ORIGINAL TO GENERAL FILES

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

OFFICE OF DESIGN POLICY & SUPPORT
INTERDEPARTMENTAL CORRESPONDENCE

FILE P.I. #0005448
HPP00-0005-00(448)
GDOT District 7 - Metro Atlanta
Fulton County
SR 372 @ CR 27

OFFICE Design Policy & Support

DATE February 1, 2011

FROM for Brent Story, State Design Policy Engineer

TO SEE DISTRIBUTION

SUBJECT **APPROVED CONCEPT REPORT**

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

Attachment

DISTRIBUTION:

Genetha Rice-Singleton, Program Control Administrator
Ron Wishon, State Project Review Engineer
Glenn Bowman, State Environmental Administrator
Ken Thompson, Statewide Location Bureau Chief
Kathy Zahul, State Traffic Engineer
Cindy VanDyke, State Transportation Planning Administrator
Bobby Hilliard, State Program Delivery Engineer
Georgene Geary, State Materials & Research Engineer
Angela Robinson, Financial Management Administrator
Jeff Baker, State Utilities Engineer
Jonathan Walker, District Utilities Engineer
Scott Lee, for the District Preconstruction Engineer
Bryant Poole, District Engineer
Krystal Stovall Dixon, Project Manager
BOARD MEMBER - 6th Congressional District

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

PROJECT CONCEPT REPORT

Project Number: HPP00-0005-00(448)
County: Fulton
P. I. Number: 0005448
Federal Route Number: N/A
State Route Number: 372

The project consists of realigning the intersection of SR 372/Birmingham Hwy @ CR 27/Providence Rd/New Providence approximately 300' to the north such that intersecting skew angle with SR 372 is 80 degrees, and improving the vertical sight distance along SR 372. The existing non-signalized 4-way intersection will be replaced with a roundabout.

Submitted for approval:

DATE 9-17-10 — STREET SMARTS
Design Consultant Name and Firm Name

DATE 9-20-10
Local Government

DATE _____
District Engineer

DATE 12/14/10 — Krystal Stovall-Dixon
Project Manager

Recommendation for approval:

DATE 1/4/11 — Gretha Rice-Singleton *
Program Control Administrator

DATE 1/5/11 — Glenn Bowman *
State Environmental Administrator

DATE 1/19/11 — Kathy Zahul *
State Traffic Engineer

DATE 12/15/10 — Ron Wishon *
Project Review Engineer

DATE _____
State Utilities Engineer

DATE _____
State Transportation Financial Management Administrator

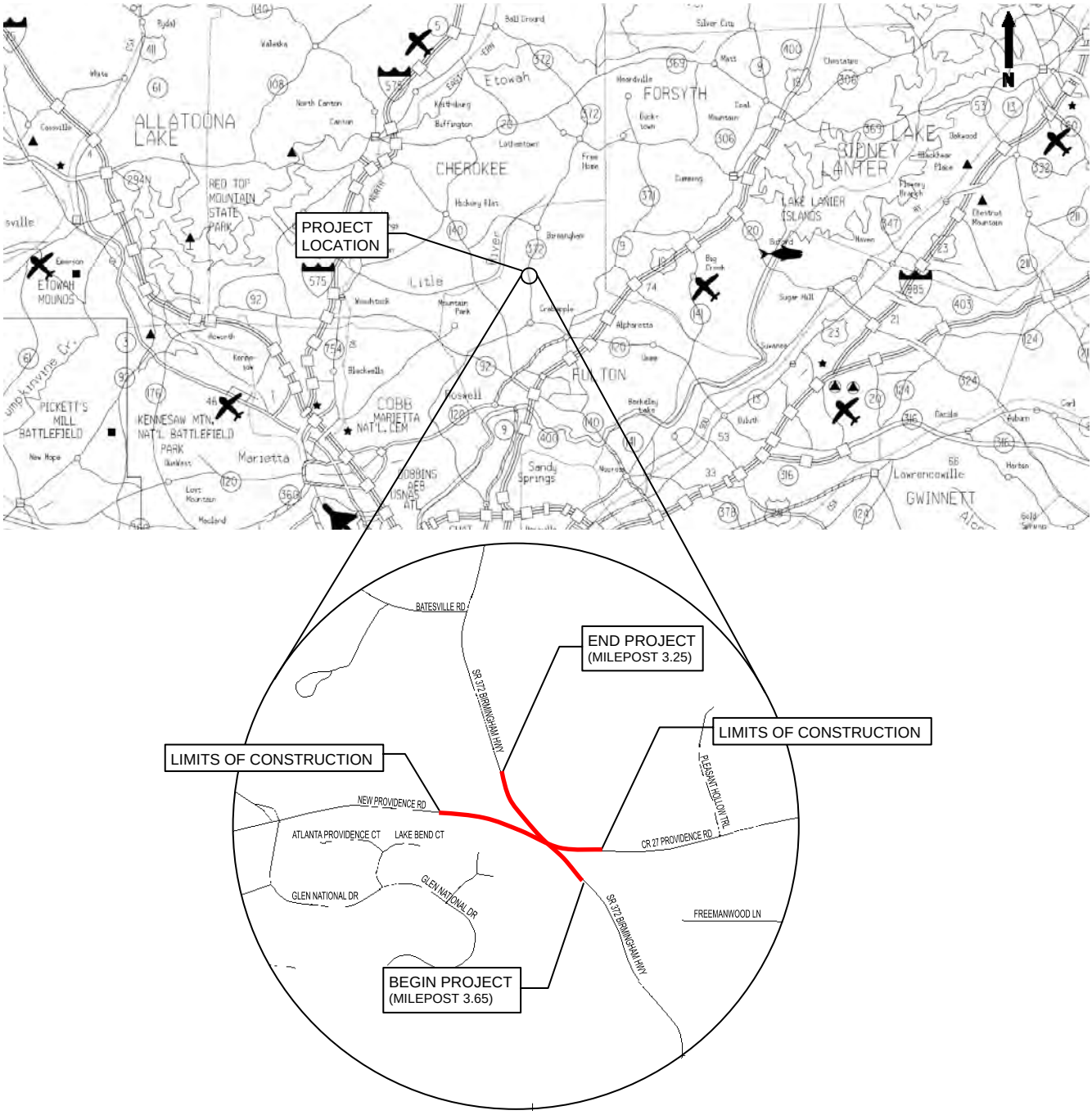
The concept as presented herein and submitted for approval is consistent with that which is included in the Regional Transportation Plan (RTP) and/or the State Transportation Improvement Program (STIP).

DATE 12/17/10 — Cindy VanDyke *
State Transportation Planning Administrator

* Recommendation on file. KKF

SITE LOCATION MAP

P. I. Number: 0005448
Project Number: HPP00-0005-00(448)
County: Fulton



Intersection Improvements at
SR 372/Birmingham Hwy @ CR 27/Providence Rd/New Providence
City of Milton

Need and Purpose:

The purpose of the intersection improvements at SR 372/Birmingham Hwy and CR 27/Providence Rd/New Providence Rd is to alleviate traffic congestion and to improve the capacity of the intersection for current and future travel demands.

Currently the existing intersection is non-signalized with intersecting skew angles of approximately 25 degrees. The intersecting skew angle is not acceptable. According to GDOT Policy Design Manual, a 70-degree angle shall be the minimum angle for intersection in Georgia. The existing intersection does not have separate left or right turn lanes. The lack of controlled turning movements and increasing traffic volumes contribute to congestion along the SR 372 corridor.

The project is anticipated to be open for traffic use in the year 2013. Therefore, the project will be designed to accommodate traffic growth thru 2033. The tables below show the Annual Average Daily Traffic (AADT), the level of service (LOS) and accident data for the intersection. The LOS on the northbound and westbound approach to a single lane roundabout with bypasses in the PM peak hour changes from a LOS C for 2013 to a LOS F for 2033 — Using the US (NCHRP-572 model).

Annual Average Daily Traffic (AADT)

Segment	Existing 2009	Opening Year 2013	Design Year 2033
Birmingham Hwy (SR 372) NB	9,480	10,100	13,150
Birmingham Hwy (SR 372) SB	13,053	14,800	19,250
New Providence Rd (CR 72) EB	2,776	3,150	4,100
New Providence Rd (CR 72) WB	6,389	7,150	9,300

Existing & No Build Levels of Service

Existing & No Build LOS	Movement	Existing 2009 LOS		Opening 2013 LOS		Design 2033 LOS	
		AM	PM	AM	PM	AM	PM
Birmingham Hwy/SR 372 at Providence Rd/CR 27	NB Thru+Lt	A	A	A	A	A	A
	SB Thru+Rt	A	A	A	A	A	A
	EB Thru+Rt	F	D	F	F	F	F
	WB Thru+Rt	F	F	F	F	F	F
Providence Rd SE connector at Birmingham Hwy/SR 372	NB Thru+Rt	A	A	A	A	A	A
	SB Thru	A	A	A	A	A	A
	SW Left	C	C	D	D	F	F
Birmingham Hwy/SR 372 SE connector at Providence Rd	NE Right	B	A	B	A	C	B
	EB Thru	A	A	A	A	A	A
	WB Thru+Lt	A	A	A	A	A	A
Birmingham Hwy/ SR372 NW connector at Providence Rd	SB Right	A	A	A	A	A	A
	EB Thru+Lt	A	A	A	A	A	A
	WB Thru	A	A	A	A	A	A
Providence Rd NW connector at Birmingham Hwy/SR 372	NB Left	D	E	E	F	F	F
	NW Thru	A	A	A	A	A	A
	SB Thru+Rt	A	A	A	A	A	A

Build Levels of Service

Build LOS	Control	Approach	Opening 2013 LOS		Design 2033 LOS	
			AM	PM	AM	PM
Birmingham Hwy/ SR 372 at Providence Rd/ CR 27	Roundabout (NCHRP-572/UK Methodology)	NB	A/A	C/A	B/A	F/A
		SB	B/A	A/A	E/A	A/A
		EB	A/A	A/A	C/A	A/A
		WB	A/A	C/A	A/A	F/A

Accident Data

Year	Total Crashes	Type					Severity	
		Angle	Rear End	Non-Vehicle	Head On	Sideswipe	Injuries	Fatalities
2006	25	11	12	0	0	2	3	0
2007	22	7	13	1	1	0	10	0
2008	20	3	15	0	1	1	3	0

Description of the proposed project:
The existing intersection of SR 372/Birmingham Hwy and CR 27/Providence Rd/New Providence Rd is a non-signalized 4-way intersection with an approximate skew angle of 25 degrees. Both SR 372 and CR 27 are two-lane roads. In the southeast quadrant of the intersection there is a minor residential development. The intersection is located in North Fulton County in the City of Milton just north of the community of Crabapple.

The project consists of realigning the intersection of SR 372 and CR 27 approximately 300' to the north of the existing intersection. The realignment is such that the intersecting skew angle with SR 372 is 80 degrees, which will improve the vertical sight distance along SR 372. The existing non-signalized 4-way intersection will be replaced with a roundabout with right turn bypass lanes on SR 372.

The project length is 0.40 miles along SR 372 and 0.45 miles along CR 27. To maintain traffic on site this project will be stage construction. Lighting will be added to the intersection and will be maintained by the City of Milton.

Is the project located in a PM 2.5 Non-attainment area? _X_Yes ___No
This project is included in the Mobility 2030 Regional Transportation Plan list by the ARC as project FN-209.

Is this project located in an Ozone Non-attainment area? _X_Yes ___No
This project is included in the Mobility 2030 Regional Transportation Plan list by the ARC as project FN-209.

PDP Classification: Minor Project

Federal Oversight: Exempt

Functional Classification: SR 372: Urban Minor Arterial CR 27: Urban Collector Street

U. S. Route Number(s): N/A **State Route Number(s):** 372

Traffic (AADT): (SR372/CR27)
Base Year (2013): 14,800/7,150 Design Year (2033): 19,250/9,300

Existing Design Features:

- Typical Section:
  - SR 372/Birmingham Hwy is a paved two lane rural roadway section. The pavement width is approximately 28' with travel lanes each being 12' wide.
  - CR 27/Providence Rd/New Providence Rd is a paved two lane rural roadway section. The pavement width is approximately 24'.
- Posted speed limit: SR 372: 45 mph CR 27: 45mph
- Minimum radius for curve: SR 372: 1100' CR 27: 1500'
- Maximum grade: SR 372: 3% CR 27: 2%
- Width of right-of-way: SR 372: 45'-70' CR 27: 60'
- Major structures: none
- Major interchanges or intersections along the project: none

Proposed Design Features:

- The intersection will be a roundabout with right turn bypass lanes on SR 372.
- Proposed typical section:
  - The proposed roadway for SR 372 will be a two lane urban section with 12' travel lanes. Shoulder widths will be 18' with a 10' multiuse trail.
  - The proposed roadway for CR 27 will be a two lane urban section with 12' travel lanes. Shoulder widths will be 18' with a 10' multiuse trail (location varies).
  - The proposed single lane roundabout will be an urban section with a 55' center island, 13' foot traversable apron, 16' travel lane, and a 16' right turn bypass lane. Shoulder widths will be 18' with a 10' multiuse trail.
- Proposed Design Speed: SR 372: 35 mph CR 27: 35mph Roundabout: 25mph
- Proposed Maximum grade: SR 372: 4% CR 27: 4% Roundabout: 3%
- Maximum grade allowable: SR 372: 5% CR 27: 8% Roundabout: 4%
- Proposed Maximum grade driveway: 11 %
- Proposed Minimum radius of curve: 340 ft
- Minimum radius allowable: 340 ft
- Maximum superelevation rate: 6 %
- Proposed Maximum superelevation rate: N/A
- Right-of-Way:
  - Width SR 372: 80' to 120' CR 27: 80' to 120'
  - Easements: Temporary ( ) Permanent (X) Utility ( ) Other ( ).
  - Type of access control: Full ( ) Partial ( ) By Permit (X) Other ( ).
  - Number of parcels: 13 Number of displacements: 0
    - Business: _____
    - Residences: _____
    - Mobile homes: _____
    - Other: _____
- Structures: None
- Major intersections, interchanges, median openings and signal locations: none
- Transportation Management Plan Anticipated: Yes ( ) No (X)

- Design Exceptions to controlling criteria anticipated:

	YES	NO	UNDETERMINED
HORIZONTAL ALIGNMENT:	( )	(X)	( )
LANE WIDTH:	( )	(X)	( )
SHOULDER WIDTH:	( )	(X)	( )
VERTICAL GRADES:	( )	(X)	( )
CROSS SLOPES:	( )	(X)	( )
STOPPING SIGHT DISTANCE:	( )	(X)	( )
SUPERELEVATION RATES:	( )	(X)	( )
VERTICAL ALIGNMENT:	( )	(X)	( )
SPEED DESIGN:	( )	(X)	( )
VERTICAL CLEARANCE:	( )	(X)	( )
BRIDGE WIDTH:	( )	(X)	( )
BRIDGE STRUCTURAL CAPACITY:	( )	(X)	( )
LATERAL OFFSET TO OBSTRUCTION:	( )	(X)	( )

- Design Variances: none anticipated
- Environmental concerns: none anticipated
- Anticipated Level of environmental analysis: Categorical Exclusion
  - Are Time Savings Procedures appropriate? Yes (X) No ( )
  - Categorical exclusion anticipated (X).
  - Environmental Assessment/Finding of No Significant Impact anticipated (FONSI) ( ).
  - Environmental Impact Statement (EIS) ( ).
- Utility involvements:
  - Gas – Atlanta Gas Light Company
  - Water – Fulton County Public Works
  - Electric – Georgia Power
  - Telephone – AT&T; MCI Telecommunications Corp.
  - Cable – Comcast; Charter Communications
  - Other – Colonial Pipeline
- VE Study Anticipated Yes ( ) No (X)
- Benefit/Cost Ratio: N/A

Project Cost Estimate and Funding Responsibilities:

	PE	ROW	UTILITY	CST	MITIGATION
By Whom	Milton/GDOT	Milton/GDOT	Milton	Milton/GDOT	Milton
$ Amount	271,383	2,056,580	485,000	*2,182,359	if required

*CST Cost includes: Construction, Engineering and Inspection, Fuel Cost Adjustments, and Asphalt Cement Cost Adjustments

Project Activities Responsibilities:

- Design: Street Smarts
- Right-of-Way Acquisition: contracted by City of Milton
- Right-of-Way funding (real property): Georgia Department of Transportation & City of Milton
- Relocation of Utilities: City of Milton
- Letting to contract: Georgia Department of Transportation
- Supervision of construction: Georgia Department of Transportation
- Providing material pits: Contractor
- Providing detours: Contractor (if required)
- Environmental Studies/Documents/Permits: Kimley Horn and Associates, Inc.
- Environmental Mitigation: City of Milton (if required)

Coordination

- Initial Concept Meeting Date (Minutes attached): 05/19/10
- Concept meeting date (Minutes): 07/05/10
- P A R meetings, dates and results: None
- FEMA, USCG, and/or TVA: None Required
- Public Involvement: Public Information Open House: 04/20/10
- Local Government Comments:
- Other Projects in the area: None
- Railroads: None
- Other Coordination to date:
    - Citizen Advisory Committee meeting(s): 01/14/10, 02/18/10, 03/23/10, 05/10/10
    - GDOT Traffic Review Conference Call: 06/04/10

Scheduling – Responsible Parties' Estimate

Time to complete environmental process:	Begin: 07/12/2010	End: 03/04/2011
Time to complete preliminary construction plans:	Begin: 09/02/2010	End: 03/04/2011
Time to complete right-of-way plans:	Begin: 04/29/2011	End: 07/13/2011
Time to complete the Section 404 permit:	Begin: N/A	End: N/A
Time to complete final construction plans:	Begin: 06/09/2011	End: 01/26/2012
Time to complete the purchase of right-of-way:	Begin: 08/11/2011	End: 09/30/2012
List other major items that will affect the project schedule:	Begin: N/A	End: N/A

Other alternates considered:

Alternative 1: Realign the intersection of SR 372 and CR 27 approximately 500' to the north and construct a 4-leg signalized intersection with dedicated turning lanes for each leg.

Alternative 2: Realign the intersection of SR 372 and CR 27 approximately 300' to the north and construct a single lane roundabout.

Alternative 3: Realign CR 27 as in alternate 1 and at a 35 speed design.

Alternative 4: No-Build.

Comments:

Alternative 1: Traffic volumes do not warrant a signal. This alternative is eliminated.

Alternative 2: This is the preferred alternative.

Alternative 3: This alternate would require a design variance. This alternative is eliminated.

Alternative 4: This alternative is eliminated due to the need to improve the intersection.

Attachments:

1. Detailed Cost Estimates
2. Plan
3. Typical Sections
4. Traffic Studies
5. Minutes of Initial Concept and Concept Team Meetings,
    a. Initial Concept Meeting Date (Minutes attached): 05/19/10
    b. Concept Meeting Date (Minutes attached): 07/06/10
6. Coordination Minutes:
    a. Citizen Advisory Committee meeting(s): 01/14/10, 02/18/10, 03/23/10, 05/10/10
    b. PIOH Synopsis & Response letter
    c. GDOT Traffic Review Conference Call: 06/04/10
7. Lighting Agreement Letter
8. QC/QA Certification Letter

Concur: _____
Director of Engineering

Approve: _____ Date: 1/20/11
Chief Engineer

STATE HIGHWAY AGENCY

DATE : 12/01/2010
PAGE : 1

JOB ESTIMATE REPORT

JOB NUMBER : 0005448 SPEC YEAR: 01
DESCRIPTION: SR372/BIRMINGHAM HWY @ CR27/PROVIDENCE RD/NEW PROVIDENCE

ITEMS FOR JOB 0005448

LINE	ITEM	ALT	UNITS	DESCRIPTION	QUANTITY	PRICE	AMOUNT
0005	150-1000		LS	TRAFFIC CONTROL - 0005448	1.000	50000.00	50000.00
0010	210-0100		LS	GRADING COMPLETE - 0005448	1.000	175000.00	175000.00
0015	310-1101		TN	GR AGGR BASE CRS, INCL MATL	4750.000	17.60	83601.38
0020	402-1812		TN	RECYL AC LEVELING,INC BM&HL	100.000	81.15	8115.62
0025	402-3113		TN	RECYL AC 12.5MM SP,GP1/2,BM&HL	1400.000	75.57	105811.99
0030	402-3121		TN	RECYL AC 25MM SP,GP1/2,BM&HL	8200.000	57.55	471947.06
0035	402-3190		TN	RECYL AC 19 MM SP,GP 1 OR 2 ,INC BM&HL	2400.000	65.09	156225.10
0040	413-1000		GL	BITUM TACK COAT	2200.000	2.67	5882.36
0045	441-0018		SY	DRIVEWAY CONCRETE, 8 IN TK	250.000	40.39	10099.14
0055	441-0748		SY	CONC MEDIAN, 6 IN	700.000	41.32	28929.17
0060	441-4020		SY	CONC VALLEY GUTTER, 6 IN	100.000	34.29	3429.40
0065	441-6022		LF	CONC CURB & GUTTER, 6"X30"TP2	7264.000	14.09	102359.42
0070	446-1100		LF	PVMT REF FAB STRIPS, TP2,18 INCH WIDTH	1800.000	5.00	9009.86
0075	163-0232		AC	TEMPORARY GRASSING	6.000	349.40	2096.43
0080	163-0240		TN	MULCH	55.000	208.74	11481.13
0085	163-0300		EA	CONSTRUCTION EXIT	2.000	1075.81	2151.64
0090	163-0501		EA	CONSTR AND REMOVE SILT CONTROL GATE,TP 1	3.000	672.48	2017.46
0095	163-0550		EA	CONS & REM INLET SEDIMENT TRAP	30.000	130.42	3912.85
0100	165-0010		LF	MAINT OF TEMP SILT FENCE, TP A	1000.000	0.65	659.99
0105	165-0101		EA	MAINT OF CONST EXIT	2.000	534.48	1068.97
0110	165-0105		EA	MAINT OF INLET SEDIMENT TRAP	30.000	56.29	1688.85
0115	167-1000		EA	WATER QUALITY MONITORING AND SAMPLING	1.000	460.67	460.67
0120	167-1500		MO	WATER QUALITY INSPECTIONS	18.000	340.48	6128.67
0125	171-0010		LF	TEMPORARY SILT FENCE, TYPE A	2000.000	1.75	3510.62
0130	603-2180		SY	STN DUMPED RIP RAP, TP 3, 12"	15.000	42.91	643.67
0135	603-7000		SY	PLASTIC FILTER FABRIC	15.000	4.08	61.27
0140	700-6910		AC	PERMANENT GRASSING	6.000	666.33	3998.00
0145	700-7000		TN	AGRICULTURAL LIME	20.000	78.30	1566.09
0150	700-7010		GL	LIQUID LIME	18.000	22.21	399.89
0155	700-8000		TN	FERTILIZER MIXED GRADE	7.000	354.02	2478.16
0160	700-8100		LB	FERTILIZER NITROGEN CONTENT	350.000	1.75	615.50
0165	716-2000		SY	EROSION CONTROL MATS, SLOPES	6000.000	0.92	5524.56
0170	636-1020		SF	HWY SGN,TP1MAT,REFL SH TP3	200.000	14.44	2889.88
0175	636-1033		SF	HWY SIGNS, TP1MAT,REFL SH TP 9	200.000	19.38	3877.89
0180	636-2070		LF	GALV STEEL POSTS, TP 7	400.000	7.88	3155.00
0185	636-2090		LF	GALV STEEL POSTS, TP 9	400.000	7.90	3163.62
0190	652-0120		EA	PAVEMENT MARKING, ARROW, TP 2	50.000	38.65	1932.54
0195	652-2501		LM	SOLID TRAF STRIPE, 5 IN, WHITE	3.000	466.57	1399.73
0200	652-2502		LM	SOLID TRAF STRIPE, 5 IN, YELLO	3.000	335.39	1006.19
0205	652-6301		GLF	SKIP TRAF STRIPE, 6 IN, WHITE	500.000	0.11	56.68
0210	652-9001		SY	TRAFFIC STRIPE, WHITE	500.000	1.74	872.66
0215	652-9002		SY	TRAFFIC STRIPE, YELLOW	500.000	1.91	959.19

STATE HIGHWAY AGENCY

DATE : 12/01/2010
PAGE : 2

JOB ESTIMATE REPORT

0220	653-1704		LF	THERM SOLID TRAF STRIPE,24",WH	100.000	3.76	376.66
0225	653-1804		LF	THERM SOLID TRAF STRIPE, 8",WH	700.000	1.90	1334.97
0230	441-0303		EA	CONC SPILLWAY, TP 3	4.000	1788.15	7152.61
0235	550-1180		LF	STM DR PIPE 18",H 1-10	3000.000	30.14	90422.13
0240	550-4118		EA	FLARED END SECT 18 IN, SIDE DR	12.000	334.08	4009.08
0245	668-1100		EA	CATCH BASIN, GP 1	14.000	2052.84	28739.78
0250	668-4300		EA	STORM SEW MANHOLE, TP 1	2.000	1873.40	3746.80
0255	681-3600		EA	LIGHTING STD, SPCL DES	1.000	200000.00	200000.00

ITEM TOTAL 1615970.31
INFLATED ITEM TOTAL 1615970.31

TOTALS FOR JOB 0005448

ESTIMATED COST: 1615970.33
CONTINGENCY PERCENT (0.0): 0.00
ESTIMATED TOTAL: 1615970.33

Date 11/29/2010

P.I. Number **0005448** County **FULTON**

Project Number **HPP00-0005-00(448) SR372/CR27**

Special Provision, Section 109-Measurement and Payment

FUEL PRICE ADJUSTMENT *(ENGLISH 125% MAX)*

ENTER FPL DIESEL	2.881
ENTER FPM DIESEL	6.482

ENTER FPL UNLEADED	2.532
ENTER FPM UNLEADED	5.697

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)**	4750.000	0.29	1377.50	0.24	1140.00	
Hot Mix Asphalt paid as specified by the ton under Sections 400 **(TON)**		2.90		0.71		
Hot Mix Asphalt paid as specified by the ton under Sections 402 **(TON)**	12100.000	2.90	35090.00	0.71	8591.00	
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=	**36467.50**	**SUM QF UNLEADED=**	**9731.00**

DIESEL PRICE ADJUSTMENT($)	**$120,822.30**
UNLEADED PRICE ADJUSTMENT($)	**$28,334.73**

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

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

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

ENTER APL 453 **ENTER APM** 1019.25

125.00%	INCREASE ADJUSTMENT

L.I.N.	TYPE	TACK (GALLONS)	TACK (TONS)	REMARKS
413-1000	PG 58-22	2200	9.4492	

TMT = 9.4492

PRICE ADJUSTMENT($)	$5,136.60

400 / 402 ASPHALT CEMENT PRICE ADJUSTMENT 125% MAX

ENTER APL 453 **ENTER APM** 1019.25

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

125.00%	INCREASE ADJUSTMENT

L.I.N. / Spec Number	MIX TYPE	HMA	JMF AC%	AC	REMARKS
402-3129	12.5 mm SP	1400	5.00	70.00	
402-3121	25 mm SP	2400	5.00	120.00	
402-3190	19 mm SP	8200	5.00	410.00	
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			TMT =	600.00	

PRICE ADJUSTMENT($)	$326,160.00

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 453

ENTER APM 1019.25

125.00%	INCREASE ADJUSTMENT

Use this side for Asphalt Emulsion Only

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

TMT =

REMARKS:

Use this side for Asphalt Cement Only

L.I.N.	TYPE	TACK (GALLONS)
413-	PG 58-22	2200

TMT = 9.4492

REMARKS:

MONTHLY PRICE ADJUSTMENT($)	$5,136.60

ADJUSTMENT SUMMARY

FUEL PRICE ADJUSTMENT *(ENGLISH 125% MAX)*

DIESEL PRICE ADJUSTMENT($)	$120,822.30
UNLEADED PRICE ADJUSTMENT($)	$28,334.73
ASPHALT CEMENT PRICE ADJUSTMENT (BITUMINOUS TACK COAT 125% MAX)	$5,136.60
400 / 402 ASPHALT CEMENT PRICE ADJUSTMENT 125% MAX	$326,160.00
ASPHALT CEMENT PRICE ADJUSTMENT FOR BITUMINOUS TACK COAT(Surface Treatment 125% MAX)	$5,136.60

REMARKS:

TOTAL ADJUSTMENTS	$485,590.22

DWM 10/08

Department of Transportation
State of Georgia

Interdepartmental Correspondence

FILE	R/W Cost Estimate	**OFFICE**	Atlanta
		DATE	October 7, 2010
FROM	Phil Copeland, Right of Way Administrator		
TO	Kelvin Wilson, District 7 Preconstruction		
SUBJECT	**Preliminary Right of Way Cost Estimate**		

Project: SR 372 Birmingham Hwy
P.I. No.: 0005448
Description: Intersection Realignment

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:

Preliminary Right of Way Cost Estimate

Phil Copeland
Right of Way Administrator
By: LaShone Alexander

Date: June 8, 2010
Project: SR 372/Birmingham Hwy @ CR 27/Providence Rd/New Providence **P.I. Number:** 0005448
Existing/Required R/W: SR 372: 45'-70'/80'-120' CR 27: 60'/80'-120' **No. Parcels:** 13
Project Termini: The project begins at SR 372 milepost 3.65 ends at milepost 3.25.
Project Description: The project consists of realigning the intersection of SR 372/Birmingham Hwy @ CR 27/Providence Rd/New Providence approximately 300' to the north such that intersecting skew angle with SR 372 is 80 degrees, and improving the vertical sight distance along SR 372. The existing non-signalized 4-way intersection will be replaced with a roundabout.

Land:

Commercial	1,839 s. f	@ $4.00/s.f.	= $7,356.00	
Industrial	0 s. f	@ $ /s.f.	= $0.00	
Residential	273,970 s. f	@ $3.00/s.f.	= $821,910.00	
Agricultural	0 s. f	@ $ /s.f.	= $ 0.00	
TOTAL				$ 829,266.00

Improvements:

Relocation:

Commercial	@ $25,000/parcel	=	$0.00
Residential	@ $40,000/parcel	=	$0.00

TOTAL $0.00

Damages: Proximity	$ 0.00	
Consequential	$ 0.00	
Cost to Cure	$ 0.00	$0.00
TOTAL		$0.00
SUB-TOTAL:		$ 829,266.00

Net Cost		$829,266.00
Scheduling Contingency	55 %	$456,096.30
(Net Cost + SC 55%) total		$1,285,362.30
Adm/Court Cost	60 %	$771,217.38
TOTAL		$ 2,056,579.68

Total Cost $2,056,579.68

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

REVISED: 2-8-08

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE

OFFICE District Seven Utilities
DATE September 13, 2010

FROM Jonathan Walker, District Utilities Engineer

TO W. Scott Lee, District 7 Design Engineer

SUBJECT **Preliminary Utility Cost Estimate**
HPP00-0005-00(448), Fulton County
SR 372/BIRMINGHAM HWY @
CR 27/PROVIDENCE RD/NEW PROVIDENCE
PI # 0005448

As per your request, a field inspection was conducted on the above referenced project. The following companies have facilities that occupy the public right-of-way and should be relocated at **no cost** to the Department of Transportation:

Atlanta Gas Light Company
Comcast
Georgia Power Distribution
MCI Telecommunications Corp.
Charter Communications
Fulton County Public Works
City of Milton

The following utility company could potentially have prior rights on this project and may have reimbursable costs:

AT&T (formerly BellSouth)	**$425, 000.00**
Sawnee EMC	**60, 000.00**
Total Reimbursable Costs:	**$485, 000.00**

Please note that this estimate was prepared without the certification of right-of-way and could change when more detailed information is made available.

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

Sincerely,

Bryant R. Poole
District Engineer

For: Jonathan Walker
District Utilities Engineer

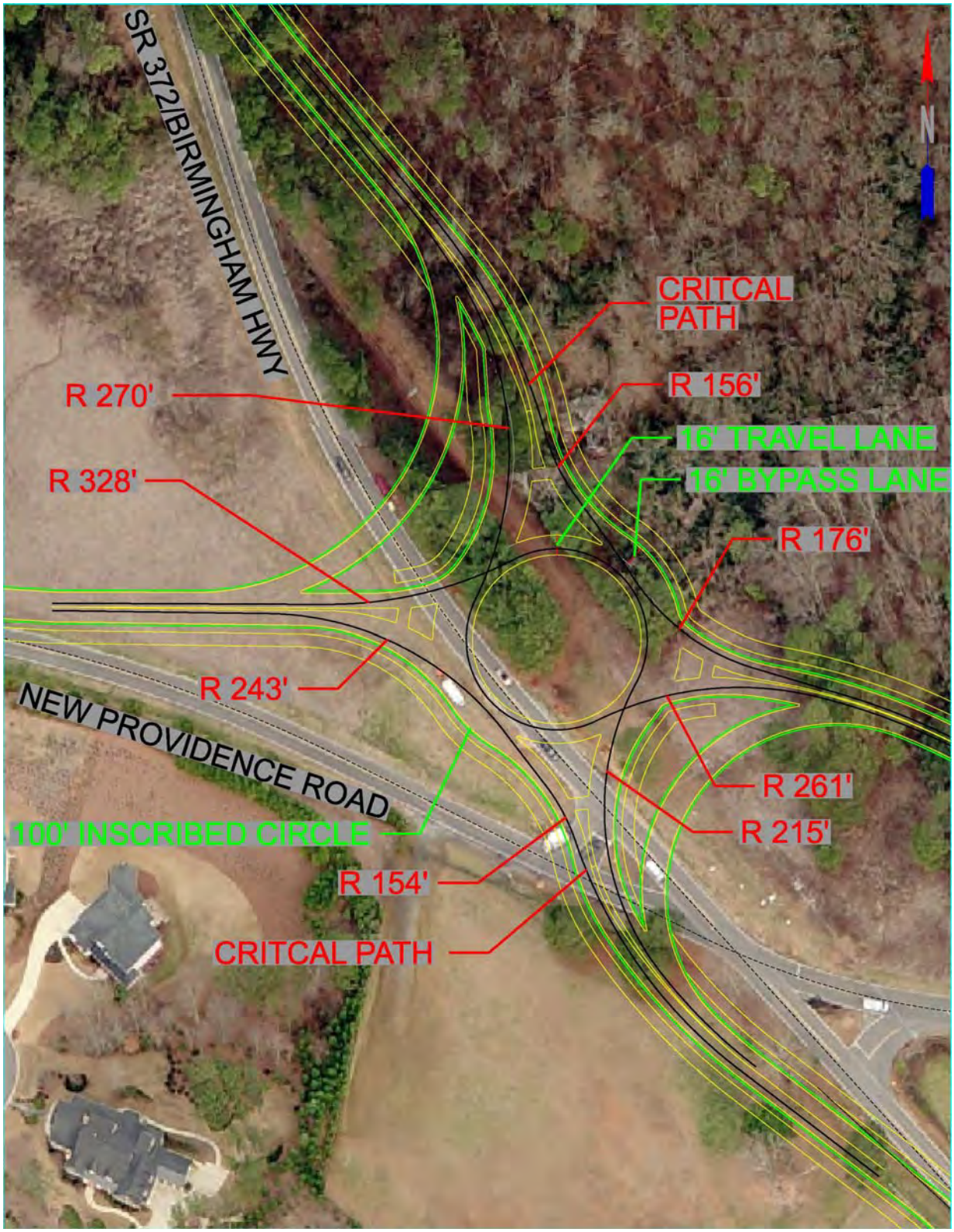
BRP:JW:CAC

c: Jeff Baker, P.E. (10th Floor – OGC)
File

Plan

HPP00-0005-00(448), Fulton County, GA

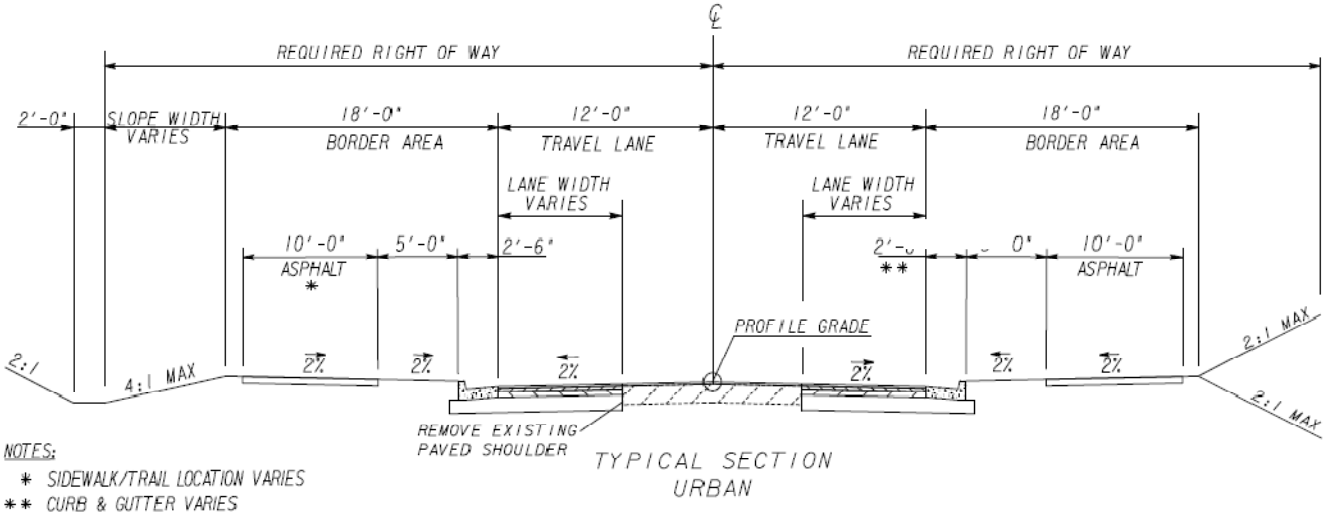
P.I. 0005448



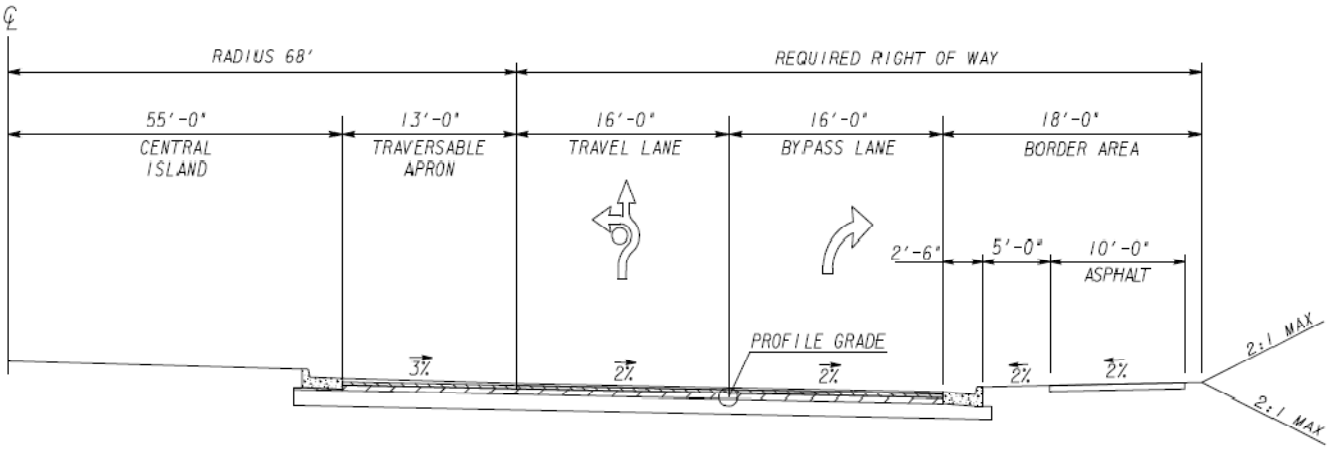
Typical Sections

HPP00-0005-00(448), Fulton County, GA
P.I. 0005448

Intersection Improvements at SR 372 Birmingham Highway &
CR 27 Providence / New Providence Rd



TYPICAL SECTION
URBAN



TYPICAL SECTION
ROUNDABOUT

INTERSECTION IMPROVEMENT STUDY

for

SR 372/BIRMINGHAM HIGHWAY

City of Milton, Fulton County, Georgia

Prepared for:

City of Milton

October 2010

3160 Main Street • Suite 100
Duluth, Georgia 30096
T: 770.813.0882
F: 770.813.0688
www.streetsmarts.us

TABLE OF CONTENTS

EXECUTIVE SUMMARY ..... A
1. INTRODUCTION 1
2. EXISTING TRAFFIC CONDITIONS 3
    Roadway Inventory 3
    Existing Traffic Volumes 3
    Capacity Analysis: Existing Conditions 7
    Collision Analysis 8
3. OPENING AND DESIGN YEAR TRAFFIC 12
    Future Volumes 12
    Capacity Analysis: 2013 Opening Year 16
    Capacity Analysis: 2033 Design Year 17
    Requirements for Installation of Dedicated Turn Lanes 18
4. ROUNDABOUT ANALYSIS 20
    Roundabout Analyses 21
5. TRAFFIC SIGNAL WARRANT ANALYSIS 23
    Warrant 1 - Eight-Hour Vehicular Volume 27
    Warrant 2 - Four-Hour Vehicular Volume 29
    Warrant 3 - Peak Hour 29
    Warrants 4, 5, 6, 7 and 8 30
LEVEL OF SERVICE CONCEPT DESCRIPTION
APPENDIX A: TRAFFIC COUNTS
APPENDIX B: CAPACITY ANALYSES
APPENDIX C: ROUNDABOUT ANALYSES
APPENDIX D: SIGNAL WARRANT ANALYSES

LIST OF TABLES

Table 1. Existing Levels of Service 7
Table 2. Collision Data 8
Table 3. Traffic Volume Summary 12
Table 4. 2033 Design Year Traffic Data Summary 12
Table 5. 2013 No Build Levels of Service 16
Table 6. 2013 Build Levels of Service 16
Table 7. 2033 No Build Levels of Service 17
Table 8. 2033 Build Levels of Service 17
Table 9. 2033 Design Year Dedicated Turn Lane Requirements 18
Table 10. Roundabout Consideration Threshold 20
Table 11. 2009 Roundabout Results 21
Table 12. 2013 Roundabout Results 21
Table 13. 2033 Roundabout Results 21
Table 14. Existing Hourly Volumes 25
Table 15. 2013 Opening Year Hourly Volumes 26
Table 16. 2033 Design Year Hourly Volumes 27
Table 17. Summary of the Signal Warrant Evaluation 30
Table 18. Left Turn Phasing Cross Product Summary 31

LIST OF FIGURES

ES – 1. Future Traffic Controls and Lane Configurations C
Figure 1. Site Location 2
Figure 2. Existing Peak Hour Volumes 4
Figure 3. Existing Daily Traffic Volumes 5
Figure 4. Existing Traffic Controls and Lane Configurations 6
Figure 5. 2006 Crash Diagram 9
Figure 6. 2007 Crash Diagram 10
Figure 7. 2008 Crash Diagram 11
Figure 8. 2013 Opening and 2033 Design Year Daily Traffic Volumes 13
Figure 9. 2013 Opening Year Peak Hour Volumes 14
Figure 10. 2033 Design Year Peak Hour Volumes 15
Figure 11. SR 372 at CR 27 Proposed Roundabout Intersection Improvements 23

K:\1800\1876-504 Birmingham Hwy\Traffic\Report\SR 372 TIS Report 101011.doc

EXECUTIVE SUMMARY

This study presents an analysis of the intersection of for Birmingham Highway (SR 372) at Providence Road (CR 27) in the City of Milton, Fulton County, Georgia for future traffic conditions realigned such that Providence Road intersects Birmingham Highway with a skew angle of 70°, a proposed traffic signal, and separate dedicated turn lanes. The design year traffic conditions (2033) were evaluated to determine the appropriate storage lengths for the exclusive left and right turn lanes.

The existing, opening year (2013), and design year (2033) conditions were analyzed to determine the impact of the planned intersection improvements. Based on detailed analyses of the traffic conditions, the following conclusions are drawn. Figure ES-1 illustrates the future traffic controls and lane configuration.

- For existing, opening, and design year traffic volumes with existing lane configurations and side-street stop sign control, the study intersection operates (and is anticipated to continue operating) inadequately. The Providence Road approach operates at a Level of Service F during the morning and evening peak hours for all three no-build scenarios.

- For opening and design year build-out traffic conditions the study intersection is expected to operate adequately with the planned intersection improvements. However, based on the future intersection volumes, the eight-hour minimum volume requirements to warrant consideration of permitting installation of a traffic signal are not likely to be met during the opening year.

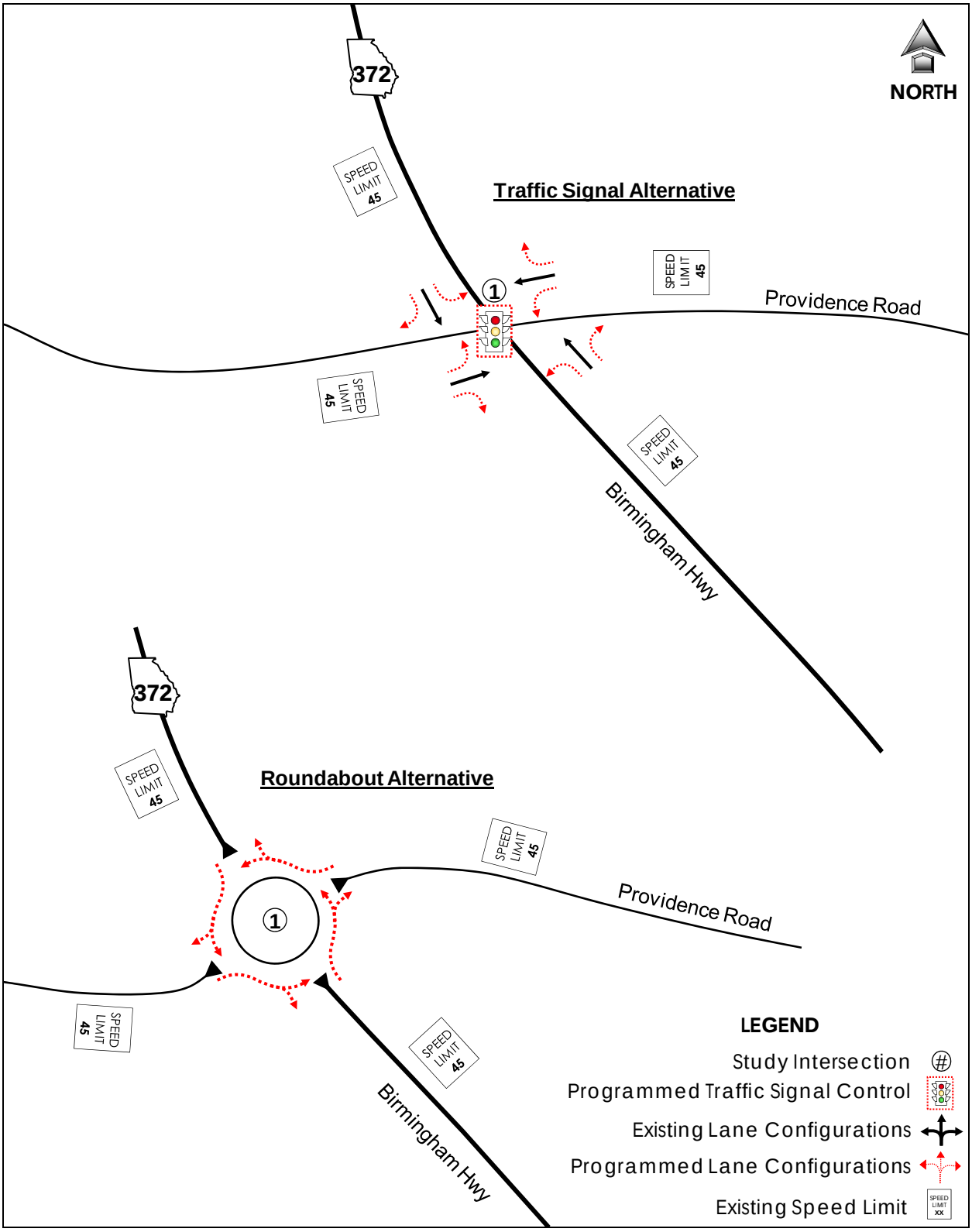
Georgia Department of Transportation Roundabout Analysis Tool version 1.2, updated September 8, 2010, was used to analyze the study intersection as a single- and multi-lane roundabout. The results are based on the NCHRP Report 572 formula as well as the UK formula referenced in the Federal Highway Administration's (FHWA) publication entitled *Roundabouts: An Informational Guide, June 2000* (Guide).

