ORIGINAL TO GENERAL FILES

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

OFFICE OF DESIGN POLICY & SUPPORT
INTERDEPARTMENTAL CORRESPONDENCE

FILE P.I. # 0010760 **OFFICE** Design Policy & Support

Fulton County
GDOT District 7 - Metro Atlanta **DATE** 4/25/2013
Intersection Improvements: SR 10/
Freedom Pkwy @ Boulevard

FROM for Brent Story, State Design Policy Engineer

TO SEE DISTRIBUTION

SUBJECT **APPROVED LIMITED SCOPE CONCEPT REPORT**

Attached is the approved Limited Scope 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
Ken Thompson, Statewide Location Bureau Chief
Andy Casey, State Roadway Design Engineer
Attn: Mac Cranford, District 7 Design Engineer
Rachel Brown, District Engineer
Scott Lee, District Preconstruction Engineer
Jonathan Walker, District Utilities Engineer
Charner Rodgers - Register, Project Manager
BOARD MEMBER - 5th Congressional District

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
LIMITED SCOPE PROJECT CONCEPT REPORT

Project Type: Operational Improvement
P.I. Number: 0010760
GDOT District: Seven
County: Fulton
Federal Route Number: N/A
State Route Number: 10

SR 10/Freedom Pkwy at CS 520/Boulevard - Intersection Improvement Project

Submitted for approval:

Mac Crawford — 2-26-13
District Seven Design Engineer — DATE

Channel Segars — 3-4-13
GDOT Project Manager — DATE

Brent Hare - for JA — 3/7/2013
State Program Delivery Engineer — DATE

Recommendation for approval:

GLENN BOWMAN*/EKP — 3/24/13
State Environmental Administrator — DATE

KATHY ZAHUL*/EKP — 3/19/13
State Traffic Engineer — 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).

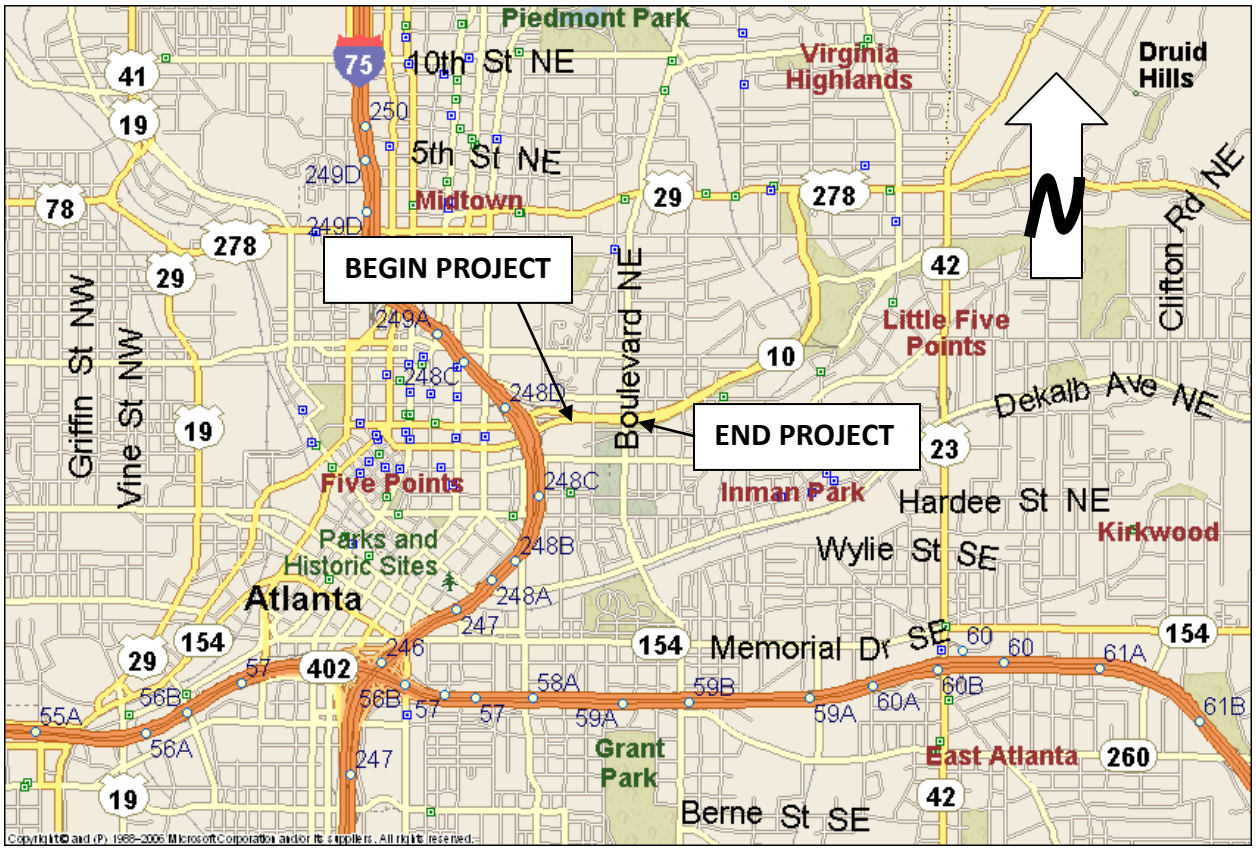
Cynthia L Vanike — 3-13-13
State Transportation Planning Administrator — DATE

Approval:

Concur: K Joel Carpenter — 4/11/13
GDOT Director of Engineering — DATE

Approve: [signature] — 4-22-13
GDOT Chief Engineer — DATE

PROJECT LOCATION



PLANNING & BACKGROUND DATA

Project Justification Statement: State Route (SR) 10/Freedom Parkway at CS 520/Boulevard in Fulton County was identified for minor intersection improvements. The proposed project is to be included in the GDOT Operational Improvement Lump Sum Program from the Office of Traffic Operations. This proposed project was presented to and approved by the Operational Improvement Committee as a QUICK project.

SR 10 is an urban principal arterial that connects the Virginia Highlands/Decatur area to downtown Atlanta and the I-75/I-85 connector. At the intersection, SR 10 is an east/west grass median divided roadway with four 12-foot travel lanes, one left turn auxiliary lane in each direction, and one westbound right acceleration lane. Boulevard is an urban minor arterial street that travels parallel to the downtown connector serving residential, commercial, and industrial areas. At the intersection, Boulevard currently has four 12-foot travel lanes, one left turn auxiliary lane in each direction, and a right turn lane on the southbound approach. The intersection is currently signalized with protected/permissive left turn phases on Boulevard and protected only left turn phases on SR 10. The project limits should not extend more than 800 feet from the center of the intersection for the SR 10 eastbound approach and 150 feet for all other approaches.

District 7 Traffic Operations staff provided a brief traffic engineering summary capturing the intersection operations. Field observation and analysis showed the SR 10 eastbound left turn queues back to the I-75/I-85 ramps adding to the existing operational deficiencies of the short weaving section. The project proposes minor improvements to convert the existing grass median on the west leg to a second eastbound left turn lane, install an eastbound right turn lane on SR 10 and retime the traffic signal. According to a Synchro analysis, the proposed improvements will reduce the eastbound approach delay by 14 seconds and the eastbound left turn delay by 39 seconds. The maximum queue for this approach will be reduced by 332 feet or 13 vehicles. The additional turn lane storage and enhanced signal operation will create more space for vehicles to navigate to their designated lane in a routinely congested weaving section, with minimal impact to right of way.

Due to the minor project scope, the right-of-way constraints, existing intersection features (existing roadway width and signal operations) and the scope approved by the Operational Improvement Committee, a roundabout was not recommended for this location.

The project lies within the boundaries of the Atlanta Regional Commission (ARC), Atlanta's Metropolitan Planning Organization (MPO). As an operational improvement project, this project is categorized under the "operational improvement lump sum category" in the MPO's RTP or TIP.

Description of the proposed project: The project is on S. R. 10/Freedom Pkwy at the intersection of Boulevard in Fulton County, Georgia from milepost 0.31 to 0.42. The existing grass median on the west leg of SR 10 will be graded and paved creating a flush median that will be utilized as an additional left turn lane from eastbound SR 10 to northbound Boulevard. The grassed median is approximately 600' in length and the new left turn bay will be 500' in length. An exclusive 250' right turn lane will be added on eastbound SR 10 to southbound Boulevard. A raised concrete island will be added to the northwest corner of the intersection to channelize southbound Boulevard traffic to westbound SR 10. The island will create a pedestrian refuge that mirrors the existing raised island in the southwest corner of the intersection. The existing traffic signal will be upgraded to accommodate the new configuration.

