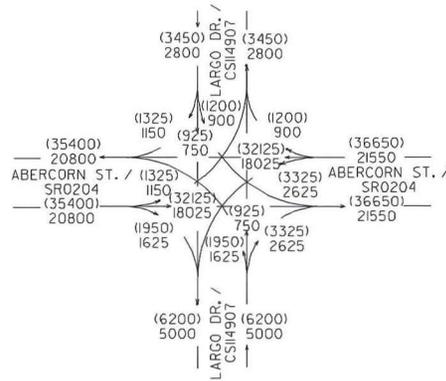
SHEET 3 OF 4

CHATHAM COUNTY
IN SAVANNAH
NO BUILD

GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE OF PLANNING



24 HR. T = 6.50%
S.U. = 3.25%
COMB. = 3.25%



STP00-011-01(028)
PI # 532780
CHATHAM COUNTY
SR 204/ABERCORN ST
@ LARGO DRIVE
IN SAVANNAH
2036 ADT = (000)
2016 ADT = 000
AMW
11/11

SHEET 4 OF 4

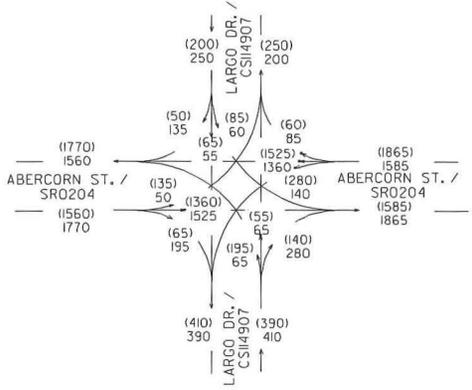
CHATHAM COUNTY
IN SAVANNAH
NO BUILD

GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE OF PLANNING

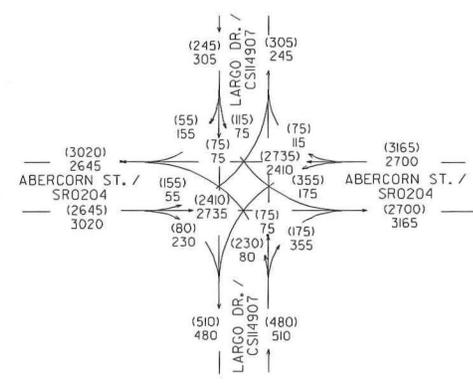
2016 PM DHV = (000)
2016 AM DHV = 000

2036 PM DHV = (000)
2036 AM DHV = 000

T = 7.00%
S.U. = 3.25%
COMB. = 3.75%



T = 7.00%
S.U. = 3.25%
COMB. = 3.75%



STP00-011-01(028)
PI # 532180
CHATHAM COUNTY
SR 204/ABERCORN ST
@ LARGO DRIVE
IN SAVANNAH

AMW
B/II

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE Highway Safety Manual Coordination Review **OFFICE** Roadway Design
DATE March 7, 2012

FROM Erik Rohde, Robert Elam, Sonya Sykes (HSM SME's)

TO Aisha Moultrie, Albert Welch

SUBJECT **PI 532780 / Chatham County Revised Concept Report HSM Review**

A review of the above subject Revised Concept Report was performed by the HSM SME's. The Highway Safety Manual (HSM) was referenced for applicable Safety Performance Function (SPF) and Crash Modification Factor (CMF) analysis requirements for submission with this Revised Concept Report. Please see below for the paragraph we recommend be included in your submission. Please let us know if there are any other questions or concerns.

Information to be included in the Revised Concept Report:

Revised Concept for a Four-Leg Signalized Urban Intersection

The Highway Safety Manual (HSM) has been referenced for the availability of a Predictive Method analysis using a Safety Performance Function (SPF) with associated Crash Modification Factor(s) (CMF). The revised concept for the intersection on this project is classified by the HSM as an Urban Arterial Signalized Four Leg Intersection. There is a HSM SPF for this facility type; however, the intersection major road traffic volumes (AADT major) are outside the maximum allowed range, thus a HSM Predictive Method analysis is of no value.