- For existing, opening year and design year traffic volumes, the weekday peak hour dominant approaches to a single-lane roundabout are expected to operate inadequately according to both the NCHRP-572 and the UK models.

- For existing, opening year and design year traffic volumes, the weekday peak hour dominant approaches to a multi-lane roundabout are expected to operate adequately according to both the NCHRP-572 and UK models.

The existing lane configurations of the study intersection has no dedicated turn lanes and a skew angle of 25° on the Providence Road approach. This approach proposed to be realigned with a skew angle of 70° to Birmingham Highway (SR 372) as well as new dedicated turning lanes installed on all approaches, and the existing side-street stop-sign control replaced with traffic signal. The intersection improvements include adding dedicated turn lanes for each movement as well as the installation of a signal at the intersection. The proposed improvements to the intersection will provide safer operations and better opportunities for turning vehicles during non-peak hours.

ES – 1. Future Traffic Controls and Lane Configurations



1. INTRODUCTION

This study presents an analysis of the traffic impact expected to result from the planned improvement of the intersection of Birmingham Highway (SR 372) at Providence Road (CR 27). The project is located in the City of Milton, Fulton County, Georgia. The intersection redevelopment is expected to be completed by the Year 2013. Figure 1 shows the site location. The land uses surrounding the project are primarily residential.

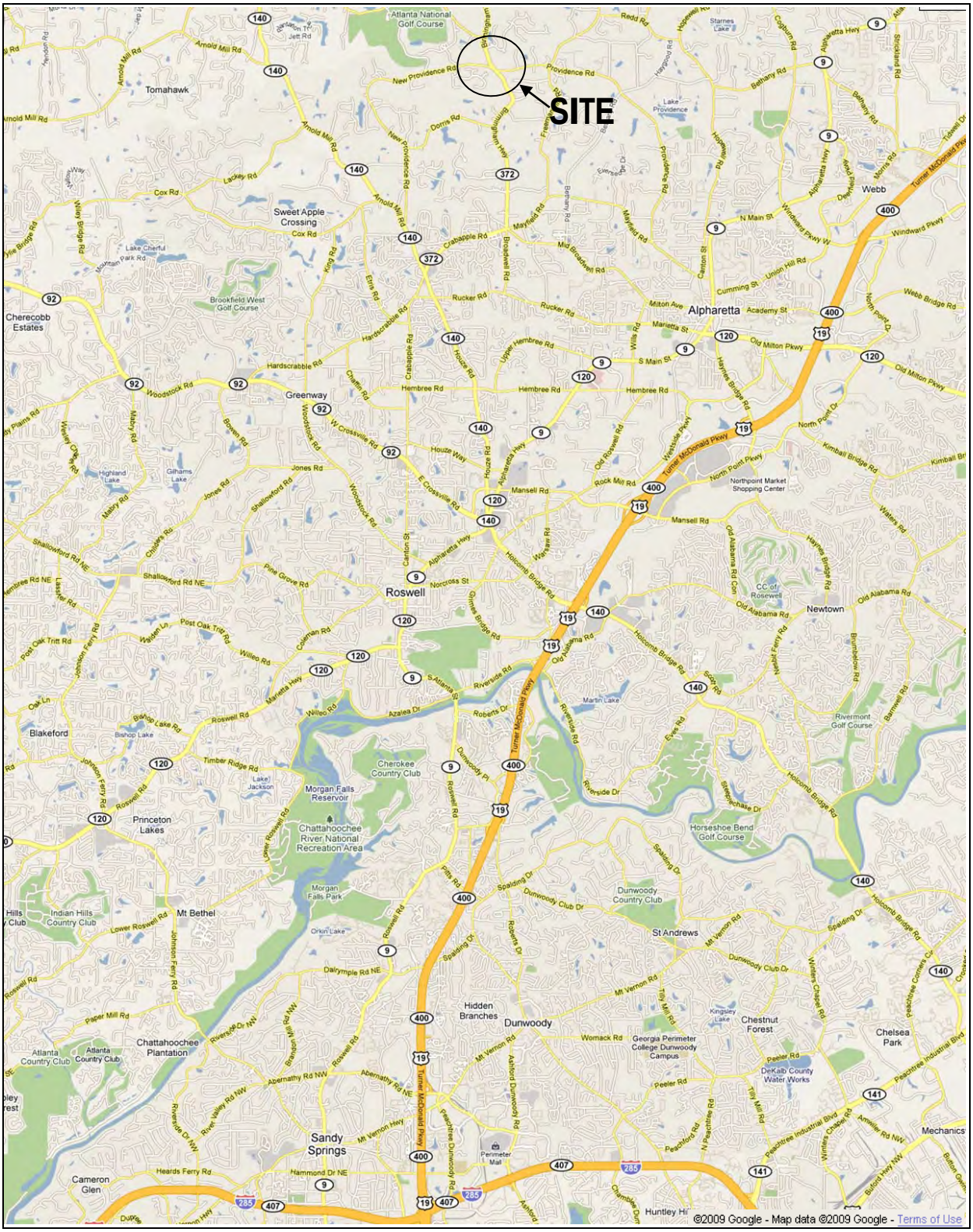
The existing 25° skewed approach of Providence Road to the intersection is proposed to be realigned with a skew angle 70° with Birmingham Highway (SR 372), new dedicated turning lanes installed on all approaches, and the existing side-street stop-sign control replaced with traffic signal. The intersection improvements include adding dedicated turn lanes for each movement as well as the installation of a signal at the intersection.

In the following sections, the analysis of traffic operations is described for existing conditions, opening year conditions with and without the intersection improvements and design year conditions with and without the intersection improvements. Additionally, there is a roundabout analysis, signal warrant analysis and identification of minimum turn lane lengths.

The scope of this evaluation includes the following elements:

- Counting weekday hourly vehicle turning movement volumes on SR 372 and CR 27;
- Projecting expected volumes in 2013 and 2033;
- Analyzing roundabout performance using the GDOT Roundabout Analysis Tool;
- Performing signal warrant analysis of the study intersection to determine if a traffic signal is warranted.

Figure 1. Site Location



2. EXISTING TRAFFIC CONDITIONS

Roadway Inventory

To determine existing traffic conditions in the area, an inventory was made of the roads entering the intersection. The following paragraphs describe the primary road network around the studied intersection:

- **Birmingham Highway (SR 372)** is a two-lane, Urban Minor Arterial roadway with a posted speed of 45 mph. It runs generally north and south and intersects with SR 140 about 3.4 miles south of the site.

- **Providence Road (CR 27)** is an Urban Collector roadway with a posted speed of 45 mph that forms a 4-legged intersection with SR 372 and runs east and west.

Existing Traffic Volumes

Weekday AM, Midday and PM peak hour turning movement traffic counts were collected on Wednesday November 11, 2009 at the intersection of SR 372 and CR 27.

Weekday 24-hour directional volume counts were collected Wednesday November 11, 2009 on SR 372 north and south of CR 27, and on CR 27 east and west of SR 372. The existing traffic volumes at the intersection are shown in Table 1.

Figure 2 shows the existing peak hour volumes and Figure 3 shows the daily volumes at the study intersection. The traffic count printouts are included in Appendix A. Figure 4 shows the existing traffic controls and lane configurations at the study intersections.

Figure 2. Existing Peak Hour Volumes

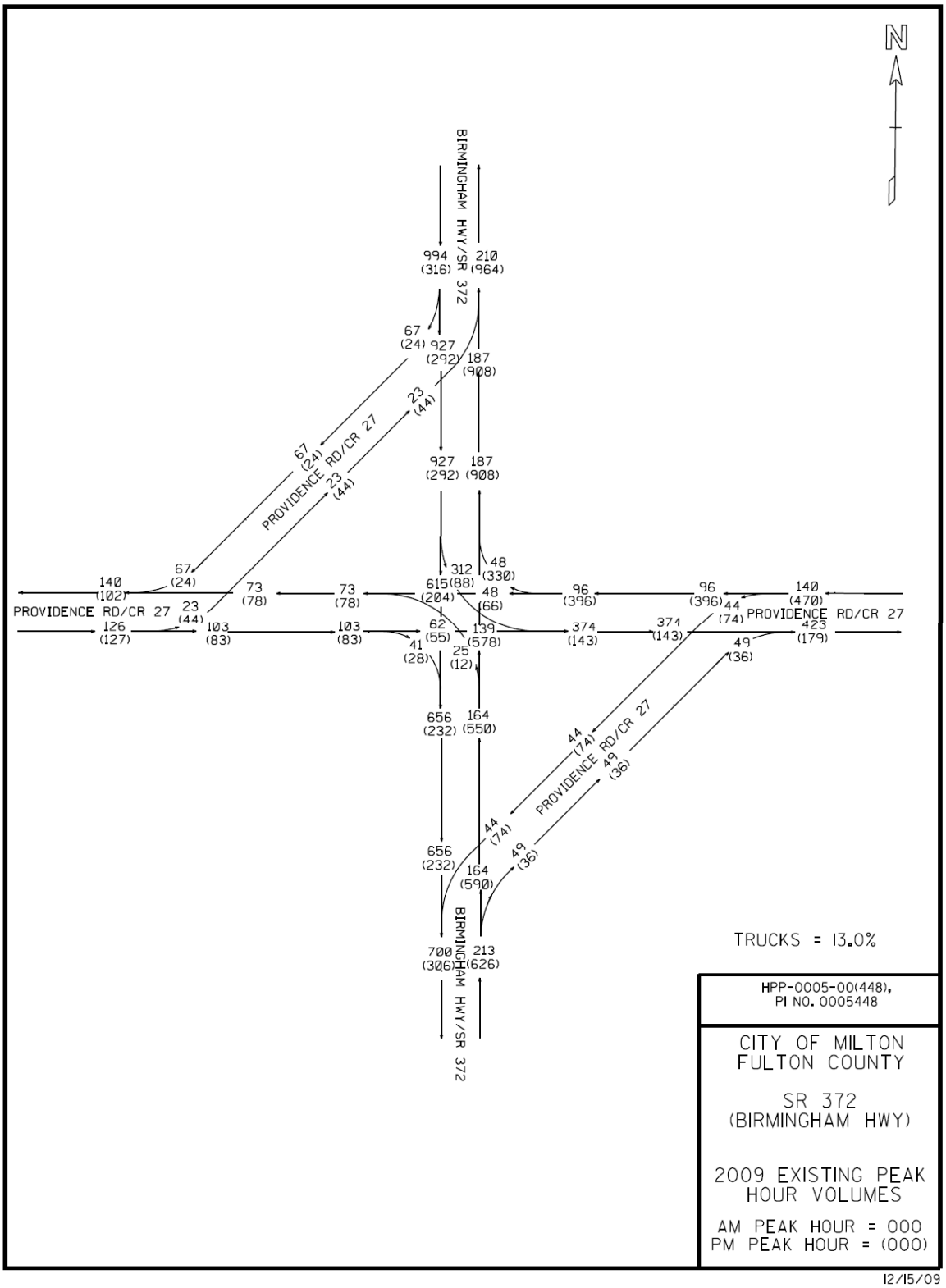


Figure 3. Existing Daily Traffic Volumes

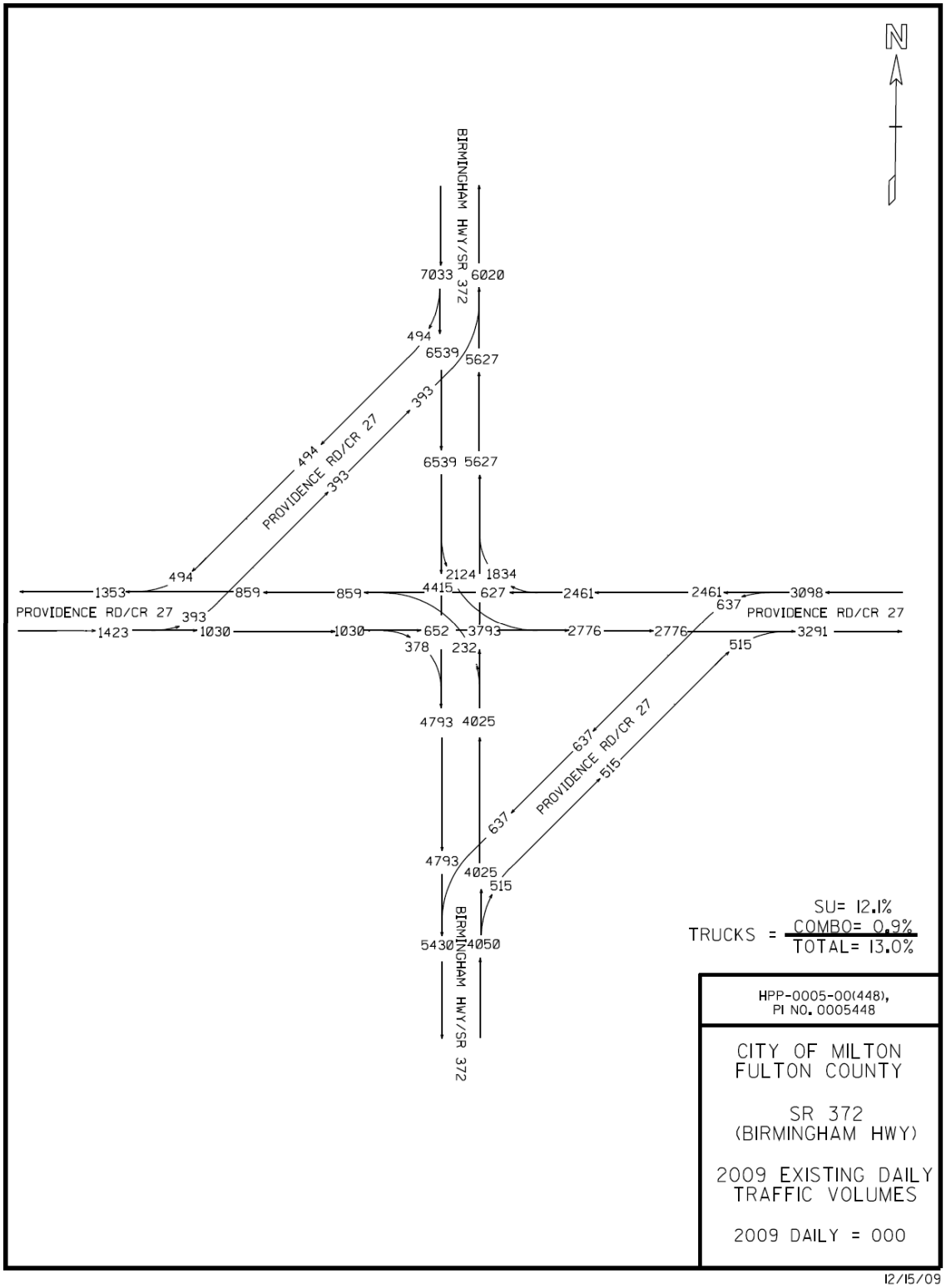
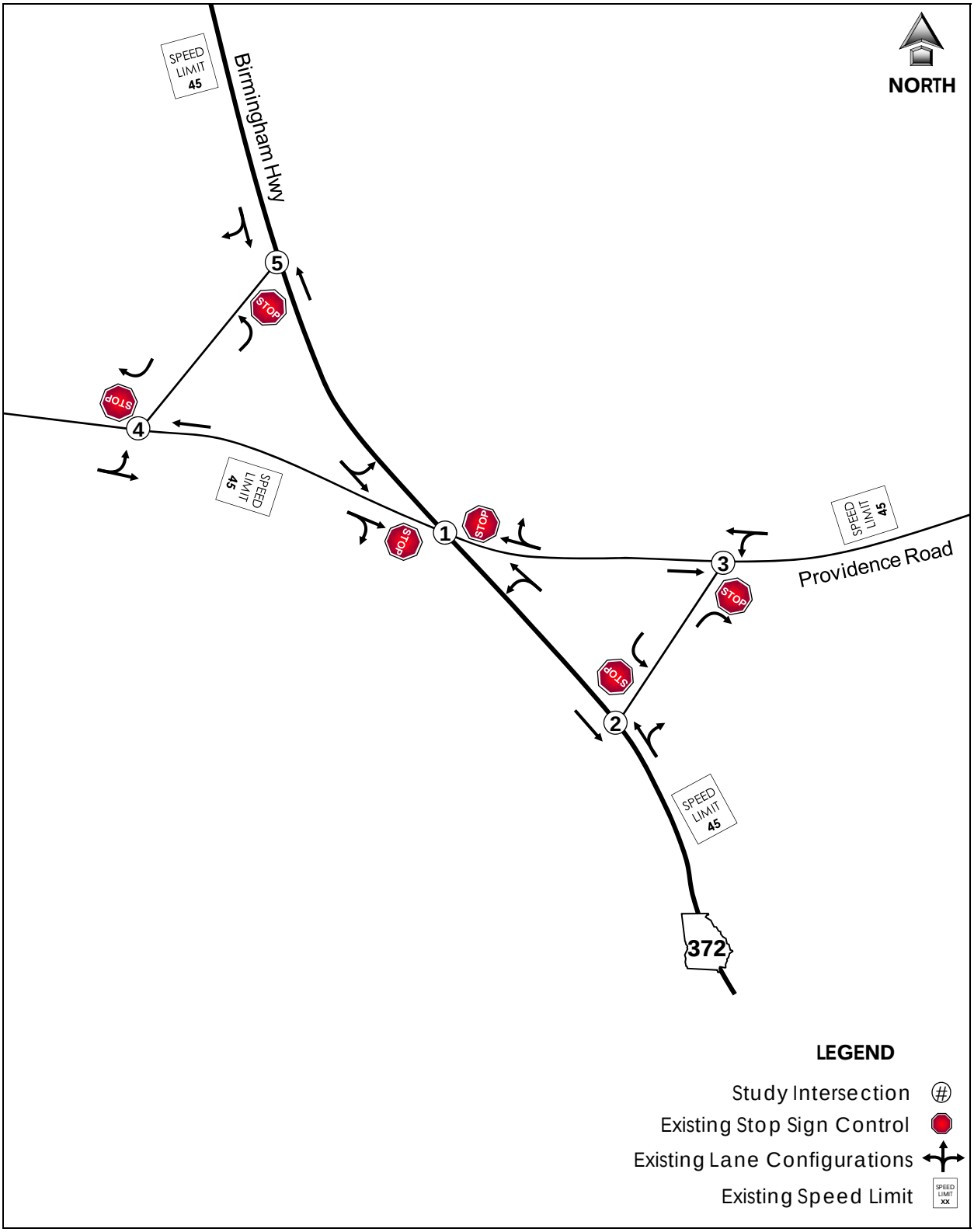


Figure 4. Existing Traffic Controls and Lane Configurations



Capacity Analysis: Existing Conditions

The results of the capacity analysis for existing conditions are presented in Table 1 and printouts are included in Appendix B.

Table 1. Existing Levels of Service

Intersection		Control	Approach	LOS	
#	Road			AM Peak Hour	PM Peak Hour
1	Birmingham Hwy/SR 372 at Providence Road/CR 27	Side-Street STOP	NW	A	A
			SE	A	A
			EB	F	D
			WB	F	F
2	Birmingham Hwy/SR 372 at Providence Rd southern connector	Side-Street STOP	NW	A	A
			SE	A	A
			SW	C	C
3	Providence Rd at Providence Rd southern connector	Side-Street STOP	NE	B	A
			EB	A	A
			WB	A	A
4	Providence Rd at Providence Rd southern connector	Side-Street STOP	SB	A	A
			EB	A	A
			WB	A	A
5	Birmingham Hwy/SR 372 at Providence Rd northern connector	Side-Street STOP	NB	D	E
			NW	A	A
			SE	A	A

As can be seen from Table 1, the Providence Road approach operates at an inadequate Level of Service (LOS) F during both morning and evening peak hours.

Installation of a traffic signal would provide the intersection with an adequate overall LOS. However, although a traffic signal would allow for safer left turns, the existing inadequate operation of Birmingham Highway (SR 372) would not be mitigated by these improvements.

Collision Analysis

Records of vehicular crashes that were reported on Birmingham Highway (SR 372) during the most recent three (3) years available (2006, 2007 and 2008) were provided by the Georgia Department of Transportation (GDOT) Critical Analysis Reporting Environment 8 Program developed by The University of Alabama.

During 2006, 25 vehicular crashes were reported at the study intersection Birmingham Highway (SR 372) at Providence Road. During 2007, 22 vehicular crashes were reported. In 2008, 20 vehicular crashes were reported. Collision diagrams for 2006, 2007, and 2008 are shown on Figures 5, 6, and 7 respectively.

Table 2. Collision Data

Year	Total Crashes	Type					Severity	
		Angle	Rear End	Non-Vehicle	Head On	Sideswipe	Injuries	Fatalities
2006	**25**	11	12	0	0	2	3	0
2007	**22**	7	13	1	1	0	10	0
2008	**20**	3	15	0	1	1	3	0

Figure 5. 2006 Crash Diagram

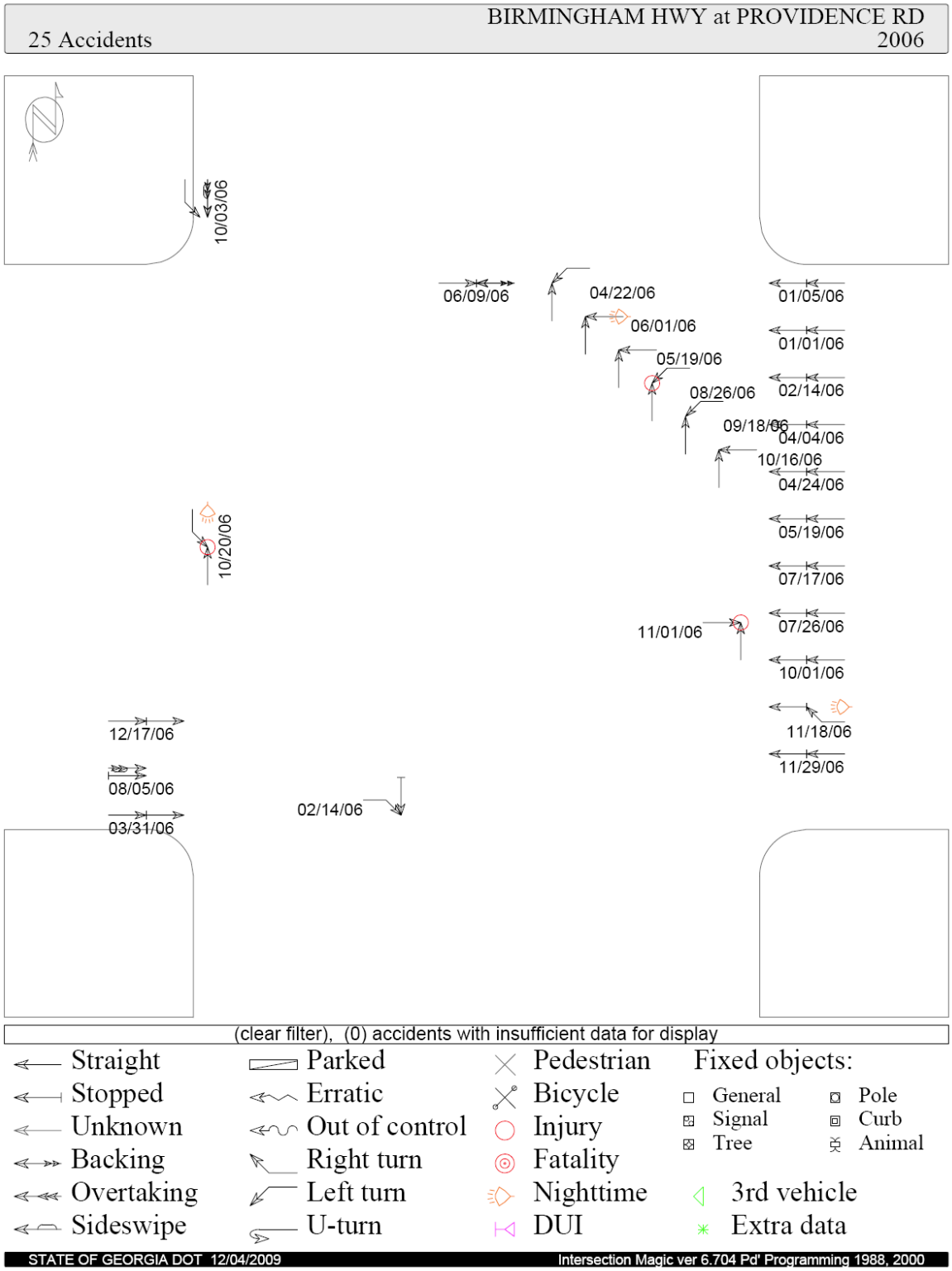


Figure 6. 2007 Crash Diagram

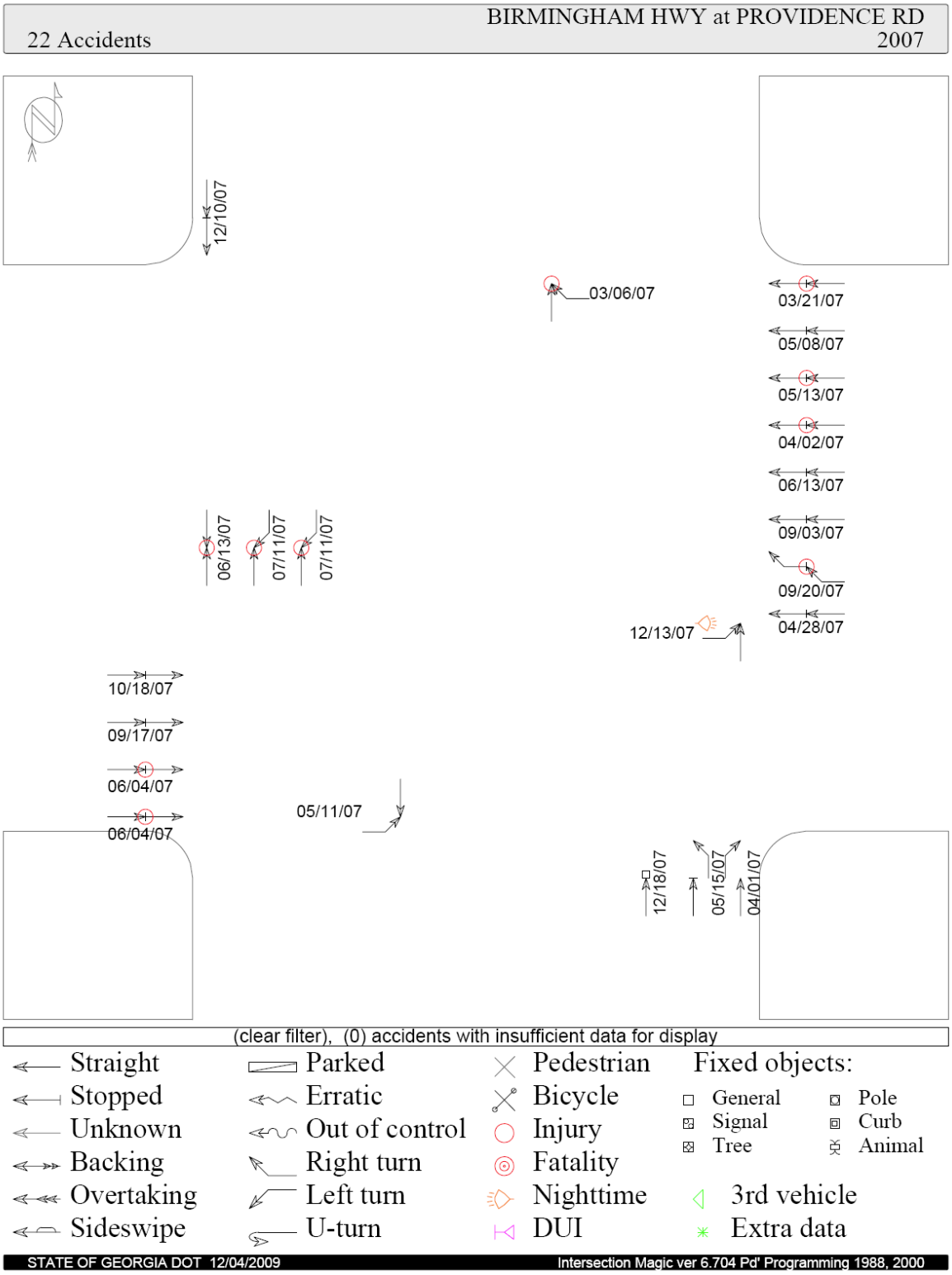
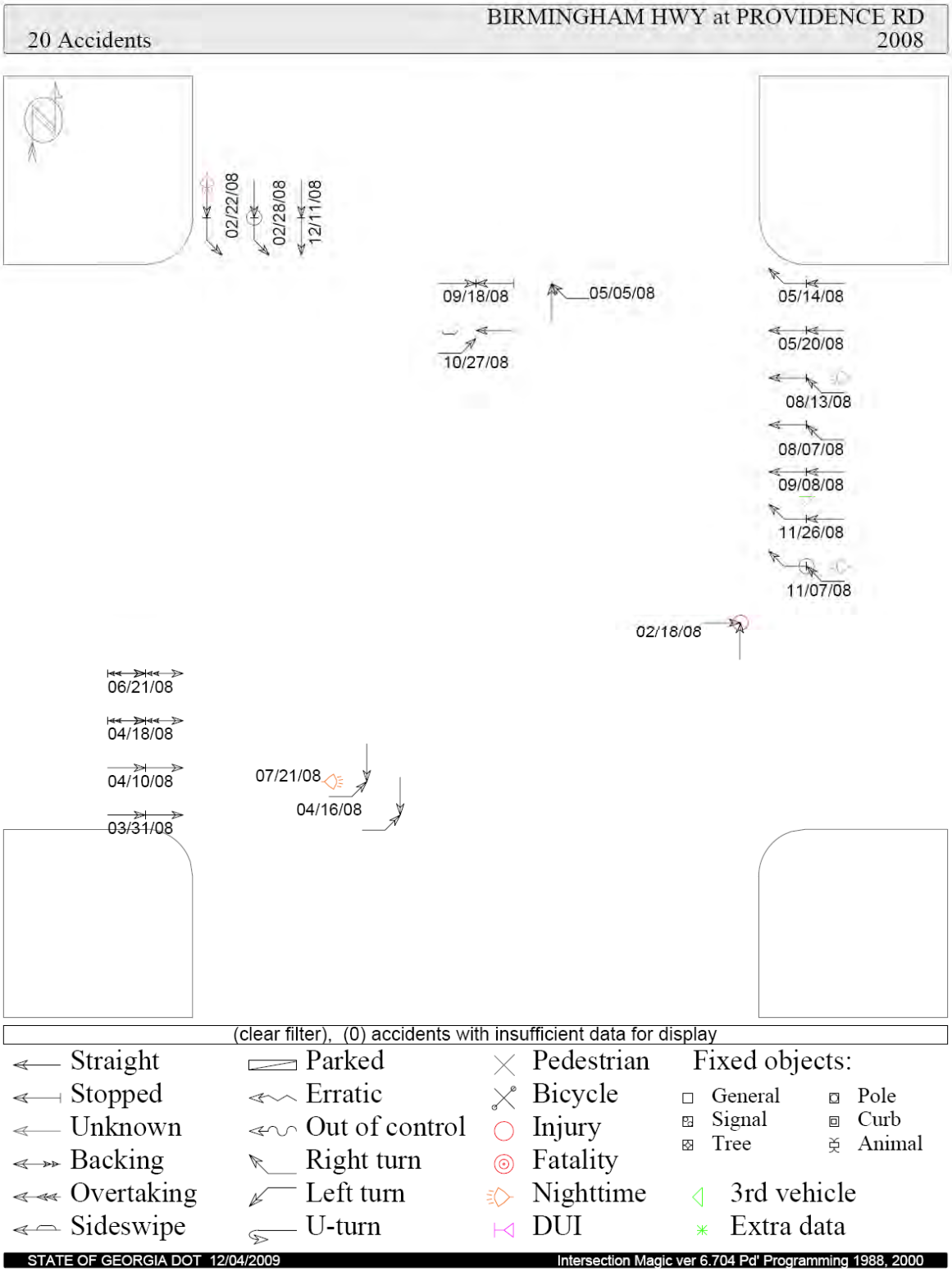


Figure 7. 2008 Crash Diagram



Future Volumes

To grow the existing 2009 traffic volumes to 2013 opening year and 2033 design year volumes, historical volumes on Birmingham Highway (SR 372), Providence Road (CR 27) as well as roadways within its vicinity were obtained from GDOT.

An annual growth rate of 1.3% was calculated from the historic volumes from the years 1999 to 2008 at count station #446, #447, #794, and #6000. Using this growth rate, 2013 opening year and 2033 design year weekday daily and peak hour traffic volumes were estimated. The 2013 opening year and 2033 design year daily traffic volumes are shown in Figure 8 and the peak hour traffic volumes are shown in Figures 9 and 10.

Table 3 summarizes the anticipated average daily traffic volumes (ADT's) for 2013 opening year conditions, and 2033 design year conditions.

Table 3. Traffic Volume Summary

Condition	ADT			
	Birmingham Hwy (SR 372) - NB	Birmingham Hwy (SR 372) - SB	New Providence Rd (CR 27) - EB	Providence Rd (CR 27) - WB
Opening Year 2013	10,100	14,800	3,150	7,150
Design Year 2033	13,150	19,250	4,100	9,300

For the 2033 design year, Table 4 summarizes the percentage of the ADT occurring during the design hour (K), the directional distribution of traffic during the peak hour (D), and the percentage of trucks for roadway/pavement design purposes.

Table 4. 2033 Design Year Traffic Data Summary

K	20%
D	71%
% Trucks – Design Hour	13.0%
% Trucks – 24 Hour	13.0% (12.1% S.U./0.9% Comb.)

Figure 8. 2013 Opening and 2033 Design Year Daily Traffic Volumes

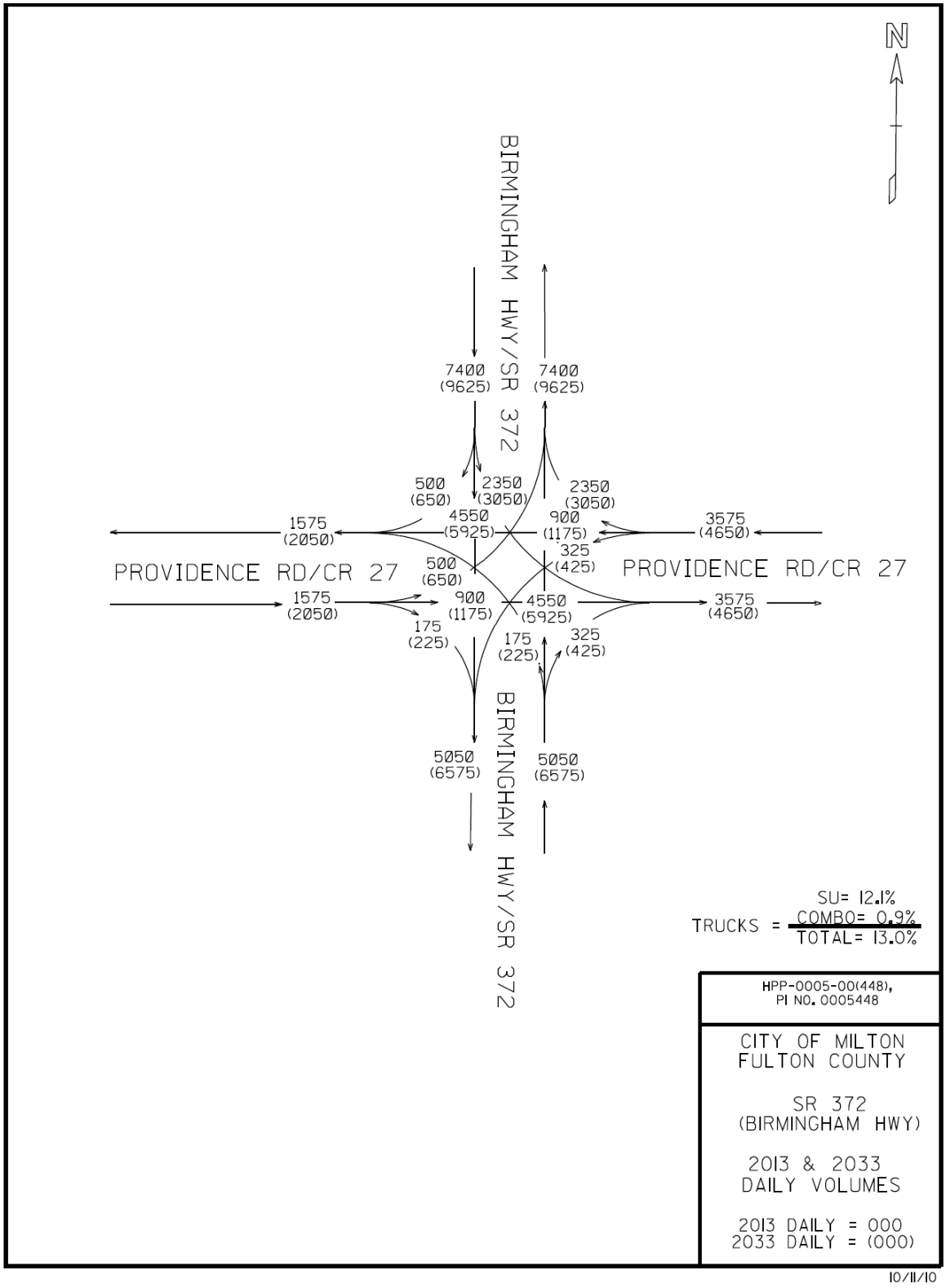


Figure 9. 2013 Opening Year Peak Hour Volumes

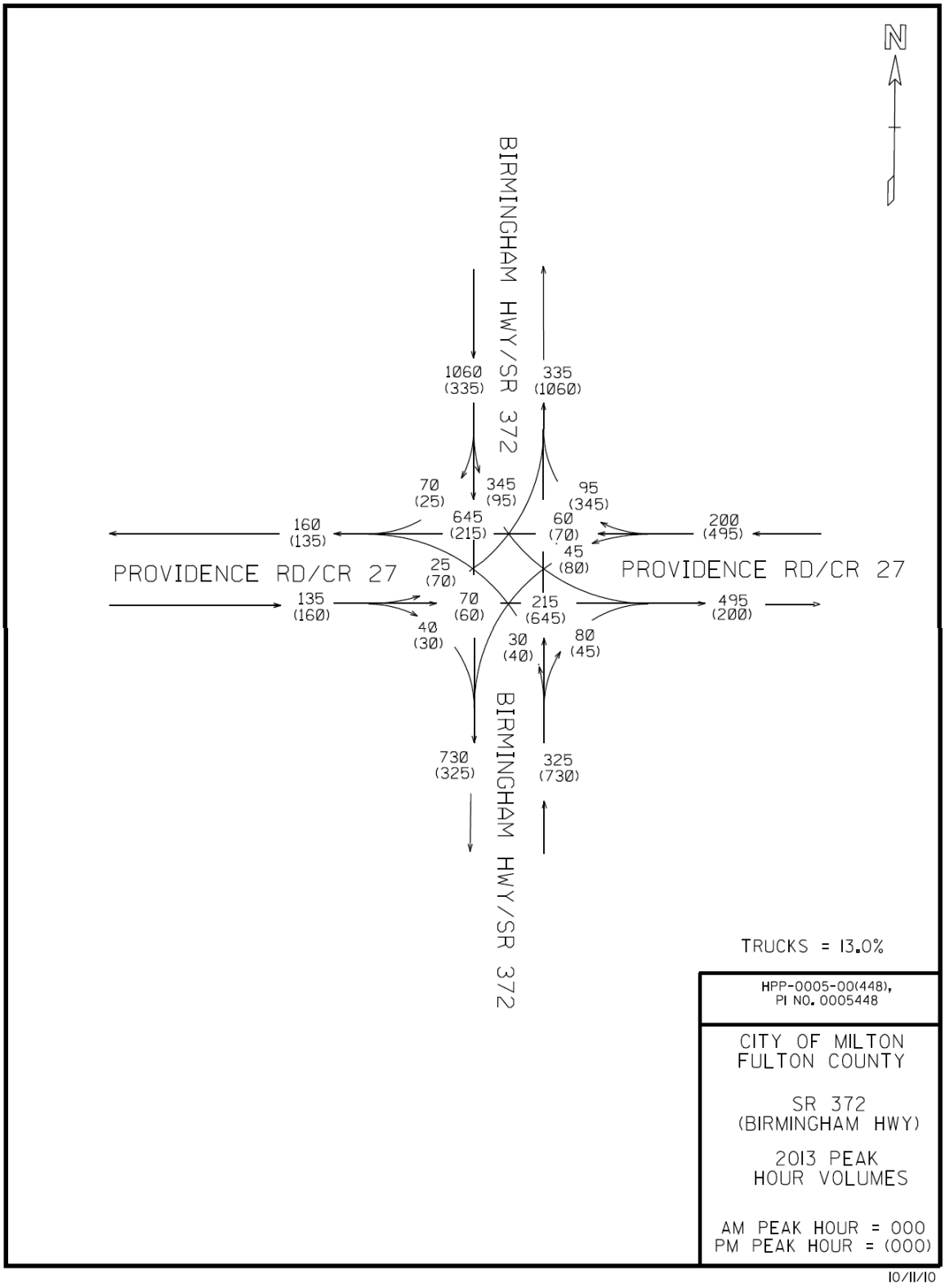
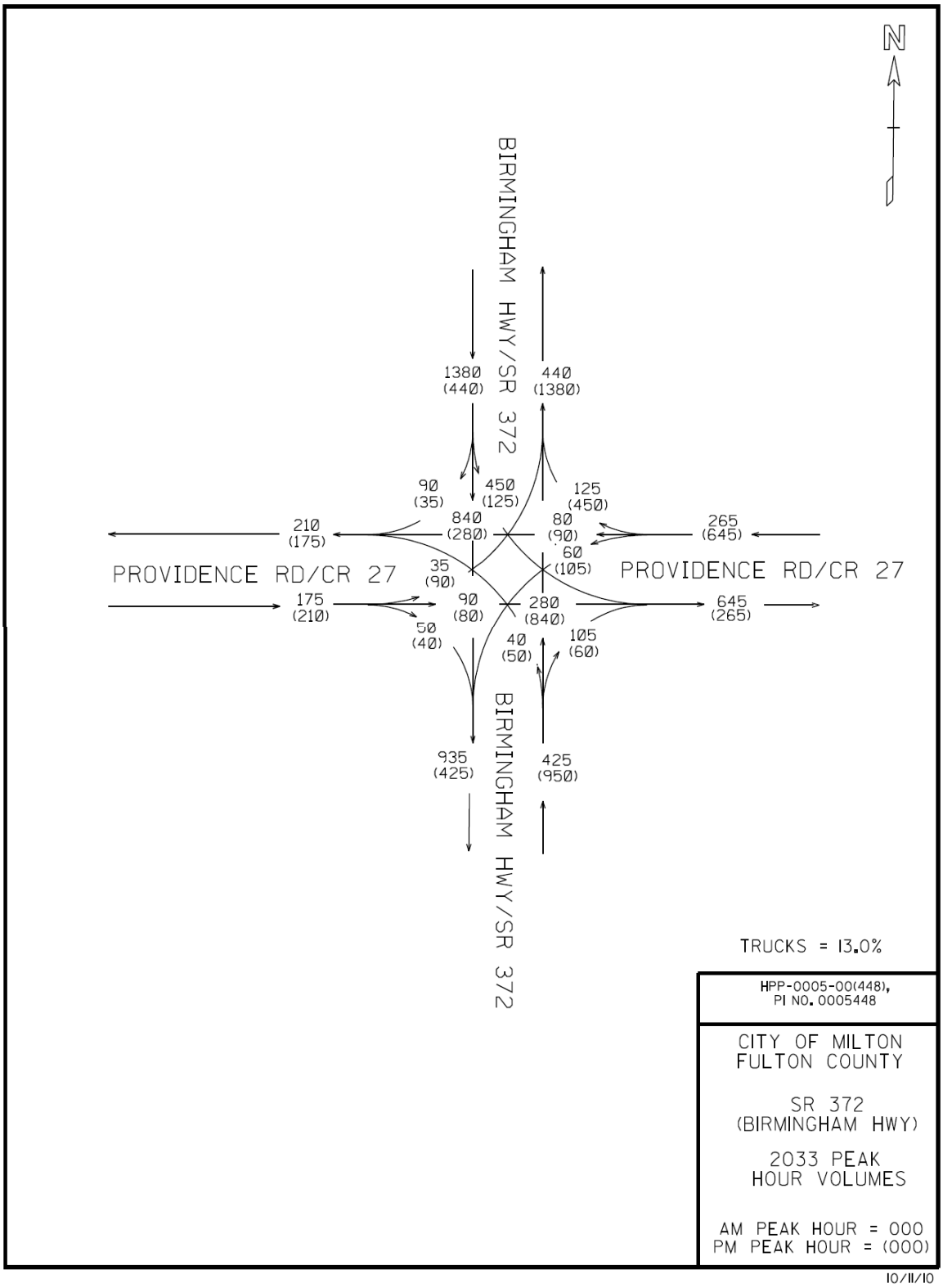


Figure 10. 2033 Design Year Peak Hour Volumes



Capacity Analysis: 2013 Opening Year

The Levels of Service (LOS) for opening year volumes with existing lane configurations and traffic control (LOS are presented in Table 5). Level of Service with the planned improvements are shown in Table 6.