Federal Oversight: ☐ Full Oversight ☒ Exempt ☐ State Funded ☐ Other

MPO: Atlanta Regional Commission (ARC) MPO Project ID: N/A

Regional Commission: Atlanta Regional Commission RC Project ID: N/A

Congressional District(s): 5

Projected Traffic ADT:
SR 10 -
Current Year (2013): 22,450 Open Year (2016): 23,150 Design Year (2036): 27,300
CS 520 -
Current Year (2013): 12,600 Open Year (2016): 13,000 Design Year (2036): 15,350
Traffic Projections Performed by: Office of Planning

Functional Classification: SR10-Urban Principal Arterial
CS520-Urban Minor Arterial

Is this a 3R (Resurfacing, Restoration, & Rehabilitation) Project? ☒ No ☐ Yes

Will Context Sensitive Solutions procedures be utilized? ☒ No ☐ Yes

DESIGN AND STRUCTURAL DATA

Mainline Design Features: SR 10/Freedom Pkwy

Feature	Existing	Standard*	Proposed
Typical Section			
- **Number of Lanes**	**4**	**N/A**	**4**
- **Lane Width(s)**	**12'**	**10'-12'**	**11'-12'**
- **Median Width & Type**	**14' Grassed**	**N/A**	**4' Raised Concrete**
- **Outside Shoulder Width & Type**	**4-8' Grassed**	**8-10'**	**6' Paved, 4' Grassed**
- **Outside Shoulder Slope**	**Varies**	**6%**	**6%**
- **Inside Shoulder Width & Type**	**N/A**	**N/A**	**N/A**
- **Sidewalks**	**NONE**	**N/A**	**N/A**
- **Auxiliary Lanes**	**12'**	**12'**	**12'**

- **Bike Lanes**	**N/A**	**N/A**	**N/A**
Posted Speed	**35**		**35**
Design Speed	**35**	**35**	**35**
Min Horizontal Curve Radius	**N/A**	**371'**	**N/A**
Superelevation Rate	**N/A**	**4%**	**N/A**
Grade	**2%**	**8%**	**2%**
Access Control	**Limited**	**Limited**	**Limited**
Right-of-Way Width	**150'-200'**		**150'-200'**
Design Vehicle	**N/A**	**WB67**	**WB67**

*According to current GDOT design policy if applicable

Side Street Design Features: CS 520/Boulevard

Feature	Existing	Standard*	Proposed
Typical Section			
- **Number of Lanes**	**4**	**N/A**	**4**
- **Lane Width(s)**	**12'**	**10'-12'**	**12'**
- **Median Width & Type**	**N/A**	**N/A**	**N/A**
- **Outside Shoulder Width & Type**	**8' – C&G w/ Sidewalk**	**8-10'**	**8' – C&G w/ Sidewalk**
- **Outside Shoulder Slope**	**6%**	**6%**	**6%**
- **Inside Shoulder Width & Type**	**N/A**	**N/A**	**N/A**
- **Sidewalks**	**Yes**	**5'**	**5'**
- **Auxiliary Lanes**	**12'**	**12'**	**12'**
- **Bike Lanes**	**N/A**	**N/A**	**N/A**
Posted Speed	**35**		**35**
Design Speed	**35**	**35**	**35**
Min Horizontal Curve Radius	**N/A**	**371'**	**N/A**
Superelevation Rate	**N/A**	**4%**	**N/A**
Grade	**2%**	**8%**	**2%**
Access Control	**Permit**	**Permit**	**Permit**
Right-of-Way Width	**100'**		**100'**
Design Vehicle	**N/A**	**WB40**	**WB40**

*According to current GDOT design policy if applicable

Major Interchanges/Intersections: SR 10/Freedom Pkwy at CS 520/Boulevard

Utility Involvements: The project as currently planned should not change or affect the utilities.

POWER - To Be Determined
TELEPHONE - To Be Determined
GAS - To Be Determined
WATER - To Be Determined
CABLE - To Be Determined
RAILROAD – N/A

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

SUE Required: ☐ Yes ☒ No

Railroad Involvement: N/A

Complete Streets - Bicycle, Pedestrian, and/or Transit Warrants:

Warrants met: ☐ None ☒ Bicycle ☒ Pedestrian ☒ Transit

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

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

Transportation Management Plan [TMP] Required: ☐ No ☒ Yes

If Yes: Project classified as: ☒ Non-Significant ☐ Significant

TMP Components Anticipated: ☒ TTC ☐ TO

Design Exceptions to FHWA/AASHTO controlling criteria anticipated: None

Design Variances to GDOT standard criteria anticipated:

GDOT Standard Criteria	Reviewing Office	YES	Appvl Date (if applicable)	NO	Undetermined
1. Access Control - *Median Opening Spacing*	DP&S	☐		☒	☐
2. Median Usage & Width	DP&S	☒		☐	☐
3. Intersection Skew Angle	DP&S	☐		☒	☐
4. Lateral Offset to Obstruction	DP&S	☐		☒	☐
5. Intersection Sight Distance	DP&S	☐		☒	☐
6. Bike & Pedestrian Accommodations	DP&S	☐		☒	☐
7. GDOT Drainage Manual	DP&S	☐		☒	☐
8. Georgia Standard Drawings	DP&S	☐		☒	☐
9. GDOT Bridge & Structural Manual	Bridge Design	☐		☒	☐
10. Roundabout Illumination - *(if applicable)*	DP&S	☐		☒	☐
11. Rumble Strips/Safety Edge	DP&S	☐		☒	☐

ENVIRONMENTAL DATA

Anticipated Environmental Document:
GEPA: ☐ **NEPA:** ☒ Categorical Exclusion ☐ EA/FONSI ☐ EIS

Air Quality:
Is the project located in a PM 2.5 Non-attainment area? ☐ No ☒ Yes

Is the project located in an Ozone Non-attainment area? ☐ No ☒ Yes

Is a Carbon Monoxide hotspot analysis required? ☒ No ☐ Yes

MS4 Compliance – Is the project located in an MS4 area? ☐ No ☒ Yes

Environmental Permits/Variances/Commitments/Coordination anticipated: None

Is a PAR required? ☒ No ☐ Yes

NEPA/GEPA: To Be Determined - No adverse impacts anticipated

Ecology: To Be Determined - No adverse impacts anticipated

History: To Be Determined - No adverse impacts anticipated

Archeology: To Be Determined - No adverse impacts anticipated

Air & Noise: To Be Determined - No adverse impacts anticipated

Public Involvement: To Be Determined

Major stakeholders: GDOT, City of Atlanta, Freedom Parkway Committee

PROJECT RESPONSIBILITIES

Project Activities:

Project Activity	Party Responsible for Performing Task(s)
Concept Development	GDOT
Design	GDOT
Right-of-Way Acquisition	N/A
Utility Relocation	Utility Company
Letting to Contract	GDOT
Construction Supervision	GDOT
Providing Material Pits	Contractor
Providing Detours	N/A
Environmental Studies, Documents, and Permits	GDOT
Environmental Mitigation	GDOT
Construction Inspection & Materials Testing	GDOT

Lighting required: ☒ No ☐ Yes

Concept Meeting: January 14, 2013 (see attachment)

Other projects in the area: GDOT is proposing a Bike/Pedestrian Facility on Boulevard from SR 8/US 78 to CS 2232/Woodward Ave. (PI# 0012592)

Other coordination to date: N/A

Project Cost Estimate and Funding Responsibilities:

	Breakdown of PE	ROW	Utility	CST	Environmental Mitigation	Total Cost
By Whom	GDOT	N/A	N/A	GDOT	N/A	
$ Amount	$351,391	$0	$0	$440,756	$0	$792,147
Date of Estimate	5/30/2012			2/13/2013		

CST Cost includes: Construction, Engineering & Inspection and Liquid AC Cost Adjustment

ALTERNATIVES DISCUSSION

Alternative selection:

Preferred Alternative: Adding proposed left and right turn lanes to eastbound Freedom Pkwy and raised concrete island in the northwest quadrant of the intersection.			
Estimated Property Impacts:	**0**	**Estimated Total Cost:**	**$792,147.00**
Estimated ROW Cost:	**$0.00**	**Estimated CST Time:**	**6 months**
Rationale: This design as proposed was chosen because it addresses all the requirements proposed by the Office of Planning			

No-Build Alternative: No proposed enhancements.			
Estimated Property Impacts:	**0**	**Estimated Total Cost:**	**$0.00**
Estimated ROW Cost:	**$0.00**	**Estimated CST Time:**	**0**
Rationale: This alternative was not chosen because it does not fulfill the need and purpose of the project as set forth by Office of Planning.			

Alternative 1: This alternative eliminates the proposed right turn lane and the raised island.			
Estimated Property Impacts:	**0**	**Estimated Total Cost:**	**$724,550.00**
Estimated ROW Cost:	**$0.00**	**Estimated CST Time:**	**6 months**
Rationale: This alternative was not chosen because it does not fulfill the need and purpose of the project as set forth Office by of Planning.			

Alternative 2: This alternative replaces the existing asphalt with concrete.			
Estimated Property Impacts:	**0**	**Estimated Total Cost:**	**$1,044,830.00**
Estimated ROW Cost:	**$0.00**	**Estimated CST Time:**	**9 months**
Rationale: This alternative was not chosen because of the additional cost and time will put project beyond the scope of this “quick project”.			

Comments: N/A

Attachments:

1. Concept Layout
2. Typical Sections
3. Detailed Cost Estimate
    a. Construction incl. E. & I.
    b. Liquid AC Cost Adjustment
    c. Utility
4. Crash Data Summary
5. Traffic Diagrams
6. Capacity Analysis Summary
7. Concept Meeting Minutes
8. Highway Safety Analysis

EXISTING

N

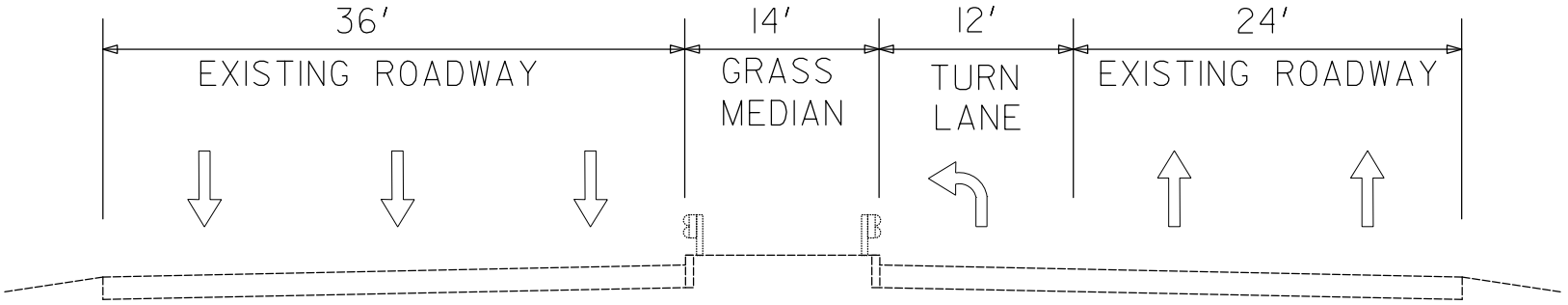
NOT TO SCALE

PROPOSED

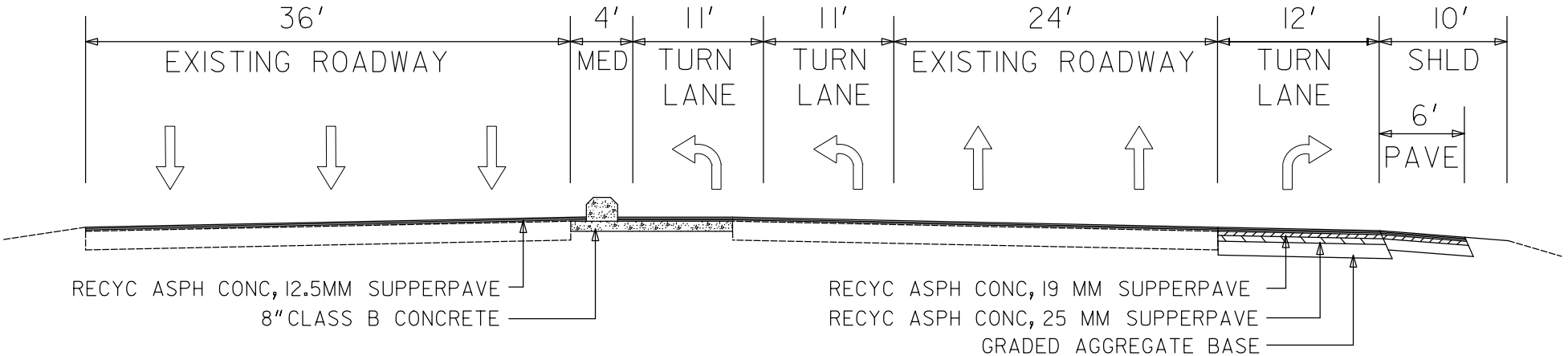
NOT TO SCALE

TYPICAL SECTIONS

EXISTING SR 10



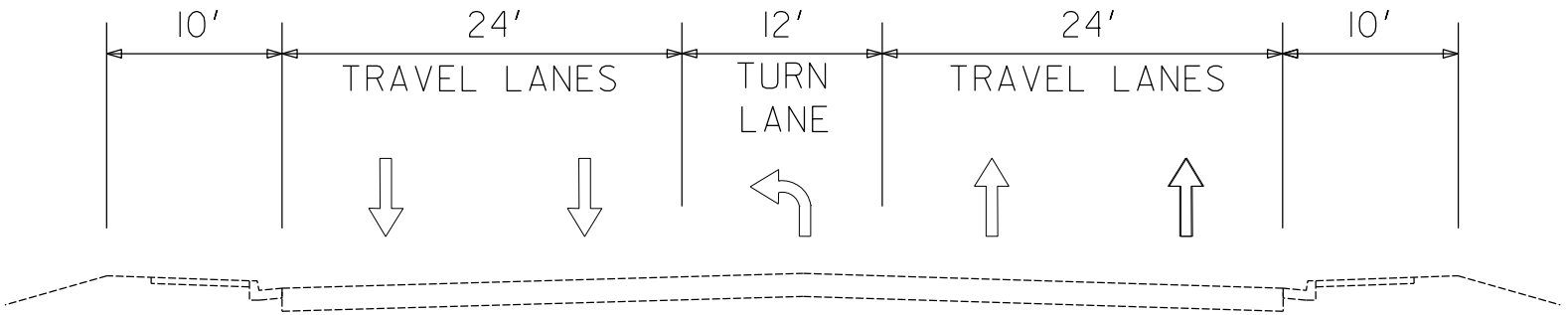
PROPOSED SR 10



NOT TO SCALE

TYPICAL SECTIONS

EXISTING BOULEVARD



NOT TO
SCALE

DETAILED COST ESTIMATE

Georgia Department of Transportation

Job: 0010760

JOB NUMBER *0010760* **FED/STATE PROJECT NUMBER** *N/A*

SPEC YEAR: *01*

DESCRIPTION: *FREEDOM PKWY AT BOULEVARD*

ITEMS FOR JOB 0010760

0010 - ROADWAY

Line Number	ITEM	QUANTITY	UNITS	PRICE	DESCRIPTION	AMOUNT
0104	150-1000	1.000	LS	$25,000.00000	TRAFFIC CONTROL - N/A	$25,000.00
0109	210-0100	1.000	LS	$30,000.00000	GRADING COMPLETE - N/A	$30,000.00
0114	310-1101	290.000	TN	$26.99925	GR AGGR BASE CRS, INCL MATL	$7,829.78
0119	402-3121	180.000	TN	$85.09671	RECYL AC 25MM SP,GP1/2,BM&HL	$15,317.41
0124	402-3130	825.000	TN	$81.40317	RECYL AC 12.5MM SP,GP2,BM&HL	$67,157.62
0129	402-3190	85.000	TN	$93.50343	RECYL AC 19 MM SP,GP 1 OR 2 ,INC BM&HL	$7,947.79
0134	413-1000	265.000	GL	$2.60252	BITUM TACK COAT	$689.67
0139	430-0180	750.000	SY	$25.10000	PLN PC CONC PVMT/CL1C/ 8" TK	$18,825.00
0144	432-5010	9200.000	SY	$2.40768	MILL ASPH CONC PVMT,VARB DEPTH	$22,150.66
0149	441-0104	500.000	SY	$31.59873	CONC SIDEWALK, 4 IN	$15,799.37
0159	441-0303	1.000	EA	$1,612.26822	CONC SPILLWAY, TP 3	$1,612.27
0154	441-0748	200.000	SY	$44.60056	CONC MEDIAN, 6 IN	$8,920.11
0164	441-6022	250.000	LF	$24.13835	CONC CURB & GUTTER, 6"X30"TP2	$6,034.59
0169	643-8200	250.000	LF	$1.19718	BARRIER FENCE (ORANGE), 4 FT	$299.30
					SUBTOTAL FOR ROADWAY:	**$227,583.57**

0020 - SIGNING AND MARKING

Line Number	ITEM	QUANTITY	UNITS	PRICE	DESCRIPTION	AMOUNT
0069	639-4014	2.000	EA	$7,127.03542	STR POLE,TP 4,INCL LUMIN. ARM	$14,254.07
0068	647-1000	1.000	LS	$150,000.00000	TRAF SIGNAL INSTALLATION NO - N/A	$150,000.00
0074	653-0120	10.000	EA	$74.01075	THERM PVMT MARK, ARROW, TP 2	$740.11
0099	653-0220	10.000	EA	$94.00057	THERM PVMT MARK, WORD , TP 2	$940.01
0079	653-1704	180.000	LF	$4.73025	THERM SOLID TRAF STRIPE,24",WH	$851.45
0084	653-1804	1500.000	LF	$2.16863	THERM SOLID TRAF STRIPE, 8",WH	$3,252.95
0089	653-3501	50.000	GLF	$0.65835	THERMO SKIP TRAF ST, 5 IN, WHI	$32.92
0094	653-6006	500.000	SY	$3.41126	THERM TRAF STRIPING, YELLOW	$1,705.63
					SUBTOTAL FOR SIGNING AND MARKING:	**$171,777.14**

File Location: Div of Preconstruction > CES

DETAILED COST ESTIMATE

Georgia Department of Transportation

Job: 0010760

0030 - EROSION CONTROL

Line Number	ITEM	QUANTITY	UNITS	PRICE	DESCRIPTION	AMOUNT
0010	163-0232	1.000	AC	$77.46168	TEMPORARY GRASSING	$77.46
0053	163-0240	2.000	TN	$155.59840	MULCH	$311.20
0020	165-0030	100.000	LF	$1.27795	MAINT OF TEMP SILT FENCE, TP C	$127.80
0025	171-0030	200.000	LF	$3.14970	TEMPORARY SILT FENCE, TYPE C	$629.94
0030	700-6910	1.000	AC	$597.24498	PERMANENT GRASSING	$597.24
0035	700-7000	1.000	TN	$60.62618	AGRICULTURAL LIME	$60.63
0045	700-8000	1.000	TN	$456.04160	FERTILIZER MIXED GRADE	$456.04
0050	700-8100	50.000	LB	$2.39029	FERTILIZER NITROGEN CONTENT	$119.51
					SUBTOTAL FOR EROSION CONTROL:	**$2,379.82**

TOTALS FOR JOB 0010760

ITEMS COST:	**$401,740.53**
COST GROUP COST:	**$0.00**
ESTIMATED COST:	**$401,740.53**
CONTINGENCY PERCENT:	**0.00**
ENGINEERING AND INSPECTION:	**0.05**
ESTIMATED COST WITH CONTINGENCY AND E&I:	**$421,827.56**