Table 5. 2013 No Build Levels of Service

Intersection		Control	Approach	LOS	
#	Road			AM Peak Hour	PM Peak Hour
1	Birmingham Hwy/SR 372 at Providence Road/CR 27	Side-Street STOP	NW	A	A
			SE	A	A
			EB	F	F70
			WB	F	F
2	Birmingham Hwy/SR 372 at Providence Rd southern connector	Side-Street STOP	NW	A	A
			SE	A	A
			SW	D	D
3	Providence Rd at Providence Rd southern connector	Side-Street STOP	NE	B	A
			EB	A	A
			WB	A	A
4	Providence Rd at Providence Rd southern connector	Side-Street STOP	SB	A	A
			EB	A	A
			WB	A	A
5	Birmingham Hwy/SR 372 at Providence Rd northern connector	Side-Street STOP	NB	E	F
			NW	A	A
			SE	A	A

Table 6. 2013 Build Levels of Service

Intersection	Control	Approach/Movement	LOS	
			AM Peak Hour	PM Peak Hour
Birmingham Hwy/SR 372 at Providence Road/CR 27	Traffic Signal	Overall	B	B
	Side Street STOP	NB	A	A
		SB	A	A
		EB	F	F
		WB	F	F
	All Way STOP Control	NB	C	F
		SB	F	C
		EB	B	B
		WB	B	E
		Overall	C	E

As seen in Table 6, installation of a traffic signal and dedicated left-turn and right-turn lanes would be expected to provide adequate overall LOS.

Capacity Analysis: 2033 Design Year

The Levels of Service at the study intersection was determined for the design year, no build conditions and are presented in Table 7. At the study intersection, where inadequate peak hour operation conditions are expected, improvements were tried to provide adequate Levels of Service. The 2033 build levels of service are shown in Table 8.

Table 7. 2033 No Build Levels of Service

Intersection		Control	Approach	LOS	
#	Road			AM Peak Hour	PM Peak Hour
1	Birmingham Hwy/SR 372 at Providence Road/CR 27	Side-Street STOP	NW	A	A
			SE	A	A
			EB	F	F
			WB	F	F
2	Birmingham Hwy/SR 372 at Providence Rd southern connector	Side-Street STOP	NW	A	A
			SE	A	A
			SW	F	F
3	Providence Rd at Providence Rd southern connector	Side-Street STOP	NE	C	B
			EB	A	A
			WB	A	A
4	Providence Rd at Providence Rd southern connector	Side-Street STOP	SB	A	A
			EB	A	A
			WB	A	A
5	Birmingham Hwy/SR 372 at Providence Rd northern connector	Side-Street STOP	NB	F	F
			NW	A	A
			SE	A	A

Table 8. 2033 Build Levels of Service

Intersection	Control	LOS	
Road		AM Peak Hour	PM Peak Hour
Birmingham Hwy/SR 372 at Providence Road/CR 27	Traffic Signal	B	C

Installation of a traffic signal and dedicated left-turn and right-turn lanes would be expected to provide adequate overall LOS.

Requirements for Installation of Dedicated Turn Lanes

The Georgia Department of Transportation Regulations for Driveway and Encroachment Control, 2004, last revised 10/10/2009, provides requirements for determining if turn lanes are needed. The need for a turn lanes is based on a combination of the posted speed limit, average daily traffic volumes (ADT) of the through and turning movements, and the number of travel lanes. For a two-lane, 45 mph roadway with over 6,000 AADT, turn lanes must be provided for volumes over 75 right turning vehicles per day and for over 175 left turning vehicles per day. Additionally, for a two-lane, 45 mph roadway with less than 6,000 AADT, turn lanes must be provided for volumes over 150 right turning vehicles per day and for over 250 left turning vehicles per day. Based on the projected daily turning volumes, dedicated lanes are required on all approaches.

Additional calculations for minimum storage lengths are provided for both signalized and unsignalized intersections. At unsignalized intersections, the calculated queue is based on the number of peak hour vehicles arriving during a two-minute period. At signalized intersections, the calculated queue is based on the number of peak hour vehicles arriving during 1.5 cycle lengths.

The GDOT minimum full width lane storage lengths, calculated minimum storage lengths as well as the recommended length to provide, are shown in Table 9. These lengths are in addition to the required bay taper lengths.

Table 9. 2033 Design Year Dedicated Turn Lane Requirements

Intersection		Movement	GDOT Minimum (ft)	2033 Calculated Minimum Required Storage (ft)	Length to Provide (ft)
#	Name				
1	Birmingham Hwy /SR 372 at Providence Road/CR 27	NB Left	235	50	**235**
		NB Right	175	25	**175**
		SB Left	235	350	**350**
		SB Right	175	25	**175**
		EB Left	235	100	**235**
		EB Right	175	25	**175**
		WB Left	235	100	**235**
		WB Right	175	400	**400**

The Georgia Department of Transportation (GDOT) *Regulations for Driveway and Encroachment Contr*ol, last revised October 2009 provides minimum intersection sight distance criteria for driveways. The posted roadway speeds are 45 mph while the average 85th percentile speed is 53 mph on Birmingham Highway (SR 372) and 42 mph Providence Road. Given the roadway speed and lane configuration, the minimum sight distance at the study intersection 500 feet. The existing sight distance, will accommodate this requirement.

The effectiveness and operations analysis of a roundabout is measured differently than for a stop sign controlled intersection. The analysis methodology for roundabouts utilized for this project was based on information provided in the Georgia Department of Transportation Roundabout Analysis Tool version 1.1 updated September 1, 2009.

The roundabout analysis methodology provides delays, volume-to-capacity (v/c) ratios, and queues for each approach to the roundabout dependent upon the geometric elements of the roundabout, the entry flow on each approach to the roundabout, and the circulating flow within the roundabout that conflicts with the entry flow from the subject approach. The results are based on the NCHRP Report 572 formula as well as the UK formula referenced in the Federal Highway Administration's (FHWA) publication entitled *Roundabouts: An Informational Guide, June 2000* (Guide).

The analysis tool suggests that candidate intersections should first be analyzed to determine whether a roundabout will perform acceptably based on volume thresholds. Single lane roundabouts capacity analysis is required if the ADTs are less than 20,000 during the current/build year and/or if there is less than 80% of the intersection traffic on the main road. Additionally, capacity analysis is required for multi-lane roundabouts if the ADTs are less than 40,000 during the current/build year and/or if there is less than 80% of the intersection traffic on the main road. Table 10 shows a comparison of major and minor street volumes at the study intersection with respect to the GDOT Roundabout Analysis Tool roundabout consideration threshold.

Table 10. Roundabout Consideration Threshold

Street Type	2009 Existing Year		2013 Opening Year		2033 Design Year	
	ADT	Split	ADT	Split	ADT	Split
Major Street (SB on SR 372)	13,053	67%	14,800	67%	19,250	67%
Minor Street (WB on CR 27)	6,389	33%	7,150	33%	9,300	33%
Further Analysis Required?	Yes		Yes		Yes	

Roundabout Analyses

The results of the roundabout capacity analyses for existing, opening and design year traffic conditions for the study intersection with a roundabout are presented in Tables 11 - 13 and printouts are included in Appendix C.

Table 11. 2009 Roundabout Results

Intersection	Approach	NCHRP-572 Model Period LOS (V/C Ratio)		UK Model Period LOS (V/C Ratio)	
Name		AM	PM	AM	PM
Birmingham Hwy /SR 372 at Providence Road/CR 27	NB	A (0.22)	B (0.67)	A (0.08)	A (0.28)
	SB	B (0.77)	A (0.26)	A (0.51)	A (0.16)
	EB	A (0.23)	A (0.15)	A (0.11)	A (0.08)
	WB	A (0.13)	C (0.67)	A (0.09)	A (0.34)

Table 12. 2013 Roundabout Results

Intersection	Approach	NCHRP-572 Model Period LOS (V/C Ratio)		UK Model Period LOS (V/C Ratio)	
Name		AM	PM	AM	PM
Birmingham Hwy /SR 372 at Providence Road/CR 27	NB	A (0.38)	D (0.91)	A (0.14)	A (0.38)
	SB	B (0.76)	A (0.26)	A (0.51)	A (0.16)
	EB	B (0.35)	A (0.28)	A (0.11)	A (0.11)
	WB	A (0.14)	A (0.31)	A (0.06)	A (0.10)

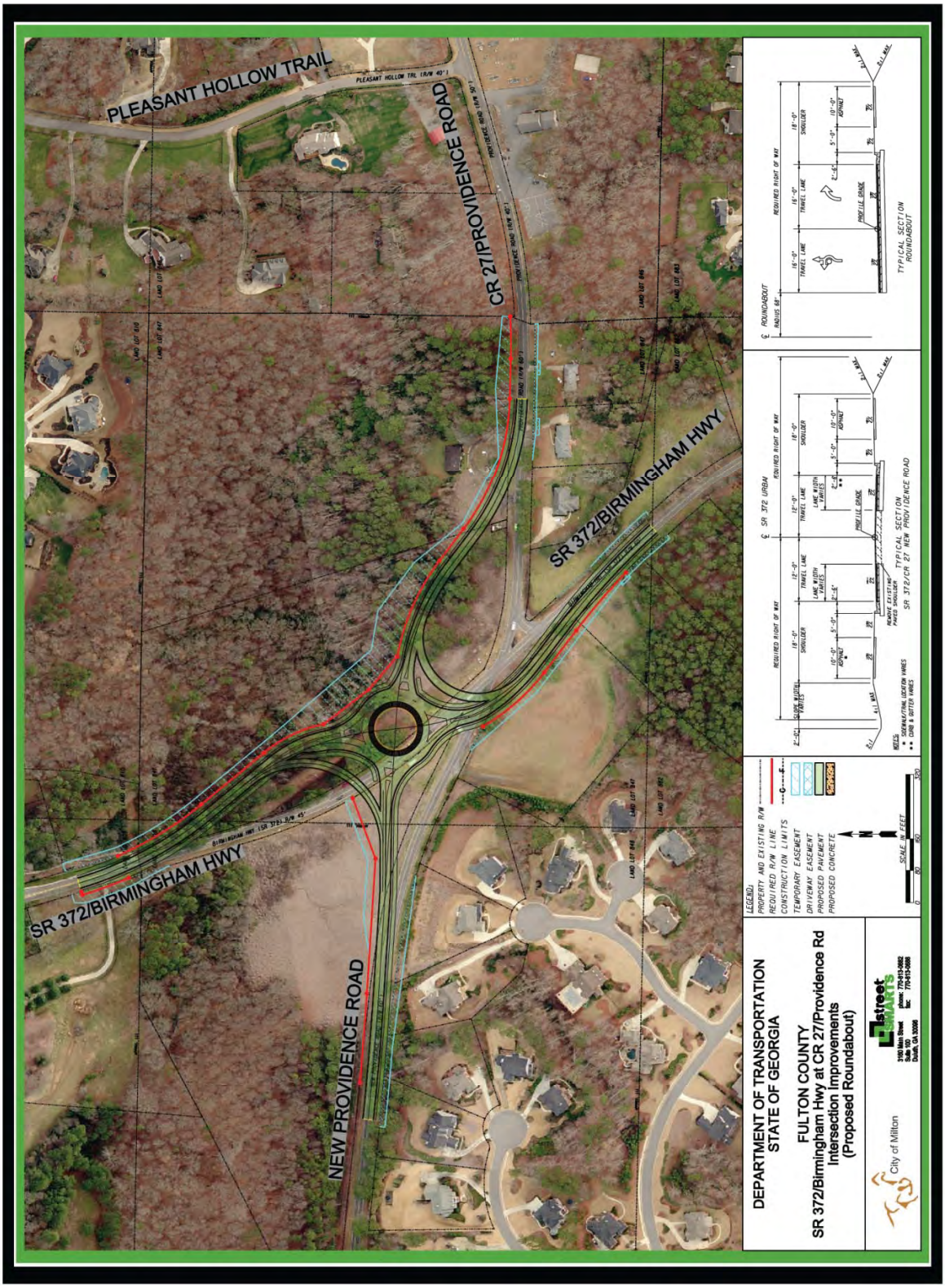
Table 13. 2033 Roundabout Results

Intersection	Approach	NCHRP-572 Model Period LOS (V/C Ratio)		UK Model Period LOS (V/C Ratio)	
Name		AM	PM	AM	PM
Birmingham Hwy /SR 372 at Providence Road/CR 27	NB	B (0.55)	F (1.26)	A (0.20)	A (0.51)
	SB	F (1.03)	A (0.35)	A (0.68)	A (0.21)
	EB	C (0.42)	A (0.41)	A (0.17)	A (0.15)
	WB	A (0.20)	B (0.48)	A (0.08)	A (0.15)

As shown in Tables 11 – 13, a roundabout will not operate adequately in the year 2033. A sensitivity analysis was completed to determine that the roundabout will operate adequately for the PM peak hour up to and including the year 2023, and will operate adequately for the AM peak hour up to and including the year 2031. It is recommended the roundabout be constructed with a southbound right-turn bypass lane to mitigate the close proximity of the north and west approaches to the roundabout. It is also recommended that a northbound right-turn bypass lane be constructed.

Figure 11 shows a concept level geometric layout of the identified roundabout improvement at the study intersection.

Figure 11. SR 372 at CR 27 Proposed Roundabout Intersection Improvements



5. TRAFFIC SIGNAL WARRANT ANALYSIS

As shown in Section 3 of this Report, from a peak hour operational standpoint, a traffic signal was identified to help mitigate deficient weekday peak hour operating conditions at the intersection of Birmingham Highway (SR 372) and Providence Road. Traffic signal warrant analysis of the study intersection was undertaken in accordance with the methodology set forth in the Federal Highway Administration's *Manual on Uniform Traffic Control Devices, 2003 Edition,* (MUTCD). This is the usual methodology for traffic signal warrant studies. Right turning volumes were not included with the total. The 30% reduction in minimum volume for over 40 mph speed were not applied for the analysis.

Weekday turning movement traffic volumes for the 2013 and 2033 years were developed utilizing a combination of projected ADT volumes, bi-directional hourly traffic counts collected in 2009 on Birmingham Highway (SR 372) and Providence Road. The existing (2009), opening year 2013 and design year 2033 weekday hourly turning movement traffic volumes at the study intersection are shown in Tables 14 through 16.

Table 14. Existing Hourly Volumes

Hour Beginning	Birmingham Highway (SR 372)						Providence Road					
	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right
6:00 AM	10	54	19	229	450	49	8	21	14	15	16	16
7:00 AM	21	117	41	377	743	81	19	51	34	40	44	44
8:00 AM	34	187	66	324	639	70	22	60	40	47	52	52
9:00 AM	21	119	42	185	365	40	15	41	27	32	35	35
10:00 AM	11	129	24	128	272	31	19	34	20	20	20	43
11:00 AM	11	131	24	97	207	24	19	34	20	24	24	53
12:00 PM	13	148	27	88	188	21	21	37	22	32	33	71
1:00 PM	17	200	37	89	190	22	21	37	22	41	42	91
2:00 PM	17	192	35	96	205	23	30	52	31	56	57	123
3:00 PM	8	385	24	84	196	23	56	71	36	45	40	202
4:00 PM	11	536	33	82	191	22	43	53	27	62	55	276
5:00 PM	12	593	37	85	197	23	45	56	29	62	56	278
6:00 PM	8	391	24	82	191	22	32	40	20	53	47	237
7:00 PM	5	249	16	48	111	13	18	22	11	35	31	156
8:00 PM	14	160	29	34	73	8	8	13	8	32	33	71
9:00 PM	9	102	19	22	46	5	8	14	8	19	20	42

Table 15. 2013 Opening Year Hourly Volumes

Hour Beginning	Birmingham Highway (SR 372)						Providence Road					
	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right
6:00 AM	10	58	21	237	468	51	8	23	15	17	18	18
7:00 AM	23	128	45	391	771	84	21	56	37	45	49	49
8:00 AM	37	204	72	337	663	72	24	65	43	53	58	58
9:00 AM	23	129	46	192	379	41	17	45	30	36	40	40
10:00 AM	12	141	26	133	283	32	21	37	22	22	22	49
11:00 AM	12	143	26	101	215	24	21	37	22	27	27	59
12:00 PM	14	162	29	92	196	22	23	41	24	36	37	79
1:00 PM	19	218	40	92	197	22	23	41	24	46	47	103
2:00 PM	18	210	38	100	213	24	32	56	33	62	64	138
3:00 PM	9	420	26	88	203	24	62	77	39	51	45	227
4:00 PM	12	584	36	86	198	23	46	58	30	69	62	310
5:00 PM	13	646	40	88	204	24	49	61	31	70	62	312
6:00 PM	9	427	27	86	198	23	35	43	22	60	53	266
7:00 PM	6	272	17	50	115	14	19	24	12	39	35	175
8:00 PM	15	174	32	36	76	9	8	15	9	36	37	79
9:00 PM	10	111	20	22	48	5	9	16	9	21	22	47

Table 16. 2033 Design Year Hourly Volumes

Hour Beginning	Birmingham Highway (SR 372)						Providence Road					
	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right
6:00 AM	14	75	26	305	600	65	11	29	19	22	24	24
7:00 AM	30	165	58	503	991	108	27	72	48	58	63	63
8:00 AM	47	263	93	432	852	93	31	84	56	68	74	74
9:00 AM	30	167	59	247	487	53	22	58	38	46	51	51
10:00 AM	16	181	33	170	363	41	27	47	28	28	29	62
11:00 AM	16	184	34	129	276	31	27	47	28	34	35	76
12:00 PM	18	208	38	118	251	28	30	53	31	46	47	101
1:00 PM	24	281	51	118	253	29	30	53	31	59	61	131
2:00 PM	23	270	49	128	274	31	42	73	43	80	82	177
3:00 PM	11	541	34	112	261	31	79	99	51	65	58	290
4:00 PM	16	752	47	110	255	30	60	75	38	89	79	396
5:00 PM	17	832	52	113	262	31	63	79	40	90	80	399
6:00 PM	11	550	34	110	255	30	45	56	29	76	68	341
7:00 PM	7	350	22	64	148	17	25	31	16	50	45	224
8:00 PM	19	225	41	46	98	11	11	19	11	46	47	101
9:00 PM	12	143	26	29	62	7	12	20	12	27	28	61

Warrant 1 - Eight-Hour Vehicular Volume

Warrant 1, Eight-Hour Vehicular Volume, has three (3) Conditions. The Conditions are based on the combined volume of both main street approaches and the side street approach with the higher volume.

Warrant 1, Condition A, Minimum Vehicular Volume, "is intended for application where a large volume of intersecting traffic is the principal reason to consider installing a traffic control signal."

Warrant 1, Condition B, Interruption of Continuous Traffic, "is intended for application where Condition 1A is not satisfied and where the traffic volume on a major street is so heavy that traffic on a minor intersecting street suffers excessive delay or conflict in entering or crossing the major street."

The Combination of Condition 1A and 1B "is intended for applications at locations where Condition 1A is not satisfied and Condition 1B is not satisfied." The Combination of Condition 1A and 1B is met when 80% of Condition 1A is met for eight hours and 80% of Condition 1B is met for eight hours; however the eight hours satisfied for Condition 1A are not required to be the same eight hours satisfied for Condition 1B. At least one of the Conditions must be met for eight (8) hours to meet the warrant.

For Condition A, the main street must have a combined volume of a minimum of 500 vehicles while the side street has a volume of at least 150 vehicles:

- Warrant 1, Condition A is met for zero (0) hours for existing year conditions.
- Warrant 1, Condition A is expected to be met for zero (0) hours for opening year conditions.
- Warrant 1, Condition A is expected to be met for four (4) hours for design year conditions.

For Condition B, the main street must have a combined volume of a minimum of 750 vehicles while the side street has a volume of at least 75 vehicles:

- Warrant 1, Condition B is met for four (4) hours for existing year conditions.
- Warrant 1, Condition B is expected to be met for four (4) hour for opening year conditions.
- Warrant 1, Condition B is expected to be met for seven (7) hours for design year conditions.

For Condition C, the main street must have a combined volume of a minimum of 400 vehicles while the side street has a volume of at least 120 vehicles for scenario A; in scenario B, the main street must have a combined volume of a minimum of 600 vehicles while the side street has a volume of at least 60 vehicles.

- Warrant 1, Condition C, scenario A is met for one (1) hour and Scenario B is met for seven (7) hours for existing year conditions.
- Warrant 1, Condition C, scenario A is met for four (4) hours and Scenario B is met for seven (7) hours for opening year conditions.
- Warrant 1, Condition C, scenario A is met for eight (8) hours and Scenario B is met for eleven (11) hours for existing year conditions.
- A sensitivity analysis was done to show that Warrant 1, Condition C, Scenario A is expected to be met for eight (8) hours and Scenario B is met for ten (10) for year 2031 conditions.

Warrant 1, Conditions A and B are not expected to be met under existing, opening, and design year conditions. Additionally, Warrant 1, Conditions C is not expected to be met under existing and opening year conditions. However, Warrant 1, Conditions C is expected to be met under design year conditions, therefore, Warrant 1 is met.

Warrant 2 - Four-Hour Vehicular Volume

Warrant 2, Four-Hour Vehicular Volume, is "intended to be applied where the volume of intersecting traffic is the principal reason to consider installing a traffic control signal." Warrant 2 is based on the combined volume of both main street approaches and the side street approach with the higher volume. The volumes are compared to a curve based on the number of lanes on the approaches. Warrant 2 must be met for four hours to meet the warrant.

- Warrant 2 is met for two (2) hours for existing year conditions.
- Warrant 2 is expected to be met for four (4) hour for opening year conditions.
- Warrant 2 is expected to be met for six (6) hours for design year conditions.

Warrant 2, is expected to be met under opening and design year conditions; therefore, Warrant 2 is met.

Warrant 3 - Peak Hour

Warrant 3, Peak Hour, is "intended for use at a location where traffic conditions are such that for a minimum of one hour of an average weekday, the minor street traffic suffers undue delay when entering or crossing the major street. This signal warrant shall be applied only in unusual cases. Such unusual cases include, but are not limited to, office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time". Warrant 3 has two Conditions, at least one of which must be met to meet the Warrant.

Condition 3A is satisfied when the following three conditions exist for the same four consecutive 15-minute periods of an average weekday:

- The total stopped time delay experienced by traffic on the minor street approach (one direction only) controlled by a stop sign equals or exceeds four vehicle-hours for a one-lane approach or five vehicle-hours for a two lane approach;
- The volume on the same minor street approach (one direction only) equals or exceeds 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes; and
- The total entering volume serviced during the hour equals or exceeds 650 vehicles per hour for intersections with three approaches or 800 vehicles per hour for intersections with four or more approaches.

The intersection was evaluated for the volume requirements of Condition 3A. 100 vehicles are required on the minor street, and 800 vehicles are required for the total intersection.

Condition 3B is based on the combined volume of both the main street approaches and the side street approach with the higher volume. The volumes are compared to a curve based on the number of lanes on the approaches.

Although the volume requirements for Warrant 3 is met for existing, opening and design year traffic conditions, the use of this warrant is not considered valid for the type of traffic at this intersection.

Warrants 4, 5, 6, 7 and 8

The following MUTCD warrants were not applicable for the intersection under evaluation: Warrants 4 (Pedestrian), 5 (School Crossing), 6 (Coordinated Signal System), 7 (Crash Experience) and 8 (Roadway Network).

The results of the analyses are shown in Table 17.

Table 17. Summary of the Signal Warrant Evaluation

Birmingham Highway/SR 372 at Providence Road/CR 27				
Warrant Number		**Warrant Satisfied? (Hours Met/Hours Required) Existing Volumes**	**Warrant Satisfied? (Hours Met/Hours Required) Year 2013 Volumes**	**Warrant Satisfied? (Hours Met/Hours Required) Year 2033 Volumes**
1A		No (0/8)	No (0/8)	No (4/8)
1B		No (4/8)	No (4/8)	No (7/8)
1C	A	No (1/8)	No (4/8)	Yes (8/8)
	B	No (7/8)	No (7/8)	Yes (11/8)
2		No (2/4)	Yes (4/4)	Yes (6/4)
3A		Yes (4/1 – volumes only)	Yes (5/1-volumes only)	Yes (8/1-volumes only)
3B		No (0/1)	No (0/1)	Yes (4/1)

As shown in Table 17, a traffic signal should be considered at this location, since this intersection is expected to meet the MUTCD volume requirements for Warrants 2 and 3 during the 2013 opening year of the project. The intersection is expected to meet the MUTCD volume requirements for warrant 1 during design year of the project. A summary of the analysis is included in Appendix D.

Additionally, consideration was give for left-turn phasing at the study intersection. The Georgia Department of Transportation (GDOT) Transportation Online Policy & Procedure System (TOPPS) 6785-2 *Regulations for Driveway and Encroachment Contr*ol, last reviewed January 2008 provides requirements concerning the use of left turn phases. A couple of the highlighted left turn phase consideration rules include but are not limited to the following:

- If the cross product (one hour left turn volume times the opposing one hour through movement volume divided by the number of lanes for the opposing through movement) is greater than 50,000; and
- Correctable crashes equal or exceed 4 crashes in one year or 6 crashes in two years.

For the study intersection, the cross product was calculated for the existing, opening and design year traffic volumes. Table 18 shows the results.

Table 18. Left Turn Phasing Cross Product Summary

Cross Product (Left turn Phase warranted for consideration?)				
Year	**Birmingham Hwy (SR 372) - NB**	**Birmingham Hwy (SR 372) - SB**	**Providence Road (CR 27) - EB**	**Providence Road (CR 27) - WB**
Existing AM	7,688 (No)	21,684 (No)	552 (No)	1,364 (No)
Existing PM	1,224 (No)	25,432 (No)	1,452 (No)	2,035 (No)
2013 AM	9,600 (No)	37,088 (No)	688 (No)	1,463 (No)
2013 PM	4,300 (No)	30,400 (No)	2,113 (No)	2,200 (No)
2033 AM	16,400 (No)	61,188 (Yes)	1,050 (No)	2,550 (No)
2033 PM	6,875 (No)	49,200 (No)	3,613 (No)	3,675 (No)

For the study intersection, the cross product was calculated for the existing, opening and design year traffic volumes. Based on the cross product thresholds, left-turn phasing should be considered based on the cross product calculated from the design year volumes. A sensitivity analysis was completed to show that the left turn phase is warranted for consideration starting in year 2024. As previously shown in Table 2 and Figures 5, 6, and 7, there were not sufficient correctable vehicular collisions to justify a left turn phase. While additional consideration was given towards sight distance issues, speed, number of left turn lanes, number of opposing through lanes, delay angle of left turn, as well as additional engineering judgment, a left turn phase was not identified to improve operations at this intersection for opening year traffic volumes.

LEVEL OF SERVICE CONCEPT DESCRIPTION

Capacity analyses of the study intersections were completed using procedures in the Transportation Research Board's *Highway Capacity Manual (HCM), 2003*. This is the usual methodology for the analysis of traffic conditions. The software program *Synchro 6* (a nationally recognized computer software package for analyzing capacities and Levels of Service) was used to perform the actual capacity analyses for the key intersections.

Operating conditions at intersections are evaluated in terms of Levels of Service (LOS). LOS A through E are generally considered to be adequate peak hour operations. LOS F is generally considered an inadequate condition.

Levels of Service for signalized intersections are reported in composite fashion, i.e., one LOS for the entire intersection, and are based on average control delay. Individual turning movements at a signalized intersection may experience inadequate LOS, particularly where those volumes are relatively low, while the intersection as a whole has an adequate LOS. This is because the major movements on the major roadway are given priority in assigning signal green time.

Traffic conditions at unsignalized intersections, with STOP sign control on the minor street only, are evaluated for the minor street approach(es) and for the left turns from the major street. This is because the major street traffic is assumed to have no delay since there is no control (no STOP sign). Inadequate Levels of Service for minor street approaches to unsignalized intersections are not uncommon, as the continuous flow traffic will always get the priority.

Levels of Service for all-way STOP controlled intersections are reported both for key intersection movements, and in composite fashion, i.e., one LOS for the entire intersection, and are based on average control delay.

According to the HCM, LOS criteria for roundabout intersections are the same as the LOS criteria for stop controlled intersections. The LOS for a roundabout is determined by the computed or measured control delay for each lane. Defining the LOS for the intersection as a whole is not recommended because doing so may mask an entry that is operating with much higher delay than the others. Roundabout results are given from two models, the NCHRP-572 and the UK model. The NCHRP-572 model is based on analytical method based on gap acceptance behavior on roundabout in the United States while the UK model is based on an empirical method based on the geometric features of the source roundabout. It is important o note that the UK model typically yields a higher value for capacity because the source data is taken from roundabouts in the UK where familiarity is higher.

The *Highway Capacity Manual* Level of Service criteria for signalized and unsignalized intersections are shown in Table C-1.

Table C-1. Highway Capacity Manual Intersection Level of Service Criteria

LOS	Control Delay (seconds per vehicle)	
	Signalized Intersection	Unsignalized Intersection & Roundabouts
A	≤ 10	≤ 10
B	>10 and ≤20	>10 and ≤15
C	>20 and ≤35	>15 and ≤25
D	>35 and ≤55	>25 and ≤35
E	>55 and ≤80	>35 and ≤50
F	> 80	> 50

Source: Highway Capacity Manual

APPENDIX A: TRAFFIC COUNTS

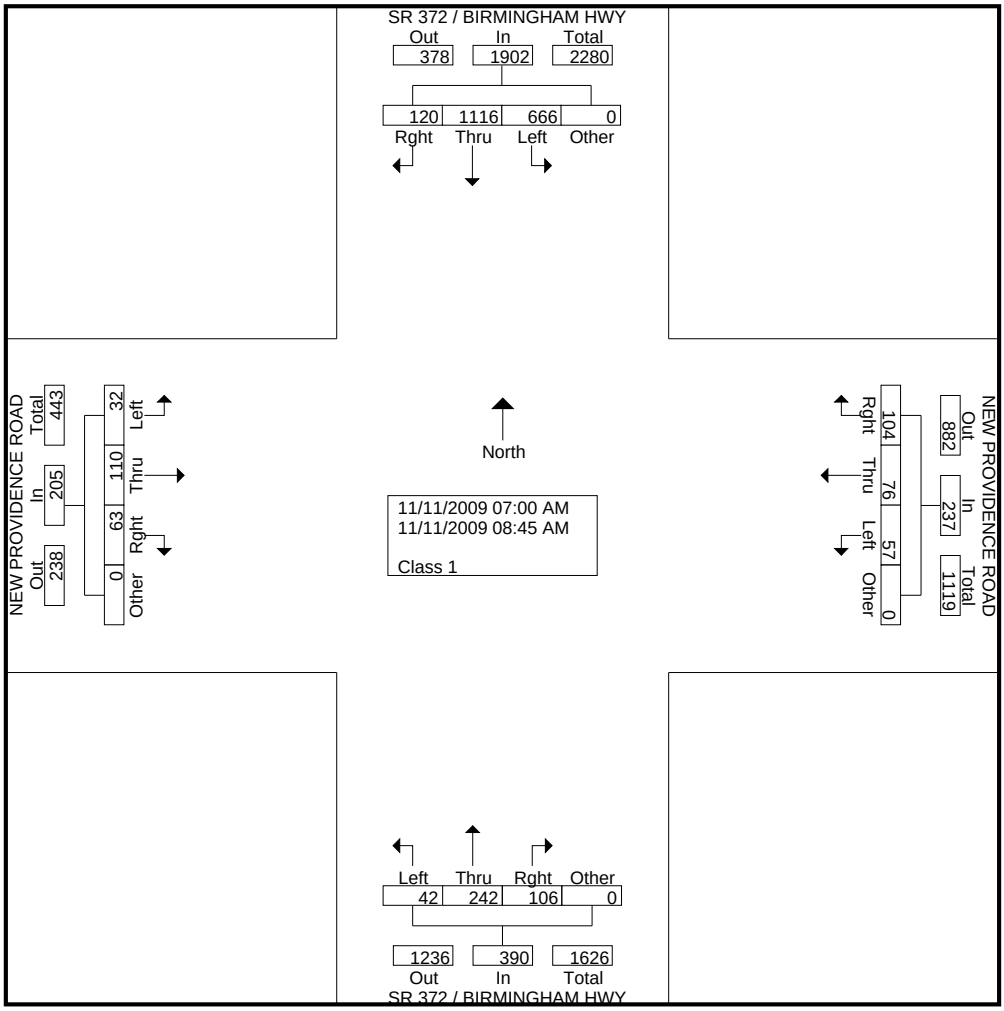
All Traffic Data Services, Inc

9660 W 44th Ave
Wheat Ridge CO, 80033
303-216-2439

File Name : SR372@NewProvidenceRdAM
Site Code : 00000000
Start Date : 11/11/2009
Page No : 1

Groups Printed- Class 1

	SR 372 / BIRMINGHAM HWY Southbound					NEW PROVIDENCE ROAD Westbound					SR 372 / BIRMINGHAM HWY Northbound					NEW PROVIDENCE ROAD Eastbound					
Start Time	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Int. Total
07:00 AM	111	155	20	0	286	2	4	17	0	23	2	20	6	0	28	2	13	3	0	18	355
07:15 AM	89	142	8	0	239	0	9	14	0	23	3	5	11	0	19	2	10	6	0	18	299
07:30 AM	76	192	9	0	277	8	11	16	0	35	5	26	9	0	40	5	17	9	0	31	383
07:45 AM	67	163	10	0	240	7	16	10	0	33	8	38	4	0	50	3	16	12	0	31	354
Total	343	652	47	0	1042	17	40	57	0	114	18	89	30	0	137	12	56	30	0	98	1391
08:00 AM	85	138	25	0	248	17	11	11	0	39	8	42	11	0	61	10	18	9	0	37	385
08:15 AM	84	122	23	0	229	12	10	11	0	33	4	33	25	0	62	5	11	11	0	27	351
08:30 AM	90	112	18	0	220	4	3	11	0	18	6	40	20	0	66	4	12	8	0	24	328
08:45 AM	64	92	7	0	163	7	12	14	0	33	6	38	20	0	64	1	13	5	0	19	279
Total	323	464	73	0	860	40	36	47	0	123	24	153	76	0	253	20	54	33	0	107	1343
Grand Total	666	1116	120	0	1902	57	76	104	0	237	42	242	106	0	390	32	110	63	0	205	2734
Apprch %	35	58.7	6.3	0		24.1	32.1	43.9	0		10.8	62.1	27.2	0		15.6	53.7	30.7	0		
Total %	24.4	40.8	4.4	0	69.6	2.1	2.8	3.8	0	8.7	1.5	8.9	3.9	0	14.3	1.2	4	2.3	0	7.5	

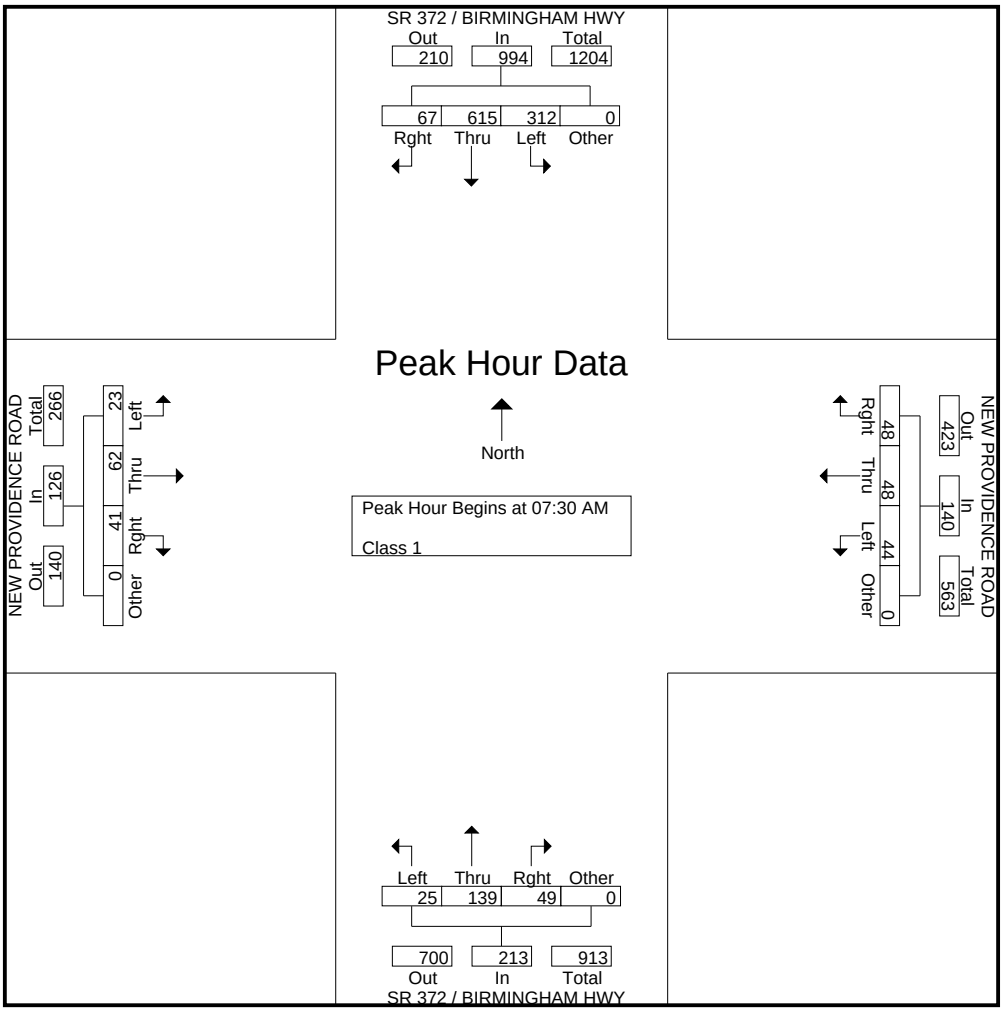


All Traffic Data Services, Inc

9660 W 44th Ave
Wheat Ridge CO, 80033
303-216-2439

File Name : SR372@NewProvidenceRdAM
Site Code : 00000000
Start Date : 11/11/2009
Page No : 2

	SR 372 / BIRMINGHAM HWY Southbound					NEW PROVIDENCE ROAD Westbound					SR 372 / BIRMINGHAM HWY Northbound					NEW PROVIDENCE ROAD Eastbound					
Start Time	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	76	**192**	9	0	**277**	8	11	**16**	0	35	5	26	9	0	40	5	17	9	0	31	383
07:45 AM	67	163	10	0	240	7	**16**	10	0	33	**8**	38	4	0	50	3	16	**12**	0	31	354
08:00 AM	**85**	138	**25**	0	248	**17**	11	11	0	**39**	8	**42**	11	0	61	**10**	**18**	9	0	**37**	**385**
08:15 AM	84	122	23	0	229	12	10	11	0	33	4	33	**25**	0	**62**	5	11	11	0	27	351
Total Volume	312	615	67	0	994	44	48	48	0	140	25	139	49	0	213	23	62	41	0	126	1473
% App. Total	31.4	61.9	6.7	0		31.4	34.3	34.3	0		11.7	65.3	23	0		18.3	49.2	32.5	0		
PHF	.918	.801	.670	.000	.897	.647	.750	.750	.000	.897	.781	.827	.490	.000	.859	.575	.861	.854	.000	.851	.956



All Traffic Data Services, Inc

9660 W 44th Ave
Wheat Ridge CO, 80033
303-216-2439

File Name : SR372@NewProvidenceRdPM
Site Code : 00000000
Start Date : 11/11/2009
Page No : 1

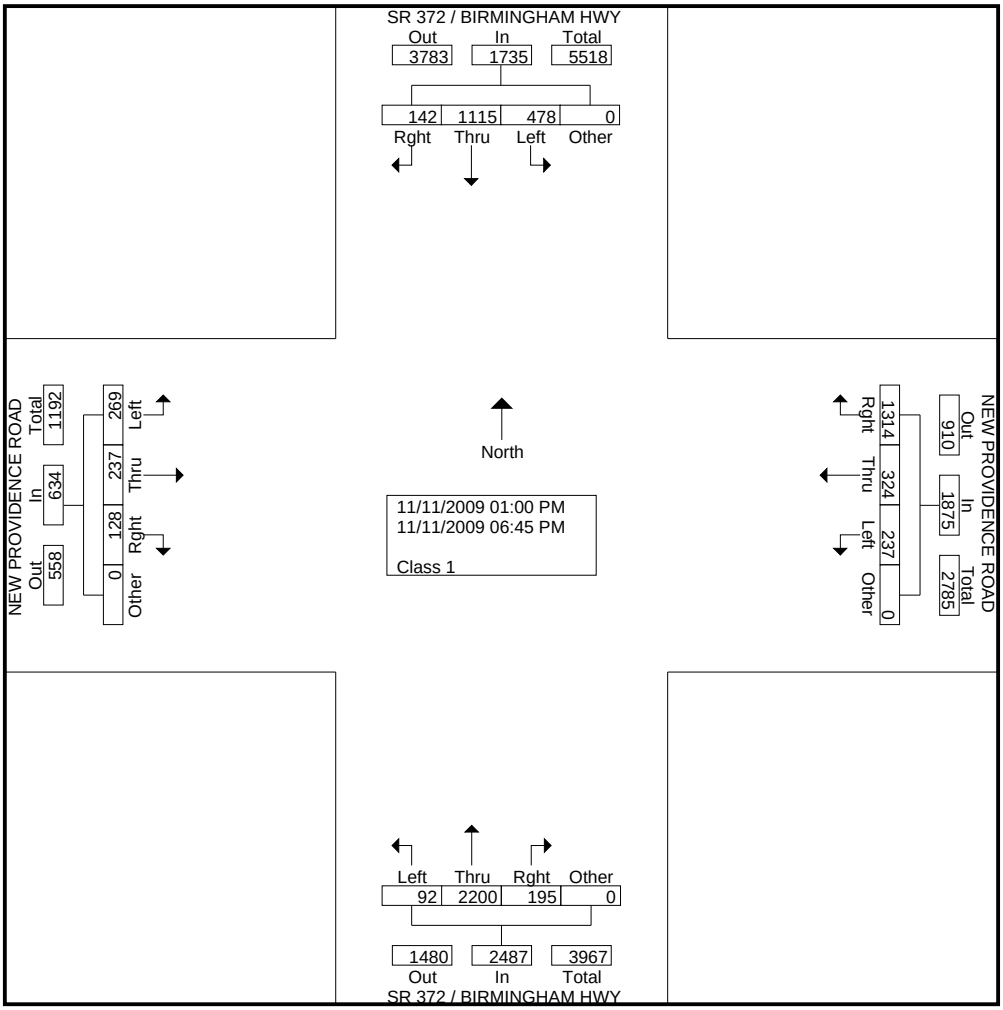
Groups Printed- Class 1

	SR 372 / BIRMINGHAM HWY Southbound					NEW PROVIDENCE ROAD Westbound					SR 372 / BIRMINGHAM HWY Northbound					NEW PROVIDENCE ROAD Eastbound					
Start Time	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Int. Total
01:00 PM	20	55	4	0	79	4	9	23	0	36	6	45	3	0	54	5	10	1	0	16	185
01:15 PM	21	49	5	0	75	4	5	26	0	35	2	47	11	0	60	7	4	5	0	16	186
01:30 PM	21	40	6	0	67	4	7	31	0	42	4	51	6	0	61	10	4	5	0	19	189
01:45 PM	19	48	5	0	72	5	10	36	0	51	3	54	6	0	63	9	9	5	0	23	209
Total	81	192	20	0	293	17	31	116	0	164	15	197	26	0	238	31	27	16	0	74	769
02:00 PM	28	39	5	0	72	6	12	33	0	51	1	54	9	0	64	9	16	6	0	31	218
02:15 PM	12	30	6	0	48	10	10	21	0	41	2	41	6	0	49	12	7	1	0	20	158
02:30 PM	18	48	5	0	71	10	11	26	0	47	4	41	5	0	50	14	14	4	0	32	200
02:45 PM	19	43	8	0	70	6	19	41	0	66	2	50	5	0	57	7	8	1	0	16	209
Total	77	160	24	0	261	32	52	121	0	205	9	186	25	0	220	42	45	12	0	99	785
03:00 PM	16	41	6	0	63	5	22	41	0	68	5	59	7	0	71	15	18	7	0	40	242
03:15 PM	23	51	7	0	81	13	10	36	0	59	4	56	6	0	66	21	18	9	0	48	254
03:30 PM	22	42	3	0	67	8	16	50	0	74	11	104	16	0	131	18	13	7	0	38	310
03:45 PM	20	46	6	0	72	8	20	52	0	80	5	110	16	0	131	8	9	5	0	22	305
Total	81	180	22	0	283	34	68	179	0	281	25	329	45	0	399	62	58	28	0	148	1111
04:00 PM	29	44	9	0	82	7	9	61	0	77	8	120	9	0	137	12	18	1	0	31	327
04:15 PM	20	38	2	0	60	13	15	102	0	130	10	115	10	0	135	22	17	1	0	40	365
04:30 PM	16	47	8	0	71	19	24	67	0	110	4	126	13	0	143	10	5	3	0	18	342
04:45 PM	20	48	6	0	74	20	18	77	0	115	3	131	11	0	145	10	15	7	0	32	366
Total	85	177	25	0	287	59	66	307	0	432	25	492	43	0	560	54	55	12	0	121	1400
05:00 PM	28	50	8	0	86	20	16	89	0	125	5	142	10	0	157	12	21	10	0	43	411
05:15 PM	17	54	6	0	77	22	18	83	0	123	2	146	9	0	157	15	12	3	0	30	387
05:30 PM	23	52	4	0	79	12	14	81	0	107	2	159	6	0	167	7	7	8	0	22	375
05:45 PM	19	48	6	0	73	15	12	78	0	105	1	155	8	0	164	12	3	7	0	22	364
Total	87	204	24	0	315	69	60	331	0	460	10	602	33	0	645	46	43	28	0	117	1537
06:00 PM	18	57	8	0	83	8	10	90	0	108	2	120	5	0	127	15	2	9	0	26	344
06:15 PM	22	51	7	0	80	6	15	72	0	93	3	100	7	0	110	5	4	9	0	18	301
06:30 PM	14	55	4	0	73	7	12	48	0	67	2	90	5	0	97	6	2	6	0	14	251
06:45 PM	13	39	8	0	60	5	10	50	0	65	1	84	6	0	91	8	1	8	0	17	233
Total	67	202	27	0	296	26	47	260	0	333	8	394	23	0	425	34	9	32	0	75	1129
Grand Total	478	1115	142	0	1735	237	324	1314	0	1875	92	2200	195	0	2487	269	237	128	0	634	6731
Apprch %	27.6	64.3	8.2	0		12.6	17.3	70.1	0		3.7	88.5	7.8	0		42.4	37.4	20.2	0		
Total %	7.1	16.6	2.1	0	25.8	3.5	4.8	19.5	0	27.9	1.4	32.7	2.9	0	36.9	4	3.5	1.9	0	9.4	

All Traffic Data Services, Inc

9660 W 44th Ave
Wheat Ridge CO, 80033
303-216-2439

File Name : SR372@NewProvidenceRdPM
Site Code : 00000000
Start Date : 11/11/2009
Page No : 2