PROJ. NO.		CALL NO.
P.I. NO.	0010760	
DATE	3/13/2013	

INDEX (TYPE)	DATE	INDEX
REG. UNLEADED	Mar-13	$ 3.683
DIESEL		$ 4.092
LIQUID AC		$ 567.00

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

LIQUID AC ADJUSTMENTS

PA=[((APM-APL)/APL)]xTMTxAPL

Asphalt

Price Adjustment (PA)				**18540.9**	**$ 18,540.90**
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	$	907.20	
Monthly Asphalt Cement Price month project let (APL)			$	567.00	
Total Monthly Tonnage of asphalt cement (TMT)				54.5	

ASPHALT	Tons	%AC	AC ton
Leveling		5.0%	0
12.5 OGFC		5.0%	0
12.5 mm	825	5.0%	41.25
9.5 mm SP		5.0%	0
25 mm SP	180	5.0%	9
19 mm SP	85	5.0%	4.25
	1090		**54.5**

BITUMINOUS TACK COAT

Price Adjustment (PA)			**$**	**387.22**	**$ 387.22**
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	$	907.20	
Monthly Asphalt Cement Price month project let (APL)			$	567.00	
Total Monthly Tonnage of asphalt cement (TMT)				1.138201744	

Bitum Tack Gals	gals/ton	tons
265	232.8234	1.13820174

PROJ. NO.		CALL NO.	
P.I. NO.	0010760		
DATE	3/13/2013		

BITUMINOUS TACK COAT (surface treatment)

Price Adjustment (PA)				**0**	**$ -**
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	$	907.20	
Monthly Asphalt Cement Price month project let (APL)			$	567.00	
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	**$**	**18,928.12**

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE SR 10 @ CS 520/BLVD DRIVE
P.I. No. 0010760 Fulton County

OFFICE District 7
Chamblee

DATE February 21, 2013

FROM Jonathan Walker
District Utilities Engineer

TO W. Scott Lee, District 7 Preconstruction Engineer
ATTN Michael Coleman, Design Engineer

SUBJECT PRELIMINARY UTILITY COST (ESTIMATE)

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

FACILITY OWNER	NON-REIMBURSABLE	REIMBURSABLE	GRAND TOTAL
Atlanta Gas Light Company	$ 0.00	$ 0.00	
AT&T Formerly BellSouth	$ 27,500.00	$ 0.00	
Georgia Power Distribution	$ 45,000.00	$ 0.00	
Fulton County Public Works	$ 0.00	$ 0.00	
Comcast	$ 21,000.00	$ 0.00	
City of Atlanta Bureau of Water	$ 0.00	$ 0.00	
Totals	$ 93,500.00	$ 0.00	

If you have any questions, please contact Clyde Cunningham at 770-986-1117.

BRP/JW/CAC

C: Jeff Baker, P.E., State Utilities Engineer
Angela Robinson, Office of Financial Management
Sebastian Nesbitt, Area Engineer

CRASH DATA

For Year(s): 2010,2011,2012

		Freedom Parkway					
	Angle	Head On	Rear End	Sideswipe	Non Collision	Injuries	Fatalities
2010	12	3	29	11	6	13	0
2011	14	1	40	10	1	14	0
2012	15	1	43	10	1	21	0
Total	**41**	**5**	**112**	**31**	**8**	**48**	**0**

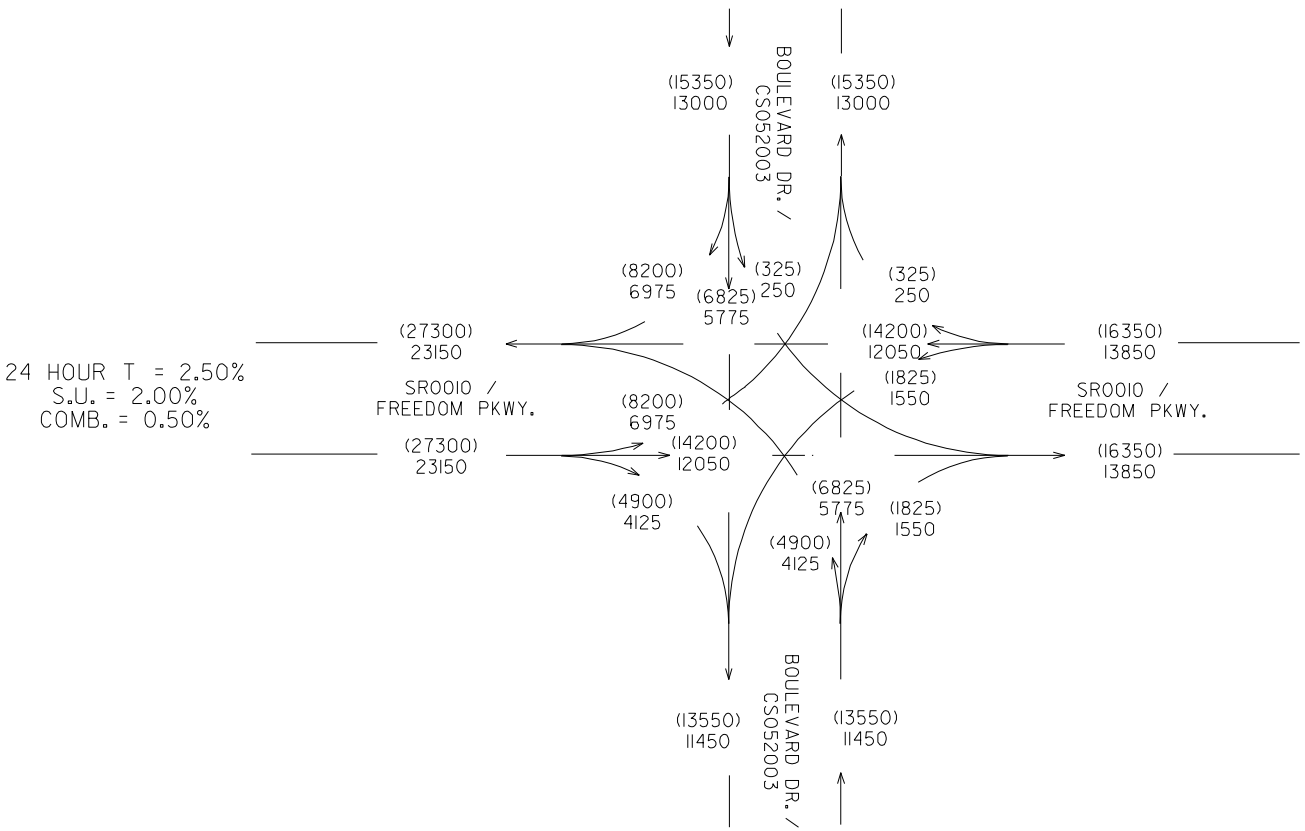
TOTAL CRASHES - 197

SHEET 1 OF 6

FULTON COUNTY

24 HOUR T = 2.25%
S.U. = 2.00%
COMB. = 0.25%

GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE OF PLANNING



P.I. # 0010760
FULTON COUNTY

SR 10 @
CS 520/BLVD DRIVE

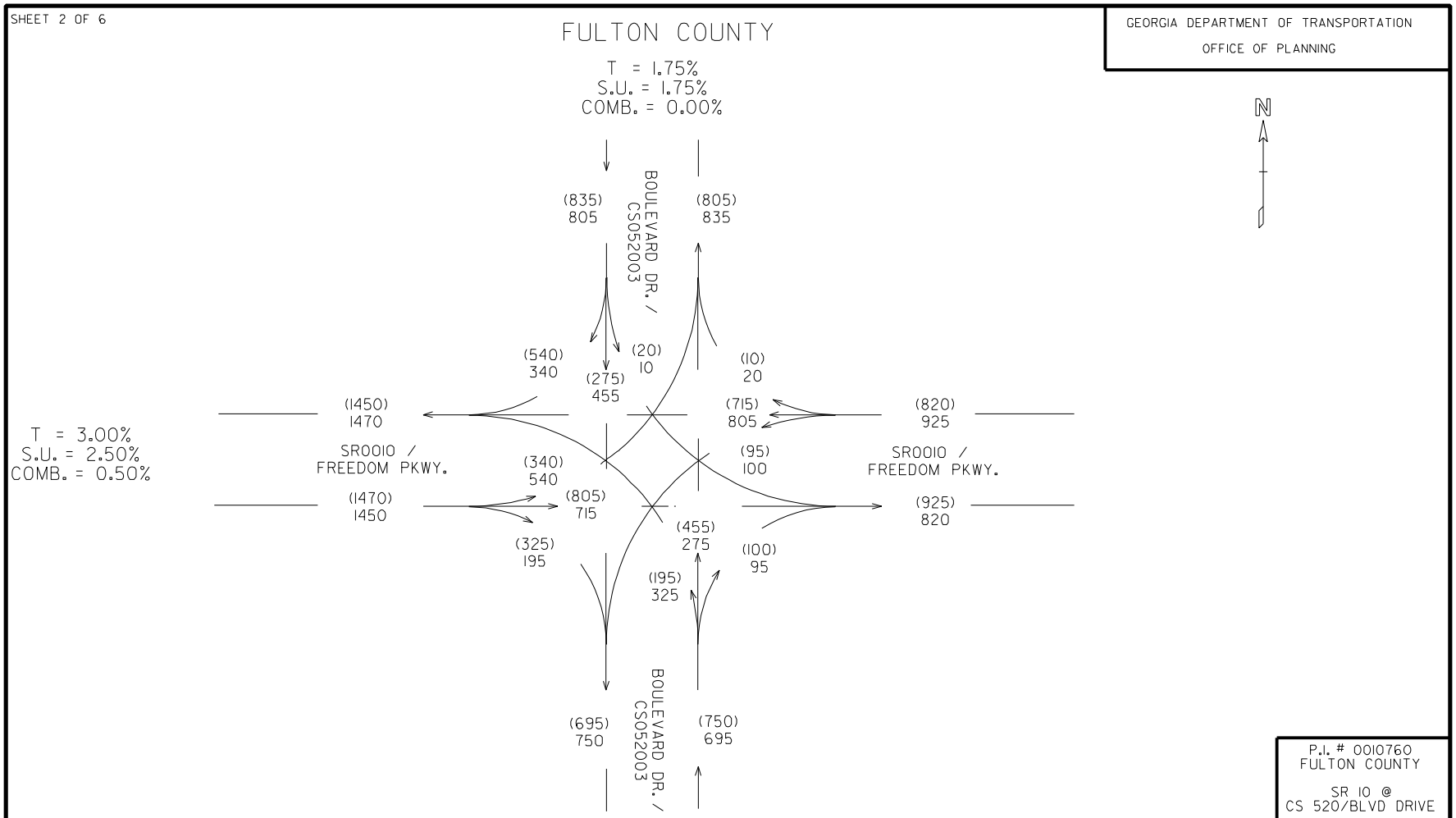
2036 ADT = (000)
2016 ADT = 000

AMW
09/12

SHEET 2 OF 6

FULTON COUNTY

GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE OF PLANNING



P.I. # 0010760
FULTON COUNTY

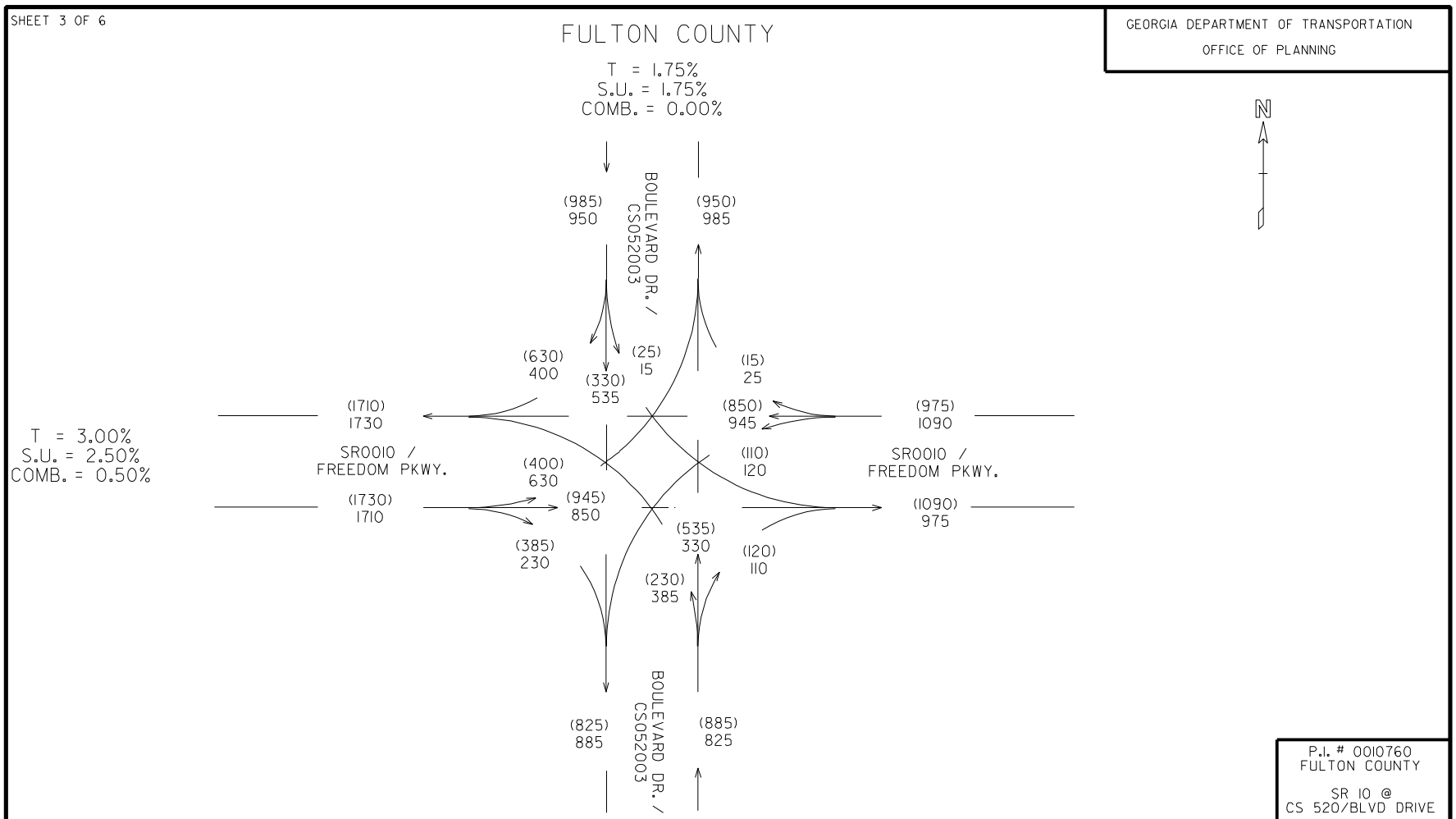
SR 10 @
CS 520/BLVD DRIVE

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

AMW
09/12

FULTON COUNTY

GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE OF PLANNING



P.I. # 0010760
FULTON COUNTY

SR 10 @
CS 520/BLVD DRIVE

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

AMW
09/12

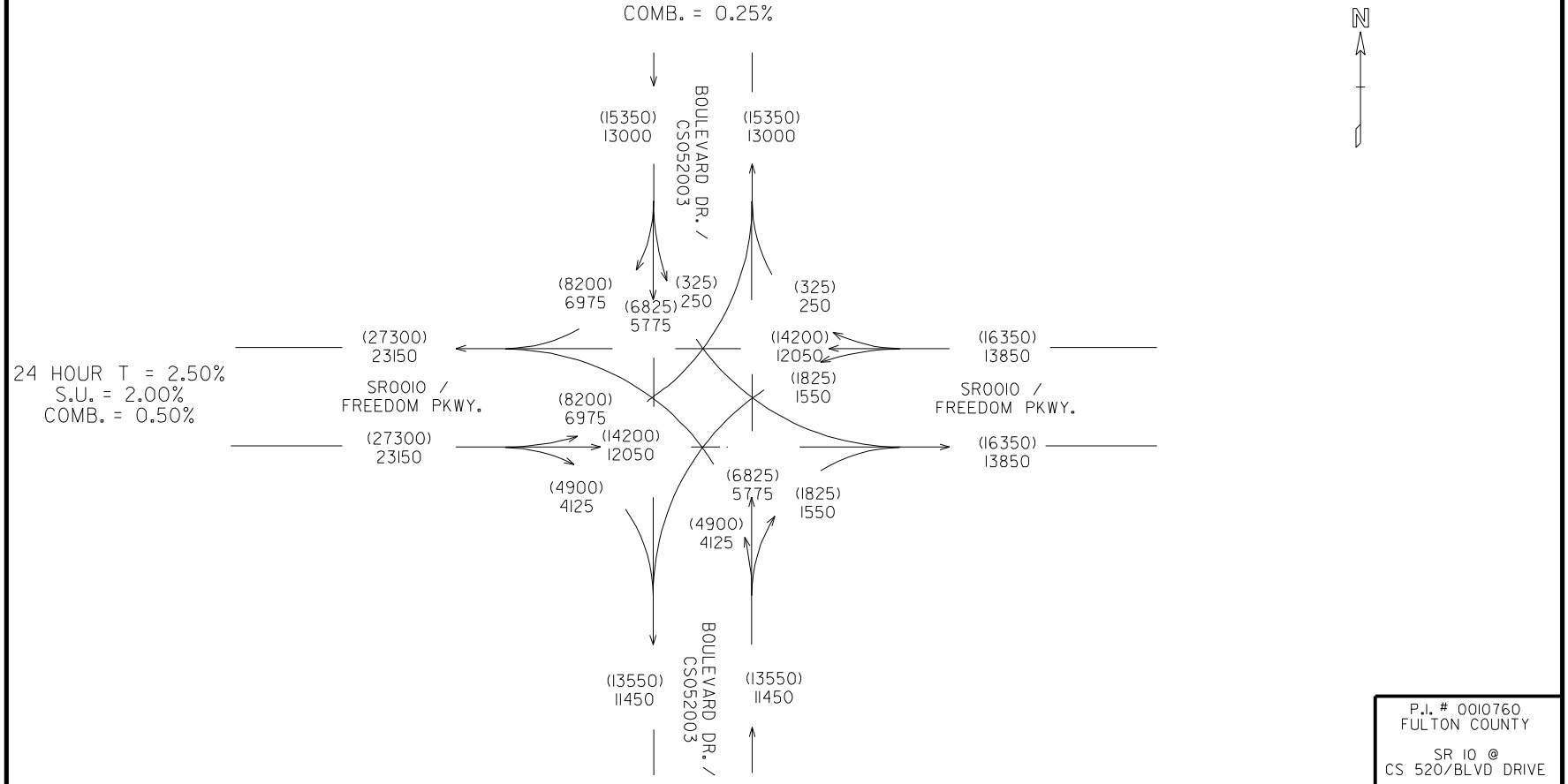
NO BUILD

SHEET 4 OF 6

GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE OF PLANNING

FULTON COUNTY

24 HOUR T = 2.25%
S.U. = 2.00%
COMB. = 0.25%



P.I. # 0010760
FULTON COUNTY

SR 10 @
CS 520/BLVD DRIVE

2036 ADT = (000)
2016 ADT = 000

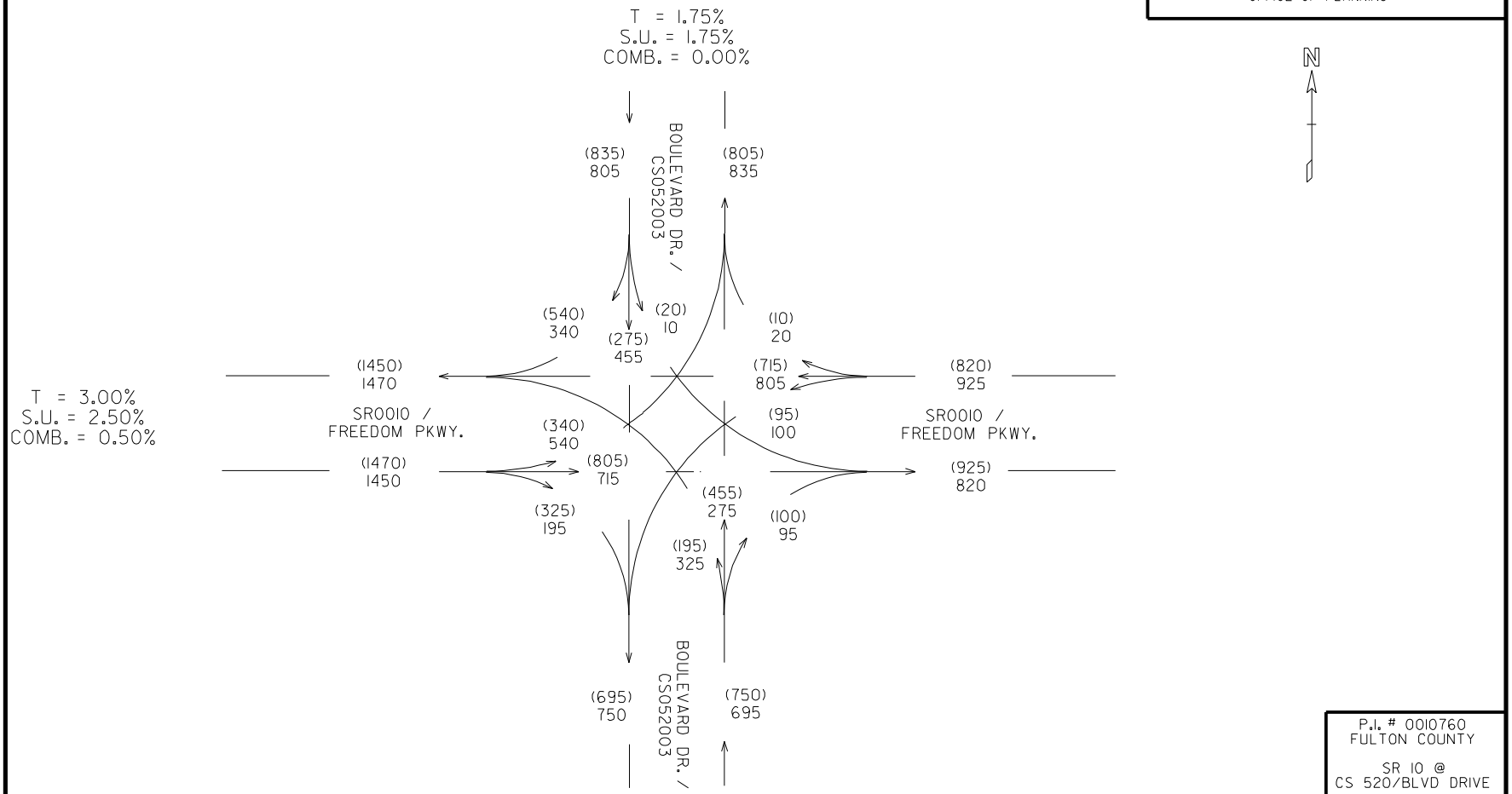
AMW
09/12

NO BUILD

SHEET 5 OF 6

GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE OF PLANNING

FULTON COUNTY



P.I. # 0010760
FULTON COUNTY

SR 10 @
CS 520/BLVD DRIVE

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

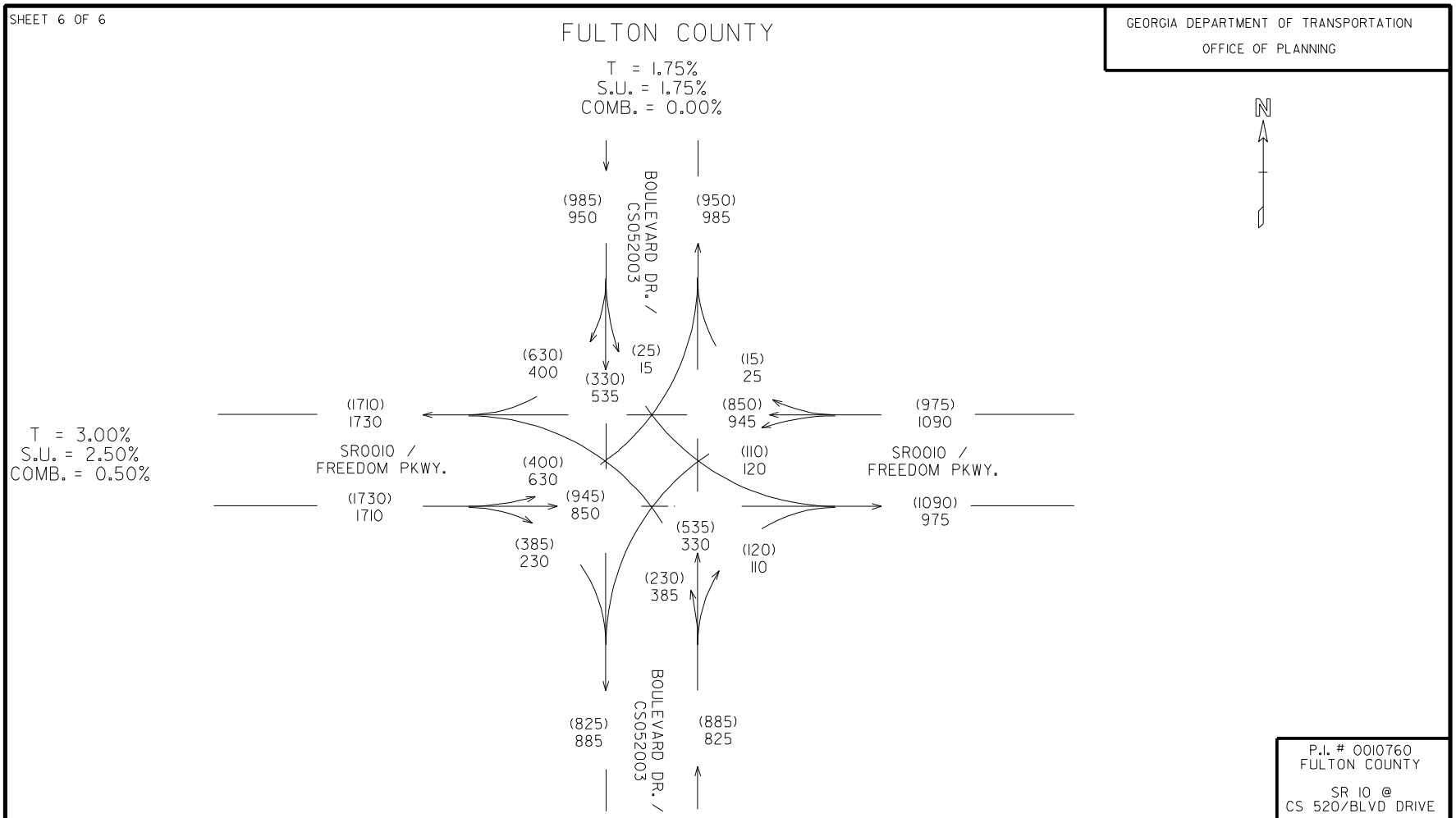