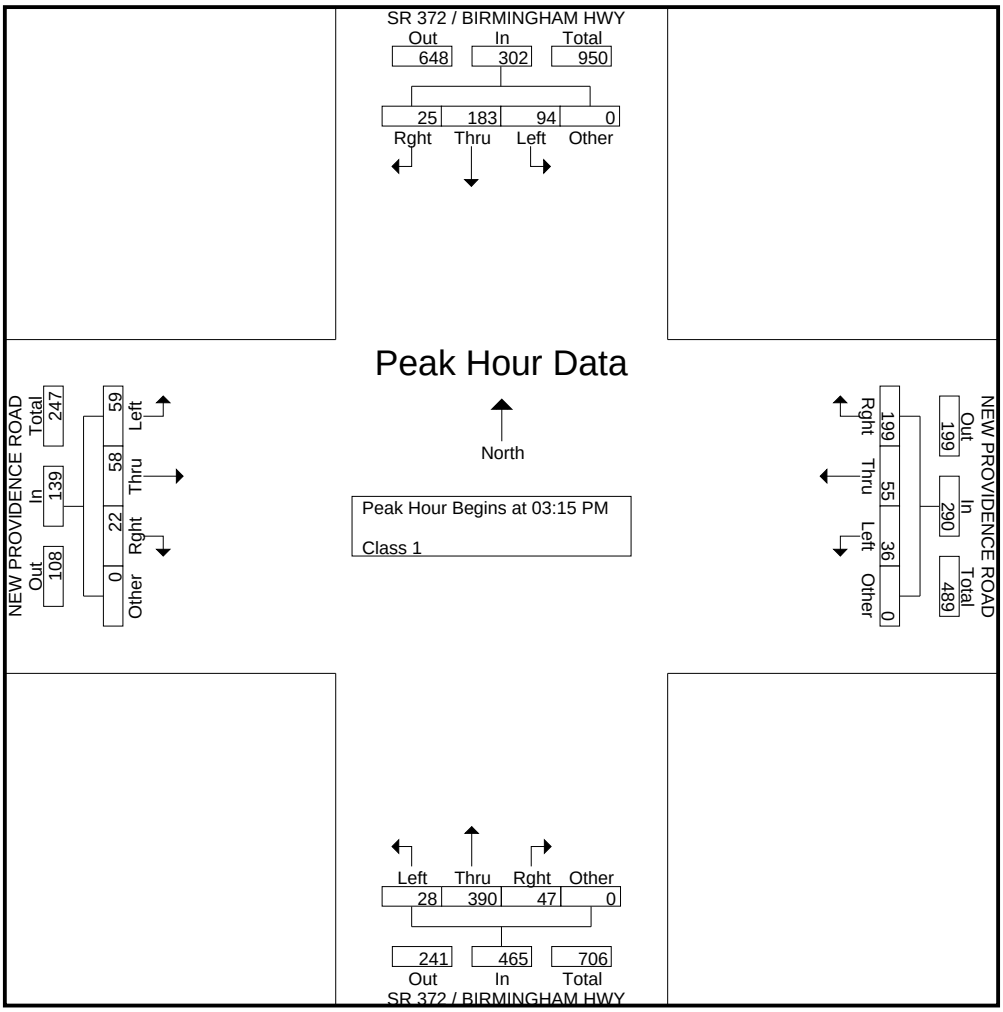


All Traffic Data Services, Inc

9660 W 44th Ave
Wheat Ridge CO, 80033
303-216-2439

File Name : SR372@NewProvidenceRdPM
Site Code : 00000000
Start Date : 11/11/2009
Page No : 3

	SR 372 / BIRMINGHAM HWY Southbound					NEW PROVIDENCE ROAD Westbound					SR 372 / BIRMINGHAM HWY Northbound					NEW PROVIDENCE ROAD Eastbound					
Start Time	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Left	Thru	Rght	Other	App. Total	Int. Total
Peak Hour Analysis From 01:00 PM to 04:00 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 03:15 PM																					
03:15 PM	23	**51**	7	0	81	**13**	10	36	0	59	4	56	6	0	66	**21**	**18**	**9**	0	**48**	254
03:30 PM	22	42	3	0	67	8	16	50	0	74	**11**	104	**16**	0	131	18	13	7	0	38	310
03:45 PM	20	46	6	0	72	8	**20**	52	0	**80**	5	110	16	0	131	8	9	5	0	22	305
04:00 PM	**29**	44	**9**	0	**82**	7	9	**61**	0	77	8	**120**	9	0	**137**	12	18	1	0	31	**327**
Total Volume	94	183	25	0	302	36	55	199	0	290	28	390	47	0	465	59	58	22	0	139	1196
% App. Total	31.1	60.6	8.3	0		12.4	19	68.6	0		6	83.9	10.1	0		42.4	41.7	15.8	0		
PHF	.810	.897	.694	.000	.921	.692	.688	.816	.000	.906	.636	.813	.734	.000	.849	.702	.806	.611	.000	.724	.914



All Traffic Data Services, Inc

1336 Farmer Road
Conyers, Ga 30012
ph.404-374-1283

Site Code: 1
Station ID: 1
BIRMINGHAM HWY NORTH OF
NEW PROVIDENCE ROAD

NB

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total
11/11/09	0	0	0	0	1	0	2	5	4	2	0	0	0	0	14
00:15	0	0	0	0	0	0	1	3	5	1	0	1	0	0	11
00:30	0	0	0	0	0	0	0	1	1	1	0	0	0	0	3
00:45	0	0	0	0	0	0	0	0	1	2	1	0	0	0	4
	0	0	0	0	1	0	3	9	11	6	1	1	0	0	32
01:00	0	0	0	0	0	0	0	2	1	0	0	0	0	0	3
01:15	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
01:30	0	0	0	0	0	0	1	2	0	0	0	0	0	0	3
01:45	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
	0	0	0	0	0	0	1	7	1	0	0	0	0	0	9
02:00	0	0	0	0	0	0	3	1	1	0	0	0	0	0	5
02:15	1	0	0	0	2	0	1	0	0	0	0	0	0	0	4
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
	1	0	0	0	2	0	4	2	1	0	0	0	0	0	10
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
03:45	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15	0	0	0	0	0	1	2	0	1	0	0	0	0	0	4
05:30	1	1	0	0	0	1	0	2	1	0	0	0	0	0	6
05:45	0	0	1	0	0	1	3	1	0	0	0	0	0	0	6
	1	1	1	0	0	3	5	3	2	0	0	0	0	0	16
06:00	0	0	0	0	0	0	5	3	0	0	0	0	0	0	8
06:15	0	0	1	1	0	0	3	2	1	0	0	0	0	0	8
06:30	2	0	0	0	1	5	11	4	1	0	0	0	0	0	24
06:45	2	0	1	1	5	8	8	4	2	0	0	0	0	0	31
	4	0	2	2	6	13	27	13	4	0	0	0	0	0	71
07:00	1	1	1	1	2	8	2	5	2	0	0	0	0	0	23
07:15	0	0	0	0	0	12	5	6	0	1	0	0	0	0	24
07:30	2	0	2	0	1	0	9	0	2	1	0	0	0	0	17
07:45	0	1	0	1	1	2	7	5	1	2	0	0	0	0	20
	3	2	3	2	4	22	23	16	5	4	0	0	0	0	84
08:00	1	1	0	1	0	1	8	6	0	0	1	0	0	0	19
08:15	2	1	1	2	2	2	6	12	2	0	1	0	0	0	31
08:30	1	0	1	1	0	0	5	11	2	1	0	0	0	0	22
08:45	1	0	2	0	1	0	7	15	8	2	0	0	0	0	36
	5	2	4	4	3	3	26	44	12	3	2	0	0	0	108
09:00	2	0	0	2	1	2	8	11	6	0	1	0	0	0	33
09:15	1	1	0	0	2	5	9	10	5	1	1	0	0	0	35
09:30	0	0	1	1	0	4	5	13	12	1	0	0	0	0	37
09:45	1	0	2	0	0	5	6	15	11	2	0	0	0	0	42
	4	1	3	3	3	16	28	49	34	4	2	0	0	0	147
10:00	2	1	2	2	1	2	8	12	15	2	1	0	0	0	48
10:15	0	0	1	0	2	0	3	11	10	1	0	0	0	0	28
10:30	2	0	2	2	0	3	12	19	15	2	0	0	0	0	57
10:45	1	0	5	3	1	3	8	7	5	2	1	0	0	0	36
	5	1	10	7	4	8	31	49	45	7	2	0	0	0	169
11:00	4	0	0	2	0	4	10	28	7	2	2	0	0	0	59
11:15	6	0	1	2	1	2	3	24	17	2	1	0	0	0	59
11:30	1	0	4	2	0	1	12	22	17	2	1	0	0	0	62
11:45	4	1	3	6	1	2	11	28	14	4	0	0	0	0	74
	15	1	8	12	2	9	36	102	55	10	4	0	0	0	254
Total	38	8	31	30	26	74	185	294	171	34	11	1	0	0	903

All Traffic Data Services, Inc

1336 Farmer Road
Conyers, Ga 30012
ph.404-374-1283

Site Code: 1
Station ID: 1
BIRMINGHAM HWY NORTH OF
NEW PROVIDENCE ROAD

NB

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total
12 PM	3	0	2	4	4	0	14	35	16	3	0	0	0	0	81
12:15	5	0	2	4	1	0	12	23	14	0	1	0	0	0	62
12:30	1	0	0	1	0	9	16	22	14	1	1	0	0	0	65
12:45	2	0	2	5	1	0	25	36	15	4	0	0	0	0	90
	11	0	6	14	6	9	67	116	59	8	2	0	0	0	298
13:00	0	0	0	4	3	0	3	25	23	7	0	0	0	0	65
13:15	2	1	2	4	2	6	19	29	23	5	0	0	0	0	93
13:30	2	0	2	5	2	0	13	30	30	4	0	0	0	0	88
13:45	5	0	1	2	1	0	16	31	26	2	0	0	0	0	84
	9	1	5	15	8	6	51	115	102	18	0	0	0	0	330
14:00	2	0	3	5	7	6	20	41	20	2	0	0	0	0	106
14:15	1	0	1	5	0	3	24	31	24	3	1	1	0	0	94
14:30	0	0	1	1	1	2	13	29	17	5	0	0	0	0	69
14:45	0	0	4	4	0	5	10	38	17	1	0	0	0	0	79
	3	0	9	15	8	16	67	139	78	11	1	1	0	0	348
15:00	3	0	2	4	1	1	25	51	29	7	0	0	0	0	123
15:15	5	1	3	4	2	1	34	49	37	5	0	0	0	0	141
15:30	7	0	2	7	3	10	37	67	28	5	0	0	0	0	166
15:45	4	0	4	9	5	8	49	69	24	6	0	0	0	0	178
	19	1	11	24	11	20	145	236	118	23	0	0	0	0	608
16:00	6	0	1	6	4	22	82	49	20	3	0	0	0	0	193
16:15	6	0	0	1	5	24	72	87	24	0	1	0	0	0	220
16:30	6	0	0	8	2	13	67	104	44	2	0	0	0	0	246
16:45	9	0	3	7	5	31	75	106	18	2	0	0	0	0	256
	27	0	4	22	16	90	296	346	106	7	1	0	0	0	915
17:00	8	0	0	5	9	19	116	105	13	1	0	0	0	0	276
17:15	11	0	5	8	17	35	121	62	14	3	0	0	0	0	276
17:30	14	0	5	10	6	53	109	78	13	0	0	0	0	0	288
17:45	8	1	2	4	6	20	104	83	15	5	0	0	0	0	248
	41	1	12	27	38	127	450	328	55	9	0	0	0	0	1088
18:00	6	0	2	8	23	31	92	63	16	2	0	0	0	0	243
18:15	6	2	4	8	6	15	81	63	21	2	0	0	0	0	208
18:30	5	0	4	10	0	7	54	68	31	0	0	0	0	0	179
18:45	3	1	4	12	2	13	48	39	18	2	0	0	0	0	142
	20	3	14	38	31	66	275	233	86	6	0	0	0	0	772
19:00	6	0	1	10	0	2	27	59	23	2	0	0	0	0	130
19:15	1	0	3	8	2	19	34	42	19	2	0	0	0	0	130
19:30	0	0	1	4	2	2	28	30	13	5	0	0	0	0	85
19:45	1	0	3	10	0	1	12	26	16	4	2	0	0	0	75
	8	0	8	32	4	24	101	157	71	13	2	0	0	0	420
20:00	2	0	1	3	0	1	12	21	14	5	0	0	0	0	59
20:15	1	0	6	3	2	0	21	20	9	1	1	0	0	0	64
20:30	0	0	0	2	0	0	9	23	17	1	1	0	0	0	53
20:45	1	0	1	2	1	2	15	19	7	3	0	0	0	0	51
	4	0	8	10	3	3	57	83	47	10	2	0	0	0	227
21:00	1	0	1	3	1	1	12	14	11	3	1	1	0	0	49
21:15	0	0	2	1	0	2	7	21	10	3	0	0	0	0	46
21:30	2	0	1	2	0	2	8	11	9	3	0	0	0	0	38
21:45	0	1	1	2	0	0	10	15	11	1	0	0	0	0	41
	3	1	5	8	1	5	37	61	41	10	1	1	0	0	174
22:00	0	0	0	0	0	0	5	11	3	2	0	0	0	0	21
22:15	0	0	0	0	0	0	3	7	2	1	1	0	0	0	14
22:30	0	0	1	0	0	2	2	6	5	1	1	0	0	0	18
22:45	0	0	0	0	0	0	1	4	7	1	1	0	0	0	14
	0	0	1	0	0	2	11	28	17	5	3	0	0	0	67
23:00	0	0	0	1	0	1	6	4	7	0	0	0	0	0	19
23:15	0	0	0	0	0	1	3	2	2	2	0	0	0	0	10
23:30	0	0	1	0	0	0	2	2	1	0	0	0	0	0	6
23:45	0	0	0	0	0	0	1	3	1	1	1	0	0	0	7
	0	0	1	1	0	2	12	11	11	3	1	0	0	0	42
Total	145	7	84	206	126	370	1569	1853	791	123	13	2	0	0	5289
Grand Total	183	15	115	236	152	444	1754	2147	962	157	24	3	0	0	6192

15th Percentile :	38 MPH
50th Percentile :	46 MPH
85th Percentile :	52 MPH
95th Percentile :	55 MPH

Stats

Mean Speed(Average) :	44 MPH
10 MPH Pace Speed :	41-50 MPH
Number in Pace :	3901
Percent in Pace :	63.0%

Number of Vehicles > 55 MPH :	184
Percent of Vehicles > 55 MPH :	3.0%

All Traffic Data Services, Inc

1336 Farmer Road
Conyers, Ga 30012
ph.404-374-1283

Site Code: 1
Station ID: 1
BIRMINGHAM HWY NORTH OF
NEW PROVIDENCE ROAD

SB

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total
11/11/09	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:15	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
00:30	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
00:45	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
	0	0	0	0	0	0	1	1	1	0	0	0	0	0	3
01:00	0	0	0	0	0	1	1	0	0	0	0	0	0	0	2
01:15	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
01:30	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	1	2	1	0	0	0	0	0	0	4
02:00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
03:00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
03:15	0	0	0	0	0	0	2	1	0	0	0	0	0	0	3
03:30	0	0	0	0	0	0	2	1	0	0	0	0	0	0	3
03:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	5	2	0	0	0	0	0	0	7
04:00	0	0	0	0	0	0	2	2	1	1	0	0	0	0	6
04:15	0	0	0	0	0	0	1	2	1	0	0	0	0	0	4
04:30	0	0	0	1	0	0	2	4	1	0	0	0	0	0	8
04:45	0	0	0	0	0	0	2	1	2	0	0	0	0	0	5
	0	0	0	1	0	0	7	9	5	1	0	0	0	0	23
05:00	0	0	1	2	2	1	4	4	3	1	0	0	0	0	18
05:15	0	0	0	2	0	1	5	11	6	1	0	0	0	0	26
05:30	0	0	0	0	1	4	12	17	7	1	0	0	0	0	42
05:45	0	0	0	3	2	7	15	26	6	0	0	0	0	0	59
	0	0	1	7	5	13	36	58	22	3	0	0	0	0	145
06:00	0	0	1	4	1	7	35	30	7	2	0	0	0	0	87
06:15	0	0	0	4	2	18	71	44	8	0	0	0	0	0	147
06:30	0	0	0	4	29	51	103	31	3	0	0	0	0	0	221
06:45	0	0	0	4	34	68	127	35	1	0	0	0	0	0	269
	0	0	1	16	66	144	336	140	19	2	0	0	0	0	724
07:00	0	0	0	4	44	78	260	36	2	1	1	0	0	0	426
07:15	0	0	0	3	42	65	238	42	1	0	0	0	0	0	391
07:30	0	0	2	2	34	42	205	42	2	0	0	0	0	0	329
07:45	0	0	1	4	33	55	211	32	4	2	1	0	0	0	343
	0	0	3	13	153	240	914	152	9	3	2	0	0	0	1489
08:00	0	0	0	2	24	48	189	33	2	4	1	0	0	0	303
08:15	0	0	1	3	25	36	200	26	5	2	0	0	0	0	298
08:30	0	0	2	2	13	42	187	27	2	0	0	0	0	0	275
08:45	0	0	0	4	24	32	155	36	1	1	0	0	0	0	253
	0	0	3	11	86	158	731	122	10	7	1	0	0	0	1129
09:00	0	0	2	2	11	33	137	41	9	2	1	0	0	0	238
09:15	0	0	1	2	16	36	115	26	8	0	1	0	0	0	205
09:30	0	0	0	2	12	24	100	33	7	1	0	0	0	0	179
09:45	0	0	2	2	11	25	71	24	8	2	0	0	0	0	145
	0	0	5	8	50	118	423	124	32	5	2	0	0	0	767
10:00	0	0	2	5	10	11	66	23	12	2	1	0	0	0	132
10:15	0	0	0	2	15	8	36	30	11	0	0	0	0	0	102
10:30	2	0	2	4	10	6	16	32	14	2	0	0	0	0	88
10:45	2	0	3	9	4	12	16	22	20	1	0	0	0	0	89
	4	0	7	20	39	37	134	107	57	5	1	0	0	0	411
11:00	5	0	1	2	2	14	15	23	24	4	0	0	0	0	90
11:15	6	0	2	5	2	6	21	34	15	3	1	0	0	0	95
11:30	2	0	0	3	1	9	10	32	14	3	1	0	0	0	75
11:45	3	0	2	5	0	3	8	27	17	4	0	0	0	0	69
	16	0	5	15	5	32	54	116	70	14	2	0	0	0	329
Total	20	0	25	91	404	743	2644	832	225	40	8	0	0	0	5032

All Traffic Data Services, Inc

1336 Farmer Road
Conyers, Ga 30012
ph.404-374-1283

Site Code: 1
Station ID: 1
BIRMINGHAM HWY NORTH OF
NEW PROVIDENCE ROAD

SB

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total
12 PM	3	0	1	5	3	8	11	26	19	4	0	0	0	0	80
12:15	2	0	3	4	5	7	22	24	8	3	0	0	0	0	78
12:30	1	0	0	5	1	0	14	32	13	4	2	0	0	0	72
12:45	1	0	0	2	2	8	14	26	16	2	0	0	0	0	71
	7	0	4	16	11	23	61	108	56	13	2	0	0	0	301
13:00	3	0	0	0	0	5	21	25	19	6	1	0	0	0	80
13:15	2	0	0	4	4	6	22	28	10	6	1	0	0	0	83
13:30	2	0	2	2	1	3	15	22	14	2	1	0	0	0	64
13:45	3	0	0	3	4	4	18	29	8	6	0	0	0	0	75
	10	0	2	9	9	18	76	104	51	20	3	0	0	0	302
14:00	4	0	1	4	2	7	11	18	21	5	1	0	0	0	74
14:15	3	0	0	7	5	3	24	25	19	0	0	0	0	0	86
14:30	4	0	3	1	2	8	12	29	9	5	0	0	0	0	73
14:45	3	0	0	4	2	7	19	39	17	4	0	0	0	0	95
	14	0	4	16	11	25	66	111	66	14	1	0	0	0	328
15:00	0	0	0	2	6	1	9	25	16	5	1	0	0	0	65
15:15	6	1	1	6	5	3	18	28	6	4	0	0	0	0	78
15:30	3	1	0	2	1	1	15	25	16	1	2	0	0	0	67
15:45	10	0	3	9	7	18	9	23	10	5	1	0	0	0	95
	19	2	4	19	19	23	51	101	48	15	4	0	0	0	305
16:00	6	0	1	4	6	10	18	21	12	3	0	0	0	0	81
16:15	7	0	1	0	3	1	6	31	18	2	1	0	0	0	70
16:30	8	0	1	3	2	7	11	25	10	1	0	0	0	0	68
16:45	11	0	0	3	3	8	11	30	9	2	0	0	0	0	77
	32	0	3	10	14	26	46	107	49	8	1	0	0	0	296
17:00	13	1	0	4	3	10	30	25	10	0	0	0	0	0	96
17:15	11	1	1	3	2	0	13	16	16	3	1	0	0	0	67
17:30	8	1	1	1	4	4	15	17	13	0	0	0	0	0	64
17:45	12	0	0	3	1	7	20	21	14	1	0	1	0	0	80
	44	3	2	11	10	21	78	79	53	4	1	1	0	0	307
18:00	11	1	1	4	2	8	24	20	11	1	0	0	0	0	83
18:15	5	0	2	4	2	12	35	19	7	1	0	0	0	0	87
18:30	6	1	1	5	1	9	23	19	7	0	0	0	0	0	72
18:45	4	0	1	4	1	8	12	20	4	1	0	1	0	0	56
	26	2	5	17	6	37	94	78	29	3	0	1	0	0	298
19:00	4	0	0	6	1	3	13	18	7	2	0	1	0	0	55
19:15	4	0	0	2	3	4	12	11	3	1	1	0	0	0	41
19:30	2	0	0	3	1	5	12	11	8	1	0	0	0	0	43
19:45	1	0	0	3	1	3	8	14	5	0	0	0	0	0	35
	11	0	0	14	6	15	45	54	23	4	1	1	0	0	174
20:00	2	0	1	2	2	8	6	11	3	3	0	0	0	0	38
20:15	0	0	0	2	0	3	17	12	3	1	0	0	0	0	38
20:30	0	0	0	1	0	3	4	8	3	1	0	0	0	0	20
20:45	0	0	0	2	0	2	6	5	4	0	0	1	0	0	20
	2	0	1	7	2	16	33	36	13	5	0	1	0	0	116
21:00	0	0	0	1	1	0	8	7	6	3	2	0	0	0	28
21:15	0	0	0	0	0	0	4	6	3	3	0	0	0	0	16
21:30	1	0	0	0	0	3	6	5	6	0	0	0	0	0	21
21:45	0	0	0	0	0	2	2	3	1	1	0	0	0	0	9
	1	0	0	1	1	5	20	21	16	7	2	0	0	0	74
22:00	0	0	0	0	1	1	9	7	3	2	0	0	0	0	23
22:15	0	0	0	0	0	0	1	4	0	0	0	0	0	0	5
22:30	0	0	0	0	0	0	2	0	2	0	0	0	0	0	4
22:45	0	0	0	0	0	1	1	2	1	1	0	0	0	0	6
	0	0	0	0	1	2	13	13	6	3	0	0	0	0	38
23:00	0	0	0	0	0	0	0	3	2	0	0	0	0	0	5
23:15	0	0	0	0	0	1	3	1	1	0	0	0	0	0	6
23:30	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
23:45	0	0	1	0	0	0	0	2	1	1	0	0	0	0	5
	0	0	1	0	0	1	4	6	4	1	0	0	0	0	17
Total	166	7	26	120	90	212	587	818	414	97	15	4	0	0	2556
Grand Total	186	7	51	211	494	955	3231	1650	639	137	23	4	0	0	7588

	15th Percentile :	36 MPH
	50th Percentile :	43 MPH
	85th Percentile :	49 MPH
	95th Percentile :	54 MPH
Stats	Mean Speed(Average) :	43 MPH
	10 MPH Pace Speed :	41-50 MPH
	Number in Pace :	4881
	Percent in Pace :	64.3%

Number of Vehicles > 55 MPH :	164
Percent of Vehicles > 55 MPH :	2.2%

All Traffic Data Services, Inc

1336 Farmer Road
Conyers, Ga 30012
ph.404-374-1283

Site Code: 1
Station ID: 1
BIRMINGHAM HWY NORTH OF
NEW PROVIDENCE ROAD

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/11/09	0	8	5	0	1	0	0	0	0	0	0	0	0	14
00:15	0	7	3	0	1	0	0	0	0	0	0	0	0	11
00:30	0	1	2	0	0	0	0	0	0	0	0	0	0	3
00:45	0	3	1	0	0	0	0	0	0	0	0	0	0	4
	0	19	11	0	2	0	0	0	0	0	0	0	0	32
01:00	0	2	0	0	1	0	0	0	0	0	0	0	0	3
01:15	0	1	1	0	0	0	0	0	0	0	0	0	0	2
01:30	0	3	0	0	0	0	0	0	0	0	0	0	0	3
01:45	0	0	1	0	0	0	0	0	0	0	0	0	0	1
	0	6	2	0	1	0	0	0	0	0	0	0	0	9
02:00	0	4	1	0	0	0	0	0	0	0	0	0	0	5
02:15	1	1	1	0	0	0	0	0	0	0	0	0	0	3
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	0	1	0	0	0	0	0	0	0	0	0	0	1
	1	5	3	0	0	0	0	0	0	0	0	0	0	9
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1
03:45	0	1	0	0	0	0	0	0	0	0	0	0	0	1
	0	2	0	0	0	0	0	0	0	0	0	0	0	2
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45	0	0	1	0	0	0	0	0	0	0	0	0	0	1
	0	0	1	0	0	0	0	0	0	0	0	0	0	1
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15	0	3	1	0	0	0	0	0	0	0	0	0	0	4
05:30	0	5	1	0	0	0	0	0	0	0	0	0	0	6
05:45	0	3	2	0	0	0	0	1	0	0	0	0	0	6
	0	11	4	0	0	0	0	1	0	0	0	0	0	16
06:00	0	4	3	0	1	0	0	0	0	0	0	0	0	8
06:15	0	3	4	0	1	0	0	0	0	0	0	0	0	8
06:30	1	10	7	1	3	0	0	0	1	0	0	0	0	23
06:45	0	15	6	2	2	2	0	1	0	0	0	0	0	28
	1	32	20	3	7	2	0	1	1	0	0	0	0	67
07:00	1	12	8	2	2	0	0	0	0	0	0	0	0	25
07:15	0	15	6	1	0	0	0	0	0	0	0	0	0	22
07:30	0	22	5	2	1	2	0	0	0	0	0	0	0	32
07:45	1	23	4	0	0	0	0	0	1	0	0	0	0	29
	2	72	23	5	3	2	0	0	1	0	0	0	0	108
08:00	0	27	6	1	0	1	0	1	0	0	0	0	0	36
08:15	0	21	12	2	1	2	0	0	0	1	0	0	0	39
08:30	1	26	11	1	2	1	0	0	1	1	0	0	0	44
08:45	0	28	10	2	1	0	0	0	0	0	0	0	0	41
	1	102	39	6	4	4	0	1	1	2	0	0	0	160
09:00	1	24	16	1	3	0	0	1	1	1	0	0	0	48
09:15	1	22	14	2	2	2	0	0	0	0	0	0	0	43
09:30	0	26	11	1	2	1	0	0	0	0	0	0	0	41
09:45	1	21	20	2	2	1	0	1	0	0	0	0	0	48
	3	93	61	6	9	4	0	2	1	1	0	0	0	180
10:00	0	16	12	1	2	0	0	1	0	0	0	0	0	32
10:15	0	18	15	2	0	0	0	1	0	0	0	0	0	36
10:30	2	18	25	0	7	1	0	2	0	0	0	0	0	55
10:45	0	15	11	2	7	0	0	0	0	0	0	0	0	35
	2	67	63	5	16	1	0	4	0	0	0	0	0	158
11:00	1	25	21	1	5	1	0	2	1	2	0	0	0	59
11:15	0	26	25	1	3	2	0	1	1	0	0	0	0	59
11:30	1	29	20	0	6	3	0	1	0	1	0	0	0	61
11:45	0	36	29	2	4	2	0	1	0	0	0	0	0	74
	2	116	95	4	18	8	0	5	2	3	0	0	0	253
Total	12	525	322	29	60	21	0	14	6	6	0	0	0	995
Percent	1.2%	52.8%	32.4%	2.9%	6.0%	2.1%	0.0%	1.4%	0.6%	0.6%	0.0%	0.0%	0.0%	

All Traffic Data Services, Inc

1336 Farmer Road
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ph.404-374-1283

Site Code: 1
Station ID: 1
BIRMINGHAM HWY NORTH OF
NEW PROVIDENCE ROAD

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
12 PM	1	30	35	0	9	5	0	1	0	0	0	0	0	81
12:15	1	26	27	0	5	1	0	1	1	0	0	0	0	62
12:30	0	27	23	1	11	1	0	1	1	0	0	0	0	65
12:45	1	35	43	0	7	2	0	2	0	0	0	0	0	90
	3	118	128	1	32	9	0	5	2	0	0	0	0	298
13:00	0	29	27	0	6	2	1	0	0	0	0	0	0	65
13:15	0	43	40	0	8	2	0	0	0	0	0	0	0	93
13:30	2	36	39	1	7	1	0	2	0	0	0	0	0	88
13:45	0	32	39	3	7	2	0	0	0	0	0	0	0	83
	2	140	145	4	28	7	1	2	0	0	0	0	0	329
14:00	2	45	46	1	11	0	0	1	0	0	0	0	0	106
14:15	0	42	40	1	6	1	0	2	0	1	0	0	0	93
14:30	1	34	28	0	5	1	0	0	0	0	0	0	0	69
14:45	0	44	31	0	4	0	0	0	0	0	0	0	0	79
	3	165	145	2	26	2	0	3	0	1	0	0	0	347
15:00	0	59	49	0	11	3	0	0	0	0	0	0	0	122
15:15	2	71	48	0	14	1	0	5	0	0	0	0	0	141
15:30	1	82	66	1	15	0	0	1	0	0	0	0	0	166
15:45	1	100	57	1	17	0	0	1	0	0	0	0	0	177
	4	312	220	2	57	4	0	7	0	0	0	0	0	606
16:00	2	104	69	5	10	0	0	2	1	0	0	0	0	193
16:15	3	125	64	4	20	1	0	2	1	0	0	0	0	220
16:30	4	144	76	4	17	0	0	0	1	0	0	0	0	246
16:45	4	156	81	1	13	0	0	0	1	0	0	0	0	256
	13	529	290	14	60	1	0	4	4	0	0	0	0	915
17:00	4	164	78	0	24	1	0	3	1	0	0	0	0	275
17:15	3	152	98	0	18	1	0	3	0	0	0	0	0	275
17:30	1	174	93	0	14	1	0	4	0	0	0	0	0	287
17:45	3	148	76	1	18	0	0	2	0	0	0	0	0	248
	11	638	345	1	74	3	0	12	1	0	0	0	0	1085
18:00	1	154	70	0	15	1	0	2	0	0	0	0	0	243
18:15	4	121	69	0	11	2	0	1	0	0	0	0	0	208
18:30	1	121	44	0	10	0	0	2	0	0	0	0	0	178
18:45	3	89	44	0	4	0	0	1	0	0	0	0	0	141
	9	485	227	0	40	3	0	6	0	0	0	0	0	770
19:00	0	70	48	0	10	1	0	1	0	0	0	0	0	130
19:15	0	83	42	0	4	0	0	0	0	0	0	0	0	129
19:30	0	66	13	0	5	0	0	1	0	0	0	0	0	85
19:45	0	41	26	0	7	0	0	0	0	0	0	0	0	74
	0	260	129	0	26	1	0	2	0	0	0	0	0	418
20:00	0	33	22	0	3	1	0	0	0	0	0	0	0	59
20:15	1	37	23	0	2	0	0	0	0	0	0	0	0	63
20:30	0	28	23	0	2	0	0	0	0	0	0	0	0	53
20:45	0	33	15	0	2	0	0	0	0	0	0	0	0	50
	1	131	83	0	9	1	0	0	0	0	0	0	0	225
21:00	0	28	20	0	0	0	0	0	0	0	0	0	0	48
21:15	0	27	17	0	1	0	0	1	0	0	0	0	0	46
21:30	0	22	11	0	3	1	0	0	0	0	0	0	0	37
21:45	0	30	8	0	3	0	0	0	0	0	0	0	0	41
	0	107	56	0	7	1	0	1	0	0	0	0	0	172
22:00	0	14	6	0	1	0	0	0	0	0	0	0	0	21
22:15	0	13	1	0	0	0	0	0	0	0	0	0	0	14
22:30	0	12	4	0	2	0	0	0	0	0	0	0	0	18
22:45	0	7	4	0	3	0	0	0	0	0	0	0	0	14
	0	46	15	0	6	0	0	0	0	0	0	0	0	67
23:00	0	10	8	0	1	0	0	0	0	0	0	0	0	19
23:15	0	6	4	0	0	0	0	0	0	0	0	0	0	10
23:30	0	4	2	0	0	0	0	0	0	0	0	0	0	6
23:45	0	6	1	0	0	0	0	0	0	0	0	0	0	7
	0	26	15	0	1	0	0	0	0	0	0	0	0	42
Total	46	2957	1798	24	366	32	1	42	7	1	0	0	0	5274
Percent	0.9%	56.1%	34.1%	0.5%	6.9%	0.6%	0.0%	0.8%	0.1%	0.0%	0.0%	0.0%	0.0%	
Grand Total	58	3482	2120	53	426	53	1	56	13	7	0	0	0	6269
Percent	0.9%	55.5%	33.8%	0.8%	6.8%	0.8%	0.0%	0.9%	0.2%	0.1%	0.0%	0.0%	0.0%	

All Traffic Data Services, Inc

1336 Farmer Road
Conyers, Ga 30012
ph.404-374-1283

Site Code: 1
Station ID: 1
BIRMINGHAM HWY NORTH OF
NEW PROVIDENCE ROAD

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/11/09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:15	0	0	1	0	0	0	0	0	0	0	0	0	0	1
00:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1
00:45	0	0	1	0	0	0	0	0	0	0	0	0	0	1
	0	1	2	0	0	0	0	0	0	0	0	0	0	3
01:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
01:15	0	1	0	0	0	0	0	0	0	0	0	0	0	1
01:30	0	0	1	0	0	0	0	0	0	0	0	0	0	1
01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	2	2	0	0	0	0	0	0	0	0	0	0	4
02:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	1	0	0	0	0	0	0	0	0	0	0	0	1
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
03:15	0	1	2	0	0	0	0	0	0	0	0	0	0	3
03:30	0	1	1	0	1	0	0	0	0	0	0	0	0	3
03:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	3	3	0	1	0	0	0	0	0	0	0	0	7
04:00	0	1	4	0	1	0	0	0	0	0	0	0	0	6
04:15	0	2	2	0	0	0	0	0	0	0	0	0	0	4
04:30	0	6	1	0	1	0	0	0	0	0	0	0	0	8
04:45	0	0	3	0	2	0	0	0	0	0	0	0	0	5
	0	9	10	0	4	0	0	0	0	0	0	0	0	23
05:00	0	11	5	0	0	0	0	0	2	0	0	0	0	18
05:15	0	10	11	0	5	0	0	0	0	0	0	0	0	26
05:30	0	24	14	0	4	0	0	0	0	0	0	0	0	42
05:45	0	31	23	0	5	0	0	0	0	0	0	0	0	59
	0	76	53	0	14	0	0	0	2	0	0	0	0	145
06:00	0	45	32	0	10	0	0	0	0	0	0	0	0	87
06:15	0	78	49	0	20	0	0	0	0	0	0	0	0	147
06:30	1	115	74	0	35	1	0	0	1	0	0	0	0	227
06:45	0	153	76	2	34	0	0	2	0	0	0	0	0	267
	1	391	231	2	99	1	0	2	1	0	0	0	0	728
07:00	3	149	114	3	27	3	0	3	0	0	0	0	0	302
07:15	3	150	117	3	28	3	0	3	0	0	0	0	0	307
07:30	3	152	118	3	28	3	0	3	0	0	0	0	0	310
07:45	3	138	107	3	25	3	0	3	0	0	0	0	0	282
	12	589	456	12	108	12	0	12	0	0	0	0	0	1201
08:00	3	147	114	3	27	3	0	3	0	0	0	0	0	300
08:15	3	132	102	3	24	3	0	3	0	0	0	0	0	270
08:30	2	122	95	2	22	2	0	2	0	0	0	0	0	247
08:45	2	106	82	2	20	2	0	2	0	0	0	0	0	216
	10	507	393	10	93	10	0	10	0	0	0	0	0	1033
09:00	2	88	68	2	16	2	0	2	0	0	0	0	0	180
09:15	2	76	59	2	14	2	0	2	0	0	0	0	0	157
09:30	1	63	49	1	12	1	0	1	0	0	0	0	0	128
09:45	1	62	48	1	11	1	0	1	0	0	0	0	0	125
	6	289	224	6	53	6	0	6	0	0	0	0	0	590
10:00	1	56	43	1	10	1	0	1	0	0	0	0	0	113
10:15	1	53	41	1	10	1	0	1	0	0	0	0	0	108
10:30	1	54	42	1	10	1	0	1	0	0	0	0	0	110
10:45	1	49	38	1	9	1	0	1	0	0	0	0	0	100
	4	212	164	4	39	4	0	4	0	0	0	0	0	431
11:00	0	29	43	0	15	1	1	1	0	0	0	0	0	90
11:15	1	26	43	2	15	6	0	1	1	0	0	0	0	95
11:30	0	26	34	1	10	3	0	0	1	0	0	0	0	75
11:45	0	22	36	2	5	3	0	0	0	0	0	0	0	68
	1	103	156	5	45	13	1	2	2	0	0	0	0	328
Total	34	2183	1694	39	456	46	1	36	5	0	0	0	0	4494
Percent	0.8%	48.6%	37.7%	0.9%	10.1%	1.0%	0.0%	0.8%	0.1%	0.0%	0.0%	0.0%	0.0%	

All Traffic Data Services, Inc

1336 Farmer Road
Conyers, Ga 30012
ph.404-374-1283

Site Code: 1
Station ID: 1
BIRMINGHAM HWY NORTH OF
NEW PROVIDENCE ROAD

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
12 PM	1	28	35	0	9	2	0	3	0	1	0	0	0	79
12:15	2	25	37	0	12	2	0	0	0	0	0	0	0	78
12:30	1	22	36	1	8	1	0	2	0	0	0	0	0	71
12:45	1	21	29	0	15	3	0	0	0	1	0	0	0	70
	5	96	137	1	44	8	0	5	0	2	0	0	0	298
13:00	0	22	42	0	12	1	0	2	0	0	0	0	0	79
13:15	0	29	36	2	12	2	0	2	0	0	0	0	0	83
13:30	0	23	32	0	8	0	0	1	0	0	0	0	0	64
13:45	2	25	33	1	9	2	0	1	0	1	0	0	0	74
	2	99	143	3	41	5	0	6	0	1	0	0	0	300
14:00	0	28	36	1	7	0	0	1	0	0	0	0	0	73
14:15	0	32	39	2	12	0	0	0	0	0	0	0	0	85
14:30	0	26	30	6	10	0	0	1	0	0	0	0	0	73
14:45	0	41	44	0	8	0	0	0	0	1	0	0	0	94
	0	127	149	9	37	0	0	2	0	1	0	0	0	325
15:00	1	15	40	1	7	1	0	0	0	0	0	0	0	65
15:15	2	26	39	0	7	1	0	3	0	0	0	0	0	78
15:30	1	20	36	1	7	0	0	1	0	0	0	0	0	66
15:45	2	33	46	2	8	1	0	2	0	0	0	0	0	94
	6	94	161	4	29	3	0	6	0	0	0	0	0	303
16:00	3	26	42	1	8	0	0	1	0	0	0	0	0	81
16:15	4	30	27	1	7	0	0	1	0	0	0	0	0	70
16:30	2	28	28	1	8	1	0	0	0	0	0	0	0	68
16:45	2	31	36	0	7	0	0	1	0	0	0	0	0	77
	11	115	133	3	30	1	0	3	0	0	0	0	0	296
17:00	4	37	49	1	5	0	0	0	0	0	0	0	0	96
17:15	5	26	26	0	7	1	0	1	0	0	0	0	0	66
17:30	1	30	23	0	8	2	0	0	0	0	0	0	0	64
17:45	1	33	37	0	7	0	0	1	0	0	0	0	0	79
	11	126	135	1	27	3	0	2	0	0	0	0	0	305
18:00	1	35	32	1	12	1	0	0	0	0	0	0	0	82
18:15	3	26	44	0	11	1	0	1	0	0	0	0	0	86
18:30	4	27	36	0	5	0	0	0	0	0	0	0	0	72
18:45	1	22	28	0	4	0	0	1	0	0	0	0	0	56
	9	110	140	1	32	2	0	2	0	0	0	0	0	296
19:00	0	23	26	0	5	0	0	0	0	0	0	0	0	54
19:15	0	18	19	0	4	0	0	0	0	0	0	0	0	41
19:30	1	17	21	0	4	0	0	0	0	0	0	0	0	43
19:45	0	12	19	0	3	0	0	0	0	0	0	0	0	34
	1	70	85	0	16	0	0	0	0	0	0	0	0	172
20:00	0	14	20	0	2	1	0	1	0	0	0	0	0	38
20:15	0	12	20	0	6	0	0	0	0	0	0	0	0	38
20:30	0	10	9	0	1	0	0	0	0	0	0	0	0	20
20:45	0	10	7	0	3	0	0	0	0	0	0	0	0	20
	0	46	56	0	12	1	0	1	0	0	0	0	0	116
21:00	1	20	7	0	0	0	0	0	0	0	0	0	0	28
21:15	0	7	9	0	0	0	0	0	0	0	0	0	0	16
21:30	1	9	4	0	6	0	0	0	0	0	0	0	0	20
21:45	0	6	3	0	0	0	0	0	0	0	0	0	0	9
	2	42	23	0	6	0	0	0	0	0	0	0	0	73
22:00	0	17	5	0	1	0	0	0	0	0	0	0	0	23
22:15	0	3	1	0	1	0	0	0	0	0	0	0	0	5
22:30	0	2	1	0	1	0	0	0	0	0	0	0	0	4
22:45	0	3	3	0	0	0	0	0	0	0	0	0	0	6
	0	25	10	0	3	0	0	0	0	0	0	0	0	38
23:00	0	1	4	0	0	0	0	0	0	0	0	0	0	5
23:15	0	2	3	0	1	0	0	0	0	0	0	0	0	6
23:30	0	0	1	0	0	0	0	0	0	0	0	0	0	1
23:45	0	1	3	0	1	0	0	0	0	0	0	0	0	5
	0	4	11	0	2	0	0	0	0	0	0	0	0	17
Total	47	954	1183	22	279	23	0	27	0	4	0	0	0	2539
Percent	1.9%	37.6%	46.6%	0.9%	11.0%	0.9%	0.0%	1.1%	0.0%	0.2%	0.0%	0.0%	0.0%	
Grand Total	81	3137	2877	61	735	69	1	63	5	4	0	0	0	7033
Percent	1.2%	44.6%	40.9%	0.9%	10.5%	1.0%	0.0%	0.9%	0.1%	0.1%	0.0%	0.0%	0.0%	

All Traffic Data Services, Inc

1336 Farmer Road
Conyers, Ga 30012
ph.404-374-1283

Site Code: 2
Station ID: 2
NEW PROVIDENCE ROAD EAST
OF BIRMINGHAM HWY

EB

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total
11/11/09	0	0	0	0	0	1	2	0	0	0	0	0	0	0	3
00:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:30	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
00:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	1	1	2	0	0	0	0	0	0	0	4
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
01:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
04:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
04:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30	0	0	0	2	0	3	2	0	0	0	0	0	0	0	7
04:45	0	0	0	1	0	2	3	1	0	0	0	0	0	0	7
	0	0	0	3	1	5	5	1	0	0	0	0	0	0	15
05:00	0	0	0	0	0	3	1	0	1	0	0	0	0	0	5
05:15	0	0	0	0	2	0	3	1	0	0	0	0	0	0	6
05:30	0	0	0	2	1	5	7	1	1	0	0	0	0	0	17
05:45	0	0	0	0	0	6	16	4	1	0	0	0	0	0	27
	0	0	0	2	3	14	27	6	3	0	0	0	0	0	55
06:00	0	0	1	0	4	6	9	5	0	0	0	0	0	0	25
06:15	0	0	0	1	0	8	25	14	2	0	0	0	0	0	50
06:30	1	0	0	4	7	26	40	16	3	0	0	0	0	0	97
06:45	1	0	1	11	9	45	62	13	2	0	0	0	0	0	144
	2	0	2	16	20	85	136	48	7	0	0	0	0	0	316
07:00	1	0	3	4	8	42	67	13	0	0	0	0	0	0	138
07:15	1	0	2	11	17	34	67	22	0	0	0	0	0	0	154
07:30	2	0	1	8	5	29	54	10	1	0	0	0	0	0	110
07:45	4	0	1	13	14	39	32	9	1	3	0	0	0	0	116
	8	0	7	36	44	144	220	54	2	3	0	0	0	0	518
08:00	0	0	2	10	15	29	55	10	1	0	0	0	0	0	122
08:15	5	0	1	16	24	42	45	11	1	0	0	0	0	0	145
08:30	1	0	2	12	12	36	48	22	2	0	0	0	0	0	135
08:45	2	0	2	9	19	32	29	16	0	0	0	0	0	0	109
	8	0	7	47	70	139	177	59	4	0	0	0	0	0	511
09:00	1	0	3	13	9	17	43	7	1	0	0	0	0	0	94
09:15	3	0	0	9	7	24	29	11	0	0	0	0	0	0	83
09:30	0	0	1	5	9	11	22	13	2	0	0	0	0	0	63
09:45	0	0	1	4	5	15	16	7	1	0	0	0	0	0	49
	4	0	5	31	30	67	110	38	4	0	0	0	0	0	289
10:00	0	0	1	7	8	12	11	5	1	0	0	0	0	0	45
10:15	0	0	1	1	5	13	16	9	0	0	0	0	0	0	45
10:30	1	0	1	6	6	10	14	5	2	0	0	0	0	0	45
10:45	0	0	0	2	6	8	10	5	2	0	0	0	0	0	33
	1	0	3	16	25	43	51	24	5	0	0	0	0	0	168
11:00	0	1	0	3	4	11	10	8	1	0	0	0	0	0	38
11:15	2	0	1	6	1	9	8	4	2	0	0	0	0	0	33
11:30	1	0	0	4	9	13	14	5	1	0	0	0	0	0	47
11:45	0	0	1	5	8	12	14	4	1	1	0	0	0	0	46
	3	1	2	18	22	45	46	21	5	1	0	0	0	0	164
Total	26	1	26	170	216	545	774	251	30	4	0	0	0	0	2043