AMW
09/12

NO BUILD

SHEET 6 OF 6

FULTON COUNTY

GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE OF PLANNING



P.I. # 0010760
FULTON COUNTY

SR 10 @
CS 520/BLVD DRIVE

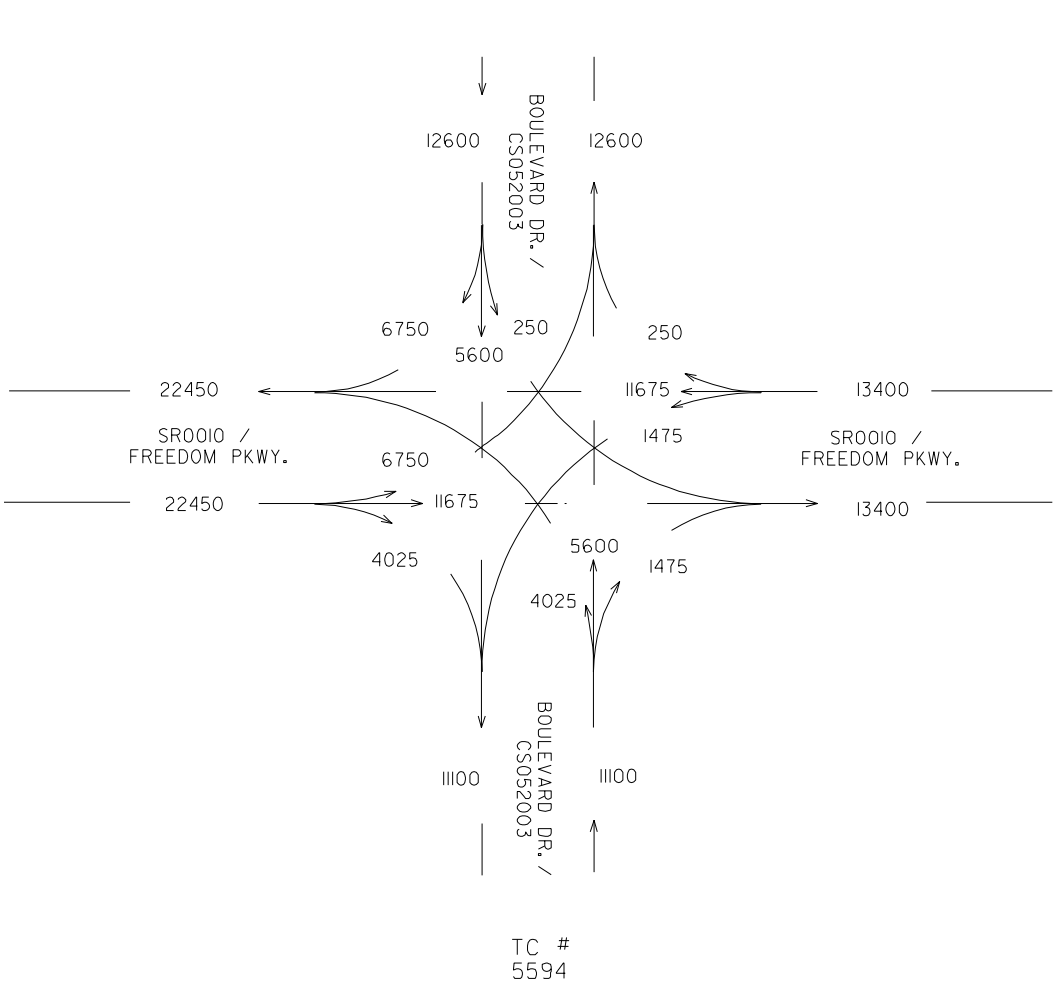
2036 PM DHV = (000)
2036 AM DHV = 000

AMW
09/12

SHEET 1 OF 2

FULTON COUNTY

GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE OF PLANNING



N

P.I. # 0010760
FULTON COUNTY

SR 10 @
CS 520/BLVD DRIVE

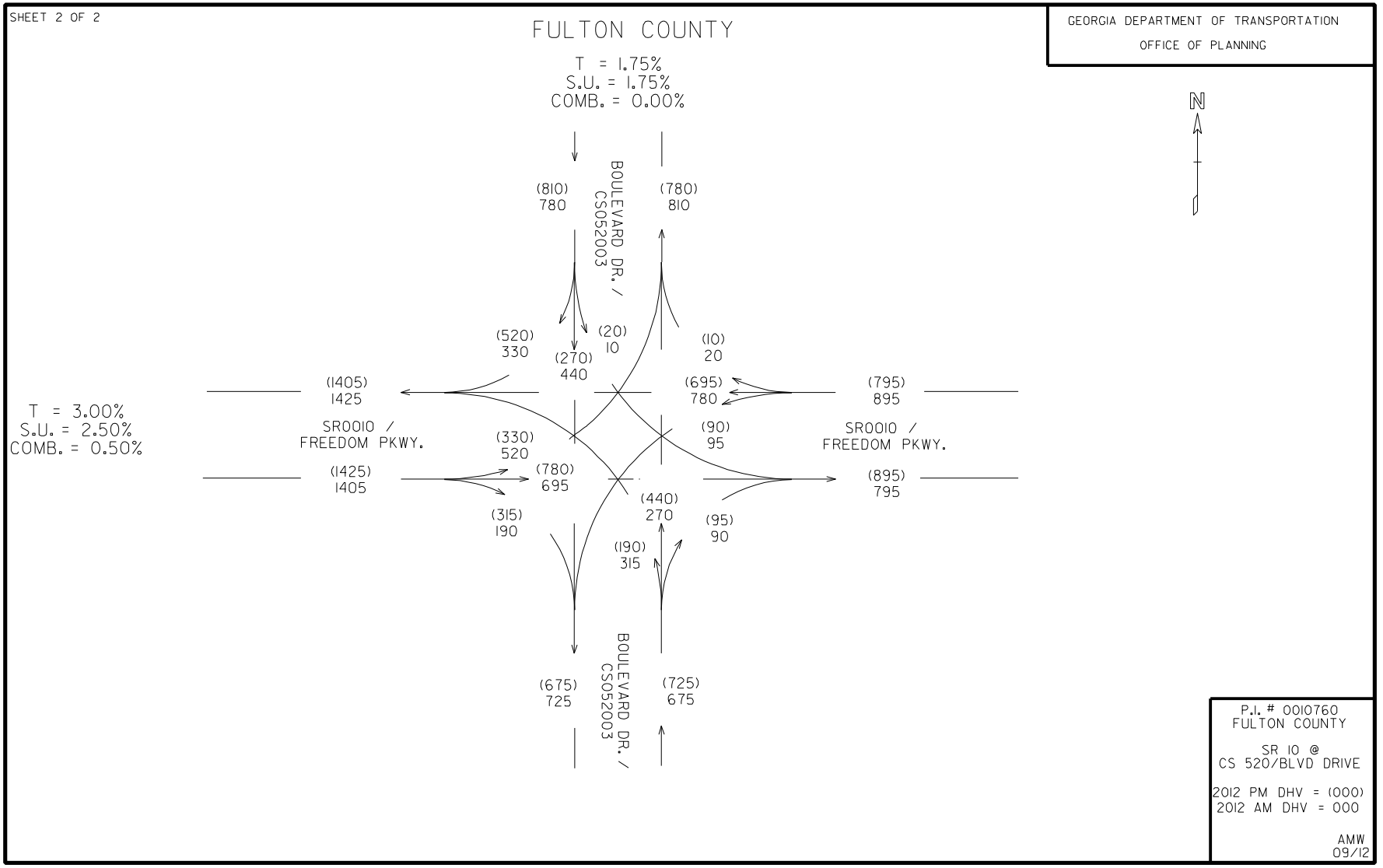
EXISTING TRAFFIC
2012

AMW
09/12

SHEET 2 OF 2

FULTON COUNTY

GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE OF PLANNING



P.I. # 0010760
FULTON COUNTY

SR 10 @
CS 520/BLVD DRIVE

2012 PM DHV = (000)
2012 AM DHV = 000

AMW
09/12

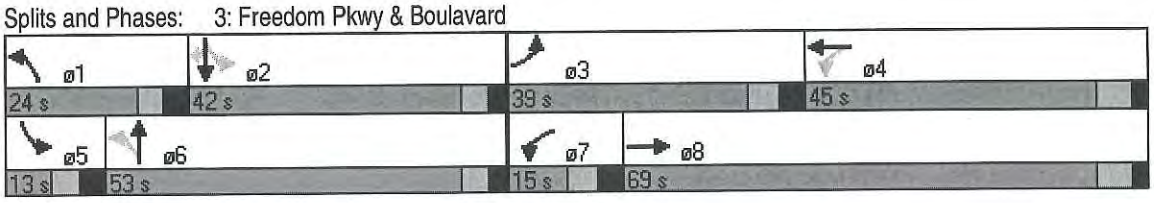
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	324	466	131	26	1114	10	329	641	61	15	182	698
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			-2%			3%			2%	
Storage Length (ft)	0		0	120		0	215		0	140		90
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	1.00
Frt		0.967			0.999			0.987				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3422	0	1787	3571	0	1743	3441	0	1752	3504	1567
Flt Permitted	0.950			0.405			0.516			0.237		
Satd. Flow (perm)	1770	3422	0	762	3571	0	947	3441	0	437	3504	1567
Right Turn on Red			No			No			No			Yes
Satd. Flow (RTOR)												392
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1136			1214			776			689	
Travel Time (s)		22.1			23.6			15.1			13.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	352	507	142	28	1211	11	358	697	66	16	198	759
Shared Lane Traffic (%)												
Lane Group Flow (vph)	352	649	0	28	1222	0	358	763	0	16	198	759
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	0.99	0.99	0.99	1.02	1.02	1.02	1.01	1.01	1.01
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot			pm+pt			pm+pt			pm+pt		Perm
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases				4			6			2		2
Minimum Split (s)	12.5	37.0		12.3	39.0		11.9	39.4		11.9	39.4	39.4
Total Split (s)	39.0	69.0	0.0	15.0	45.0	0.0	24.0	53.0	0.0	13.0	42.0	42.0
Total Split (%)	26.0%	46.0%	0.0%	10.0%	30.0%	0.0%	16.0%	35.3%	0.0%	8.7%	28.0%	28.0%
Maximum Green (s)	31.5	62.0		7.7	38.0		17.1	46.6		6.1	35.6	35.6
Yellow Time (s)	4.0	4.7		4.0	4.7		3.5	3.6		3.5	3.6	3.6
All-Red Time (s)	3.5	2.3		3.3	2.3		3.4	2.8		3.4	2.8	2.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.5	7.0	4.0	7.3	7.0	4.0	6.9	6.4	4.0	6.9	6.4	6.4
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Walk Time (s)		7.0			7.0			4.0			4.0	4.0
Flash Dont Walk (s)		23.0			25.0			29.0			29.0	29.0
Pedestrian Calls (#/hr)		0			0			0			0	0
Act Effct Green (s)	31.5	62.0		45.4	38.0		59.1	46.6		41.2	35.6	35.6
Actuated g/C Ratio	0.21	0.41		0.30	0.25		0.39	0.31		0.27	0.24	0.24
v/c Ratio	0.95	0.46		0.10	1.35		0.77	0.71		0.09	0.24	1.13