All Traffic Data Services, Inc

1336 Farmer Road
Conyers, Ga 30012
ph.404-374-1283

Site Code: 2
Station ID: 2
NEW PROVIDENCE ROAD EAST
OF BIRMINGHAM HWY

EB

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total
12 PM	0	0	1	4	4	6	8	6	2	0	0	0	0	0	31
12:15	0	0	0	6	2	4	18	6	2	0	0	0	0	0	38
12:30	1	1	0	1	2	3	12	8	1	0	0	0	0	0	29
12:45	0	0	2	4	7	7	10	5	0	0	0	0	0	0	35
	1	1	3	15	15	20	48	25	5	0	0	0	0	0	133
13:00	2	0	0	3	3	6	16	5	2	0	0	0	0	0	37
13:15	1	0	1	7	8	9	10	4	0	0	0	0	0	0	40
13:30	1	0	1	3	3	11	10	3	1	0	0	0	0	0	33
13:45	1	1	1	5	5	7	13	3	0	1	0	0	0	0	37
	5	1	3	18	19	33	49	15	3	1	0	0	0	0	147
14:00	0	0	2	7	6	15	14	6	0	0	0	0	0	0	50
14:15	2	0	1	4	9	18	12	5	0	0	0	0	0	0	51
14:30	0	0	1	2	5	14	13	5	1	0	0	0	0	0	41
14:45	0	0	0	3	5	9	7	4	1	0	0	0	0	0	29
	2	0	4	16	25	56	46	20	2	0	0	0	0	0	171
15:00	1	0	3	3	6	17	11	2	0	0	0	0	0	0	43
15:15	2	0	1	4	9	16	13	13	2	0	0	0	0	0	60
15:30	2	0	0	10	13	14	16	2	2	0	0	0	0	0	59
15:45	3	0	0	11	13	13	9	6	1	0	0	0	0	0	56
	8	0	4	28	41	60	49	23	5	0	0	0	0	0	218
16:00	4	0	3	5	14	13	19	3	0	0	0	0	0	0	61
16:15	10	1	3	1	6	10	12	4	0	1	0	0	0	0	48
16:30	9	1	3	4	10	3	6	1	0	0	0	0	0	0	37
16:45	19	0	0	4	14	7	5	1	0	0	0	0	0	0	50
	42	2	9	14	44	33	42	9	0	1	0	0	0	0	196
17:00	26	0	0	8	8	16	3	3	0	0	0	0	0	0	64
17:15	8	0	0	8	4	17	8	1	1	0	0	0	0	0	47
17:30	17	0	0	5	5	4	5	2	1	0	0	0	0	0	39
17:45	11	0	0	10	4	4	4	0	0	0	0	0	0	0	33
	62	0	0	31	21	41	20	6	2	0	0	0	0	0	183
18:00	9	1	0	4	9	9	10	2	0	0	0	0	0	0	44
18:15	4	0	0	7	7	12	12	0	0	1	0	0	0	0	43
18:30	1	0	0	4	4	14	4	4	1	0	0	0	0	0	32
18:45	3	0	0	5	8	11	7	2	0	1	0	0	0	0	37
	17	1	0	20	28	46	33	8	1	2	0	0	0	0	156
19:00	3	0	3	4	3	9	7	1	0	0	0	0	0	0	30
19:15	1	0	0	4	3	4	3	1	0	0	0	0	0	0	16
19:30	0	0	0	1	3	4	5	2	0	1	0	0	0	0	16
19:45	0	1	1	2	3	6	2	0	0	0	0	0	0	0	15
	4	1	4	11	12	23	17	4	0	1	0	0	0	0	77
20:00	0	0	0	2	4	3	6	1	0	0	0	0	0	0	16
20:15	0	1	0	0	3	4	4	0	0	0	0	0	0	0	12
20:30	0	0	0	4	1	6	3	0	0	0	0	0	0	0	14
20:45	1	0	0	2	1	7	1	1	0	0	0	0	0	0	13
	1	1	0	8	9	20	14	2	0	0	0	0	0	0	55
21:00	0	0	0	3	1	1	1	0	0	0	0	0	0	0	6
21:15	0	0	0	2	5	3	2	1	1	0	0	0	0	0	14
21:30	0	0	1	2	2	2	2	0	0	0	0	0	0	0	9
21:45	0	0	0	3	0	0	2	0	0	0	0	0	0	0	5
	0	0	1	10	8	6	7	1	1	0	0	0	0	0	34
22:00	0	0	0	1	0	1	2	0	0	0	0	0	0	0	4
22:15	0	0	1	0	1	0	1	0	0	0	0	0	0	0	3
22:30	0	0	0	1	0	1	3	1	0	0	0	0	0	0	6
22:45	0	0	1	1	1	0	1	0	0	0	0	0	0	0	4
	0	0	2	3	2	2	7	1	0	0	0	0	0	0	17
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:15	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
23:30	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
23:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	1	2	0	0	0	0	0	0	3
Total	142	7	30	174	224	340	333	116	19	5	0	0	0	0	1390
Grand Total	168	8	56	344	440	885	1107	367	49	9	0	0	0	0	3433

15th Percentile :	30 MPH
50th Percentile :	39 MPH
85th Percentile :	45 MPH
95th Percentile :	49 MPH

Stats

Mean Speed(Average) :	38 MPH
10 MPH Pace Speed :	36-45 MPH
Number in Pace :	1992
Percent in Pace :	58.0%

Number of Vehicles > 55 MPH :	9
Percent of Vehicles > 55 MPH :	0.3%

All Traffic Data Services, Inc

1336 Farmer Road
Conyers, Ga 30012
ph.404-374-1283

Site Code: 2
Station ID: 2
NEW PROVIDENCE ROAD EAST
OF BIRMINGHAM HWY

WB

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total
11/11/09	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
00:15	0	0	0	3	0	0	0	0	0	0	0	0	0	0	3
00:30	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
00:45	0	0	0	0	1	1	0	0	0	0	0	0	0	0	2
	0	0	0	5	1	2	0	0	0	0	0	0	0	0	8
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
01:30	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
01:45	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
	0	0	0	3	0	0	0	0	0	0	0	0	0	0	3
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	0	1	0	1	0	0	0	0	0	0	0	0	2
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
	0	0	0	1	0	2	0	0	0	0	0	0	0	0	3
04:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
04:15	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
04:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	1	1	0	0	0	0	0	0	0	0	2
05:00	0	0	1	0	1	0	0	0	0	0	0	0	0	0	2
05:15	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
05:30	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
05:45	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2
	0	0	1	0	4	1	0	0	0	0	0	0	0	0	6
06:00	0	0	1	0	3	0	0	0	0	0	0	0	0	0	4
06:15	0	0	0	3	4	3	0	0	0	0	0	0	0	0	10
06:30	1	0	2	4	4	2	0	0	0	0	0	0	0	0	13
06:45	5	1	1	3	8	2	1	0	0	0	0	0	0	0	21
	6	1	4	10	19	7	1	0	0	0	0	0	0	0	48
07:00	3	0	3	9	8	4	0	0	0	0	0	0	0	0	27
07:15	4	0	1	7	8	4	0	0	0	0	0	0	0	0	24
07:30	2	2	5	9	11	4	0	0	0	0	0	0	0	0	33
07:45	3	1	8	9	15	5	1	0	0	0	0	0	0	0	42
	12	3	17	34	42	17	1	0	0	0	0	0	0	0	126
08:00	5	2	7	14	16	10	2	0	0	0	0	0	0	0	56
08:15	6	1	1	10	15	4	2	0	0	0	0	0	0	0	39
08:30	1	0	2	9	8	3	0	0	0	0	0	0	0	0	23
08:45	4	0	1	9	12	5	1	0	0	0	0	0	0	0	32
	16	3	11	42	51	22	5	0	0	0	0	0	0	0	150
09:00	3	0	1	8	14	5	1	0	0	0	0	0	0	0	32
09:15	1	0	1	8	9	4	0	0	0	0	0	0	0	0	23
09:30	1	0	1	9	9	6	1	0	0	0	0	0	0	0	27
09:45	0	0	1	2	13	4	1	0	0	0	0	0	0	0	21
	5	0	4	27	45	19	3	0	0	0	0	0	0	0	103
10:00	1	0	0	12	6	3	0	0	0	0	0	0	0	0	22
10:15	0	0	2	3	13	5	1	0	0	0	0	0	0	0	24
10:30	1	0	1	4	6	5	1	0	0	0	0	0	0	0	18
10:45	0	0	2	8	5	3	1	0	0	0	0	0	0	0	19
	2	0	5	27	30	16	3	0	0	0	0	0	0	0	83
11:00	1	0	1	8	7	5	1	0	0	0	0	0	0	0	23
11:15	3	1	1	4	12	5	0	0	0	0	0	0	0	0	26
11:30	2	0	0	7	20	5	0	0	0	0	0	0	0	0	34
11:45	1	0	1	2	5	9	1	0	0	0	0	0	0	0	19
	7	1	3	21	44	24	2	0	0	0	0	0	0	0	102
Total	48	8	45	170	237	111	15	0	0	0	0	0	0	0	634

All Traffic Data Services, Inc

1336 Farmer Road
Conyers, Ga 30012
ph.404-374-1283

Site Code: 2
Station ID: 2
NEW PROVIDENCE ROAD EAST
OF BIRMINGHAM HWY

WB

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total
12 PM	0	1	4	12	10	7	1	0	0	0	0	0	0	0	35
12:15	0	0	4	8	16	8	2	0	0	0	0	0	0	0	38
12:30	1	0	1	6	18	12	0	0	0	0	0	0	0	0	38
12:45	0	0	0	3	10	10	1	0	0	0	0	0	0	0	24
	1	1	9	29	54	37	4	0	0	0	0	0	0	0	135
13:00	0	0	1	13	22	8	1	0	0	0	0	0	0	0	45
13:15	1	0	4	4	13	10	0	0	0	0	0	0	0	0	32
13:30	1	1	3	9	17	12	1	0	0	0	0	0	0	0	44
13:45	2	3	6	18	21	4	0	0	0	0	0	0	0	0	54
	4	4	14	44	73	34	2	0	0	0	0	0	0	0	175
14:00	6	2	6	10	16	9	0	0	0	0	0	0	0	0	49
14:15	4	0	5	22	28	11	0	0	0	0	0	0	0	0	70
14:30	1	2	5	23	14	5	0	0	0	0	0	0	0	0	50
14:45	1	0	4	22	29	11	0	0	0	0	0	0	0	0	67
	12	4	20	77	87	36	0	0	0	0	0	0	0	0	236
15:00	1	1	2	10	29	17	2	0	0	0	0	0	0	0	62
15:15	4	2	8	23	25	8	0	0	0	0	0	0	0	0	70
15:30	9	3	15	12	21	17	1	1	0	0	0	0	0	0	79
15:45	4	7	8	21	34	3	0	0	0	0	0	0	0	0	77
	18	13	33	66	109	45	3	1	0	0	0	0	0	0	288
16:00	2	5	15	22	34	5	2	0	0	0	0	0	0	0	85
16:15	47	11	14	24	20	4	0	0	0	0	0	0	0	0	120
16:30	34	13	18	20	13	6	1	0	0	0	0	0	0	0	105
16:45	75	2	4	5	0	0	0	0	0	0	0	0	0	0	86
	158	31	51	71	67	15	3	0	0	0	0	0	0	0	396
17:00	88	2	3	3	0	0	0	0	0	0	0	0	0	0	96
17:15	84	9	12	6	3	0	0	0	0	0	0	0	0	0	114
17:30	85	3	0	0	0	0	0	0	0	0	0	0	0	0	88
17:45	100	1	0	0	1	0	0	0	0	0	0	0	0	0	102
	357	15	15	9	4	0	0	0	0	0	0	0	0	0	400
18:00	30	14	32	24	9	1	0	0	0	0	0	0	0	0	110
18:15	5	8	27	31	26	2	0	0	0	0	0	0	0	0	99
18:30	0	2	8	27	22	4	0	0	0	0	0	0	0	0	63
18:45	2	3	3	27	22	8	1	0	0	0	0	0	0	0	66
	37	27	70	109	79	15	1	0	0	0	0	0	0	0	338
19:00	2	1	2	20	25	9	0	0	0	0	0	0	0	0	59
19:15	3	1	4	23	27	4	0	0	0	0	0	0	0	0	62
19:30	0	2	7	24	22	5	1	0	0	0	0	0	0	0	61
19:45	0	2	3	15	12	10	0	0	0	0	0	0	0	0	42
	5	6	16	82	86	28	1	0	0	0	0	0	0	0	224
20:00	0	1	2	8	17	5	1	0	0	0	0	0	0	0	34
20:15	0	0	6	15	14	5	0	0	0	0	0	0	0	0	40
20:30	0	0	5	7	17	7	0	0	0	0	0	0	0	0	36
20:45	0	0	3	5	12	5	0	0	0	0	0	0	0	0	25
	0	1	16	35	60	22	1	0	0	0	0	0	0	0	135
21:00	0	0	0	6	12	5	1	0	0	0	0	0	0	0	24
21:15	0	0	0	5	6	8	0	1	0	0	0	0	0	0	20
21:30	0	0	1	11	10	3	1	0	0	0	0	0	0	0	26
21:45	1	0	1	3	2	3	1	0	0	0	0	0	0	0	11
	1	0	2	25	30	19	3	1	0	0	0	0	0	0	81
22:00	0	0	1	2	6	2	0	0	0	0	0	0	0	0	11
22:15	0	0	0	4	3	2	1	0	0	0	0	0	0	0	10
22:30	0	0	1	2	4	3	0	0	0	0	0	0	0	0	10
22:45	0	0	0	0	1	2	0	0	0	0	0	0	0	0	3
	0	0	2	8	14	9	1	0	0	0	0	0	0	0	34
23:00	0	0	0	0	3	4	1	0	0	0	0	0	0	0	8
23:15	0	0	0	3	1	2	0	0	0	0	0	0	0	0	6
23:30	0	0	1	0	3	5	0	0	0	0	0	0	0	0	9
23:45	0	0	0	2	3	1	0	0	0	0	0	0	0	0	6
	0	0	1	5	10	12	1	0	0	0	0	0	0	0	29
Total	593	102	249	560	673	272	20	2	0	0	0	0	0	0	2471
Grand Total	641	110	294	730	910	383	35	2	0	0	0	0	0	0	3105

15th Percentile :	11 MPH
50th Percentile :	29 MPH
85th Percentile :	35 MPH
95th Percentile :	39 MPH

Stats

Mean Speed(Average) :	26 MPH
10 MPH Pace Speed :	26-35 MPH
Number in Pace :	1640
Percent in Pace :	52.8%

Number of Vehicles > 55 MPH :	0
Percent of Vehicles > 55 MPH :	0.0%

All Traffic Data Services, Inc

1336 Farmer Road
Conyers, Ga 30012
ph.404-374-1283

Site Code: 2
Station ID: 2
NEW PROVIDENCE ROAD EAST
OF BIRMINGHAM HWY

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/11/09	0	0	3	0	0	0	0	0	0	0	0	0	0	3
00:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:30	0	0	1	0	0	0	0	0	0	0	0	0	0	1
00:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	4	0	0	0	0	0	0	0	0	0	0	4
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15	0	0	1	0	0	0	0	0	0	0	0	0	0	1
01:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	1	0	0	0	0	0	0	0	0	0	0	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	1	0	0	0	0	0	0	0	0	0	0	0	1
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	1	0	0	0	0	0	0	0	0	0	0	1
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	1	0	0	0	0	0	0	0	0	0	0	1
04:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1
04:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30	0	0	4	0	3	0	0	0	0	0	0	0	0	7
04:45	0	0	5	0	2	0	0	0	0	0	0	0	0	7
	0	0	9	0	6	0	0	0	0	0	0	0	0	15
05:00	0	0	4	0	1	0	0	0	0	0	0	0	0	5
05:15	0	0	5	0	0	1	0	0	0	0	0	0	0	6
05:30	0	0	12	0	5	0	0	0	0	0	0	0	0	17
05:45	0	2	22	0	3	0	0	0	0	0	0	0	0	27
	0	2	43	0	9	1	0	0	0	0	0	0	0	55
06:00	0	0	17	0	8	0	0	0	0	0	0	0	0	25
06:15	0	1	40	0	9	0	0	0	0	0	0	0	0	50
06:30	0	4	80	0	12	0	0	1	0	0	0	0	0	97
06:45	1	5	108	2	27	1	0	0	0	0	0	0	0	144
	1	10	245	2	56	1	0	1	0	0	0	0	0	316
07:00	0	4	109	2	22	1	0	0	0	0	0	0	0	138
07:15	0	7	108	5	32	1	0	1	0	0	0	0	0	154
07:30	0	3	82	0	25	0	0	0	0	0	0	0	0	110
07:45	1	4	83	1	26	1	0	1	0	0	0	0	0	117
	1	18	382	8	105	3	0	2	0	0	0	0	0	519
08:00	0	2	89	0	30	1	0	0	0	0	0	0	0	122
08:15	1	3	110	1	28	2	0	0	0	0	0	0	0	145
08:30	0	1	110	0	21	2	0	1	0	0	0	0	0	135
08:45	1	2	83	0	23	0	0	0	0	0	0	0	0	109
	2	8	392	1	102	5	0	1	0	0	0	0	0	511
09:00	0	4	65	2	22	1	0	0	0	0	0	0	0	94
09:15	1	4	55	0	21	0	0	2	0	0	0	0	0	83
09:30	0	6	43	0	13	1	0	0	0	0	0	0	0	63
09:45	0	2	31	1	14	0	0	1	0	0	0	0	0	49
	1	16	194	3	70	2	0	3	0	0	0	0	0	289
10:00	0	1	27	0	15	0	0	2	0	0	0	0	0	45
10:15	0	3	33	1	8	0	0	0	0	0	0	0	0	45
10:30	0	3	28	1	13	0	0	0	0	0	0	0	0	45
10:45	0	0	21	0	11	0	0	1	0	0	0	0	0	33
	0	7	109	2	47	0	0	3	0	0	0	0	0	168
11:00	0	0	25	0	11	1	0	1	0	0	0	0	0	38
11:15	0	0	26	0	5	0	0	1	0	0	0	0	0	32
11:30	0	3	29	0	13	1	0	1	0	0	0	0	0	47
11:45	0	1	29	0	14	0	0	1	1	0	0	0	0	46
	0	4	109	0	43	2	0	4	1	0	0	0	0	163
Total	5	66	1489	16	438	14	0	14	1	0	0	0	0	2043
Percent	0.2%	3.2%	72.9%	0.8%	21.4%	0.7%	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	

All Traffic Data Services, Inc

1336 Farmer Road
Conyers, Ga 30012
ph.404-374-1283

Site Code: 2
Station ID: 2
NEW PROVIDENCE ROAD EAST
OF BIRMINGHAM HWY

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
12 PM	0	2	19	1	9	0	0	0	0	0	0	0	0	31
12:15	0	0	23	0	15	0	0	0	0	0	0	0	0	38
12:30	0	0	25	0	4	0	0	0	0	0	0	0	0	29
12:45	0	0	21	0	14	0	0	0	0	0	0	0	0	35
	0	2	88	1	42	0	0	0	0	0	0	0	0	133
13:00	1	1	26	0	9	0	0	0	0	0	0	0	0	37
13:15	0	1	19	0	18	0	0	2	0	0	0	0	0	40
13:30	0	1	21	0	11	0	0	0	0	0	0	0	0	33
13:45	0	1	21	3	12	0	0	0	0	0	0	0	0	37
	1	4	87	3	50	0	0	2	0	0	0	0	0	147
14:00	0	0	37	1	10	0	0	2	0	0	0	0	0	50
14:15	1	0	33	4	11	1	0	0	0	0	0	0	0	50
14:30	0	0	24	3	14	0	0	0	0	0	0	0	0	41
14:45	0	0	24	0	5	0	0	0	0	0	0	0	0	29
	1	0	118	8	40	1	0	2	0	0	0	0	0	170
15:00	0	1	35	2	5	0	0	0	0	0	0	0	0	43
15:15	1	1	44	0	13	0	0	0	0	0	0	0	0	59
15:30	2	0	40	1	13	1	0	1	0	0	0	0	0	58
15:45	0	4	38	0	14	1	0	0	0	0	0	0	0	57
	3	6	157	3	45	2	0	1	0	0	0	0	0	217
16:00	1	1	44	1	13	1	0	1	0	0	0	0	0	62
16:15	2	3	33	1	9	0	0	0	0	0	0	0	0	48
16:30	0	2	25	1	9	0	0	0	0	0	0	0	0	37
16:45	1	3	33	0	12	0	0	0	0	0	0	0	0	49
	4	9	135	3	43	1	0	1	0	0	0	0	0	196
17:00	1	5	47	0	10	0	0	0	0	0	0	0	0	63
17:15	0	2	34	0	10	0	0	0	0	0	0	0	0	46
17:30	1	3	26	1	8	0	0	0	0	0	0	0	0	39
17:45	0	3	22	0	7	1	0	0	0	0	0	0	0	33
	2	13	129	1	35	1	0	0	0	0	0	0	0	181
18:00	1	2	31	1	8	0	0	1	0	0	0	0	0	44
18:15	0	2	33	0	9	0	0	0	0	0	0	0	0	44
18:30	0	0	22	0	9	0	0	0	0	0	0	0	0	31
18:45	0	1	30	0	6	0	0	0	0	0	0	0	0	37
	1	5	116	1	32	0	0	1	0	0	0	0	0	156
19:00	0	1	23	0	6	0	0	0	0	0	0	0	0	30
19:15	1	1	12	0	2	0	0	0	0	0	0	0	0	16
19:30	0	1	13	0	2	0	0	0	0	0	0	0	0	16
19:45	0	1	12	0	2	0	0	0	0	0	0	0	0	15
	1	4	60	0	12	0	0	0	0	0	0	0	0	77
20:00	0	0	13	0	3	0	0	0	0	0	0	0	0	16
20:15	0	0	7	0	5	0	0	0	0	0	0	0	0	12
20:30	0	0	11	0	3	0	0	0	0	0	0	0	0	14
20:45	0	0	9	0	4	0	0	0	0	0	0	0	0	13
	0	0	40	0	15	0	0	0	0	0	0	0	0	55
21:00	0	0	6	0	0	0	0	0	0	0	0	0	0	6
21:15	0	0	13	0	1	0	0	0	0	0	0	0	0	14
21:30	0	0	8	0	1	0	0	0	0	0	0	0	0	9
21:45	1	0	1	0	3	0	0	0	0	0	0	0	0	5
	1	0	28	0	5	0	0	0	0	0	0	0	0	34
22:00	0	0	4	0	0	0	0	0	0	0	0	0	0	4
22:15	0	0	3	0	0	0	0	0	0	0	0	0	0	3
22:30	0	0	4	0	2	0	0	0	0	0	0	0	0	6
22:45	0	0	3	0	1	0	0	0	0	0	0	0	0	4
	0	0	14	0	3	0	0	0	0	0	0	0	0	17
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:15	0	0	1	0	0	0	0	0	0	0	0	0	0	1
23:30	0	0	2	0	0	0	0	0	0	0	0	0	0	2
23:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	3	0	0	0	0	0	0	0	0	0	0	3
Total	14	43	975	20	322	5	0	7	0	0	0	0	0	1386
Percent	1.0%	3.1%	70.3%	1.4%	23.2%	0.4%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	
Grand Total	19	109	2464	36	760	19	0	21	1	0	0	0	0	3429
Percent	0.6%	3.2%	71.9%	1.0%	22.2%	0.6%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	

All Traffic Data Services, Inc

1336 Farmer Road
Conyers, Ga 30012
ph.404-374-1283

Site Code: 2
Station ID: 2
NEW PROVIDENCE ROAD EAST
OF BIRMINGHAM HWY

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/11/09	0	1	1	0	0	0	0	0	0	0	0	0	0	2
00:15	0	2	1	0	0	0	0	0	0	0	0	0	0	3
00:30	0	0	0	0	1	0	0	0	0	0	0	0	0	1
00:45	0	0	1	0	1	0	0	0	0	0	0	0	0	2
	0	3	3	0	2	0	0	0	0	0	0	0	0	8
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15	0	1	0	0	0	0	0	0	0	0	0	0	0	1
01:30	0	0	1	0	0	0	0	0	0	0	0	0	0	1
01:45	0	0	1	0	0	0	0	0	0	0	0	0	0	1
	0	1	2	0	0	0	0	0	0	0	0	0	0	3
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	2	0	0	0	0	0	0	0	0	0	0	2
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45	0	1	0	0	0	0	0	0	0	0	0	0	0	1
	0	1	2	0	0	0	0	0	0	0	0	0	0	3
04:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
04:15	0	1	0	0	0	0	0	0	0	0	0	0	0	1
04:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	1	1	0	0	0	0	0	0	0	0	0	0	2
05:00	0	0	1	0	0	1	0	0	0	0	0	0	0	2
05:15	0	1	0	0	0	0	0	0	0	0	0	0	0	1
05:30	0	0	0	0	1	0	0	0	0	0	0	0	0	1
05:45	0	1	1	0	0	0	0	0	0	0	0	0	0	2
	0	2	2	0	1	1	0	0	0	0	0	0	0	6
06:00	0	1	1	1	1	0	0	0	0	0	0	0	0	4
06:15	0	4	4	1	0	0	0	1	0	0	0	0	0	10
06:30	0	2	10	1	0	0	0	0	0	0	0	0	0	13
06:45	1	7	8	2	2	1	0	0	0	0	0	0	0	21
	1	14	23	5	3	1	0	1	0	0	0	0	0	48
07:00	1	9	13	2	3	0	0	0	0	0	0	0	0	28
07:15	0	4	18	1	2	0	0	0	0	0	0	0	0	25
07:30	0	6	22	3	1	0	0	0	0	0	0	0	0	32
07:45	0	13	22	2	5	1	0	0	0	0	0	0	0	43
	1	32	75	8	11	1	0	0	0	0	0	0	0	128
08:00	0	11	36	1	8	0	0	0	0	0	0	0	0	56
08:15	1	12	20	0	6	0	0	0	0	0	0	0	0	39
08:30	1	2	10	1	8	0	0	1	0	0	0	0	0	23
08:45	0	11	19	0	3	0	0	0	0	0	0	0	0	33
	2	36	85	2	25	0	0	1	0	0	0	0	0	151
09:00	1	5	17	1	7	1	0	0	0	0	0	0	0	32
09:15	0	3	16	1	2	1	0	0	0	0	0	0	0	23
09:30	0	5	14	1	6	1	0	0	0	0	0	0	0	27
09:45	0	4	13	0	3	0	0	1	0	0	0	0	0	21
	1	17	60	3	18	3	0	1	0	0	0	0	0	103
10:00	0	2	13	0	7	0	0	0	0	0	0	0	0	22
10:15	0	10	8	0	5	1	0	0	0	0	0	0	0	24
10:30	0	5	11	0	2	0	0	0	0	0	0	0	0	18
10:45	0	7	10	0	2	0	0	0	0	0	0	0	0	19
	0	24	42	0	16	1	0	0	0	0	0	0	0	83
11:00	1	5	12	1	4	0	0	0	0	0	0	0	0	23
11:15	0	8	14	0	4	0	0	0	0	0	0	0	0	26
11:30	1	3	25	0	4	0	0	0	0	0	0	0	0	33
11:45	1	3	13	0	2	0	0	0	0	0	0	0	0	19
	3	19	64	1	14	0	0	0	0	0	0	0	0	101
Total	8	150	359	19	90	7	0	3	0	0	0	0	0	636
Percent	1.3%	23.6%	56.4%	3.0%	14.2%	1.1%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	

All Traffic Data Services, Inc

1336 Farmer Road
Conyers, Ga 30012
ph.404-374-1283

Site Code: 2
Station ID: 2
NEW PROVIDENCE ROAD EAST
OF BIRMINGHAM HWY

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
12 PM	0	6	22	0	7	0	0	0	0	0	0	0	0	35
12:15	0	9	22	0	6	0	0	1	0	0	0	0	0	38
12:30	0	9	24	0	5	0	0	0	0	0	0	0	0	38
12:45	0	8	7	0	8	0	0	1	0	0	0	0	0	24
	0	32	75	0	26	0	0	2	0	0	0	0	0	135
13:00	0	9	24	2	10	0	0	0	0	0	0	0	0	45
13:15	0	6	20	1	4	0	0	1	0	0	0	0	0	32
13:30	0	16	20	0	8	0	0	0	0	0	0	0	0	44
13:45	0	15	33	2	3	0	0	1	0	0	0	0	0	54
	0	46	97	5	25	0	0	2	0	0	0	0	0	175
14:00	1	17	25	1	5	0	0	0	0	0	0	0	0	49
14:15	0	23	37	2	7	1	0	0	0	0	0	0	0	70
14:30	0	13	28	1	8	0	0	0	0	0	0	0	0	50
14:45	0	21	42	0	4	0	0	0	0	0	0	0	0	67
	1	74	132	4	24	1	0	0	0	0	0	0	0	236
15:00	0	18	34	0	9	0	0	1	0	0	0	0	0	62
15:15	0	13	47	0	9	1	0	1	0	0	0	0	0	71
15:30	1	19	48	0	8	1	0	2	0	0	0	0	0	79
15:45	2	23	42	1	8	0	0	0	0	0	0	0	0	76
	3	73	171	1	34	2	0	4	0	0	0	0	0	288
16:00	2	27	44	0	10	0	0	1	0	0	0	0	0	84
16:15	2	43	53	4	14	1	0	2	0	0	0	0	0	119
16:30	1	40	48	2	13	0	0	1	0	0	0	0	0	105
16:45	0	22	46	2	13	0	0	2	0	0	0	0	0	85
	5	132	191	8	50	1	0	6	0	0	0	0	0	393
17:00	0	19	56	0	16	0	0	4	0	0	0	0	0	95
17:15	0	34	62	0	17	0	0	0	0	0	0	0	0	113
17:30	1	25	46	0	13	0	0	1	0	1	0	0	0	87
17:45	0	24	59	1	13	1	0	3	0	0	0	0	0	101
	1	102	223	1	59	1	0	8	0	1	0	0	0	396
18:00	1	31	60	0	17	0	0	1	0	0	0	0	0	110
18:15	0	37	52	0	9	0	0	1	0	0	0	0	0	99
18:30	0	18	36	0	8	1	0	0	0	0	0	0	0	63
18:45	0	23	37	0	5	0	1	0	0	0	0	0	0	66
	1	109	185	0	39	1	1	2	0	0	0	0	0	338
19:00	0	20	33	0	5	0	0	0	0	0	0	0	0	58
19:15	0	20	35	0	6	0	0	0	0	0	0	0	0	61
19:30	0	27	33	0	1	0	0	0	0	0	0	0	0	61
19:45	0	9	26	0	7	0	0	0	0	0	0	0	0	42
	0	76	127	0	19	0	0	0	0	0	0	0	0	222
20:00	0	11	21	0	2	0	0	0	0	0	0	0	0	34
20:15	0	20	17	0	3	0	0	0	0	0	0	0	0	40
20:30	0	12	22	0	2	0	0	0	0	0	0	0	0	36
20:45	0	3	18	0	4	0	0	0	0	0	0	0	0	25
	0	46	78	0	11	0	0	0	0	0	0	0	0	135
21:00	0	8	16	0	0	0	0	0	0	0	0	0	0	24
21:15	0	5	15	0	0	0	0	0	0	0	0	0	0	20
21:30	0	10	13	0	3	0	0	0	0	0	0	0	0	26
21:45	1	1	8	0	1	0	0	0	0	0	0	0	0	11
	1	24	52	0	4	0	0	0	0	0	0	0	0	81
22:00	0	3	6	0	2	0	0	0	0	0	0	0	0	11
22:15	0	2	7	0	1	0	0	0	0	0	0	0	0	10
22:30	0	2	8	0	0	0	0	0	0	0	0	0	0	10
22:45	0	1	2	0	0	0	0	0	0	0	0	0	0	3
	0	8	23	0	3	0	0	0	0	0	0	0	0	34
23:00	0	4	4	0	0	0	0	0	0	0	0	0	0	8
23:15	0	2	4	0	0	0	0	0	0	0	0	0	0	6
23:30	0	7	2	0	0	0	0	0	0	0	0	0	0	9
23:45	0	3	3	0	0	0	0	0	0	0	0	0	0	6
	0	16	13	0	0	0	0	0	0	0	0	0	0	29
Total	12	738	1367	19	294	6	1	24	0	1	0	0	0	2462
Percent	0.5%	30.0%	55.5%	0.8%	11.9%	0.2%	0.0%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Grand Total	20	888	1726	38	384	13	1	27	0	1	0	0	0	3098
Percent	0.6%	28.7%	55.7%	1.2%	12.4%	0.4%	0.0%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	

All Traffic Data Services, Inc.

1336 Farmer Rd.
Conyers, GA 30012
www.alltrafficdata.net

Site Code: 3
Station ID: 3
BIRMINGHAM HWY. SOUTH OF
NEW PROVIDENCE RD.
Latitude: 0' 0.000 Undefined

NB

Start Time	1 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 80	81 85	86 90	91 95	96 999	Total
11/11/09	0	0	2	2	0	2	0	0	0	0	0	0	0	0	6
00:15	0	0	0	2	3	0	0	0	0	0	0	0	0	0	5
00:30	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2
00:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1	0	3	4	3	2	0	0	0	0	0	0	0	0	13
01:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
01:15	0	1	2	0	0	2	0	0	0	0	0	0	0	0	5
01:30	0	0	0	1	1	0	0	0	0	0	0	0	0	0	2
01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	1	2	1	2	2	0	0	0	0	0	0	0	0	8
02:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
02:45	0	0	0	0	0	1	1	0	0	0	0	0	0	0	2
	0	0	0	0	1	1	2	0	0	0	0	0	0	0	4
03:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
03:15	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
	0	0	1	0	0	1	1	0	0	0	0	0	0	0	3
04:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
04:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30	0	0	1	1	1	0	0	0	0	0	0	0	0	0	3
04:45	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
	0	0	1	2	2	0	0	0	0	0	0	0	0	0	5
05:00	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
05:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30	0	0	1	3	0	3	1	0	0	0	0	0	0	0	8
05:45	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2
	0	0	1	3	2	4	1	0	0	0	0	0	0	0	11
06:00	0	0	2	3	3	2	1	0	0	0	0	0	0	0	11
06:15	0	2	0	2	6	3	0	1	0	0	0	0	0	0	14
06:30	0	0	1	6	10	4	2	0	1	0	0	0	0	0	24
06:45	1	1	0	6	19	2	4	0	0	0	0	0	0	0	33
	1	3	3	17	38	11	7	1	1	0	0	0	0	0	82
07:00	2	3	4	4	9	12	3	1	0	0	0	0	0	0	38
07:15	3	2	3	3	7	7	1	0	0	0	0	0	0	0	26
07:30	3	2	5	11	13	7	7	0	0	0	0	0	0	0	48
07:45	6	1	2	13	27	12	3	4	0	0	0	0	0	0	68
	14	8	14	31	56	38	14	5	0	0	0	0	0	0	180
08:00	7	1	3	7	20	21	8	0	2	0	0	0	0	1	70
08:15	3	0	9	25	15	13	6	0	1	1	0	0	0	0	73
08:30	3	1	5	17	24	15	8	0	1	0	0	0	0	0	74
08:45	3	0	2	15	25	15	9	1	0	0	0	0	0	0	70
	16	2	19	64	84	64	31	1	4	1	0	0	0	1	287
09:00	2	0	1	16	15	9	6	3	1	0	0	0	0	0	53
09:15	5	1	2	2	21	7	6	1	1	0	0	0	0	0	46
09:30	1	4	4	8	7	11	1	4	0	0	0	0	0	0	40
09:45	0	0	1	8	17	9	7	1	0	0	0	0	0	0	43
	8	5	8	34	60	36	20	9	2	0	0	0	0	0	182
10:00	1	0	4	4	13	13	5	1	1	0	0	0	0	0	42
10:15	2	0	2	6	6	10	8	0	1	0	0	0	0	0	35
10:30	1	0	2	7	10	13	11	1	0	0	0	0	0	0	45
10:45	0	5	2	4	13	9	8	1	1	0	0	0	0	0	43
	4	5	10	21	42	45	32	3	3	0	0	0	0	0	165
11:00	4	2	1	3	7	10	8	0	0	0	0	0	0	0	35
11:15	0	2	1	6	8	13	6	1	1	0	0	0	0	0	38
11:30	2	1	0	10	12	15	7	0	0	0	0	0	0	0	47
11:45	4	0	3	5	13	12	5	4	1	0	0	0	0	0	47
	10	5	5	24	40	50	26	5	2	0	0	0	0	0	167
Total	54	29	67	201	330	254	134	24	12	1	0	0	0	1	1107

All Traffic Data Services, Inc.

1336 Farmer Rd.
Conyers, GA 30012
www.alltrafficdata.net

Site Code: 3
Station ID: 3
BIRMINGHAM HWY. SOUTH OF
NEW PROVIDENCE RD.
Latitude: 0' 0.000 Undefined

NB

Start Time	1 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 80	81 85	86 90	91 95	96 999	Total
12 PM	1	0	1	1	19	12	6	4	0	0	0	0	0	0	44
12:15	0	1	0	1	10	13	11	4	0	0	0	0	0	0	40
12:30	0	0	2	8	15	14	10	1	1	1	0	0	0	0	52
12:45	2	0	0	7	12	20	8	3	1	0	0	0	0	0	53
	3	1	3	17	56	59	35	12	2	1	0	0	0	0	189
13:00	1	0	1	11	13	13	8	3	1	0	0	0	0	0	51
13:15	7	6	8	11	13	21	4	1	1	0	0	1	0	0	73
13:30	0	1	2	13	19	20	8	1	1	0	0	0	0	0	65
13:45	1	1	8	10	16	18	9	2	1	1	0	0	0	0	67
	9	8	19	45	61	72	29	7	4	1	0	1	0	0	256
14:00	2	2	5	12	22	16	9	1	0	0	0	0	0	0	69
14:15	1	0	3	7	17	15	15	1	0	0	0	0	0	0	59
14:30	3	1	3	5	16	18	7	2	0	0	0	0	0	0	55
14:45	1	3	5	9	18	18	6	1	0	0	1	0	0	0	62
	7	6	16	33	73	67	37	5	0	0	1	0	0	0	245
15:00	2	1	2	5	22	17	17	4	2	0	0	0	0	0	72
15:15	2	0	0	5	20	30	13	1	0	0	0	0	0	0	71
15:30	0	4	15	29	46	18	8	4	0	0	0	0	0	0	124
15:45	5	2	14	18	54	40	12	5	0	0	0	0	0	0	150
	9	7	31	57	142	105	50	14	2	0	0	0	0	0	417
16:00	5	1	14	37	56	23	5	0	0	0	0	0	0	0	141
16:15	2	1	14	24	48	29	10	2	0	0	0	0	0	0	130
16:30	7	2	16	24	47	28	10	3	0	0	0	0	0	0	137
16:45	23	6	13	35	56	33	4	4	0	0	0	0	0	0	174
	37	10	57	120	207	113	29	9	0	0	0	0	0	0	582
17:00	5	5	11	14	61	43	13	1	1	0	0	0	0	0	154
17:15	9	5	18	49	63	23	6	3	1	0	0	0	0	0	177
17:30	4	11	32	41	44	26	9	0	0	0	0	0	0	0	167
17:45	7	5	16	27	57	25	8	0	0	0	0	0	0	0	145
	25	26	77	131	225	117	36	4	2	0	0	0	0	0	643
18:00	3	0	14	31	51	17	10	1	0	0	0	0	0	0	127
18:15	4	4	11	14	45	22	6	0	0	0	0	0	0	0	106
18:30	2	0	5	25	45	14	7	0	0	0	0	0	0	0	98
18:45	6	6	9	15	30	17	8	2	0	0	0	0	0	0	93
	15	10	39	85	171	70	31	3	0	0	0	0	0	0	424
19:00	1	4	6	8	25	14	12	1	0	0	0	0	0	0	71
19:15	7	0	2	13	31	12	8	0	0	0	0	0	0	0	73
19:30	1	2	5	10	16	9	6	2	0	0	0	0	0	0	51
19:45	0	0	13	21	27	12	3	1	0	0	0	0	0	0	77
	9	6	26	52	99	47	29	4	0	0	0	0	0	0	272
20:00	0	0	1	14	25	27	5	0	1	0	0	0	0	0	73
20:15	0	0	0	8	14	13	8	0	0	0	0	0	0	0	43
20:30	1	0	2	7	15	9	5	2	0	0	0	0	0	0	41
20:45	0	1	1	10	15	12	5	2	0	0	0	0	0	0	46
	1	1	4	39	69	61	23	4	1	0	0	0	0	0	203
21:00	1	0	4	1	8	15	5	0	0	0	0	0	0	0	34
21:15	0	0	2	6	11	8	5	2	0	1	0	0	0	0	35
21:30	0	0	0	5	16	10	5	0	0	0	0	0	0	0	36
21:45	0	0	1	3	8	7	4	2	0	0	0	0	0	0	25
	1	0	7	15	43	40	19	4	0	1	0	0	0	0	130
22:00	0	0	0	2	4	3	5	0	0	0	0	0	0	0	14
22:15	0	0	1	2	2	2	2	3	0	0	0	0	0	0	12
22:30	0	0	2	1	6	2	3	1	0	0	0	0	0	0	15
22:45	0	0	0	1	10	4	3	1	1	0	0	0	0	0	20
	0	0	3	6	22	11	13	5	1	0	0	0	0	0	61
23:00	0	0	0	0	1	2	1	2	0	0	0	0	0	0	6
23:15	0	0	0	0	1	0	1	0	1	0	0	0	0	0	3
23:30	0	0	0	1	1	0	1	5	0	0	0	0	0	0	8
23:45	0	0	0	0	2	0	3	1	0	0	1	0	0	0	7
	0	0	0	1	5	2	6	8	1	0	1	0	0	0	24
Total	116	75	282	601	1173	764	337	79	13	3	2	1	0	0	3446
Grand Total	170	104	349	802	1503	1018	471	103	25	4	2	1	0	1	4553

15th Percentile :	46 MPH
50th Percentile :	53 MPH
85th Percentile :	60 MPH
95th Percentile :	65 MPH

Stats

Mean Speed(Average) :	52 MPH
10 MPH Pace Speed :	51-60 MPH
Number in Pace :	2521

Percent in Pace :	55.4%
Number of Vehicles > 55 MPH :	1625
Percent of Vehicles > 55 MPH :	35.7%

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Latitude: 0' 0.000 Undefined

SB

Start Time	1 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 80	81 85	86 90	91 95	96 999	Total
11/11/09	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
00:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:30	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
00:45	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2
	0	4	0	1	0	0	0	0	0	0	0	0	0	0	5
01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
01:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
03:30	0	0	2	1	0	0	0	0	0	0	0	0	0	0	3
03:45	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
	0	0	3	2	0	0	0	0	0	0	0	0	0	0	5
04:00	0	0	0	1	1	0	0	0	0	0	0	0	0	0	2
04:15	1	0	0	3	0	0	0	0	0	0	0	0	0	0	4
04:30	0	0	2	2	0	0	0	0	0	0	0	0	0	0	4
04:45	0	0	2	1	0	0	0	0	0	0	0	0	0	0	3
	1	0	4	7	1	0	0	0	0	0	0	0	0	0	13
05:00	0	0	7	0	1	0	0	0	0	0	0	0	0	0	8
05:15	0	0	3	5	6	0	0	0	0	0	0	0	0	0	14
05:30	0	2	12	7	2	0	0	0	0	0	0	0	0	0	23
05:45	0	1	13	25	2	0	0	0	0	0	0	0	0	0	41
	0	3	35	37	11	0	0	0	0	0	0	0	0	0	86
06:00	1	8	16	23	4	0	0	0	0	0	0	0	0	0	52
06:15	1	3	23	42	8	0	0	0	0	0	0	0	0	0	77
06:30	0	10	47	50	2	0	0	0	0	0	0	0	0	0	109
06:45	5	16	96	40	1	0	0	0	0	0	0	0	0	0	158
	7	37	182	155	15	0	0	0	0	0	0	0	0	0	396
07:00	2	14	105	47	5	0	0	0	0	0	0	0	0	0	173
07:15	0	16	75	64	7	0	1	0	0	0	0	0	0	0	163
07:30	3	28	150	45	2	0	0	0	0	0	0	0	0	0	228
07:45	5	40	126	35	2	0	0	0	0	0	0	0	0	0	208
	10	98	456	191	16	0	1	0	0	0	0	0	0	0	772
08:00	5	48	98	31	4	1	1	0	0	0	0	0	0	0	188
08:15	13	29	81	28	2	3	0	0	0	0	0	0	0	0	156
08:30	6	10	88	39	2	0	0	0	0	0	1	0	0	0	146
08:45	6	3	55	46	2	0	0	0	0	0	0	0	0	0	112
	30	90	322	144	10	4	1	0	0	0	1	0	0	0	602
09:00	1	8	35	48	8	0	0	0	0	0	0	0	0	0	100
09:15	4	8	47	41	7	0	0	0	0	0	0	0	0	0	107
09:30	4	10	31	20	8	0	0	0	0	0	0	0	0	0	73
09:45	10	9	32	42	5	0	0	0	0	0	0	0	0	0	98
	19	35	145	151	28	0	0	0	0	0	0	0	0	0	378
10:00	2	6	24	31	5	0	0	0	0	0	0	0	0	0	68
10:15	1	1	26	24	10	0	0	0	0	0	0	0	0	0	62
10:30	1	12	30	23	6	0	0	0	0	0	0	0	0	0	72
10:45	4	6	16	20	8	2	0	0	0	0	0	0	0	0	56
	8	25	96	98	29	2	0	0	0	0	0	0	0	0	258
11:00	2	3	22	30	9	0	0	0	0	0	0	0	0	0	66
11:15	2	4	25	20	4	0	0	0	0	0	0	0	0	0	55
11:30	4	5	21	20	5	1	0	0	0	0	0	0	0	0	56
11:45	2	5	25	29	7	1	0	0	0	0	0	0	0	0	69
	10	17	93	99	25	2	0	0	0	0	0	0	0	0	246
Total	85	310	1336	885	135	8	2	0	0	0	1	0	0	0	2762

All Traffic Data Services, Inc.

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BIRMINGHAM HWY. SOUTH OF
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Latitude: 0' 0.000 Undefined

SB

Start Time	1 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 80	81 85	86 90	91 95	96 999	Total
12 PM	5	8	22	25	10	0	0	0	0	0	0	0	0	0	70
12:15	7	1	26	28	7	1	0	0	0	0	0	0	0	0	70
12:30	0	0	18	29	13	0	0	0	0	0	0	0	0	0	60
12:45	1	2	17	11	4	2	0	0	0	0	0	0	0	0	37
	13	11	83	93	34	3	0	0	0	0	0	0	0	0	237
13:00	2	4	20	29	6	0	0	1	0	0	0	0	0	0	62
13:15	2	10	14	23	13	1	0	0	0	0	0	0	0	0	63
13:30	1	6	17	17	8	0	0	0	0	0	0	0	0	0	49
13:45	1	9	17	27	4	0	0	0	0	0	0	0	0	0	58
	6	29	68	96	31	1	0	1	0	0	0	0	0	0	232
14:00	9	6	19	12	3	0	0	0	0	0	0	0	0	0	49
14:15	2	4	29	8	1	0	0	0	0	0	0	0	0	0	44
14:30	8	10	26	20	3	0	0	1	0	0	0	0	0	0	68
14:45	2	9	13	23	4	0	0	0	0	0	0	0	0	0	51
	21	29	87	63	11	0	0	1	0	0	0	0	0	0	212
15:00	1	4	21	19	6	0	0	0	0	0	0	0	0	0	51
15:15	2	10	38	22	2	0	0	0	0	0	0	0	0	0	74
15:30	2	12	22	15	3	0	0	0	0	0	0	0	0	0	54
15:45	2	9	24	27	7	0	0	0	0	0	0	0	0	0	69
	7	35	105	83	18	0	0	0	0	0	0	0	0	0	248
16:00	3	7	34	17	2	0	0	0	0	0	0	0	0	0	63
16:15	3	3	18	15	6	1	0	0	0	0	0	0	0	0	46
16:30	5	7	33	23	2	1	0	0	0	0	0	0	0	0	71
16:45	11	3	23	16	4	0	0	0	0	0	0	0	0	0	57
	22	20	108	71	14	2	0	0	0	0	0	0	0	0	237
17:00	7	14	38	19	4	0	0	0	0	0	0	0	0	0	82
17:15	4	6	39	21	4	0	0	0	0	0	0	0	0	0	74
17:30	1	9	51	13	1	0	0	0	0	0	0	0	0	0	75
17:45	8	22	30	8	0	0	0	0	0	0	0	0	0	0	68
	20	51	158	61	9	0	0	0	0	0	0	0	0	0	299
18:00	5	28	30	11	7	0	0	0	0	0	0	0	0	0	81
18:15	4	20	47	14	0	0	0	0	0	0	0	0	0	0	85
18:30	2	10	35	16	2	1	0	0	0	0	0	0	0	0	66
18:45	6	12	32	12	0	0	0	0	0	0	0	0	0	0	62
	17	70	144	53	9	1	0	0	0	0	0	0	0	0	294
19:00	1	11	20	11	1	0	0	0	0	0	0	0	0	0	44
19:15	1	8	14	13	0	1	0	0	0	0	0	0	0	0	37
19:30	0	3	17	14	3	0	0	0	0	0	0	0	0	0	37
19:45	2	8	11	7	0	0	0	0	0	0	0	0	0	0	28
	4	30	62	45	4	1	0	0	0	0	0	0	0	0	146
20:00	0	1	12	5	2	0	0	0	0	0	0	0	0	0	20
20:15	2	1	5	5	2	0	0	0	0	0	0	0	0	0	15
20:30	0	3	6	5	0	1	0	0	0	0	0	0	0	0	15
20:45	0	1	9	2	1	0	0	0	0	0	0	0	0	0	13
	2	6	32	17	5	1	0	0	0	0	0	0	0	0	63
21:00	1	1	8	3	1	0	0	0	0	0	0	0	0	0	14
21:15	0	2	11	4	3	0	0	0	0	0	0	0	0	0	20
21:30	0	0	6	4	0	0	0	0	0	0	0	0	0	0	10
21:45	0	2	0	1	1	0	0	0	0	0	0	0	0	0	4
	1	5	25	12	5	0	0	0	0	0	0	0	0	0	48
22:00	0	8	2	3	0	0	0	0	0	0	0	0	0	0	13
22:15	0	0	2	2	2	0	0	0	0	0	0	0	0	0	6
22:30	0	2	1	3	2	0	0	0	0	0	0	0	0	0	8
22:45	0	1	7	1	1	0	0	0	0	0	0	0	0	0	10
	0	11	12	9	5	0	0	0	0	0	0	0	0	0	37
23:00	0	1	2	4	0	0	0	0	0	0	0	0	0	0	7
23:15	0	1	1	1	2	1	0	0	0	0	0	0	0	0	6
23:30	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
23:45	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
	0	2	4	6	2	1	0	0	0	0	0	0	0	0	15
Total	113	299	888	609	147	10	0	2	0	0	0	0	0	0	2068
Grand Total	198	609	2224	1494	282	18	2	2	0	0	1	0	0	0	4830

15th Percentile :	40 MPH
50th Percentile :	44 MPH
85th Percentile :	49 MPH
95th Percentile :	52 MPH

Stats

Mean Speed(Average) :	44 MPH
10 MPH Pace Speed :	41-50 MPH
Number in Pace :	3718

Percent in Pace :	77.0%
Number of Vehicles > 55 MPH :	23
Percent of Vehicles > 55 MPH :	0.5%

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Latitude: 0' 0.000 Undefined

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/11/09	0	5	1	0	0	0	0	0	0	0	0	0	0	6
00:15	0	4	1	0	0	0	0	0	0	0	0	0	0	5
00:30	0	2	0	0	0	0	0	0	0	0	0	0	0	2
00:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	11	2	0	0	0	0	0	0	0	0	0	0	13
01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
01:15	0	3	2	0	0	0	0	0	0	0	0	0	0	5
01:30	0	2	0	0	0	0	0	0	0	0	0	0	0	2
01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	6	2	0	0	0	0	0	0	0	0	0	0	8
02:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1
02:45	0	1	1	0	0	0	0	0	0	0	0	0	0	2
	0	3	1	0	0	0	0	0	0	0	0	0	0	4
03:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
03:15	0	0	1	0	0	0	0	0	0	0	0	0	0	1
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45	0	1	0	0	0	0	0	0	0	0	0	0	0	1
	0	1	2	0	0	0	0	0	0	0	0	0	0	3
04:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
04:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30	0	1	1	0	0	0	0	0	0	0	0	0	0	2
04:45	0	1	0	0	0	0	0	0	0	0	0	0	0	1
	0	3	1	0	0	0	0	0	0	0	0	0	0	4
05:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
05:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30	0	3	3	0	0	0	0	0	2	0	0	0	0	8
05:45	0	2	0	0	0	0	0	0	0	0	0	0	0	2
	0	6	3	0	0	0	0	0	2	0	0	0	0	11
06:00	0	9	2	0	0	0	0	0	0	0	0	0	0	11
06:15	0	11	2	1	0	0	0	0	0	0	0	0	0	14
06:30	0	17	6	1	0	0	0	0	0	0	0	0	0	24
06:45	1	23	7	1	1	0	0	0	0	0	0	0	0	33
	1	60	17	3	1	0	0	0	0	0	0	0	0	82
07:00	2	26	5	1	2	2	0	0	0	0	0	0	0	38
07:15	0	17	6	2	1	0	0	0	0	0	0	0	0	26
07:30	1	21	20	4	2	0	0	0	0	0	0	0	0	48
07:45	1	36	25	1	5	0	0	0	0	0	0	0	0	68
	4	100	56	8	10	2	0	0	0	0	0	0	0	180
08:00	1	35	30	1	3	0	0	0	0	0	0	0	0	70
08:15	2	44	22	3	1	1	0	0	0	0	0	0	0	73
08:30	2	38	29	0	2	2	0	1	0	0	0	0	0	74
08:45	1	39	26	2	1	0	0	1	0	0	0	0	0	70
	6	156	107	6	7	3	0	2	0	0	0	0	0	287
09:00	0	25	25	1	2	0	0	0	0	0	0	0	0	53
09:15	3	19	21	0	2	1	0	0	0	0	0	0	0	46
09:30	0	22	15	1	1	1	0	0	0	0	0	0	0	40
09:45	0	18	20	2	0	2	0	1	0	0	0	0	0	43
	3	84	81	4	5	4	0	1	0	0	0	0	0	182
10:00	0	17	23	0	2	0	0	0	0	0	0	0	0	42
10:15	0	18	15	1	0	0	0	0	0	0	0	0	0	34
10:30	1	23	18	0	2	0	0	0	1	0	0	0	0	45
10:45	1	17	23	0	0	2	0	0	0	0	0	0	0	43
	2	75	79	1	4	2	0	0	1	0	0	0	0	164
11:00	0	17	14	0	1	1	0	1	1	0	0	0	0	35
11:15	0	18	15	3	0	0	0	2	0	0	0	0	0	38
11:30	0	30	14	1	0	0	1	0	0	0	0	0	0	46
11:45	0	23	18	1	3	0	0	1	1	0	0	0	0	47
	0	88	61	5	4	1	1	4	2	0	0	0	0	166
Total	16	593	412	27	31	12	1	7	5	0	0	0	0	1104
Percent	1.4%	53.7%	37.3%	2.4%	2.8%	1.1%	0.1%	0.6%	0.5%	0.0%	0.0%	0.0%	0.0%	

All Traffic Data Services, Inc.

1336 Farmer Rd.
Conyers, GA 30012
www.alltrafficdata.net

Site Code: 3
Station ID: 3
BIRMINGHAM HWY. SOUTH OF
NEW PROVIDENCE RD.
Latitude: 0' 0.000 Undefined

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
12 PM	0	23	19	1	0	0	0	0	0	0	0	0	0	43
12:15	0	22	17	0	0	0	0	1	0	0	0	0	0	40
12:30	0	30	18	3	0	0	0	1	0	0	0	0	0	52
12:45	0	23	27	0	3	0	0	0	0	0	0	0	0	53
	0	98	81	4	3	0	0	2	0	0	0	0	0	188
13:00	0	22	26	1	0	1	0	0	0	0	0	0	0	50
13:15	1	30	37	2	1	0	0	2	0	0	0	0	0	73
13:30	1	35	27	2	0	0	0	0	0	0	0	0	0	65
13:45	0	28	33	4	0	0	0	1	0	0	0	0	0	66
	2	115	123	9	1	1	0	3	0	0	0	0	0	254
14:00	0	43	22	1	1	0	0	2	0	0	0	0	0	69
14:15	0	28	28	0	1	0	0	1	0	0	0	0	0	58
14:30	1	28	22	1	2	0	1	0	0	0	0	0	0	55
14:45	0	35	24	0	3	0	0	0	0	0	0	0	0	62
	1	134	96	2	7	0	1	3	0	0	0	0	0	244
15:00	0	37	32	0	2	0	0	1	0	0	0	0	0	72
15:15	1	36	32	0	2	0	0	0	0	0	0	0	0	71
15:30	0	80	36	6	1	0	0	1	0	0	0	0	0	124
15:45	0	92	50	1	3	0	0	4	0	0	0	0	0	150
	1	245	150	7	8	0	0	6	0	0	0	0	0	417
16:00	1	82	43	6	5	0	0	2	2	0	0	0	0	141
16:15	0	79	46	2	1	0	0	2	0	0	0	0	0	130
16:30	1	86	44	1	3	1	0	0	0	0	0	0	0	136
16:45	0	121	44	1	4	2	0	1	0	0	0	0	0	173
	2	368	177	10	13	3	0	5	2	0	0	0	0	580
17:00	2	87	60	0	3	1	0	1	0	0	0	0	0	154
17:15	1	122	50	0	2	1	1	0	0	0	0	0	0	177
17:30	0	108	54	1	0	0	0	3	0	0	0	0	0	166
17:45	0	101	40	0	3	0	0	1	0	0	0	0	0	145
	3	418	204	1	8	2	1	5	0	0	0	0	0	642
18:00	1	84	38	0	3	0	0	1	0	0	0	0	0	127
18:15	1	74	28	0	3	0	0	0	0	0	0	0	0	106
18:30	0	63	31	0	2	2	0	0	0	0	0	0	0	98
18:45	0	56	31	0	3	2	0	1	0	0	0	0	0	93
	2	277	128	0	11	4	0	2	0	0	0	0	0	424
19:00	0	46	21	0	3	0	0	0	0	0	0	0	0	70
19:15	0	50	20	0	1	1	0	1	0	0	0	0	0	73
19:30	0	27	19	0	1	0	0	3	0	0	0	0	0	50
19:45	0	53	24	0	0	0	0	0	0	0	0	0	0	77
	0	176	84	0	5	1	0	4	0	0	0	0	0	270
20:00	0	50	23	0	0	0	0	0	0	0	0	0	0	73
20:15	0	25	18	0	0	0	0	0	0	0	0	0	0	43
20:30	0	27	14	0	0	0	0	0	0	0	0	0	0	41
20:45	0	31	14	0	1	0	0	0	0	0	0	0	0	46
	0	133	69	0	1	0	0	0	0	0	0	0	0	203
21:00	0	25	8	0	0	0	0	0	0	0	0	0	0	33
21:15	0	15	20	0	0	0	0	0	0	0	0	0	0	35
21:30	0	25	11	0	0	0	0	0	0	0	0	0	0	36
21:45	0	13	12	0	0	0	0	0	0	0	0	0	0	25
	0	78	51	0	0	0	0	0	0	0	0	0	0	129
22:00	0	11	2	0	1	0	0	0	0	0	0	0	0	14
22:15	0	7	5	0	0	0	0	0	0	0	0	0	0	12
22:30	0	10	5	0	0	0	0	0	0	0	0	0	0	15
22:45	0	15	5	0	0	0	0	0	0	0	0	0	0	20
	0	43	17	0	1	0	0	0	0	0	0	0	0	61
23:00	0	5	1	0	0	0	0	0	0	0	0	0	0	6
23:15	0	2	1	0	0	0	0	0	0	0	0	0	0	3
23:30	0	7	1	0	0	0	0	0	0	0	0	0	0	8
23:45	0	6	1	0	0	0	0	0	0	0	0	0	0	7
	0	20	4	0	0	0	0	0	0	0	0	0	0	24
Total	11	2105	1184	33	58	11	2	30	2	0	0	0	0	3436
Percent	0.3%	61.3%	34.5%	1.0%	1.7%	0.3%	0.1%	0.9%	0.1%	0.0%	0.0%	0.0%	0.0%	
Grand Total	27	2698	1596	60	89	23	3	37	7	0	0	0	0	4540
Percent	0.6%	59.4%	35.2%	1.3%	2.0%	0.5%	0.1%	0.8%	0.2%	0.0%	0.0%	0.0%	0.0%	

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Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/11/09	0	2	0	0	0	0	0	0	0	0	0	0	0	2
00:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:30	0	0	1	0	0	0	0	0	0	0	0	0	0	1
00:45	0	1	0	0	1	0	0	0	0	0	0	0	0	2
	0	3	1	0	1	0	0	0	0	0	0	0	0	5
01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
01:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	1	0	0	0	0	0	0	0	0	0	0	0	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	1	0	0	0	0	0	0	0	0	0	0	1
03:30	0	3	0	0	0	0	0	0	0	0	0	0	0	3
03:45	0	0	0	0	1	0	0	0	0	0	0	0	0	1
	0	3	1	0	1	0	0	0	0	0	0	0	0	5
04:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
04:15	0	3	1	0	0	0	0	0	0	0	0	0	0	4
04:30	0	3	1	0	0	0	0	0	0	0	0	0	0	4
04:45	0	0	1	0	2	0	0	0	0	0	0	0	0	3
	0	7	4	0	2	0	0	0	0	0	0	0	0	13
05:00	0	3	2	0	1	0	0	0	2	0	0	0	0	8
05:15	0	7	5	0	2	0	0	0	0	0	0	0	0	14
05:30	0	14	8	0	1	0	0	0	0	0	0	0	0	23
05:45	0	23	16	0	2	0	0	0	0	0	0	0	0	41
	0	47	31	0	6	0	0	0	2	0	0	0	0	86
06:00	0	31	16	0	4	0	0	0	1	0	0	0	0	52
06:15	0	45	18	1	12	0	0	0	0	0	0	0	0	76
06:30	0	60	37	0	12	0	0	0	0	0	0	0	0	109
06:45	0	96	50	1	9	1	0	1	0	0	0	0	0	158
	0	232	121	2	37	1	0	1	1	0	0	0	0	395
07:00	3	105	51	0	11	2	0	1	0	0	0	0	0	173
07:15	0	96	51	2	11	0	1	1	1	0	0	0	0	163
07:30	0	131	78	2	16	0	0	1	0	0	0	0	0	228
07:45	1	119	69	4	13	2	0	0	0	0	0	0	0	208
	4	451	249	8	51	4	1	3	1	0	0	0	0	772
08:00	0	108	67	1	11	0	0	0	0	0	0	0	0	187
08:15	5	78	61	3	8	1	0	0	0	0	0	0	0	156
08:30	2	81	49	1	10	0	0	0	2	0	0	0	0	145
08:45	2	64	37	1	7	0	0	0	1	0	0	0	0	112
	9	331	214	6	36	1	0	0	3	0	0	0	0	600
09:00	0	47	43	0	8	0	0	0	1	0	0	0	0	99
09:15	3	57	40	1	6	0	0	0	0	0	0	0	0	107
09:30	1	36	27	0	7	0	0	1	0	0	0	0	0	72
09:45	3	57	28	0	7	0	0	1	1	0	0	0	0	97
	7	197	138	1	28	0	0	2	2	0	0	0	0	375
10:00	0	31	28	1	6	1	0	1	0	0	0	0	0	68
10:15	0	31	23	0	7	0	0	0	0	0	0	0	0	61
10:30	2	36	21	0	10	1	0	1	0	0	0	0	0	71
10:45	1	30	17	0	6	0	0	0	1	0	0	0	0	55
	3	128	89	1	29	2	0	2	1	0	0	0	0	255
11:00	2	25	25	1	12	0	0	0	0	0	0	0	0	65
11:15	1	30	13	0	9	0	0	2	0	0	0	0	0	55
11:30	0	25	22	1	7	0	0	1	0	0	0	0	0	56
11:45	1	36	28	1	2	1	0	0	0	0	0	0	0	69
	4	116	88	3	30	1	0	3	0	0	0	0	0	245
Total	27	1516	936	21	221	9	1	11	10	0	0	0	0	2752
Percent	1.0%	55.1%	34.0%	0.8%	8.0%	0.3%	0.0%	0.4%	0.4%	0.0%	0.0%	0.0%	0.0%	

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SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
12 PM	0	29	32	1	6	0	0	1	0	0	0	0	0	69
12:15	1	38	22	0	9	0	0	0	0	0	0	0	0	70
12:30	0	34	22	0	3	0	0	1	0	0	0	0	0	60
12:45	0	17	14	0	5	0	0	0	0	0	0	0	0	36
	1	118	90	1	23	0	0	2	0	0	0	0	0	235
13:00	1	28	25	1	6	0	0	0	1	0	0	0	0	62
13:15	0	31	23	1	8	0	0	0	0	0	0	0	0	63
13:30	1	30	15	0	2	0	0	0	0	0	0	0	0	48
13:45	0	28	19	0	10	0	0	0	1	0	0	0	0	58
	2	117	82	2	26	0	0	0	2	0	0	0	0	231
14:00	0	20	24	0	2	0	0	2	0	0	0	0	0	48
14:15	0	22	16	1	5	0	0	0	0	0	0	0	0	44
14:30	2	32	21	5	8	0	0	0	0	0	0	0	0	68
14:45	0	22	26	0	0	0	0	1	1	0	0	0	0	50
	2	96	87	6	15	0	0	3	1	0	0	0	0	210
15:00	1	21	19	1	8	0	0	0	0	0	0	0	0	50
15:15	1	32	36	0	4	0	0	0	0	0	0	0	0	73
15:30	0	28	22	0	3	0	0	1	0	0	0	0	0	54
15:45	1	30	33	2	3	0	0	0	0	0	0	0	0	69
	3	111	110	3	18	0	0	1	0	0	0	0	0	246
16:00	3	31	19	2	4	1	0	2	0	0	0	0	0	62
16:15	0	22	21	0	2	1	0	0	0	0	0	0	0	46
16:30	2	39	22	1	7	0	0	0	0	0	0	0	0	71
16:45	2	27	21	0	7	0	0	0	0	0	0	0	0	57
	7	119	83	3	20	2	0	2	0	0	0	0	0	236
17:00	1	43	33	0	4	1	0	0	0	0	0	0	0	82
17:15	0	38	31	0	4	0	1	0	0	0	0	0	0	74
17:30	0	44	29	0	2	0	0	0	0	0	0	0	0	75
17:45	0	38	25	0	4	1	0	0	0	0	0	0	0	68
	1	163	118	0	14	2	1	0	0	0	0	0	0	299
18:00	1	39	36	0	5	0	0	0	0	0	0	0	0	81
18:15	0	35	41	0	8	0	1	0	0	0	0	0	0	85
18:30	2	29	28	0	7	0	0	0	0	0	0	0	0	66
18:45	2	25	30	0	3	2	0	0	0	0	0	0	0	62
	5	128	135	0	23	2	1	0	0	0	0	0	0	294
19:00	0	24	18	0	1	0	0	0	0	0	0	0	0	43
19:15	0	15	19	0	3	0	0	0	0	0	0	0	0	37
19:30	0	20	12	0	5	0	0	0	0	0	0	0	0	37
19:45	0	16	9	0	2	0	0	0	0	0	0	0	0	27
	0	75	58	0	11	0	0	0	0	0	0	0	0	144
20:00	0	14	3	0	3	0	0	0	0	0	0	0	0	20
20:15	0	6	8	0	1	0	0	0	0	0	0	0	0	15
20:30	0	10	4	0	1	0	0	0	0	0	0	0	0	15
20:45	0	6	5	0	2	0	0	0	0	0	0	0	0	13
	0	36	20	0	7	0	0	0	0	0	0	0	0	63
21:00	1	8	4	0	0	0	0	0	0	0	0	0	0	13
21:15	0	14	6	0	0	0	0	0	0	0	0	0	0	20
21:30	0	7	2	0	1	0	0	0	0	0	0	0	0	10
21:45	0	1	3	0	0	0	0	0	0	0	0	0	0	4
	1	30	15	0	1	0	0	0	0	0	0	0	0	47
22:00	0	5	6	0	2	0	0	0	0	0	0	0	0	13
22:15	0	6	0	0	0	0	0	0	0	0	0	0	0	6
22:30	0	5	3	0	0	0	0	0	0	0	0	0	0	8
22:45	0	7	2	0	1	0	0	0	0	0	0	0	0	10
	0	23	11	0	3	0	0	0	0	0	0	0	0	37
23:00	0	5	2	0	0	0	0	0	0	0	0	0	0	7
23:15	0	4	1	0	1	0	0	0	0	0	0	0	0	6
23:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1
23:45	0	0	1	0	0	0	0	0	0	0	0	0	0	1
	0	10	4	0	1	0	0	0	0	0	0	0	0	15
Total	22	1026	813	15	162	6	2	8	3	0	0	0	0	2057
Percent	1.1%	49.9%	39.5%	0.7%	7.9%	0.3%	0.1%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	
Grand Total	49	2542	1749	36	383	15	3	19	13	0	0	0	0	4809
Percent	1.0%	52.9%	36.4%	0.7%	8.0%	0.3%	0.1%	0.4%	0.3%	0.0%	0.0%	0.0%	0.0%	

All Traffic Data Services, Inc.

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Site Code: 4
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NEW PROVIDENCE RD. WEST OF
BIRMINGHAM HWY.
Latitude: 0' 0.000 Undefined

EB

Start Time	1 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 80	81 85	86 90	91 95	96 999	Total
11/11/09	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
00:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
04:30	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2
04:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1	1	0	1	0	0	0	0	0	0	0	0	0	0	3
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:30	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
05:45	1	1	2	1	0	0	0	0	0	0	0	0	0	0	5
	2	2	2	1	0	0	0	0	0	0	0	0	0	0	7
06:00	1	2	0	0	0	0	0	0	0	0	0	0	0	0	3
06:15	5	1	2	2	0	0	0	0	0	0	0	0	0	0	10
06:30	5	5	2	0	0	0	0	0	0	0	0	0	0	0	12
06:45	5	4	6	2	0	0	0	0	0	0	0	0	0	0	17
	16	12	10	4	0	0	0	0	0	0	0	0	0	0	42
07:00	11	4	1	2	0	0	0	0	0	0	0	0	0	0	18
07:15	7	9	7	0	0	0	0	0	0	0	0	0	0	0	23
07:30	7	12	8	0	0	0	0	0	0	0	0	0	0	0	27
07:45	15	14	7	0	0	0	0	0	0	0	0	0	0	0	36
	40	39	23	2	0	0	0	0	0	0	0	0	0	0	104
08:00	14	15	8	0	0	0	0	0	0	0	0	0	0	0	37
08:15	16	18	6	0	0	0	0	0	0	0	0	0	0	0	40
08:30	9	6	5	2	0	0	0	0	0	0	0	0	0	0	22
08:45	5	12	5	1	0	0	0	0	0	0	0	0	0	0	23
	44	51	24	3	0	0	0	0	0	0	0	0	0	0	122
09:00	6	7	8	0	0	0	0	0	0	0	0	0	0	0	21
09:15	6	7	7	2	0	0	0	0	0	0	0	0	0	0	22
09:30	2	4	8	3	0	0	0	0	0	0	0	0	0	0	17
09:45	3	9	8	2	2	0	0	0	0	0	0	0	0	0	24
	17	27	31	7	2	0	0	0	0	0	0	0	0	0	84
10:00	5	7	4	1	1	0	0	0	0	0	0	0	0	0	18
10:15	5	2	6	0	0	0	0	0	0	0	0	0	0	0	13
10:30	6	5	9	3	0	0	0	0	0	0	0	0	0	0	23
10:45	2	5	6	5	1	0	0	0	0	0	0	0	0	0	19
	18	19	25	9	2	0	0	0	0	0	0	0	0	0	73
11:00	4	4	10	3	0	0	0	0	0	0	0	0	0	0	21
11:15	3	9	7	2	1	0	0	0	0	0	0	0	0	0	22
11:30	0	7	10	1	0	0	0	0	0	0	0	0	0	0	18
11:45	1	4	5	2	0	0	0	0	0	0	0	0	0	0	12
	8	24	32	8	1	0	0	0	0	0	0	0	0	0	73
Total	147	176	147	35	5	0	0	0	0	0	0	0	0	0	510

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Latitude: 0' 0.000 Undefined

EB

Start Time	1 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 80	81 85	86 90	91 95	96 999	Total
12 PM	1	12	8	1	1	0	0	0	0	0	0	0	0	0	23
12:15	2	11	9	3	0	0	0	0	0	0	0	0	0	0	25
12:30	6	9	6	0	0	0	0	0	0	0	0	0	0	0	21
12:45	0	5	6	1	0	0	0	0	0	0	0	0	0	0	12
	9	37	29	5	1	0	0	0	0	0	0	0	0	0	81
13:00	2	9	5	2	0	1	0	0	0	0	0	0	0	0	19
13:15	6	6	3	2	1	0	0	0	0	0	0	0	0	0	18
13:30	4	5	7	0	0	0	0	0	0	0	0	0	0	0	16
13:45	7	11	5	5	0	0	0	0	0	0	0	0	0	0	28
	19	31	20	9	1	1	0	0	0	0	0	0	0	0	81
14:00	10	8	9	1	0	0	0	0	0	0	0	0	0	0	28
14:15	5	19	8	1	0	0	0	0	0	0	0	0	0	0	33
14:30	5	16	10	2	0	0	0	0	0	0	0	0	0	0	33
14:45	3	10	4	1	0	0	0	0	0	0	0	0	0	0	18
	23	53	31	5	0	0	0	0	0	0	0	0	0	0	112
15:00	7	21	6	1	1	0	0	0	0	0	0	0	0	0	36
15:15	9	29	12	3	1	0	0	0	0	0	0	0	0	0	54
15:30	17	14	10	3	0	0	0	0	0	0	0	0	0	0	44
15:45	9	13	7	0	0	0	0	0	0	0	0	0	0	0	29
	42	77	35	7	2	0	0	0	0	0	0	0	0	0	163
16:00	9	15	5	1	2	0	0	0	0	0	0	0	0	0	32
16:15	22	17	8	1	0	0	0	0	0	0	0	0	0	0	48
16:30	12	5	3	0	0	0	0	0	0	0	0	0	0	0	20
16:45	7	8	8	0	1	0	0	0	0	0	0	0	0	0	24
	50	45	24	2	3	0	0	0	0	0	0	0	0	0	124
17:00	18	16	7	3	0	0	0	0	0	0	0	0	0	0	44
17:15	16	11	7	0	0	0	0	0	0	0	0	0	0	0	34
17:30	8	10	5	1	0	0	0	0	0	0	0	0	0	0	24
17:45	13	9	5	1	0	0	0	0	0	0	0	0	0	0	28
	55	46	24	5	0	0	0	0	0	0	0	0	0	0	130
18:00	15	12	3	0	0	0	0	0	0	0	0	0	0	0	30
18:15	13	15	2	0	0	0	0	0	0	0	0	0	0	0	30
18:30	4	9	5	0	0	0	0	0	0	0	0	0	0	0	18
18:45	9	4	1	0	0	0	0	0	0	0	0	0	0	0	14
	41	40	11	0	0	0	0	0	0	0	0	0	0	0	92
19:00	12	6	1	1	0	0	0	0	0	0	0	0	0	0	20
19:15	3	5	4	0	0	0	0	0	0	0	0	0	0	0	12
19:30	1	3	1	1	1	0	0	0	0	0	0	0	0	0	7
19:45	4	5	1	2	0	0	0	0	0	0	0	0	0	0	12
	20	19	7	4	1	0	0	0	0	0	0	0	0	0	51
20:00	5	1	2	1	0	0	0	0	0	0	0	0	0	0	9
20:15	2	1	2	0	0	0	0	0	0	0	0	0	0	0	5
20:30	1	0	3	1	0	0	0	0	0	0	0	0	0	0	5
20:45	3	2	5	0	0	0	0	0	0	0	0	0	0	0	10
	11	4	12	2	0	0	0	0	0	0	0	0	0	0	29
21:00	2	1	0	2	1	0	0	0	0	0	0	0	0	0	6
21:15	4	4	0	1	0	0	0	0	0	0	0	0	0	0	9
21:30	3	3	1	1	0	0	0	0	0	0	0	0	0	0	8
21:45	2	4	2	0	0	0	0	0	0	0	0	0	0	0	8
	11	12	3	4	1	0	0	0	0	0	0	0	0	0	31
22:00	0	2	0	1	0	0	0	0	0	0	0	0	0	0	3
22:15	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2
22:30	2	2	4	0	0	0	0	0	0	0	0	0	0	0	8
22:45	1	0	1	1	0	0	0	0	0	0	0	0	0	0	3
	4	5	5	2	0	0	0	0	0	0	0	0	0	0	16
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:15	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
23:30	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
23:45	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
	0	3	1	0	0	0	0	0	0	0	0	0	0	0	4
Total	285	372	202	45	9	1	0	0	0	0	0	0	0	0	914
Grand Total	432	548	349	80	14	1	0	0	0	0	0	0	0	0	1424

	15th Percentile :	18 MPH
	50th Percentile :	38 MPH
	85th Percentile :	44 MPH
	95th Percentile :	47 MPH
Stats	Mean Speed(Average) :	34 MPH
	10 MPH Pace Speed :	36-45 MPH
	Number in Pace :	897

Percent in Pace :	63.0%
Number of Vehicles > 55 MPH :	1
Percent of Vehicles > 55 MPH :	0.1%

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WB

Start Time	1 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 80	81 85	86 90	91 95	96 999	Total
11/11/09	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:15	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
00:30	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
00:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
01:30	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
05:00	3	1	0	0	0	0	0	0	0	0	0	0	0	0	4
05:15	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:30	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
05:45	2	1	0	0	0	0	0	0	0	0	0	0	0	0	3
	6	3	0	0	0	0	0	0	0	0	0	0	0	0	9
06:00	3	3	0	0	0	0	0	0	0	0	0	0	0	0	6
06:15	1	3	1	0	0	0	0	0	0	0	0	0	0	0	5
06:30	6	4	4	0	0	0	0	0	0	0	0	0	0	0	14
06:45	4	7	0	1	0	0	0	0	0	0	0	0	0	0	12
	14	17	5	1	0	0	0	0	0	0	0	0	0	0	37
07:00	9	14	4	1	0	0	0	0	0	0	0	0	0	0	28
07:15	13	16	6	0	0	0	0	0	0	0	0	0	0	0	35
07:30	13	16	5	1	0	0	0	0	0	0	0	0	0	0	35
07:45	18	31	6	3	0	0	0	0	0	0	0	0	0	0	58
	53	77	21	5	0	0	0	0	0	0	0	0	0	0	156
08:00	25	32	9	3	0	0	0	0	0	0	0	0	0	0	69
08:15	22	18	7	2	0	0	0	0	0	0	0	0	0	0	49
08:30	13	16	5	0	0	0	0	0	0	0	0	0	0	0	34
08:45	4	10	6	4	0	0	0	0	0	0	0	0	0	0	24
	64	76	27	9	0	0	0	0	0	0	0	0	0	0	176
09:00	5	5	5	1	0	0	0	0	0	0	0	0	0	0	16
09:15	6	10	1	1	0	0	0	0	0	0	0	0	0	0	18
09:30	5	7	6	0	0	0	0	0	0	0	0	0	0	0	18
09:45	7	8	3	0	0	0	0	0	0	0	0	0	0	0	18
	23	30	15	2	0	0	0	0	0	0	0	0	0	0	70
10:00	3	12	1	2	0	0	0	0	0	0	0	0	0	0	18
10:15	4	5	5	2	0	0	0	0	0	0	0	0	0	0	16
10:30	3	7	5	1	0	0	0	0	0	0	0	0	0	0	16
10:45	1	5	3	0	1	0	0	0	0	0	0	0	0	0	10
	11	29	14	5	1	0	0	0	0	0	0	0	0	0	60
11:00	6	5	2	0	0	0	0	0	0	0	0	0	0	0	13
11:15	2	6	3	1	0	0	0	0	0	0	0	0	0	0	12
11:30	5	4	6	1	0	0	0	0	0	0	0	0	0	0	16
11:45	1	4	2	4	0	0	0	0	0	0	0	0	0	0	11
	14	19	13	6	0	0	0	0	0	0	0	0	0	0	52
Total	189	252	95	28	1	0	0	0	0	0	0	0	0	0	565

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WB

Start Time	1 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 80	81 85	86 90	91 95	96 999	Total
12 PM	4	2	3	2	1	0	0	0	0	0	0	0	0	0	12
12:15	4	2	4	1	0	0	0	0	0	0	0	0	0	0	11
12:30	2	8	8	1	0	0	0	0	0	0	0	0	0	0	19
12:45	5	5	4	1	0	0	0	0	0	0	0	0	0	0	15
	15	17	19	5	1	0	0	0	0	0	0	0	0	0	57
13:00	4	11	3	1	0	0	0	0	0	0	0	0	0	0	19
13:15	4	5	3	0	1	0	0	0	0	0	0	0	0	0	13
13:30	3	10	3	3	0	0	0	0	0	0	0	0	0	0	19
13:45	4	7	4	4	0	0	0	0	0	0	0	0	0	0	19
	15	33	13	8	1	0	0	0	0	0	0	0	0	0	70
14:00	5	6	6	0	0	0	0	0	0	0	0	0	0	0	17
14:15	8	11	7	0	2	0	0	0	0	0	0	0	0	0	28
14:30	5	6	5	4	0	0	0	0	0	0	0	0	0	0	20
14:45	6	10	11	3	0	0	0	0	0	0	0	0	0	0	30
	24	33	29	7	2	0	0	0	0	0	0	0	0	0	95
15:00	1	10	14	5	2	0	0	0	0	0	0	0	0	0	32
15:15	4	12	7	2	1	0	0	0	0	0	0	0	0	0	26
15:30	5	12	9	4	0	0	0	0	0	0	0	0	0	0	30
15:45	2	18	4	4	1	0	0	0	0	0	0	0	0	0	29
	12	52	34	15	4	0	0	0	0	0	0	0	0	0	117
16:00	9	15	5	1	0	0	0	0	0	0	0	0	0	0	30
16:15	3	13	9	2	1	0	0	0	0	0	0	0	0	0	28
16:30	6	16	11	3	1	0	0	0	0	0	0	0	0	0	37
16:45	4	3	15	2	0	0	0	0	0	0	0	0	0	0	24
	22	47	40	8	2	0	0	0	0	0	0	0	0	0	119
17:00	6	12	12	5	0	0	0	0	0	0	0	0	0	0	35
17:15	6	5	12	0	0	0	0	0	0	0	0	0	0	0	23
17:30	2	8	7	3	0	0	0	0	0	0	0	0	0	0	20
17:45	6	13	7	0	0	0	0	0	0	0	0	0	0	0	26
	20	38	38	8	0	0	0	0	0	0	0	0	0	0	104
18:00	3	6	12	0	0	0	0	0	0	0	0	0	0	0	21
18:15	4	8	8	2	0	0	0	0	0	0	0	0	0	0	22
18:30	2	10	7	4	0	0	0	0	0	0	0	0	0	0	23
18:45	4	8	2	0	0	0	0	0	0	0	0	0	0	0	14
	13	32	29	6	0	0	0	0	0	0	0	0	0	0	80
19:00	3	8	4	2	0	0	0	0	0	0	0	0	0	0	17
19:15	3	8	6	3	0	0	0	0	0	0	0	0	0	0	20
19:30	2	10	5	3	0	0	0	0	0	0	0	0	0	0	20
19:45	6	6	5	1	0	0	0	0	0	0	0	0	0	0	18
	14	32	20	9	0	0	0	0	0	0	0	0	0	0	75
20:00	3	3	3	0	0	0	0	0	0	0	0	0	0	0	9
20:15	4	6	5	0	0	0	0	0	0	0	0	0	0	0	15
20:30	5	3	4	1	0	0	0	0	0	0	0	0	0	0	13
20:45	0	2	2	1	0	0	0	0	0	0	0	0	0	0	5
	12	14	14	2	0	0	0	0	0	0	0	0	0	0	42
21:00	4	3	1	2	0	0	0	0	0	0	0	0	0	0	10
21:15	2	2	3	0	0	0	0	0	0	0	0	0	0	0	7
21:30	4	1	1	0	0	0	0	0	0	0	0	0	0	0	6
21:45	1	1	0	2	0	0	0	0	0	0	0	0	0	0	4
	11	7	5	4	0	0	0	0	0	0	0	0	0	0	27
22:00	1	1	1	0	0	0	0	0	0	0	0	0	0	0	3
22:15	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4
22:30	1	0	2	0	0	0	0	0	0	0	0	0	0	0	3
22:45	0	1	2	0	0	0	0	0	0	0	0	0	0	0	3
	2	6	5	0	0	0	0	0	0	0	0	0	0	0	13
23:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
23:15	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
23:30	1	1	0	0	1	0	0	0	0	0	0	0	0	0	3
23:45	1	2	0	0	0	0	0	0	0	0	0	0	0	0	3
	2	3	0	2	1	0	0	0	0	0	0	0	0	0	8
Total	162	314	246	74	11	0	0	0	0	0	0	0	0	0	807
Grand Total	351	566	341	102	12	0	0	0	0	0	0	0	0	0	1372

	15th Percentile :	21 MPH
	50th Percentile :	38 MPH
	85th Percentile :	44 MPH
	95th Percentile :	48 MPH
Stats	Mean Speed(Average) :	35 MPH
	10 MPH Pace Speed :	36-45 MPH
	Number in Pace :	907

Percent in Pace :	66.1%
Number of Vehicles > 55 MPH :	0
Percent of Vehicles > 55 MPH :	0.0%

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Latitude: 0' 0.000 Undefined

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/11/09	0	1	0	0	0	0	0	0	0	0	0	0	0	1
00:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	1	0	0	0	0	0	0	0	0	0	0	0	1
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	1	0	0	0	0	0	0	0	0	0	0	0	1
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15	0	1	0	0	0	0	0	0	0	0	0	0	0	1
04:30	0	1	1	0	0	0	0	0	0	0	0	0	0	2
04:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	2	1	0	0	0	0	0	0	0	0	0	0	3
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15	0	0	0	0	0	1	0	0	0	0	0	0	0	1
05:30	0	0	1	0	0	0	0	0	0	0	0	0	0	1
05:45	0	2	2	0	1	0	0	0	0	0	0	0	0	5
	0	2	3	0	1	1	0	0	0	0	0	0	0	7
06:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
06:15	0	6	3	0	1	0	0	0	0	0	0	0	0	10
06:30	0	5	5	0	2	0	0	0	0	0	0	0	0	12
06:45	0	11	5	0	1	0	0	0	0	0	0	0	0	17
	0	25	13	0	4	0	0	0	0	0	0	0	0	42
07:00	0	11	6	0	1	0	0	0	0	0	0	0	0	18
07:15	0	7	15	1	0	0	0	0	0	0	0	0	0	23
07:30	0	15	12	0	0	0	0	0	0	0	0	0	0	27
07:45	0	20	15	1	0	0	0	0	0	0	0	0	0	36
	0	53	48	2	1	0	0	0	0	0	0	0	0	104
08:00	0	18	17	0	2	0	0	0	0	0	0	0	0	37
08:15	0	16	17	1	6	0	0	0	0	0	0	0	0	40
08:30	0	9	12	0	1	0	0	0	0	0	0	0	0	22
08:45	0	13	9	0	1	0	0	0	0	0	0	0	0	23
	0	56	55	1	10	0	0	0	0	0	0	0	0	122
09:00	0	8	11	0	2	0	0	0	0	0	0	0	0	21
09:15	0	8	11	0	2	0	0	1	0	0	0	0	0	22
09:30	0	6	9	0	2	0	0	0	0	0	0	0	0	17
09:45	0	8	12	0	3	0	0	1	0	0	0	0	0	24
	0	30	43	0	9	0	0	2	0	0	0	0	0	84
10:00	0	8	5	0	4	0	0	1	0	0	0	0	0	18
10:15	0	3	9	0	1	0	0	0	0	0	0	0	0	13
10:30	0	8	8	0	7	0	0	0	0	0	0	0	0	23
10:45	0	5	12	0	2	0	0	0	0	0	0	0	0	19
	0	24	34	0	14	0	0	1	0	0	0	0	0	73
11:00	0	7	10	0	4	0	0	0	0	0	0	0	0	21
11:15	0	8	13	0	1	0	0	0	0	0	0	0	0	22
11:30	0	5	11	0	2	0	0	0	0	0	0	0	0	18
11:45	0	6	6	0	0	0	0	0	0	0	0	0	0	12
	0	26	40	0	7	0	0	0	0	0	0	0	0	73
Total	0	220	237	3	46	1	0	3	0	0	0	0	0	510
Percent	0.0%	43.1%	46.5%	0.6%	9.0%	0.2%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	

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Latitude: 0' 0.000 Undefined

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
12 PM	0	7	16	0	0	0	0	0	0	0	0	0	0	23
12:15	1	9	14	0	1	0	0	0	0	0	0	0	0	25
12:30	0	10	9	0	2	0	0	0	0	0	0	0	0	21
12:45	0	3	6	0	3	0	0	0	0	0	0	0	0	12
	1	29	45	0	6	0	0	0	0	0	0	0	0	81
13:00	0	7	10	0	2	0	0	0	0	0	0	0	0	19
13:15	0	5	9	0	3	0	0	1	0	0	0	0	0	18
13:30	0	8	8	0	0	0	0	0	0	0	0	0	0	16
13:45	1	12	10	0	4	0	0	1	0	0	0	0	0	28
	1	32	37	0	9	0	0	2	0	0	0	0	0	81
14:00	0	12	13	0	1	0	0	2	0	0	0	0	0	28
14:15	0	12	19	0	2	0	0	0	0	0	0	0	0	33
14:30	0	18	11	1	1	2	0	0	0	0	0	0	0	33
14:45	0	8	10	0	0	0	0	0	0	0	0	0	0	18
	0	50	53	1	4	2	0	2	0	0	0	0	0	112
15:00	0	16	15	0	5	0	0	0	0	0	0	0	0	36
15:15	0	29	23	0	2	0	0	0	0	0	0	0	0	54
15:30	0	19	17	0	7	0	0	0	0	0	0	1	0	44
15:45	0	14	13	1	1	0	0	0	0	0	0	0	0	29
	0	78	68	1	15	0	0	0	0	0	0	1	0	163
16:00	0	13	17	1	1	0	0	0	0	0	0	0	0	32
16:15	0	29	15	0	2	0	0	1	0	0	0	0	0	47
16:30	0	9	9	0	2	0	0	0	0	0	0	0	0	20
16:45	0	15	7	0	2	0	0	0	0	0	0	0	0	24
	0	66	48	1	7	0	0	1	0	0	0	0	0	123
17:00	0	29	12	0	2	1	0	0	0	0	0	0	0	44
17:15	0	21	10	0	2	0	0	1	0	0	0	0	0	34
17:30	0	13	9	0	2	0	0	0	0	0	0	0	0	24
17:45	0	13	13	0	1	1	0	0	0	0	0	0	0	28
	0	76	44	0	7	2	0	1	0	0	0	0	0	130
18:00	0	12	14	0	3	0	0	1	0	0	0	0	0	30
18:15	0	17	11	0	2	0	0	0	0	0	0	0	0	30
18:30	0	12	6	0	0	0	0	0	0	0	0	0	0	18
18:45	0	9	4	0	1	0	0	0	0	0	0	0	0	14
	0	50	35	0	6	0	0	1	0	0	0	0	0	92
19:00	0	8	10	0	2	0	0	0	0	0	0	0	0	20
19:15	0	6	6	0	0	0	0	0	0	0	0	0	0	12
19:30	0	4	2	0	1	0	0	0	0	0	0	0	0	7
19:45	0	9	3	0	0	0	0	0	0	0	0	0	0	12
	0	27	21	0	3	0	0	0	0	0	0	0	0	51
20:00	0	4	4	0	1	0	0	0	0	0	0	0	0	9
20:15	0	1	3	0	1	0	0	0	0	0	0	0	0	5
20:30	0	3	2	0	0	0	0	0	0	0	0	0	0	5
20:45	0	4	6	0	0	0	0	0	0	0	0	0	0	10
	0	12	15	0	2	0	0	0	0	0	0	0	0	29
21:00	0	5	1	0	0	0	0	0	0	0	0	0	0	6
21:15	0	6	3	0	0	0	0	0	0	0	0	0	0	9
21:30	0	2	6	0	0	0	0	0	0	0	0	0	0	8
21:45	0	5	2	0	1	0	0	0	0	0	0	0	0	8
	0	18	12	0	1	0	0	0	0	0	0	0	0	31
22:00	0	2	1	0	0	0	0	0	0	0	0	0	0	3
22:15	0	2	0	0	0	0	0	0	0	0	0	0	0	2
22:30	0	3	4	0	1	0	0	0	0	0	0	0	0	8
22:45	0	2	1	0	0	0	0	0	0	0	0	0	0	3
	0	9	6	0	1	0	0	0	0	0	0	0	0	16
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:15	0	0	1	0	0	0	0	0	0	0	0	0	0	1
23:30	0	1	1	0	0	0	0	0	0	0	0	0	0	2
23:45	0	1	0	0	0	0	0	0	0	0	0	0	0	1
	0	2	2	0	0	0	0	0	0	0	0	0	0	4
Total	2	449	386	3	61	4	0	7	0	0	0	1	0	913
Percent	0.2%	49.2%	42.3%	0.3%	6.7%	0.4%	0.0%	0.8%	0.0%	0.0%	0.0%	0.1%	0.0%	
Grand Total	2	669	623	6	107	5	0	10	0	0	0	1	0	1423
Percent	0.1%	47.0%	43.8%	0.4%	7.5%	0.4%	0.0%	0.7%	0.0%	0.0%	0.0%	0.1%	0.0%	

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WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/11/09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:15	0	0	1	0	0	0	0	0	0	0	0	0	0	1
00:30	0	0	0	0	1	0	0	0	0	0	0	0	0	1
00:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	1	0	1	0	0	0	0	0	0	0	0	2
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15	0	1	0	0	0	0	0	0	0	0	0	0	0	1
01:30	0	0	1	0	0	0	0	0	0	0	0	0	0	1
01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	1	1	0	0	0	0	0	0	0	0	0	0	2
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15	0	1	0	0	0	0	0	0	0	0	0	0	0	1
04:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	1	0	0	0	0	0	0	0	0	0	0	0	1
05:00	0	3	0	0	0	1	0	0	0	0	0	0	0	4
05:15	0	1	0	0	0	0	0	0	0	0	0	0	0	1
05:30	0	0	0	0	1	0	0	0	0	0	0	0	0	1
05:45	0	2	0	0	1	0	0	0	0	0	0	0	0	3
	0	6	0	0	2	1	0	0	0	0	0	0	0	9
06:00	0	4	2	0	0	0	0	0	0	0	0	0	0	6
06:15	0	2	3	0	0	0	0	0	0	0	0	0	0	5
06:30	0	7	3	1	3	0	0	0	0	0	0	0	0	14
06:45	0	7	4	1	0	0	0	0	0	0	0	0	0	12
	0	20	12	2	3	0	0	0	0	0	0	0	0	37
07:00	0	20	5	0	3	0	0	0	0	0	0	0	0	28
07:15	0	26	7	1	1	0	0	0	0	0	0	0	0	35
07:30	0	19	13	2	0	0	0	0	0	0	0	0	0	34
07:45	0	37	19	0	2	0	0	0	0	0	0	0	0	58
	0	102	44	3	6	0	0	0	0	0	0	0	0	155
08:00	0	33	27	0	8	0	0	0	0	0	0	0	0	68
08:15	0	23	24	0	2	0	0	0	0	0	0	0	0	49
08:30	0	17	17	0	0	0	0	0	0	0	0	0	0	34
08:45	0	11	11	0	2	0	0	0	0	0	0	0	0	24
	0	84	79	0	12	0	0	0	0	0	0	0	0	175
09:00	0	10	3	0	3	0	0	0	0	0	0	0	0	16
09:15	0	10	6	0	2	0	0	0	0	0	0	0	0	18
09:30	0	9	8	0	1	0	0	0	0	0	0	0	0	18
09:45	0	9	4	2	3	0	0	0	0	0	0	0	0	18
	0	38	21	2	9	0	0	0	0	0	0	0	0	70
10:00	0	7	8	0	3	0	0	0	0	0	0	0	0	18
10:15	0	11	1	0	4	0	0	0	0	0	0	0	0	16
10:30	0	8	8	0	0	0	0	0	0	0	0	0	0	16
10:45	0	3	5	0	2	0	0	0	0	0	0	0	0	10
	0	29	22	0	9	0	0	0	0	0	0	0	0	60
11:00	0	6	6	0	1	0	0	0	0	0	0	0	0	13
11:15	0	6	5	0	1	0	0	0	0	0	0	0	0	12
11:30	0	8	7	0	1	0	0	0	0	0	0	0	0	16
11:45	0	7	4	0	0	0	0	0	0	0	0	0	0	11
	0	27	22	0	3	0	0	0	0	0	0	0	0	52
Total	0	308	202	7	45	1	0	0	0	0	0	0	0	563
Percent	0.0%	54.7%	35.9%	1.2%	8.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

All Traffic Data Services, Inc.