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	92.8	33.2		22.5	207.2		48.6	50.2		30.2	47.2	101.4
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	92.8	33.2		22.5	207.2		48.6	50.2		30.2	47.2	101.4
LOS	F	C		C	F		D	D		C	D	F
Approach Delay		54.2			203.1			49.7			89.2	
Approach LOS		D			F			D			F	

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 45 (30%), Referenced to phase 2:SBTL and 6:NBTL, Start of Yellow
Natural Cycle: 145
Control Type: Pretimed
Maximum v/c Ratio: 1.35
Intersection Signal Delay: 103.7 Intersection LOS: F
Intersection Capacity Utilization 109.5% ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 3: Freedom Pkwy & Boulavard



 PROPOSED

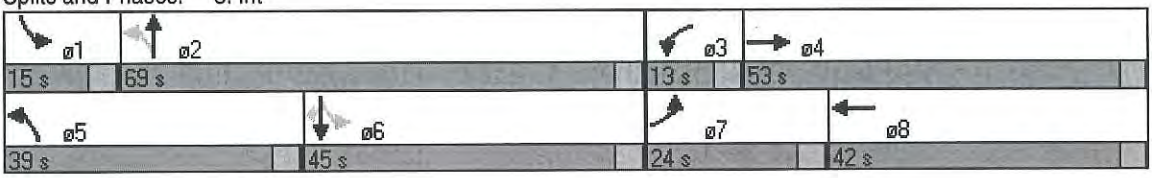
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	247	481	160	20	827	6	385	503	55	6	145	701
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.97	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	1.00
Frt		0.963			0.999			0.985				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3408	0	1770	3536	0	1770	3486	0	1770	3539	1583
Flt Permitted	0.950			0.950			0.575			0.422		
Satd. Flow (perm)	3433	3408	0	1770	3536	0	1071	3486	0	786	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		32						10				316
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1136			1214			776			689	
Travel Time (s)		25.8			27.6			17.6			15.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	268	523	174	22	899	7	418	547	60	7	158	762
Shared Lane Traffic (%)												
Lane Group Flow (vph)	268	697	0	22	906	0	418	607	0	7	158	762
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot			Prot			pm+pt			pm+pt		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases							2			6		6
Minimum Split (s)	8.0	22.0		8.0	20.0		8.0	20.0		8.0	33.0	33.0
Total Split (s)	24.0	53.0	0.0	13.0	42.0	0.0	39.0	69.0	0.0	15.0	45.0	45.0
Total Split (%)	16.0%	35.3%	0.0%	8.7%	28.0%	0.0%	26.0%	46.0%	0.0%	10.0%	30.0%	30.0%
Maximum Green (s)	20.0	49.0		9.0	38.0		35.0	65.0		11.0	41.0	41.0
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Walk Time (s)		5.0			5.0			5.0			5.0	5.0
Flash Dont Walk (s)		11.0			11.0			11.0			11.0	11.0
Pedestrian Calls (#/hr)		0			0			0			0	0
Act Effct Green (s)	20.0	49.0		9.0	38.0		80.0	65.0		52.0	41.0	41.0
Actuated g/C Ratio	0.13	0.33		0.06	0.25		0.53	0.43		0.35	0.27	0.27
v/c Ratio	0.59	0.61		0.21	1.01		0.57	0.40		0.02	0.16	1.15
Control Delay	66.9	43.2		72.0	87.7		24.9	29.6		19.3	42.0	112.8
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	66.9	43.2		72.0	87.7		24.9	29.6		19.3	42.0	112.8
LOS	E	D		E	F		C	C		B	D	F

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		49.8			87.3			27.7			100.0	
Approach LOS		D			F			C			F	

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 50 (33%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Pretimed
Maximum v/c Ratio: 1.15
Intersection Signal Delay: 65.1 — Intersection LOS: E
Intersection Capacity Utilization 97.8% — ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 3: Int



DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

MEETING SUMMARY

DATE: January 14, 2013

LOCATION: **District 7 Conference Room 140, Chamblee**

ATTENDEES: **Charner Rodgers-Register, Office of Program Delivery**
Krystal Stovall-Dixon, Office of Program Delivery
Andy Casey, Office of Design
Scott Lee, District 7 Construction
Derek Lindsay, Engineering Services
Carla Benton-Hooks, Office of Environmental Services
Iris Hernandez, Office of Environmental Services
Mac Cranford, District 7 Design
Mike Coleman, District 7 Design
Edlin Regis, District 7 Traffic
Shaveka McCarty, District 7 traffic
Vicki Gavalas, District 7 Planning and Programming Engineer
Paul Denard, Traffic Operations

COPIES:

SUBJECT: **PI# 0010760 SR 10/ Freedom Parkway @ CS 520 Boulevard Drive**

DISCUSSION:
The purpose of the meeting was to review the concept report.

Kyrstal Stovall-Dixon opened the meeting with introductions.

Mac Cranford gave a brief project history and description of the project. It was discussed that work should be done in the right of way, but there may be a possibility of conflicts with various power poles. There is also a desire for the typical section to match the existing as much as possible.

There was some concern with the statue of Dr. Martin Luther King adjacent to the project. Research was done by Vicki Gavalas and it was determined that the statue and area/park was named Atlanta Art Park and was governed by the Freedom Parkway Conservancy.

Office of Environmental Services stated that there was a need for a Public Involvement meeting. If one is needed, then the schedule can be affected.

Actions Items:

***Scott Lee to check on the status of the survey.**

Transcribed by:

Design Notebook Copy ❑ Project File Copy ☒

HIGHWAY SAFETY MANUAL (HSM) ANALYSIS for CONCEPT REPORTS

This Concept Report includes an HSM predicted average crash frequency analysis for the design year ADT using the Manual's Predictive Method. The HSM uses AADT with the Predictive Method while this analysis uses ADT since AADT is typically not available for GDOT projects. The Predictive Method analysis is based on Safety Performance Functions (SPF) for individual roadway segments and intersections that provide the crash frequency. The HSM often provides information on crash frequency distribution by collision type and severity. Crash severities include Fatality, Incapacitating Injury, Non-Incapacitating Injury, Possible Injury and Property Damage Only. Some SPFs include HSM Crash Modification Factors (CMF) that adjust the SPF crash frequency to account for difference between HSM base conditions that the function is based on and project specific conditions such as geometric design features. The HSM includes local calibration factors to further refine predicted average crash frequency. These local calibration factors have not yet been developed for GDOT.

Two Predictive Method analyses of the proposed Concept design are provided below. One analysis provides the Total predicted average crash frequency which includes all crash severities. The second analysis is for Fatal & Injury severities which includes all crash severities except Property Damage Only.

Project Roadway Segment and Intersection Types analyzed

Roadway Segment				Intersection	
ID #	**Type**	**Sta. Begin**	**Sta. End**	**ID #**	**Type**
				SR10/Freedom Pkwy & Boulevard	4 Leg Signalized-Urban/Suburban Arterial

The project is on S. R. 10/Freedom Pkwy at the intersection and Boulevard in Fulton County, Georgia. S.R. 10 is a 4-lane divided urban roadway. The existing grass median on the west leg of S.R. 10 from milepost 0.29 to 0.42 will be graded and paved creating a flush median that will be utilized as an additional left turn lane from eastbound SR 10 to northbound Boulevard. This section of the roadway will not be included in the analysis due to the fact that there are no SPF's available. The total predicted crashes per the HSM proposed condition is 8.5 per year at the intersection of S.R. 10 and Boulevard for the 2036 design year. Out of this total of 8.5 crashes per year, 2.8 are injury and fatal crashes.

HSM Predictive Method for Urban/Suburban Arterial Roadway Intersections – Fatal & Injury Crashes

		Urban Intersection Base Crash Frequency – Excluding Vehicle and Pedestrian/Bicycle (fatal & injury crashes/year)	Left Turn Lanes	Unsignalized – CMF_{2i} = 1.00 Signalized Permissive Left Turn	Right Turn Lanes	Unsignalized – CMF_{4i} = 1.00 Signalized Right Turn On Red	Lighting	Red Light Cameras	Urban Intersection Adjusted Crash frequency – Excluding Vehicle and Pedestrian/Bicycle (fatal & injury crashes/year)	Vehicle-Pedestrian (fatal & injury crashes/year)	Vehicle-Bike (fatal & injury crashes/year)	Total Predicted Average Crash Frequency for Roadway Intersections (fatal & injury crashes/year)
Intersection ID #	Analysis Condition	$N_{spf\ int}$	CMF_{1i}	CMF_{2i}	CMF_{3i}	CMF_{4i}	CMF_{5i}	CMF_{6i}	N_{bi}	N_{pedi}	N_{bikei}	$N_{predicted\ int}$
SR10/Freedom Pkwy & Boulevard	Proposed	7.923	0.66	0.87	0.92	1.00	0.91	1.00	8.327	0.078	0.125	8.530
	Proposed											
Total	Proposed	7.923							8.327	0.078	0.125	8.530