1336 Farmer Rd.
Conyers, GA 30012
www.alltrafficdata.net

Site Code: 4
Station ID: 4
NEW PROVIDENCE RD. WEST OF
BIRMINGHAM HWY.
Latitude: 0' 0.000 Undefined

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
12 PM	0	7	3	0	2	0	0	0	0	0	0	0	0	12
12:15	0	5	5	0	1	0	0	0	0	0	0	0	0	11
12:30	0	8	10	0	1	0	0	0	0	0	0	0	0	19
12:45	0	6	7	0	1	0	0	1	0	0	0	0	0	15
	0	26	25	0	5	0	0	1	0	0	0	0	0	57
13:00	0	6	12	1	0	0	0	0	0	0	0	0	0	19
13:15	0	5	6	0	1	0	0	1	0	0	0	0	0	13
13:30	0	8	10	0	1	0	0	0	0	0	0	0	0	19
13:45	0	10	7	0	2	0	0	0	0	0	0	0	0	19
	0	29	35	1	4	0	0	1	0	0	0	0	0	70
14:00	0	9	5	0	3	0	0	0	0	0	0	0	0	17
14:15	0	18	8	1	1	0	0	0	0	0	0	0	0	28
14:30	1	12	4	0	2	1	0	0	0	0	0	0	0	20
14:45	0	21	8	0	1	0	0	0	0	0	0	0	0	30
	1	60	25	1	7	1	0	0	0	0	0	0	0	95
15:00	0	22	9	0	1	0	0	0	0	0	0	0	0	32
15:15	0	14	9	0	2	0	0	1	0	0	0	0	0	26
15:30	0	17	11	1	1	0	0	0	0	0	0	0	0	30
15:45	0	16	11	0	1	1	0	0	0	0	0	0	0	29
	0	69	40	1	5	1	0	1	0	0	0	0	0	117
16:00	0	16	10	1	2	0	0	1	0	0	0	0	0	30
16:15	0	18	7	1	1	1	0	0	0	0	0	0	0	28
16:30	0	17	18	0	2	0	0	0	0	0	0	0	0	37
16:45	0	16	7	0	1	0	0	0	0	0	0	0	0	24
	0	67	42	2	6	1	0	1	0	0	0	0	0	119
17:00	1	21	13	0	0	0	0	0	0	0	0	0	0	35
17:15	0	14	4	0	5	0	0	0	0	0	0	0	0	23
17:30	0	15	5	0	0	0	0	0	0	0	0	0	0	20
17:45	1	13	9	0	3	0	0	0	0	0	0	0	0	26
	2	63	31	0	8	0	0	0	0	0	0	0	0	104
18:00	0	14	5	0	2	0	0	0	0	0	0	0	0	21
18:15	0	17	5	0	0	0	0	0	0	0	0	0	0	22
18:30	0	13	10	0	0	0	0	0	0	0	0	0	0	23
18:45	0	8	5	0	0	0	0	1	0	0	0	0	0	14
	0	52	25	0	2	0	0	1	0	0	0	0	0	80
19:00	0	10	4	0	3	0	0	0	0	0	0	0	0	17
19:15	0	16	3	0	1	0	0	0	0	0	0	0	0	20
19:30	0	14	5	0	1	0	0	0	0	0	0	0	0	20
19:45	0	11	5	0	2	0	0	0	0	0	0	0	0	18
	0	51	17	0	7	0	0	0	0	0	0	0	0	75
20:00	0	8	1	0	0	0	0	0	0	0	0	0	0	9
20:15	0	13	2	0	0	0	0	0	0	0	0	0	0	15
20:30	0	7	5	0	1	0	0	0	0	0	0	0	0	13
20:45	0	3	2	0	0	0	0	0	0	0	0	0	0	5
	0	31	10	0	1	0	0	0	0	0	0	0	0	42
21:00	0	8	2	0	0	0	0	0	0	0	0	0	0	10
21:15	0	4	3	0	0	0	0	0	0	0	0	0	0	7
21:30	0	5	1	0	0	0	0	0	0	0	0	0	0	6
21:45	0	2	2	0	0	0	0	0	0	0	0	0	0	4
	0	19	8	0	0	0	0	0	0	0	0	0	0	27
22:00	1	1	1	0	0	0	0	0	0	0	0	0	0	3
22:15	0	0	3	0	1	0	0	0	0	0	0	0	0	4
22:30	0	1	2	0	0	0	0	0	0	0	0	0	0	3
22:45	0	3	0	0	0	0	0	0	0	0	0	0	0	3
	1	5	6	0	1	0	0	0	0	0	0	0	0	13
23:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
23:15	0	0	1	0	0	0	0	0	0	0	0	0	0	1
23:30	0	3	0	0	0	0	0	0	0	0	0	0	0	3
23:45	0	3	0	0	0	0	0	0	0	0	0	0	0	3
	0	7	1	0	0	0	0	0	0	0	0	0	0	8
Total	4	479	265	5	46	3	0	5	0	0	0	0	0	807
Percent	0.5%	59.4%	32.8%	0.6%	5.7%	0.4%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	
Grand Total	4	787	467	12	91	4	0	5	0	0	0	0	0	1370
Percent	0.3%	57.4%	34.1%	0.9%	6.6%	0.3%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	

APPENDIX B: CAPACITY ANALYSES

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	23	62	41	44	48	48	25	139	49	312	615	67
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.90	0.90	0.90	0.86	0.86	0.86	0.90	0.90	0.90
Hourly flow rate (vph)	27	73	48	49	53	53	29	162	57	347	683	74
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								Raised			Raised	
Median storage veh)								4			4	
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1623	1653	683	1633	1671	162	758			219		
vC1, stage 1 conf vol	1377	1377		220	220							
vC2, stage 2 conf vol	246	277		1413	1451							
vCu, unblocked vol	1623	1653	683	1633	1671	162	758			219		
tC, single (s)	7.2	6.6	6.3	7.2	6.6	6.3	4.2			4.2		
tC, 2 stage (s)	6.2	5.6		6.2	5.6							
tF (s)	3.6	4.1	3.4	3.6	4.1	3.4	2.3			2.3		
p0 queue free %	78	50	89	0	50	94	96			73		
cM capacity (veh/h)	123	146	431	33	106	855	806			1288		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	27	121	49	107	191	57	1030	74
Volume Left	27	0	49	0	29	0	347	0
Volume Right	0	48	0	53	0	57	0	74
cSH	123	198	33	189	806	1700	1288	1700
Volume to Capacity	0.22	0.61	1.50	0.56	0.04	0.03	0.27	0.04
Queue Length 95th (ft)	20	87	136	75	3	0	27	0
Control Delay (s)	42.5	48.1	524.2	46.3	1.8	0.0	5.6	0.0
Lane LOS	E	E	F	E	A		A	
Approach Delay (s)	47.1		196.5		1.4		5.2	
Approach LOS	E		F					

Intersection Summary			
Average Delay	26.4		
Intersection Capacity Utilization	77.4%	ICU Level of Service	D
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	44	55	28	74	66	330	12	578	36	88	204	24
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.74	0.74	0.74	0.94	0.94	0.94	0.94	0.94	0.94	0.92	0.92	0.92
Hourly flow rate (vph)	59	74	38	79	70	351	13	615	38	96	222	26
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								Raised			Raised	
Median storage veh)								4			4	
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1440	1092	222	1128	1080	615	248			653		
vC1, stage 1 conf vol	413	413		640	640							
vC2, stage 2 conf vol	1027	679		488	439							
vCu, unblocked vol	1440	1092	222	1128	1080	615	248			653		
tC, single (s)	7.2	6.6	6.3	7.2	6.6	6.3	4.2			4.2		
tC, 2 stage (s)	6.2	5.6		6.2	5.6							
tF (s)	3.6	4.1	3.4	3.6	4.1	3.4	2.3			2.3		
p0 queue free %	0	78	95	77	83	26	99			89		
cM capacity (veh/h)	21	330	791	348	408	472	1256			883		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	59	112	79	421	628	38	317	26
Volume Left	59	0	79	0	13	0	96	0
Volume Right	0	38	0	351	0	38	0	26
cSH	21	411	348	460	1256	1700	883	1700
Volume to Capacity	2.81	0.27	0.23	0.92	0.01	0.02	0.11	0.02
Queue Length 95th (ft)	192	27	21	260	1	0	9	0
Control Delay (s)	1198.7	17.0	18.4	53.9	0.3	0.0	3.7	0.0
Lane LOS	F	C	C	F	A		A	
Approach Delay (s)	426.4		48.3		0.3		3.4	
Approach LOS	F		E					

Intersection Summary			
Average Delay	58.7		
Intersection Capacity Utilization	87.2%	ICU Level of Service	E
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (veh/h)	0	70	40	0	60	95	345	645	0	30	215	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.90	0.90	0.90	0.90	0.90	0.90	0.86	0.86	0.86
Hourly flow rate (vph)	0	82	47	0	67	106	383	717	0	35	250	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1942	1803	717	1891	1803	250	250			717		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1942	1803	717	1891	1803	250	250			717		
tC, single (s)	7.2	6.6	6.3	7.2	6.6	6.3	4.2			4.2		
tC, 2 stage (s)												
tF (s)	3.6	4.1	3.4	3.6	4.1	3.4	2.3			2.3		
p0 queue free %	0	0	89	0	0	86	69			96		
cM capacity (veh/h)	0	50	412	0	50	763	1254			836		

Direction, Lane #	EB 1	WB 1	SE 1	NW 1
Volume Total	129	172	1100	285
Volume Left	0	0	383	35
Volume Right	47	106	0	0
cSH	73	116	1254	836
Volume to Capacity	1.77	1.48	0.31	0.04
Queue Length 95th (ft)	283	306	33	3
Control Delay (s)	492.0	324.0	6.3	1.6
Lane LOS	F	F	A	A
Approach Delay (s)	492.0	324.0	6.3	1.6
Approach LOS	F	F		

Intersection Summary			
Average Delay	75.2		
Intersection Capacity Utilization	85.0%	ICU Level of Service	E
Analysis Period (min)	15		

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Volume (veh/h)	0	685	245	80	45	0
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.82	0.82	0.86	0.86	0.65	0.65
Hourly flow rate (vph)	0	835	285	93	69	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	378				1167	331
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	378				1167	331
tC, single (s)	4.2				6.5	6.3
tC, 2 stage (s)						
tF (s)	2.3				3.6	3.4
p0 queue free %	100				66	100
cM capacity (veh/h)	1123				204	686

Direction, Lane #	SE 1	NW 1	SW 1
Volume Total	835	378	69
Volume Left	0	0	69
Volume Right	0	93	0
cSH	1700	1700	204
Volume to Capacity	0.49	0.22	0.34
Queue Length 95th (ft)	0	0	36
Control Delay (s)	0.0	0.0	31.5
Lane LOS			D
Approach Delay (s)	0.0	0.0	31.5
Approach LOS			D

Intersection Summary			
Average Delay	1.7		
Intersection Capacity Utilization	46.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Volume (veh/h)	415	0	45	155	0	80
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.49	0.49
Hourly flow rate (vph)	461	0	50	172	0	163
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			461		733	461
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			461		733	461
tC, single (s)			4.2		6.5	6.3
tC, 2 stage (s)						
tF (s)			2.3		3.6	3.4
p0 queue free %			95		100	72
cM capacity (veh/h)			1045		354	578

Direction, Lane #	EB 1	WB 1	NE 1
Volume Total	461	222	163
Volume Left	0	50	0
Volume Right	0	0	163
cSH	1700	1045	578
Volume to Capacity	0.27	0.05	0.28
Queue Length 95th (ft)	0	4	29
Control Delay (s)	0.0	2.3	13.7
Lane LOS		A	B
Approach Delay (s)	0.0	2.3	13.7
Approach LOS			B

Intersection Summary			
Average Delay	3.2		
Intersection Capacity Utilization	39.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	25	110	90	0	0	70
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.85	0.85	0.76	0.76	0.67	0.67
Hourly flow rate (vph)	29	129	118	0	0	104
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	118				307	118
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	118				307	118
tC, single (s)	4.2				6.5	6.3
tC, 2 stage (s)						
tF (s)	2.3				3.6	3.4
p0 queue free %	98				100	88
cM capacity (veh/h)	1404				649	904

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	159	118	104
Volume Left	29	0	0
Volume Right	0	0	104
cSH	1404	1700	904
Volume to Capacity	0.02	0.07	0.12
Queue Length 95th (ft)	2	0	10
Control Delay (s)	1.6	0.0	9.5
Lane LOS	A		A
Approach Delay (s)	1.6	0.0	9.5
Approach LOS			A

Intersection Summary			
Average Delay	3.2		
Intersection Capacity Utilization	17.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	NBL	NBR	SET	SER	NWL	NWT
Lane Configurations						
Volume (veh/h)	25	0	990	70	0	310
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.57	0.57	0.90	0.90	0.88	0.88
Hourly flow rate (vph)	44	0	1100	78	0	352
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1491	1139			1178	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1491	1139			1178	
tC, single (s)	6.5	6.3			4.2	
tC, 2 stage (s)						
tF (s)	3.6	3.4			2.3	
p0 queue free %	66	100			100	
cM capacity (veh/h)	128	233			555	

Direction, Lane #	NB 1	SE 1	NW 1
Volume Total	44	1178	352
Volume Left	44	0	0
Volume Right	0	78	0
cSH	128	1700	1700
Volume to Capacity	0.34	0.69	0.21
Queue Length 95th (ft)	34	0	0
Control Delay (s)	46.9	0.0	0.0
Lane LOS	E		
Approach Delay (s)	46.9	0.0	0.0
Approach LOS	E		

Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	66.3%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (veh/h)	0	60	30	0	70	345	95	215	0	40	645	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.67	0.67	0.67	0.94	0.94	0.94	0.94	0.94	0.94	0.92	0.92	0.92
Hourly flow rate (vph)	0	90	45	0	74	367	101	229	0	43	701	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1623	1219	229	1308	1219	701	701			229		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1623	1219	229	1308	1219	701	701			229		
tC, single (s)	7.2	6.6	6.3	7.2	6.6	6.3	4.2			4.2		
tC, 2 stage (s)												
tF (s)	3.6	4.1	3.4	3.6	4.1	3.4	2.3			2.3		
p0 queue free %	100	39	94	100	49	13	88			97		
cM capacity (veh/h)	5	146	784	56	146	421	847			1277		

Direction, Lane #	EB 1	WB 1	SE 1	NW 1
Volume Total	134	441	330	745
Volume Left	0	0	101	43
Volume Right	45	367	0	0
cSH	200	319	847	1277
Volume to Capacity	0.67	1.38	0.12	0.03
Queue Length 95th (ft)	102	565	10	3
Control Delay (s)	53.2	222.4	4.0	0.9
Lane LOS	F	F	A	A
Approach Delay (s)	53.2	222.4	4.0	0.9
Approach LOS	F	F		

Intersection Summary			
Average Delay	65.0		
Intersection Capacity Utilization	78.8%	ICU Level of Service	D
Analysis Period (min)	15		

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Volume (veh/h)	0	245	685	45	80	0
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.97	0.97	0.94	0.94	0.84	0.84
Hourly flow rate (vph)	0	253	729	48	95	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	777				1005	753
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	777				1005	753
tC, single (s)	4.2				6.5	6.3
tC, 2 stage (s)						
tF (s)	2.3				3.6	3.4
p0 queue free %	100				63	100
cM capacity (veh/h)	793				255	392

Direction, Lane #	SE 1	NW 1	SW 1
Volume Total	253	777	95
Volume Left	0	0	95
Volume Right	0	48	0
cSH	1700	1700	255
Volume to Capacity	0.15	0.46	0.37
Queue Length 95th (ft)	0	0	41
Control Delay (s)	0.0	0.0	27.3
Lane LOS			D
Approach Delay (s)	0.0	0.0	27.3
Approach LOS			D

Intersection Summary			
Average Delay	2.3		
Intersection Capacity Utilization	49.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Volume (veh/h)	155	0	80	415	0	45
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.73	0.73	0.94	0.94	0.82	0.82
Hourly flow rate (vph)	212	0	85	441	0	55
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			212		824	212
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			212		824	212
tC, single (s)			4.2		6.5	6.3
tC, 2 stage (s)						
tF (s)			2.3		3.6	3.4
p0 queue free %			93		100	93
cM capacity (veh/h)			1295		307	801

Direction, Lane #	EB 1	WB 1	NE 1
Volume Total	212	527	55
Volume Left	0	85	0
Volume Right	0	0	55
cSH	1700	1295	801
Volume to Capacity	0.12	0.07	0.07
Queue Length 95th (ft)	0	5	6
Control Delay (s)	0.0	1.9	9.8
Lane LOS		A	A
Approach Delay (s)	0.0	1.9	9.8
Approach LOS			A

Intersection Summary			
Average Delay	1.9		
Intersection Capacity Utilization	41.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	70	90	110	0	0	25
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.74	0.74	0.93	0.93	0.88	0.88
Hourly flow rate (vph)	95	122	118	0	0	28
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	118				429	118
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	118				429	118
tC, single (s)	4.2				6.5	6.3
tC, 2 stage (s)						
tF (s)	2.3				3.6	3.4
p0 queue free %	93				100	97
cM capacity (veh/h)	1404				525	905

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	216	118	28
Volume Left	95	0	0
Volume Right	0	0	28
cSH	1404	1700	905
Volume to Capacity	0.07	0.07	0.03
Queue Length 95th (ft)	5	0	2
Control Delay (s)	3.7	0.0	9.1
Lane LOS	A		A
Approach Delay (s)	3.7	0.0	9.1
Approach LOS			A

Intersection Summary			
Average Delay	2.9		
Intersection Capacity Utilization	18.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	NBL	NBR	SET	SER	NWL	NWT
Lane Configurations						
Volume (veh/h)	70	0	310	25	0	990
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.73	0.73	0.92	0.92	0.95	0.95
Hourly flow rate (vph)	96	0	337	27	0	1042
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1393	351			364	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1393	351			364	
tC, single (s)	6.5	6.3			4.2	
tC, 2 stage (s)						
tF (s)	3.6	3.4			2.3	
p0 queue free %	35	100			100	
cM capacity (veh/h)	148	669			1136	

Direction, Lane #	NB 1	SE 1	NW 1
Volume Total	96	364	1042
Volume Left	96	0	0
Volume Right	0	27	0
cSH	148	1700	1700
Volume to Capacity	0.65	0.21	0.61
Queue Length 95th (ft)	89	0	0
Control Delay (s)	65.8	0.0	0.0
Lane LOS	F		
Approach Delay (s)	65.8	0.0	0.0
Approach LOS	F		

Intersection Summary			
Average Delay	4.2		
Intersection Capacity Utilization	62.7%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (veh/h)	0	90	50	0	80	125	450	840	0	40	280	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.90	0.90	0.90	0.90	0.90	0.90	0.86	0.86	0.86
Hourly flow rate (vph)	0	106	59	0	89	139	500	933	0	47	326	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	2535	2352	933	2464	2352	326	326			933		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	2535	2352	933	2464	2352	326	326			933		
tC, single (s)	7.2	6.6	6.3	7.2	6.6	6.3	4.2			4.2		
tC, 2 stage (s)												
tF (s)	3.6	4.1	3.4	3.6	4.1	3.4	2.3			2.3		
p0 queue free %	0	0	81	0	0	80	57			93		
cM capacity (veh/h)	0	18	308	0	18	691	1175			690		

Direction, Lane #	EB 1	WB 1	SE 1	NW 1
Volume Total	165	228	1433	372
Volume Left	0	0	500	47
Volume Right	59	139	0	0
cSH	27	44	1175	690
Volume to Capacity	6.15	5.20	0.43	0.07
Queue Length 95th (ft)	Err	Err	54	5
Control Delay (s)	Err	Err	9.9	2.1
Lane LOS	F	F	A	A
Approach Delay (s)	Err	Err	9.9	2.1
Approach LOS	F	F		

Intersection Summary			
Average Delay	1792.4		
Intersection Capacity Utilization	107.9%	ICU Level of Service	G
Analysis Period (min)	15		

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Volume (veh/h)	0	890	320	105	60	0
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.82	0.82	0.86	0.86	0.65	0.65
Hourly flow rate (vph)	0	1085	372	122	92	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	494				1519	433
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	494				1519	433
tC, single (s)	4.2				6.5	6.3
tC, 2 stage (s)						
tF (s)	2.3				3.6	3.4
p0 queue free %	100				25	100
cM capacity (veh/h)	1015				124	600

Direction, Lane #	SE 1	NW 1	SW 1
Volume Total	1085	494	92
Volume Left	0	0	92
Volume Right	0	122	0
cSH	1700	1700	124
Volume to Capacity	0.64	0.29	0.75
Queue Length 95th (ft)	0	0	106
Control Delay (s)	0.0	0.0	91.5
Lane LOS			F
Approach Delay (s)	0.0	0.0	91.5
Approach LOS			F

Intersection Summary			
Average Delay	5.1		
Intersection Capacity Utilization	56.8%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Volume (veh/h)	540	0	60	205	0	105
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.49	0.49
Hourly flow rate (vph)	600	0	67	228	0	214
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			600		961	600
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			600		961	600
tC, single (s)			4.2		6.5	6.3
tC, 2 stage (s)						
tF (s)			2.3		3.6	3.4
p0 queue free %			93		100	55
cM capacity (veh/h)			925		252	481

Direction, Lane #	EB 1	WB 1	NE 1
Volume Total	600	294	214
Volume Left	0	67	0
Volume Right	0	0	214
cSH	1700	925	481
Volume to Capacity	0.35	0.07	0.45
Queue Length 95th (ft)	0	6	56
Control Delay (s)	0.0	2.7	18.4
Lane LOS		A	C
Approach Delay (s)	0.0	2.7	18.4
Approach LOS			C

Intersection Summary			
Average Delay	4.3		
Intersection Capacity Utilization	49.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	35	140	120	0	0	90
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.85	0.85	0.76	0.76	0.67	0.67
Hourly flow rate (vph)	41	165	158	0	0	134
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	158				405	158
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	158				405	158
tC, single (s)	4.2				6.5	6.3
tC, 2 stage (s)						
tF (s)	2.3				3.6	3.4
p0 queue free %	97				100	84
cM capacity (veh/h)	1357				564	859

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	206	158	134
Volume Left	41	0	0
Volume Right	0	0	134
cSH	1357	1700	859
Volume to Capacity	0.03	0.09	0.16
Queue Length 95th (ft)	2	0	14
Control Delay (s)	1.8	0.0	10.0
Lane LOS	A		A
Approach Delay (s)	1.8	0.0	10.0
Approach LOS			A

Intersection Summary			
Average Delay	3.4		
Intersection Capacity Utilization	19.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	NBL	NBR	SET	SER	NWL	NWT
Lane Configurations						
Volume (veh/h)	35	0	1290	90	0	405
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.57	0.57	0.90	0.90	0.88	0.88
Hourly flow rate (vph)	61	0	1433	100	0	460
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1944	1483			1533	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1944	1483			1533	
tC, single (s)	6.5	6.3			4.2	
tC, 2 stage (s)						
tF (s)	3.6	3.4			2.3	
p0 queue free %	8	100			100	
cM capacity (veh/h)	67	145			403	

Direction, Lane #	NB 1	SE 1	NW 1
Volume Total	61	1533	460
Volume Left	61	0	0
Volume Right	0	100	0
cSH	67	1700	1700
Volume to Capacity	0.92	0.90	0.27
Queue Length 95th (ft)	112	0	0
Control Delay (s)	191.8	0.0	0.0
Lane LOS	F		
Approach Delay (s)	191.8	0.0	0.0
Approach LOS	F		

Intersection Summary			
Average Delay	5.7		
Intersection Capacity Utilization	83.3%	ICU Level of Service	E
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (veh/h)	0	80	40	0	90	450	125	280	0	50	840	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.67	0.67	0.67	0.94	0.94	0.94	0.94	0.94	0.94	0.92	0.92	0.92
Hourly flow rate (vph)	0	119	60	0	96	479	133	298	0	54	913	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	2112	1586	298	1705	1586	913	913			298		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	2112	1586	298	1705	1586	913	913			298		
tC, single (s)	7.2	6.6	6.3	7.2	6.6	6.3	4.2			4.2		
tC, 2 stage (s)												
tF (s)	3.6	4.1	3.4	3.6	4.1	3.4	2.3			2.3		
p0 queue free %	0	0	92	0	0	0	81			95		
cM capacity (veh/h)	0	79	716	0	79	316	703			1203		

Direction, Lane #	EB 1	WB 1	SE 1	NW 1
Volume Total	179	574	431	967
Volume Left	0	0	133	54
Volume Right	60	479	0	0
cSH	112	211	703	1203
Volume to Capacity	1.59	2.72	0.19	0.05
Queue Length 95th (ft)	334	1244	17	4
Control Delay (s)	372.3	823.9	5.3	1.2
Lane LOS	F	F	A	A
Approach Delay (s)	372.3	823.9	5.3	1.2
Approach LOS	F	F		

Intersection Summary			
Average Delay	252.5		
Intersection Capacity Utilization	102.2%	ICU Level of Service	G
Analysis Period (min)	15		

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Volume (veh/h)	0	320	890	60	105	0
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.97	0.97	0.94	0.94	0.84	0.84
Hourly flow rate (vph)	0	330	947	64	125	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1011				1309	979
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1011				1309	979
tC, single (s)	4.2				6.5	6.3
tC, 2 stage (s)						
tF (s)	2.3				3.6	3.4
p0 queue free %	100				25	100
cM capacity (veh/h)	645				167	289

Direction, Lane #	SE 1	NW 1	SW 1
Volume Total	330	1011	125
Volume Left	0	0	125
Volume Right	0	64	0
cSH	1700	1700	167
Volume to Capacity	0.19	0.59	0.75
Queue Length 95th (ft)	0	0	118
Control Delay (s)	0.0	0.0	72.6
Lane LOS			F
Approach Delay (s)	0.0	0.0	72.6
Approach LOS			F

Intersection Summary			
Average Delay	6.2		
Intersection Capacity Utilization	63.0%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Volume (veh/h)	205	0	105	540	0	60
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.73	0.73	0.94	0.94	0.82	0.82
Hourly flow rate (vph)	281	0	112	574	0	73
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			281		1079	281
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			281		1079	281
tC, single (s)			4.2		6.5	6.3
tC, 2 stage (s)						
tF (s)			2.3		3.6	3.4
p0 queue free %			91		100	90
cM capacity (veh/h)			1221		209	732

Direction, Lane #	EB 1	WB 1	NE 1
Volume Total	281	686	73
Volume Left	0	112	0
Volume Right	0	0	73
cSH	1700	1221	732
Volume to Capacity	0.17	0.09	0.10
Queue Length 95th (ft)	0	8	8
Control Delay (s)	0.0	2.3	10.5
Lane LOS		A	B
Approach Delay (s)	0.0	2.3	10.5
Approach LOS			B

Intersection Summary			
Average Delay	2.3		
Intersection Capacity Utilization	51.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	90	120	140	0	0	35
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.74	0.74	0.93	0.93	0.88	0.88
Hourly flow rate (vph)	122	162	151	0	0	40
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	151				556	151
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	151				556	151
tC, single (s)	4.2				6.5	6.3
tC, 2 stage (s)						
tF (s)	2.3				3.6	3.4
p0 queue free %	91				100	95
cM capacity (veh/h)	1366				432	868

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	284	151	40
Volume Left	122	0	0
Volume Right	0	0	40
cSH	1366	1700	868
Volume to Capacity	0.09	0.09	0.05
Queue Length 95th (ft)	7	0	4
Control Delay (s)	3.8	0.0	9.3
Lane LOS	A		A
Approach Delay (s)	3.8	0.0	9.3
Approach LOS			A

Intersection Summary			
Average Delay	3.1		
Intersection Capacity Utilization	25.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	NBL	NBR	SET	SER	NWL	NWT
Lane Configurations						
Volume (veh/h)	90	0	405	35	0	1290
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.73	0.73	0.92	0.92	0.95	0.95
Hourly flow rate (vph)	123	0	440	38	0	1358
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1817	459			478	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1817	459			478	
tC, single (s)	6.5	6.3			4.2	
tC, 2 stage (s)						
tF (s)	3.6	3.4			2.3	
p0 queue free %	0	100			100	
cM capacity (veh/h)	80	580			1029	

Direction, Lane #	NB 1	SE 1	NW 1
Volume Total	123	478	1358
Volume Left	123	0	0
Volume Right	0	38	0
cSH	80	1700	1700
Volume to Capacity	1.54	0.28	0.80
Queue Length 95th (ft)	250	0	0
Control Delay (s)	384.4	0.0	0.0
Lane LOS	F		
Approach Delay (s)	384.4	0.0	0.0
Approach LOS	F		

Intersection Summary			
Average Delay	24.2		
Intersection Capacity Utilization	79.5%	ICU Level of Service	D
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	25	70	40	45	60	95	30	215	80	345	645	70
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
Hourly flow rate (vph)	27	76	43	49	65	103	33	234	87	375	701	76

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	27	120	49	168	33	321	375	777
Volume Left (vph)	27	0	49	0	33	0	375	0
Volume Right (vph)	0	43	0	103	0	87	0	76
Hadj (s)	0.72	-0.03	0.72	-0.21	0.72	0.03	0.72	0.15
Departure Headway (s)	8.6	7.9	8.5	7.6	7.9	7.2	7.2	6.6
Degree Utilization, x	0.07	0.26	0.12	0.35	0.07	0.64	0.75	1.42
Capacity (veh/h)	400	439	409	461	443	484	490	550
Control Delay (s)	11.0	12.5	11.4	13.5	10.3	20.9	27.0	218.2
Approach Delay (s)	12.2		13.0		19.9		156.0	
Approach LOS	B		B		C		F	

Intersection Summary			
Delay	102.4		
HCM Level of Service	F		
Intersection Capacity Utilization	67.2%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	70	60	30	80	70	345	40	645	45	95	215	25
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
Hourly flow rate (vph)	76	65	33	87	76	375	43	701	49	103	234	27

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	76	98	87	451	43	750	103	261
Volume Left (vph)	76	0	87	0	43	0	103	0
Volume Right (vph)	0	33	0	375	0	49	0	27
Hadj (s)	0.72	-0.01	0.72	-0.36	0.72	0.18	0.72	0.15
Departure Headway (s)	9.2	8.5	8.4	7.4	8.4	7.9	8.7	8.2
Degree Utilization, x	0.20	0.23	0.20	0.92	0.10	1.64	0.25	0.59
Capacity (veh/h)	370	400	418	477	416	462	400	423
Control Delay (s)	13.3	12.9	12.4	50.0	11.2	316.7	13.5	21.2
Approach Delay (s)	13.1		43.9		300.0		19.0	
Approach LOS	B		E		F		C	

Intersection Summary			
Delay	144.9		
HCM Level of Service	F		
Intersection Capacity Utilization	84.1%	ICU Level of Service	E
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	25	70	40	45	60	95	30	215	80	345	645	70
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	27	76	43	49	65	103	33	234	87	375	701	76
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1924	1875	739	1875	1870	277	777			321		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1924	1875	739	1875	1870	277	777			321		
tC, single (s)	7.2	6.6	6.3	7.2	6.6	6.3	4.2			4.2		
tC, 2 stage (s)												
tF (s)	3.6	4.1	3.4	3.6	4.1	3.4	2.3			2.3		
p0 queue free %	0	0	89	0	0	86	96			68		
cM capacity (veh/h)	0	44	400	0	44	736	792			1180		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	27	120	49	168	33	321	375	777
Volume Left	27	0	49	0	33	0	375	0
Volume Right	0	43	0	103	0	87	0	76
cSH	0	65	0	105	792	1700	1180	1700
Volume to Capacity	Err	1.84	Err	1.61	0.04	0.19	0.32	0.46
Queue Length 95th (ft)	Err	273	Err	322	3	0	34	0
Control Delay (s)	Err	534.8	Err	386.8	9.7	0.0	9.5	0.0
Lane LOS	F	F	F	F	A		A	
Approach Delay (s)	Err		Err		0.9		3.1	
Approach LOS	F		F					

Intersection Summary			
Average Delay	Err		
Intersection Capacity Utilization	67.2%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	70	60	30	80	70	345	40	345	45	95	215	25
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.74	0.74	0.74	0.94	0.94	0.94	0.94	0.94	0.94	0.92	0.92	0.92
Hourly flow rate (vph)	95	81	41	85	74	367	43	367	48	103	234	27
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1310	954	247	997	943	391	261			415		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1310	954	247	997	943	391	261			415		
tC, single (s)	7.2	6.6	6.3	7.2	6.6	6.3	4.2			4.2		
tC, 2 stage (s)												
tF (s)	3.6	4.1	3.4	3.6	4.1	3.4	2.3			2.3		
p0 queue free %	0	63	95	34	66	42	97			91		
cM capacity (veh/h)	36	217	765	130	220	634	1242			1087		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	95	122	85	441	43	415	103	261
Volume Left	95	0	85	0	43	0	103	0
Volume Right	0	41	0	367	0	48	0	27
cSH	36	285	130	481	1242	1700	1087	1700
Volume to Capacity	2.60	0.43	0.66	0.92	0.03	0.24	0.09	0.15
Queue Length 95th (ft)	265	51	88	266	3	0	8	0
Control Delay (s)	959.2	26.7	74.2	52.5	8.0	0.0	8.7	0.0
Lane LOS	F	D	F	F	A		A	
Approach Delay (s)	434.7		56.0		0.7		2.5	
Approach LOS	F		F					

Intersection Summary			
Average Delay	79.7		
Intersection Capacity Utilization	68.3%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	25	70	40	45	60	95	30	215	80	345	645	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lane Util. 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
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1597	1681	1429	1597	1681	1429	1597	1681	1429	1597	1681	1429
Flt Permitted	0.71	1.00	1.00	0.70	1.00	1.00	0.28	1.00	1.00	0.60	1.00	1.00
Satd. Flow (perm)	1199	1681	1429	1183	1681	1429	478	1681	1429	1016	1681	1429
Peak-hour factor, PHF	0.85	0.85	0.85	0.90	0.90	0.90	0.86	0.86	0.86	0.90	0.90	0.90
Adj. Flow (vph)	29	82	47	50	67	106	35	250	93	383	717	78
RTOR Reduction (vph)	0	0	39	0	0	88	0	0	40	0	0	34
Lane Group Flow (vph)	29	82	8	50	67	18	35	250	53	383	717	44
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Actuated Green, G (s)	8.0	8.0	8.0	8.0	8.0	8.0	26.2	26.2	26.2	26.2	26.2	26.2
Effective Green, g (s)	8.0	8.0	8.0	8.0	8.0	8.0	26.2	26.2	26.2	26.2	26.2	26.2
Actuated g/C Ratio	0.17	0.17	0.17	0.17	0.17	0.17	0.57	0.57	0.57	0.57	0.57	0.57
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	208	291	247	205	291	247	271	953	810	576	953	810
v/s Ratio Prot		c0.05			0.04			0.15			c0.43	
v/s Ratio Perm	0.02		0.01	0.04		0.01	0.07		0.04	0.38		0.03
v/c Ratio	0.14	0.28	0.03	0.24	0.23	0.07	0.13	0.26	0.07	0.66	0.75	0.05
Uniform Delay, d1	16.2	16.6	15.9	16.5	16.4	16.0	4.7	5.1	4.5	6.9	7.6	4.5
Progression 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
Incremental Delay, d2	0.3	0.5	0.1	0.6	0.4	0.1	0.2	0.1	0.0	2.9	3.4	0.0
Delay (s)	16.5	17.1	15.9	17.1	16.9	16.1	4.9	5.2	4.5	9.8	10.9	4.5
Level of Service	B	B	B	B	B	B	A	A	A	A	B	A
Approach Delay (s)		16.7			16.6			5.0			10.2	
Approach LOS		B			B			A			B	

Intersection Summary			
HCM Average Control Delay	10.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	46.2	Sum of lost time (s)	12.0
Intersection Capacity Utilization	61.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	70	60	30	80	70	345	40	645	45	95	215	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lane Util. 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
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1597	1681	1429	1597	1681	1429	1597	1681	1429	1597	1681	1429
Flt Permitted	0.71	1.00	1.00	0.70	1.00	1.00	0.61	1.00	1.00	0.26	1.00	1.00
Satd. Flow (perm)	1192	1681	1429	1184	1681	1429	1031	1681	1429	435	1681	1429
Peak-hour factor, PHF	0.74	0.74	0.74	0.94	0.94	0.94	0.94	0.94	0.94	0.92	0.92	0.92
Adj. Flow (vph)	95	81	41	85	74	367	43	686	48	103	234	27
RTOR Reduction (vph)	0	0	31	0	0	144	0	0	24	0	0	13
Lane Group Flow (vph)	95	81	10	85	74	223	43	686	24	103	234	14
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Actuated Green, G (s)	12.1	12.1	12.1	12.1	12.1	12.1	24.6	24.6	24.6	24.6	24.6	24.6
Effective Green, g (s)	12.1	12.1	12.1	12.1	12.1	12.1	24.6	24.6	24.6	24.6	24.6	24.6
Actuated g/C Ratio	0.25	0.25	0.25	0.25	0.25	0.25	0.51	0.51	0.51	0.51	0.51	0.51
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	296	418	355	294	418	355	521	849	722	220	849	722
v/s Ratio Prot		0.05			0.04			c0.41			0.14	
v/s Ratio Perm	0.08		0.01	0.07		c0.16	0.04		0.02	0.24		0.01
v/c Ratio	0.32	0.19	0.03	0.29	0.18	0.63	0.08	0.81	0.03	0.47	0.28	0.02
Uniform Delay, d1	14.9	14.4	13.9	14.8	14.4	16.3	6.2	10.1	6.1	7.8	6.9	6.0
Progression 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
Incremental Delay, d2	0.6	0.2	0.0	0.5	0.2	3.4	0.1	5.7	0.0	1.6	0.2	0.0
Delay (s)	15.6	14.7	13.9	15.4	14.6	19.7	6.3	15.8	6.1	9.4	7.1	6.0
Level of Service	B	B	B	B	B	B	A	B	A	A	A	A
Approach Delay (s)		14.9			18.3			14.6			7.7	
Approach LOS		B			B			B			A	

Intersection Summary			
HCM Average Control Delay	14.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	48.7	Sum of lost time (s)	12.0
Intersection Capacity Utilization	74.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	35	90	50	60	80	125	40	280	105	450	840	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lane Util. 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
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1597	1681	1429	1597	1681	1429	1597	1681	1429	1597	1681	1429
Flt Permitted	0.70	1.00	1.00	0.69	1.00	1.00	0.16	1.00	1.00	0.56	1.00	1.00
Satd. Flow (perm)	1176	1681	1429	1158	1681	1429	264	1681	1429	947	1681	1429
Peak-hour factor, PHF	0.85	0.85	0.85	0.90	0.90	0.90	0.86	0.86	0.86	0.90	0.90	0.90
Adj. Flow (vph)	41	106	59	67	89	139	47	326	122	500	933	100
RTOR Reduction (vph)	0	0	49	0	0	116	0	0	48	0	0	39
Lane Group Flow (vph)	41	106	10	67	89	23	47	326	74	500	933	61
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Actuated Green, G (s)	8.8	8.8	8.8	8.8	8.8	8.8	32.1	32.1	32.1	32.1	32.1	32.1
Effective Green, g (s)	8.8	8.8	8.8	8.8	8.8	8.8	32.1	32.1	32.1	32.1	32.1	32.1
Actuated g/C Ratio	0.17	0.17	0.17	0.17	0.17	0.17	0.61	0.61	0.61	0.61	0.61	0.61
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	196	280	238	193	280	238	160	1020	867	575	1020	867
v/s Ratio Prot		c0.06			0.05			0.19			c0.55	
v/s Ratio Perm	0.03		0.01	0.06		0.02	0.18		0.05	0.53		0.04
v/c Ratio	0.21	0.38	0.04	0.35	0.32	0.10	0.29	0.32	0.09	0.87	0.91	0.07
Uniform Delay, d1	19.0	19.6	18.5	19.5	19.4	18.7	5.0	5.1	4.3	8.7	9.2	4.3
Progression 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
Incremental Delay, d2	0.5	0.9	0.1	1.1	0.7	0.2	1.0	0.2	0.0	13.2	12.3	0.0
Delay (s)	19.6	20.5	18.6	20.6	20.1	18.9	6.0	5.3	4.4	21.9	21.5	4.3
Level of Service	B	C	B	C	C	B	A	A	A	C	C	A
Approach Delay (s)		19.8			19.6			5.1			20.5	
Approach LOS		B			B			A			C	

Intersection Summary			
HCM Average Control Delay	17.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	52.9	Sum of lost time (s)	12.0
Intersection Capacity Utilization	72.5%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

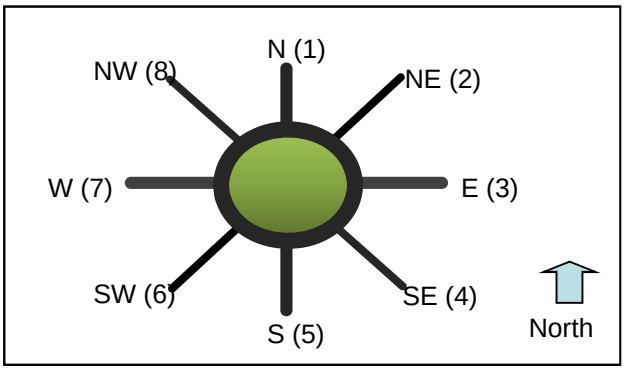
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	90	80	40	105	90	450	50	840	60	125	280	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lane Util. 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
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1597	1681	1429	1597	1681	1429	1597	1681	1429	1597	1681	1429
Flt Permitted	0.69	1.00	1.00	0.69	1.00	1.00	0.56	1.00	1.00	0.14	1.00	1.00
Satd. Flow (perm)	1168	1681	1429	1156	1681	1429	942	1681	1429	242	1681	1429
Peak-hour factor, PHF	0.74	0.74	0.74	0.94	0.94	0.94	0.94	0.94	0.94	0.92	0.92	0.92
Adj. Flow (vph)	122	108	54	112	96	479	53	894	64	136	304	38
RTOR Reduction (vph)	0	0	39	0	0	108	0	0	26	0	0	16
Lane Group Flow (vph)	122	108	15	112	96	371	53	894	38	136	304	22
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Actuated Green, G (s)	24.2	24.2	24.2	24.2	24.2	24.2	52.3	52.3	52.3	52.3	52.3	52.3
Effective Green, g (s)	24.2	24.2	24.2	24.2	24.2	24.2	52.3	52.3	52.3	52.3	52.3	52.3
Actuated g/C Ratio	0.27	0.27	0.27	0.27	0.27	0.27	0.59	0.59	0.59	0.59	0.59	0.59
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	319	460	391	316	460	391	557	993	844	143	993	844
v/s Ratio Prot		0.06			0.06			0.53			0.18	
v/s Ratio Perm	0.10		0.01	0.10		c0.26	0.06		0.03	c0.56		0.02
v/c Ratio	0.38	0.23	0.04	0.35	0.21	0.95	0.10	0.90	0.04	0.95	0.31	0.03
Uniform Delay, d1	26.1	25.0	23.6	25.9	24.8	31.6	7.8	15.8	7.6	16.9	9.0	7.5
Progression 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
Incremental Delay, d2	0.8	0.3	0.0	0.7	0.2	32.8	0.1	11.0	0.0	60.2	0.2	0.0
Delay (s)	26.9	25.2	23.6	26.6	25.0	64.3	7.9	26.9	7.6	77.1	9.2	7.5
Level of Service	C	C	C	C	C	E	A	C	A	E	A	A
Approach Delay (s)		25.6			52.7			24.6			28.4	
Approach LOS		C			D			C			C	

Intersection Summary			
HCM Average Control Delay	33.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	88.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	92.1%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

APPENDIX C: ROUNDABOUT ANALYSES

General & Site Information

Analyst:	
Agency/Company:	Street Smarts
Date:	9/23/2010
Project Name or PI#:	0005448
Year, Peak Hour:	2013, AM
County/District:	Fulton County
Intersection:	SR 372 at CR 27



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					215		25	
	NE (2), vph								
	E (3), vph	345						70	
	SE (4), vph								
	S (5), vph	645		45				40	
	SW (6), vph								
	W (7), vph			60		30			
	NW (8), vph								
Output	Total Vehicles	990	0	105	0	245	0	135	0

Volume Characteristics	N	NE	E	SE	S	SW	W	NW
% Cars	87%	100%	85%	100%	95%	100%	91%	100%
% SU/ Bus	12%	0%	14%	0%	3%	0%	8%	0%
% Trucks/ Combin.	1%	0%	1%	0%	2%	0%	1%	0%
% Bicycle	0%	0%	0%	0%	0%	0%	0%	0%
PHF	*0.90*	*0.92*	*0.90*	*0.92*	*0.86*	*0.92*	*0.85*	*0.92*
F_{HV}	0.938	1.000	0.923	1.000	0.966	1.000	0.952	1.000

Entry/Conflicting Flows	N	NE	E	SE	S	SW	W	NW
Flow to Leg # N (1), pcu/h	0	0	0	0	259	0	31	0
NE (2), pcu/h	0	0	0	0	0	0	0	0
E (3), pcu/h	410	0	0	0	0	0	86	0
SE (4), pcu/h	0	0	0	0	0	0	0	0
S (5), pcu/h	767	0	54	0	0	0	49	0
SW (6), pcu/h	0	0	0	0	0	0	0	0
W (7), pcu/h	0	0	72	0	36	0	0	0
NW (8), pcu/h	0	0	0	0	0	0	0	0
Entry flow, pcu/h	1177	0	127	0	295	0	167	0
Conflicting flow, pcu/h	163	0	326	0	527	0	1232	0

Results: Approach Measures of Effectiveness

NCHRP-572 Model	N	NE	E	SE	S	SW	W	NW
Crit. Entry Capacity pcu/h	1008	NA	899	NA	781	NA	477	NA
Crit. Lane Entry Flow pcu/h	767	0	127	0	295	0	167	0
V/C ratio	**0.76**		**0.14**		**0.38**		**0.35**	
Control Delay, sec/pcu	**13.9**		**4.7**		**7.4**		**11.5**	
LOS	B		A		A		B	
95th % Queue (ft)	**203**		**13**		**46**		**41**	

UK Model**	N	NE	E	SE	S	SW	W	NW
Crit. Entry Capacity pcu/h	2307	NA	2191	NA	2046	NA	1542	NA
Entry Flow pcu/h	1177	0	127	0	295	0	167	0
V/C ratio	**0.51**		**0.06**		**0.14**		**0.11**	
Control Delay, sec/pcu	**3.2**		**1.7**		**2.1**		**2.6**	
LOS	A		A		A		A	
95th % Queue (ft)	**82**		**5**		**13**		**10**	

Notes:

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

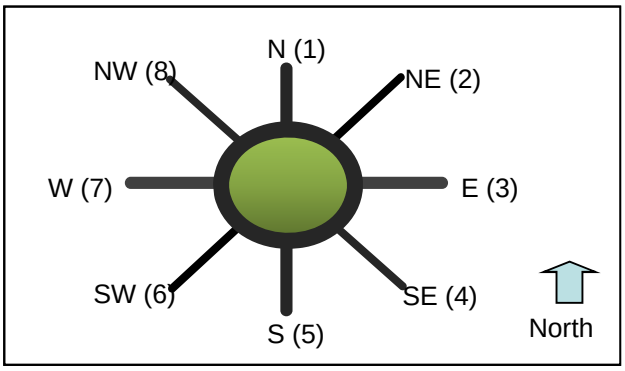
Bypass Lane Merge Point Analysis (if applicable)

Bypass Characteristics	Bypass #1	Bypass #2	Bypass #3	Bypass #4	Bypass #5	Bypass #6
Select Entry Leg from Bypass (FROM)	**N (1)**	**S (5)**	**E (3)**			
Select Exit Leg for Bypass (TO)	**W (7)**	**E (3)**	**N (1)**			
Volumes						
Entry Leg: Insert Right Turn Volume	70	80	95			
Exit Leg: ***(Select Input Method)***	Default	Default	Default			
*Critical Lane Flow (Default) in Exit Leg****	109	331	290			
Sum of inner circulatory flow lane to exit leg (leg bypass merges into)	N/A	N/A	N/A	N/A	N/A	N/A
Sum of outer circulatory flow lane to exit leg (leg bypass merges into)	N/A	N/A	N/A	N/A	N/A	N/A
*Critical Lane Flow (Manual) in Exit Leg****						
Volume Characteristics						
PHF (Entry Leg)	0.90	0.86	0.90			
F_{HV} (Entry Leg)	0.94	0.97	0.92			

PHF (Exit Leg)***	N/A	N/A	N/A	N/A	N/A	N/A
F_{HV} (Exit Leg)***	N/A	N/A	N/A	N/A	N/A	N/A
Volume Characteristics are already taken into account for Default method ONLY. Insert Values above if Manual method.						
Entry/Conflicting Flows						
Entry Flow	83	96	115			
Conflicting Critical Flow	109	331	290			
Bypass Lane Results (NCHRP-572 Method)						
Entry Capacity at bypass merge point, pcu/hr	1014	811	846			
V/C ratio	0.08	0.12	0.14			
Control Delay, sec/pcu	3.9	5.0	4.9			
LOS	A	A	A			
95th % Queue (ft)	**7**	**10**	**13**			

General & Site Information

Analyst:	
Agency/Company:	Street Smarts
Date:	9/23/2010
Project Name or PI#:	0005448
Year, Peak Hour:	2013, PM
County/District:	Fulton County
Intersection:	SR 372 at CR 27



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					645		70	
	NE (2), vph								
	E (3), vph	95						60	
	SE (4), vph								
	S (5), vph	215		80				30	
	SW (6), vph								
	W (7), vph			70		40			
	NW (8), vph								
Output	Total Vehicles	310	0	150	0	685	0	160	0

Volume Characteristics	N	NE	E	SE	S	SW	W	NW
% Cars	87%	100%	85%	100%	95%	100%	91%	100%
% SU/ Bus	12%	0%	14%	0%	3%	0%	8%	0%
% Trucks/ Combin.	1%	0%	1%	0%	2%	0%	1%	0%
% Bicycle	0%	0%	0%	0%	0%	0%	0%	0%
PHF	*0.92*	*0.92*	*0.91*	*0.92*	*0.85*	*0.92*	*0.72*	*0.92*
F_{HV}	0.938	1.000	0.923	1.000	0.966	1.000	0.952	1.000

Entry/Conflicting Flows	N	NE	E	SE	S	SW	W	NW
Flow to Leg # N (1), pcu/h	0	0	0	0	786	0	102	0
NE (2), pcu/h	0	0	0	0	0	0	0	0
E (3), pcu/h	110	0	0	0	0	0	87	0
SE (4), pcu/h	0	0	0	0	0	0	0	0
S (5), pcu/h	249	0	96	0	0	0	44	0
SW (6), pcu/h	0	0	0	0	0	0	0	0
W (7), pcu/h	0	0	84	0	49	0	0	0
NW (8), pcu/h	0	0	0	0	0	0	0	0
Entry flow, pcu/h	359	0	179	0	835	0	232	0
Conflicting flow, pcu/h	228	0	937	0	299	0	455	0

Results: Approach Measures of Effectiveness

NCHRP-572 Model	N	NE	E	SE	S	SW	W	NW
Crit. Entry Capacity pcu/h	963	NA	587	NA	917	NA	822	NA
Crit. Lane Entry Flow pcu/h	249	0	179	0	835	0	232	0
V/C ratio	**0.26**		**0.31**		**0.91**		**0.28**	
Control Delay, sec/pcu	**5.0**		**8.8**		**28.7**		**6.1**	
LOS	A		A		D		A	
95th % Queue (ft)	**28**		**35**		**344**		**30**	

UK Model**	N	NE	E	SE	S	SW	W	NW
Crit. Entry Capacity pcu/h	2261	NA	1753	NA	2210	NA	2099	NA
Entry Flow pcu/h	359	0	179	0	835	0	232	0
V/C ratio	**0.16**		**0.10**		**0.38**		**0.11**	
Control Delay, sec/pcu	**1.9**		**2.3**		**2.6**		**1.9**	
LOS	A		A		A		A	
95th % Queue (ft)	**15**		**9**		**47**		**10**	

Notes:

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

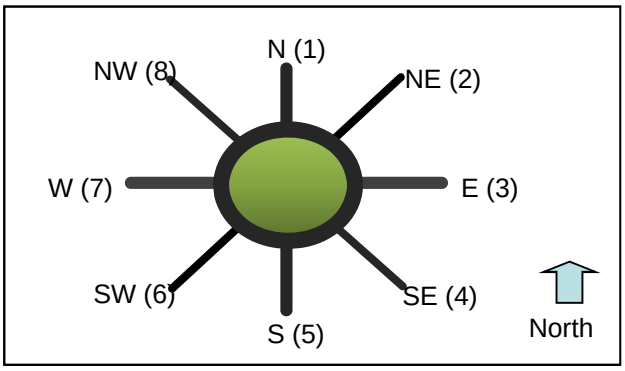
Bypass Lane Merge Point Analysis (if applicable)

Bypass Characteristics	Bypass #1	Bypass #2	Bypass #3	Bypass #4	Bypass #5	Bypass #6
Select Entry Leg from Bypass (FROM)	**N (1)**	**S (5)**	**E (3)**			
Select Exit Leg for Bypass (TO)	**W (7)**	**E (3)**	**N (1)**			
Volumes						
Entry Leg: Insert Right Turn Volume	25	45	345			
Exit Leg: ***(Select Input Method)***	Default	Default	Default			
*Critical Lane Flow (Default) in Exit Leg****	132	131	888			
Sum of inner circulatory flow lane to exit leg (leg bypass merges into)	N/A	N/A	N/A	N/A	N/A	N/A
Sum of outer circulatory flow lane to exit leg (leg bypass merges into)	N/A	N/A	N/A	N/A	N/A	N/A
*Critical Lane Flow (Manual) in Exit Leg****						
Volume Characteristics						
PHF (Entry Leg)	0.92	0.85	0.91			
F_{HV} (Entry Leg)	0.94	0.97	0.92			

PHF (Exit Leg)***	N/A	N/A	N/A	N/A	N/A	N/A
F_{HV} (Exit Leg)***	N/A	N/A	N/A	N/A	N/A	N/A
Volume Characteristics are already taken into account for Default method ONLY. Insert Values above if Manual method.						
Entry/Conflicting Flows						
Entry Flow	29	55	412			
Conflicting Critical Flow	132	131	888			
Bypass Lane Results (NCHRP-572 Method)						
Entry Capacity at bypass merge point, pcu/hr	990	991	465			
V/C ratio	0.03	0.06	0.89			
Control Delay, sec/pcu	3.7	3.8	43.4			
LOS	A	A	E			
95th % Queue (ft)	**2**	**5**	**259**			

General & Site Information

Analyst:	
Agency/Company:	Street Smarts
Date:	9/23/2010
Project Name or PI#:	0005448
Year, Peak Hour:	2033, AM
County/District:	Fulton County
Intersection:	SR 372 at CR 27



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					280		35	
	NE (2), vph								
	E (3), vph	450						90	
	SE (4), vph								
	S (5), vph	840		60				50	
	SW (6), vph								
	W (7), vph			80		40			
	NW (8), vph								
Output	Total Vehicles	1290	0	140	0	320	0	175	0

Volume Characteristics	N	NE	E	SE	S	SW	W	NW
% Cars	87%	100%	85%	100%	95%	100%	91%	100%
% SU/ Bus	12%	0%	14%	0%	3%	0%	8%	0%
% Trucks/ Combin.	1%	0%	1%	0%	2%	0%	1%	0%
% Bicycle	0%	0%	0%	0%	0%	0%	0%	0%
PHF	*0.90*	*0.92*	*0.90*	*0.92*	*0.86*	*0.92*	*0.85*	*0.92*
F_{HV}	0.938	1.000	0.923	1.000	0.966	1.000	0.952	1.000

Entry/Conflicting Flows	N	NE	E	SE	S	SW	W	NW
Flow to Leg # N (1), pcu/h	0	0	0	0	337	0	43	0
NE (2), pcu/h	0	0	0	0	0	0	0	0
E (3), pcu/h	535	0	0	0	0	0	111	0
SE (4), pcu/h	0	0	0	0	0	0	0	0
S (5), pcu/h	999	0	72	0	0	0	62	0
SW (6), pcu/h	0	0	0	0	0	0	0	0
W (7), pcu/h	0	0	97	0	48	0	0	0
NW (8), pcu/h	0	0	0	0	0	0	0	0
Entry flow, pcu/h	1534	0	169	0	386	0	216	0
Conflicting flow, pcu/h	217	0	429	0	689	0	1606	0

Results: Approach Measures of Effectiveness

NCHRP-572 Model	N	NE	E	SE	S	SW	W	NW
Crit. Entry Capacity pcu/h	971	NA	837	NA	697	NA	367	NA
Crit. Lane Entry Flow pcu/h	999	0	169	0	386	0	154	0
V/C ratio	**1.03**		**0.20**		**0.55**		**0.42**	
Control Delay, sec/pcu	**52.2**		**5.4**		**11.4**		**16.7**	
LOS	F		A		B		C	
95th % Queue (ft)	**565**		**20**		**88**		**53**	

UK Model**	N	NE	E	SE	S	SW	W	NW
Crit. Entry Capacity pcu/h	2268	NA	2117	NA	1931	NA	1274	NA
Entry Flow pcu/h	1534	0	169	0	386	0	216	0
V/C ratio	**0.68**		**0.08**		**0.20**		**0.17**	
Control Delay, sec/pcu	**4.8**		**1.8**		**2.3**		**3.4**	
LOS	A		A		A		A	
95th % Queue (ft)	**157**		**7**		**19**		**16**	

Notes:

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

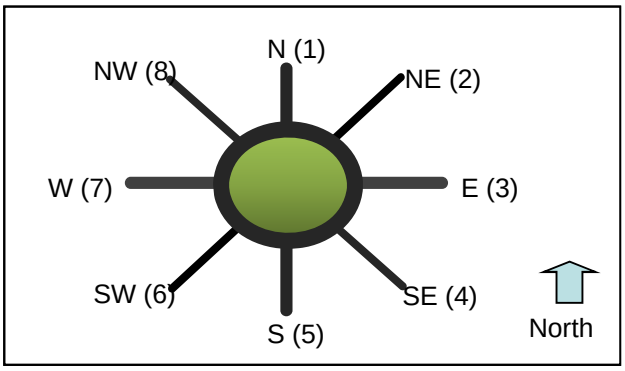
Bypass Lane Merge Point Analysis (if applicable)

Bypass Characteristics	Bypass #1	Bypass #2	Bypass #3	Bypass #4	Bypass #5	Bypass #6
Select Entry Leg from Bypass (FROM)	**N (1)**	**S (5)**	**E (3)**			
Select Exit Leg for Bypass (TO)	**W (7)**	**E (3)**	**N (1)**			
Volumes						
Entry Leg: Insert Right Turn Volume	90	105	125			
Exit Leg: ***(Select Input Method)***	Default	Default	Default			
*Critical Lane Flow (Default) in Exit Leg****	145	431	381			
Sum of inner circulatory flow lane to exit leg (leg bypass merges into)	N/A	N/A	N/A	N/A	N/A	N/A
Sum of outer circulatory flow lane to exit leg (leg bypass merges into)	N/A	N/A	N/A	N/A	N/A	N/A
*Critical Lane Flow (Manual) in Exit Leg****						
Volume Characteristics						
PHF (Entry Leg)	0.90	0.86	0.90			
F_{HV} (Entry Leg)	0.94	0.97	0.92			

PHF (Exit Leg)***	N/A	N/A	N/A	N/A	N/A	N/A
F_{HV} (Exit Leg)***	N/A	N/A	N/A	N/A	N/A	N/A
Volume Characteristics are already taken into account for Default method ONLY. Insert Values above if Manual method.						
Entry/Conflicting Flows						
Entry Flow	107	127	151			
Conflicting Critical Flow	145	431	381			
Bypass Lane Results (NCHRP-572 Method)						
Entry Capacity at bypass merge point, pcu/hr	978	734	772			
V/C ratio	0.11	0.17	0.20			
Control Delay, sec/pcu	4.1	5.9	5.8			
LOS	A	A	A			
95th % Queue (ft)	**10**	**16**	**20**			

General & Site Information

Analyst:	
Agency/Company:	Street Smarts
Date:	9/23/2010
Project Name or PI#:	0005448
Year, Peak Hour:	2033, PM
County/District:	Fulton County
Intersection:	SR 372 at CR 27



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					840		90	
	NE (2), vph								
	E (3), vph	125						80	
	SE (4), vph								
	S (5), vph	280		105				40	
	SW (6), vph								
	W (7), vph			90		50			
	NW (8), vph								
Output	Total Vehicles	405	0	195	0	890	0	210	0

Volume Characteristics	N	NE	E	SE	S	SW	W	NW
% Cars	87%	100%	85%	100%	95%	100%	91%	100%
% SU/ Bus	12%	0%	14%	0%	3%	0%	8%	0%
% Trucks/ Combin.	1%	0%	1%	0%	2%	0%	1%	0%
% Bicycle	0%	0%	0%	0%	0%	0%	0%	0%
PHF	*0.92*	*0.92*	*0.91*	*0.92*	*0.85*	*0.92*	*0.72*	*0.92*
F_{HV}	0.938	1.000	0.923	1.000	0.966	1.000	0.952	1.000

Entry/Conflicting Flows	N	NE	E	SE	S	SW	W	NW
Flow to Leg # N (1), pcu/h	0	0	0	0	1024	0	131	0
NE (2), pcu/h	0	0	0	0	0	0	0	0
E (3), pcu/h	145	0	0	0	0	0	116	0
SE (4), pcu/h	0	0	0	0	0	0	0	0
S (5), pcu/h	324	0	126	0	0	0	58	0
SW (6), pcu/h	0	0	0	0	0	0	0	0
W (7), pcu/h	0	0	108	0	61	0	0	0
NW (8), pcu/h	0	0	0	0	0	0	0	0
Entry flow, pcu/h	469	0	233	0	1085	0	305	0
Conflicting flow, pcu/h	294	0	1216	0	391	0	595	0

Results: Approach Measures of Effectiveness

NCHRP-572 Model	N	NE	E	SE	S	SW	W	NW
Crit. Entry Capacity pcu/h	920	NA	483	NA	859	NA	745	NA
Crit. Lane Entry Flow pcu/h	324	0	233	0	1085	0	305	0
V/C ratio	**0.35**		**0.48**		**1.26**		**0.41**	
Control Delay, sec/pcu	**6.0**		**14.2**		**139.9**		**8.1**	
LOS	A		B		F		A	
95th % Queue (ft)	**43**		**70**		**1002**		**53**	

UK Model**	N	NE	E	SE	S	SW	W	NW
Crit. Entry Capacity pcu/h	2213	NA	1554	NA	2144	NA	1998	NA
Entry Flow pcu/h	469	0	233	0	1085	0	305	0
V/C ratio	**0.21**		**0.15**		**0.51**		**0.15**	
Control Delay, sec/pcu	**2.1**		**2.7**		**3.4**		**2.1**	
LOS	A		A		A		A	
95th % Queue (ft)	**21**		**14**		**78**		**14**	

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)	**N (1)**	**S (5)**	**E (3)**			
Select Exit Leg for Bypass (TO)	**W (7)**	**E (3)**	**N (1)**			
Volumes						
Entry Leg: Insert Right Turn Volume	35	60	450			
Exit Leg: ***(Select Input Method)***	Default	Default	Default			
*Critical Lane Flow (Default) in Exit Leg****	169	174	1155			
Sum of inner circulatory flow lane to exit leg (leg bypass merges into)	N/A	N/A	N/A	N/A	N/A	N/A
Sum of outer circulatory flow lane to exit leg (leg bypass merges into)	N/A	N/A	N/A	N/A	N/A	N/A
*Critical Lane Flow (Manual) in Exit Leg****						
Volume Characteristics						
PHF (Entry Leg)	0.92	0.85	0.91			
F_{HV} (Entry Leg)	0.94	0.97	0.92			

PHF (Exit Leg)***	N/A	N/A	N/A	N/A	N/A	N/A
F_{HV} (Exit Leg)***	N/A	N/A	N/A	N/A	N/A	N/A
Volume Characteristics are already taken into account for Default method ONLY. Insert Values above if Manual method.						
Entry/Conflicting Flows						
Entry Flow	41	73	538			
Conflicting Critical Flow	169	174	1155			
Bypass Lane Results (NCHRP-572 Method)						
Entry Capacity at bypass merge point, pcu/hr	955	950	356			
V/C ratio	0.04	0.08	1.51			
Control Delay, sec/pcu	3.9	4.1	266.6			
LOS	A	A	F			
95th % Queue (ft)	**4**	**6**	**800**			

APPENDIX D: SIGNAL WARRANT ANALYSES

New Providence Rd at SR 372 (Birmingham Hwy)

2009 Existing Volumes

HOUR OF DAY	No RTs MAIN STREET VOLUME	No RTs MINOR STREET VOLUME	100% WARRANT 1A	100% WARRANT 1B	80% Combination WARRANT 1A	80% Combination WARRANT 1B	100% WARRANT 2	WARRANT Volumes Only 3A	WARRANT 3B
Midnight	14	4							
1:00	11	1							
2:00	4	1							
3:00	9	1							
4:00	25	2							
5:00	144	5							
6:00	742	32	MAIN		MAIN	MAIN			
7:00	1259	84	MAIN	BOTH	MAIN	BOTH	YES		
8:00	1184	99	MAIN	BOTH	MAIN	BOTH	YES		
9:00	690	68	MAIN		MAIN	BOTH			
10:00	541	53	MAIN		MAIN				
11:00	447	53			MAIN				
12:00	438	64			MAIN	SIDE			
13:00	496	84		SIDE	MAIN	SIDE			
14:00	511	113	MAIN	SIDE	MAIN	SIDE			
15:00	673	127	MAIN	SIDE	BOTH	BOTH		YES	
16:00	820	117	MAIN	BOTH	MAIN	BOTH		YES	
17:00	887	118	MAIN	BOTH	MAIN	BOTH		YES	
18:00	673	101	MAIN	SIDE	MAIN	BOTH		YES	
19:00	413	66			MAIN	SIDE			
20:00	281	64				SIDE			
21:00	178	39							
22:00	88	16							
23:00	36	14							

REQUIRED VOLUMES:

MAIN STREET	500	750	400	600			
SIDE STREET	150	75	120	60			
HOURS REQUIRED	8	8	8	8	4	1	1
HOURS MET	0	4	1	7	2	4	0

NO. OF LANES:

MAIN STREET	(1 or 2)	1
SIDE STREET	(1 or 2)	1

NO. OF APPROACHES (3 or 4) 4

DOES MAIN STREET SPEED EXCEED 40 MPH, Y or N ? N

N Speed on Major Street >=40 mph?

1-1 # of Lanes on Major Street - # of Lanes on Minor Street (1-1, 2-1, 2-2,1-2)

	Warrant 2				Warrant 3B				Warrant 2		Warrant 3B	
Main - Minor	A	B	C	Min Y	D	E	F	Min Y	Min X	Max X	Min X	Max X
1-1	557.978	-0.73003	0.00027	80	734.125	-0.74072	0.00021	100	400	1100	450	1450
1-2	643.445	-0.73144	0.00023	115	809.779	-0.67328	0.00015	150	400	1350	510	1740
2-1	643.445	-0.73144	0.00023	80	809.779	-0.67328	0.00015	100	400	1350	510	1740
2-2	858.973	-0.97877	0.00031	115	1081.658	-0.93419	0.00023	150	470	1320	600	1650
Use	557.978	-0.73003	0.00027	80	734.125	-0.74072	0.00021	100	400	1100	450	1450

Traffic Signal Warrant

HOUR OF DAY	Main Street VOLUME	Minor Street VOLUME	Warrant 2 Main Street Below Minimum?	Warrant 2 Minimum Minor St VOLUME	Warrant 2 Minor Street Within 5 Vehicles of Minimum?	WARRANT 2	Warrant 3B Main Street Below Minimum?	Warrant 3B Minimum Minor St VOLUME	Warrant 3B Minor Street Within 5 Vehicles of Minimum?	WARRANT 3B
Midnight	15	4	Yes	547	No	No	Yes	723	No	No
1:00	11	2	Yes	550	No	No	Yes	726	No	No
2:00	5	1	Yes	555	No	No	Yes	731	No	No
3:00	10	2	Yes	551	No	No	Yes	727	No	No
4:00	26	2	Yes	539	No	No	Yes	715	No	No
5:00	150	5	Yes	455	No	No	Yes	628	No	No
6:00	774	35	No	155	No	No	No	287	No	No
7:00	1314	94	No	80	No	Yes	No	123	No	No
8:00	1242	111	No	80	No	Yes	No	138	No	No
9:00	725	76	No	171	No	No	No	308	No	No
10:00	569	58	No	230	No	No	No	381	No	No
11:00	472	58	No	274	No	No	No	431	No	No
12:00	464	72	No	278	No	No	No	436	No	No
13:00	527	94	No	248	No	No	No	402	No	No
14:00	542	126	No	242	No	No	No	394	No	No
15:00	721	138	No	172	No	No	No	309	No	No
16:00	883	131	No	124	No	Yes	No	244	No	No
17:00	956	132	No	107	No	Yes	No	218	No	No
18:00	722	113	No	172	No	No	No	309	No	No
19:00	444	74	No	287	No	No	Yes	447	No	No
20:00	302	72	Yes	362	No	No	Yes	529	No	No
21:00	191	43	Yes	428	No	No	Yes	600	No	No
22:00	94	18	Yes	492	No	No	Yes	666	No	No
23:00	39	16	Yes	530	No	No	Yes	706	No	No

New Providence Rd at SR 372 (Birmingham Hwy)

2033 Design Year Volumes

HOUR OF DAY	No RTs MAIN STREET VOLUME	No RTs MINOR STREET VOLUME	100% WARRANT 1A	100% WARRANT 1B	80% Combination WARRANT 1A	80% Combination WARRANT 1B	100% WARRANT 2	WARRANT Volumes Only 3A	WARRANT 3B
Midnight	19	6							
1:00	15	2							
2:00	6	1							
3:00	12	2							
4:00	33	3							
5:00	192	7							
6:00	994	46	MAIN	MAIN	MAIN	MAIN			
7:00	1688	124	MAIN	BOTH	BOTH	BOTH	YES	YES	YES
8:00	1594	146	MAIN	BOTH	BOTH	BOTH	YES	YES	YES
9:00	930	99	MAIN	BOTH	MAIN	BOTH			
10:00	731	75	MAIN		MAIN	BOTH			
11:00	605	75	MAIN		MAIN	BOTH			
12:00	595	95	MAIN	SIDE	MAIN	SIDE			
13:00	677	123	MAIN	SIDE	BOTH	BOTH		YES	
14:00	696	166	BOTH	SIDE	BOTH	BOTH		YES	
15:00	925	179	BOTH	BOTH	BOTH	BOTH	YES	YES	
16:00	1132	172	BOTH	BOTH	BOTH	BOTH	YES	YES	YES
17:00	1225	173	BOTH	BOTH	BOTH	BOTH	YES	YES	YES
18:00	926	148	MAIN	BOTH	BOTH	BOTH	YES	YES	
19:00	569	97	MAIN	SIDE	MAIN	SIDE			
20:00	388	95		SIDE		SIDE			
21:00	245	57							
22:00	120	24							
23:00	50	20							

REQUIRED VOLUMES:

MAIN STREET	500	750	400	600			
SIDE STREET	150	75	120	60			
HOURS REQUIRED	8	8	8	8	4	1	1
HOURS MET	4	7	8	11	6	8	4

NO. OF LANES:

MAIN STREET	(1 or 2)	1
SIDE STREET	(1 or 2)	1

NO. OF APPROACHES (3 or 4) 4

DOES MAIN STREET SPEED EXCEED 40 MPH, Y or N ? N

MEETING SUMMARY

Date: May 19, 2010

Location: GDOT District 7 Conference Room

Taken By: Kari Ward, PE

Reviewed By: Andy Anderson, PE (Project Manager)

Subject: Initial Concept Team Meeting
HPP00-0005-00(448), P.I. No. 0005448, Fulton County, City of Milton
Birmingham Hwy/ SR 372 (09-SSI-03, 1876-504)

Attendees:

Kelvin Wilson, GDOT D7
Scott Lee, GDOT D7
Mike Lobdell, GDOT D7
David M. Robbins, GDOT D7
Mac Cranford, GDOT D7
Pam Hooks, GDOT Local Government
Ken Werho, GDOT TOTMC
Scott Zehngraff, GDOT Traffic
Andy Anderson, Street Smarts
Kari Ward, Street Smarts
Randal Parker, Street Smarts
Carter Lucas, City of Milton
Sara Leaders, City of Milton
Keith Markland, Kimley-Horn

Meeting Summary:
The purpose of this meeting was to discuss the concept of the proposed intersection improvements to New Providence Road at Birmingham Highway, environmental issues and coordination efforts within the project and review the overall project schedule. The meeting took place in the GDOT District 7 Conference Room on May 19, 2010 at 1:00 PM.

Introduction of Each Attendee

Project Overview (Street Smarts – Kari Ward/Andy Anderson)
Described preferred alternate developed considering the 2006 approved concept report, Community Advisory Committee meetings and PIOH comments.

Traffic Projections (Street Smarts – Randy Parker)
The existing volume did not satisfy 8 warrants, a signal will increase delays on Birmingham Highway.

Right of Way Displacements and Relocations (Street Smarts – Kari Ward)
There are approximately 14 parcel impacts, no displacements.

Environmental Concerns/Level of Environmental Analysis (KHA – Keith Markland)
There are no known issues at this time. We are moving forward with developing a CE for both City of Milton Intersection projects PI No. 0005448 Birmingham Hwy/ SR 372 and PI No. 0000533 Arnold Mill Rd /SR140.

Utilities (Street Smarts – Kari Ward)
Read list of area utilities from draft Concept Report.
Ken Werho, GDOT TOTMC
Review existing electrical easement along SR372.

Project Development Schedule (GDOT - Mike Lobdell)
Right-of-way is scheduled for July, 2012.
Construction is scheduled for November, 2012.
Schedule Concept Team Meeting in a month (mid-June) to meet current schedule approval date of July 20, 2010.

Comments from Attendees
Local Government Representatives
Carter Lucas, City of Milton
We would like to keep R/W impacts to a minimum. Since this project was approved in 2006, our residents feel the improvements should be in place by now, so let us know if there is anything we can do to expedite the process.
Traffic Safety and Design
Ken Werho, GDOT TOTMC
1. We designed a roundabout in Wilkinson that had a degree of 45, 175 ft inscribed circle with 20 ft bypass lanes for trucks.
   a. The Oregon Roundabout guide is a good reference for multilane roundabout design standards, spiral, and angles.
   b. Also, see the MUTCD for striping.
2. Add splitter islands 100 ft long with pedestrian crossing 20 ft back.
3. Add bypass from SR372 onto CR27.

Scott Zehngraff, GDOT Traffic
1. Yield bypass lanes onto New Providence rather than free flow. Right turns are a problem with design vehicles.
2. Add dual approach on southbound SR372.
3. Try skew angle of 45 degrees. Right of way cost will determine what angle to use.
4. Adjust alignment to achieve left offsets on SR372.
5. Look at shifting the alignment of SR372 to the left.
6. Show pedestrian crossings.
7. Use WB-67 design vehicle, include fastest path analysis in concept.
8. Dimension the entry and exit radius.
9. Send GDOT Traffic alternatives discussed for review; copy Ken Werho and Kelvin Wilson.

Right of Way
Pam Hooks, GDOT Local Government
If the city deems a property abandoned/condemned, it is not considered a displacement.

Action Items:
1. Send GDOT Traffic alternatives discussed for review; copy Ken Werho and Kelvin Wilson.
2. Schedule Concept Team Meeting in a month (mid-June).

The meeting was adjourned at 2:00 pm by Mike Lobdell, GDOT D7.

MEETING SUMMARY

Date: July 6, 2010

Location: GDOT District 7 Conference Room

Taken By: Mallory Brewer

Reviewed By: Andy Anderson, PE (Project Manager)

Subject: Concept Team Meeting
HPP00-0005-00(448), P.I. No. 0005448, Fulton County, City of Milton
Birmingham Hwy/ SR 372 (09-SSI-03, 1876-504)

Attendees:

Kelvin Wilson, GDOT D7
Mike Lobdell, GDOT D7
David M. Robbins, GDOT D7
Ken Werho, GDOT TOTMC
Pam Hooks, GDOT Local Government
Joshua Higgins, GDOT D7 Preconstruction
Mac Cranford, GDOT D7
Scott Zehngraff, GDOT Traffic
Paul Denard, GDOT Traffic
Cindy Trendway, GDOT NEPA
Kaycee Mertz, GDOT Planning
Edlin Regis, GDOT D7 Traffic
Alex Laffey, GDOT Traffic
Andy Anderson, Street Smarts
Kari Ward, Street Smarts
Mallory Brewer, Street Smarts
Carter Lucas, City of Milton
Eric Martin, Kimley-Horn

Meeting Summary:
The purpose of this meeting was to discuss the concept of the proposed intersection improvements to New Providence Road at Birmingham Highway, environmental issues and coordination efforts within the project and review the overall project schedule. The meeting took place in the GDOT District 7 Conference Room on July 6, 2010 at 1:30 PM.

Introduction of Each Attendee

Project Overview (Street Smarts – Kari Ward/Andy Anderson)
Described preferred alternate developed considering the 2006 approved concept report, Community Advisory Committee meetings, PIOH comments, and discussions with GDOT.

Need and Purpose Statement (Street Smarts – Kari Ward)
Review of statement from the 2006 approved concept.

Traffic Projections/Accident History (Street Smarts – Kari Ward)
The existing volume did not satisfy 8 warrants. Accidents from 2006-2008 had no fatalities, a few injuries, and the main accident type is rear end.

Proposed Project Description (Street Smarts – Kari Ward)
The alternative decided upon consists of realigning the intersection approximately 300' north such that the intersecting skew angle with SR 372 is 80 degrees and improves the vertical site distance. The existing 4-way intersection will be replaced with a roundabout with right turn bypass lanes on SR 372.

Existing and Proposed Features (Street Smarts – Kari Ward)
The features were reviewed as listed in the Concept Report including the addition of the 10' multiuse trail in accordance with the City of Milton's Trails Plan.

Right of Way Requirements (Street Smarts – Kari Ward)
There are approximately 14 parcel impacts, no displacements. There are 13 temporary easements.

Utility Involvement (Street Smarts – Kari Ward)
Read list of area utilities from draft Concept Report.

Mac Cranford, GDOT D7
Where is Colonial Pipeline?
Kari Ward, Street Smarts
No utility submittals have been done. It has been included for now and can be taken off.

Alternates Considered and Reasons for Rejection (Street Smarts – Kari Ward)
Read alternatives from Concept Report.

Preferred Concept Alternative (Street Smarts – Kari Ward)
Review the concept chosen as described in the Concept Report.

Cost Estimate (Street Smarts – Kari Ward)
Read costs from Concept Report.

Environmental Concerns (Street Smarts – Kari Ward/KHA – Eric Martin)
Type of environmental document anticipated: one document for both projects PI No. 0005448 Birmingham Hwy/ SR 372 and PI No. 0000533 Arnold Mill Rd /SR140.

Cindy Trendway, GDOT NEPA
Is one document okay?
Andy Anderson, Street Smarts
If it becomes an issue we can separate the document.
Eric Martin, KHA
We can do whatever is best for the projects.
Mike Lobdell, GDOT
We don't want one project to get held up because of the other.
Carter Lucas, City of Milton
We prefer not to have a project hung up because of another project too.
Mike Lobdell, GDOT
We are thinking this would be a CE.
Kari Ward, Street Smarts
At what point do we need to separate the two projects?
Cindy Trendway, GDOT NEPA
What did Johnathan say when you spoke with him?
Kari Ward, Street Smarts
It would be faster if we can approve in house.
Mike Lobdell, GDOT
This project will not be programmatical.
Andy Anderson, Street Smarts
As long as we are not displacing anything, we will do what we need to do.
Ken Werhd, GDOT TOTMC

Let KHA do an initial study, and at that point decide if the projects should be separated.

Mike Lobdell, GDOT

Ok, do special study first and then decide.

Mike Martin, KHA

Sounds fine, we can look through documents to determine what is there.

Andy Anderson, Street Smarts

What is the endangered species out there?

Mike Martin, KHA

Have to look through documents, but I would be surprised if there are any habitats at these intersections.

Environmental permits/studies required

There are no known issues at this time. We are moving forward with developing a CE for both City of Milton Intersection projects PI No. 0005448 Birmingham Hwy/SR 372 and PI No. 0000533 Arnold Mill Rd /SR140.

Coordination (Street Smarts – Kari Ward)

Read list from draft Concept Report.

Project Schedule (Street Smarts – Kari Ward)

Letting is scheduled for end of 2012.

Comments from Attendees

Traffic Safety and Design

Scott Zehngraff, GDOT Traffic

1. Concept won't get approved without a letter from the local government that states they are in concurrence with the roundabout and that they will pay the power bill for the lighting at the intersection. Look into design policy manual, chapter 9 for more details on lighting with roundabouts.
2. The max grade for roundabouts is 4%, but it is recommended that a 3% grade be used. Make sure the approaches are flat for site distance.
3. Follow the federal guidelines for site distance triangles at roundabout intersections.
4. Landscaping makes the roundabout easier to sell to community. Landscaping also adds safety to the roundabout.

Ken Werhd, GDOT TOTMC

1. Verify the power easements. There may be power lines that could hold up the process 90-180 days to relocate the power.
2. Verify where the water is going and if any special drainage is needed.
3. Do Erosion Control while designing the intersection.

Environmental

Cindy Trendway, GDOT NEPA

1. 9 months for environmental is okay.
2. We don't have history yet, there is a church and cemetery down the road, but project ends before the cemetery.
3. Noise study is underway.
4. Special studies from 2006 show that there are two endangered species.

Right of Way

Pam Hooks, GDOT, Local Government

1. Revise schedule - add 6 months to R/W Acquisition.
2. Lag letting 60 days from completion of R/W Acquisition.

Action Items:

1. Review the Design Policy Manual, Chapter 9 for more information on lighting in a roundabout.
2. Revise schedule - add 6 months to R/W Acquisition.
3. Lag letting 60 days from completion of R/W Acquisition.

The meeting was adjourned at 2:30 pm by Mike Lobdell, GDOT D7.

Meeting: Douglas County Courthouse
District 7 Conference Room 144 & 145
Time: 1:30 pm

Georgia Department of Transportation

Date: July 6, 2010
Office: District 7 Preconstruction

DISTRICT SEVEN

NAME	TELEPHONE NO.	EMAIL ADDRESS	COMPANY/DEPARTMENT
Kelvin Wilson	770-986-1115	kewilson@dot.ga.gov	Preconstruction
Mike Lobdell	770-986-1257	mlobdell@dot.ga.gov	Preconstruction
David M. Robbins	770-986-1098	darobbins@dot.ga.gov	Preconstruction
KEN WERNO	404-635-8144	KWERNO@DOT.GA.GOV	GDOT-TRAFFIC TO
Pam Hooks	770-986-3982	phooks@dot.ga.gov	LOC.GOV.
JOSHUA HIGGINS	770-986-1093	johiggins@dot.ga.gov	D7 Preconstruction
ANDY ANDERSON	770 813 0882	ANDYA@STREETSMARTS.US	STREET SMARTS
Mac Cranford	770-986-1266	mcranford@dot.ga.gov	GDOT D7
Lindy Treadway	404. 631-1979	ltreadway@dot.ga.gov	GDOT-NEPA
Paul DeNard	404-635-8278	pdenard@dot.ga.gov	GDOT-Traffic Ops
SCOTT ZEHNGRAFF	404.635-8127	szehngraff@ " " "	" "
Mallory Brewer	770-813-0882	mallorybr@streetsmarts.us	Street Smarts
NAME	ADDRESS	EMAIL ADDRESS	COMPANY/DEPARTMENT

NAME	ADDRESS	EMAIL ADDRESS	COMPANY/DEPARTMENT
Kaycee Mertz	404-347-0245	kmertz@dot.ga.gov	GDOT/Planning
Carter Lucas	678 242-2626	Carter.Lucas@cityofmilton.ga.us	City of Milton
EDIN REG'S	770-936-1775		D-7 Traffic Ops
Kari Ward	770-813-0882	kariw@streetsmarts.us	StreetSmarts
Eric Martin	678-533-3947	eric.martin@kimley-horn.com	KHA
Alex Laffey		alaffey@dot.ga.gov	GDOT Traffic

INTERSECTION IMPROVEMENT PROJECTS

SR 140 ARNOLD MILL RD AT CR 27 NEW PROVIDENCE RD

SR 372 BIRMINGHAM HWY AT CR 27 PROVIDENCE / NEW PROVIDENCE RD

CAC MEETING #1 MEETING MINUTES

Date: **January 14, 2010**

Time: **6:00 PM**

Location: **City Hall, Executive Conference Room**

Attendees:

Mary Peace	Brad Robinson	Steve Bitney: Street Smarts
Wilson Borden	Mike Stevens	Kari Ward: Street Smarts
Yvonne Latorre	Kevin O'Sullivan	Erika Becker: Street Smarts
Cathy Rhea	Sara Leaders: Milton	
Star Voigt	Carter Lucas: Milton	

Minutes:

- Carter Lucas began the meeting at 6:00 p.m. by welcoming everyone and giving a brief project introduction. He also discussed the purpose of CAC meeting #1, which is to verify that what was being presented as existing conditions is actually happening.
- Self introductions were made by committee members, City of Milton staff and Street Smarts staff.
- Erika Becker gave an overview of the public involvement process for the project and discussed the purpose of the four CAC meetings and the Public Information Open House (PIOH).
- Several of the CAC members stated that these intersection projects have already been through the review process and wanted to know why we're doing it again. It was explained that the intersection projects were formerly under the authority of Fulton County. When the City of Milton incorporated, the projects were reassigned to the City. As mandated by GDOT, the review process has to be undertaken again as City of Milton projects.
- CAC members asked if the time to get the project approved could be shortened. Steve Bitney stated that we have to follow the GDOT process since we're using

GDOT funds for the improvements, so we will not be able to shorten the process. To modify the review process and timeline the City of Milton would have to pay for the project in full.

- Erika Becker explained that counts were collected at each intersection with video cameras to determine the existing conditions at each location.
- The comment was made that many residents tell their children to avoid the intersection of Arnold Mill and New Providence due to safety concerns, so the counts may not be accurate.
- Erika Becker then presented the existing and future conditions simulations for the AM peak hour at the intersection of Arnold Mill Road and New Providence Road. It was noted that New Providence Road is currently operating at LOS F and will continue to decline into the future. Many of the committee members commented that traffic on Arnold Mill Road is actually much heavier than it appears in the simulation.
- Other questions asked about this simulation included:
    - What is the peak hour? *The AM peak hour is from 7:00 am to 8:00 am.*
    - When were the counts taken? *Counts were collected on Wednesday November 11, 2009.*
    - What are the plans for future widening on SR 140 and will future plans be considered when designing this project? *Arnold Mill is a GDOT roadway and any plans to widen the road are long range. Funds have not been identified for widening. As a result, this intersection will not be designed to tie into any future projects.*
- A CAC member requested the City look into a "No-Left Turn" sign on SR 140 SB to improve conditions for vehicles waiting to turn left from New Providence onto SR 140.
- A CAC member commented that they had heard a signal was going to be installed at the intersection of Green Road and Arnold Mill Road. Other members commented that they didn't think a signal was needed at this location. Carter Lucas stated that he was not aware of plans to install a signal at this location.
- The comment was made that a temporary signal could be installed at this location as was done by the City of Roswell at Rucker Road and Crabapple.
- Additional issues identified by the CAC for the SR 140/New Providence Road intersection include:
    - Vehicles turning left from SR 140 onto New Providence cause additional delay, there is a need for an increased police presence, dump trucks are speeding, it is more difficult in the afternoon to turn left from New Providence onto SR 140.
- Erika Becker then presented the existing and future conditions simulations for the AM peak hour at the intersection of Birmingham Highway and Providence/New

Providence Road. It was noted that several legs of this intersection fail under existing conditions and that the level of service of the intersection will continue to fail into the future.

- Safety at this intersection was also discussed. Committee members commented that there is limited sight distance and many won't drive through the intersection at night due to safety concerns.
- A CAC member requested accident data, which the consultant agreed to email to the committee.
- The CAC committee requested that the City look into short-term improvements at both intersections and get additional information from GDOT regarding such improvements.
- A CAC member asked about Fulton County Schools installing a temporary measure at Birmingham Highway and Providence Road due to the districting of the elementary schools and the routes that require difficult movements at the intersection. The response was that Fulton County Schools do not contribute to off-site improvements.
- Additional issues identified by the CAC for the Birmingham Highway/Providence Road intersection include:
    - Difficult movements for access to schools due to redistricting, sight distance, speeds approaching the intersection and accidents.
- Kari Ward then presented the alternatives that were previously considered for the two intersections when Fulton County was leading the projects. She also discussed the new GDOT requirement to analyze the feasibility of a roundabout at each location.
- Erika Becker indicated that preliminary roundabout analysis shows that a roundabout will not operate adequately at either location with one lane. A multi-lane roundabout would be required. CAC members commented that a multi-lane roundabout may be confusing for drivers.
- Other alternatives presented by various CAC members include:
    - Reroute traffic to Cox Road and cul-de-sac New Providence.
    - Design a split interchange at Birmingham Highway. (Distance between the two intersections would have to meet GDOT requirements.)
- The consultant agreed to evaluate these additional alternatives along with the alternatives presented in the Fulton County concept report. Their finding will be presented to the CAC at the February 18th meeting.
- The meeting adjourned at 7:30 p.m.

INTERSECTION IMPROVEMENT PROJECTS

SR 140 ARNOLD MILL RD AT CR 27 NEW PROVIDENCE RD

SR 372 BIRMINGHAM HWY AT CR 27 PROVIDENCE / NEW PROVIDENCE RD

CAC MEETING #2 MEETING MINUTES

Date: **February 18, 2010**

Time: **6:00 PM**

Location: **City Hall, Executive Conference Room**

Attendees:

Kevin O'Sullivan	Star Voigt	Andy Anderson: Street Smarts
Brad Robinson	Scott Lutoa	Kari Ward: Street Smarts
Yvonne Latorre	Sara Leaders: Milton	Erika Becker: Street Smarts
Cathy Rhea	Carter Lucas: Milton	John Lewis: Street Smarts

Minutes:

- The meeting began 6:00 p.m. Self introductions were made by committee members, City of Milton staff and Street Smarts staff.
- Erika Becker presented the updated AM and PM existing conditions simulations for the Arnold Mill Road (SR 140) at New Providence Road (CR 27) intersection.
- Andy Anderson stated that since 2006, when these project first began with Fulton County, GDOT has changed their standards and we are now required to analyze a roundabout at each location.
- Mr. Anderson also stated that GDOT will fund a roundabout at 100%, as opposed to the 80%/20% split that is require for a signal.
- Star Voigt stated that she thought based on the information presented at the last meeting that a roundabout wouldn't work at the Arnold Mill Road (SR 140) at New Providence Road (CR 27) intersection.
- Mr. Anderson stated that we have not yet completed our detailed analysis, but that a roundabout with slip lanes or a multi-lane roundabout would work.
- Yvonne Latorre asked which is more cost effective; a signal or a roundabout?
- Mr. Anderson stated that in many cases a roundabout is more cost effective because it doesn't require as much right-of-way. Roundabouts require a little more land at the

intersection, but signals require more land for turn lanes.

- Cathy Rhea asked if a roundabout could be installed faster than a signal, which is projected to take approximately 3 years. Ms. Rhea also expressed concern about vehicle speeds on SR 140 when they enter a proposed roundabout.
- Mr. Anderson stated that the timeframe to complete a roundabout would be the same as a signal. They both have to go through the same environmental review process. He also stated that speeds through a roundabout are typically 15-20 mph and that appropriate signage would be in place to prepare drivers for an upcoming roundabout.
- Ms. Latorre asked if Streets Smarts can prepare a simulation for the roundabouts?
- Mr. Anderson stated that a simulation will be created for the preferred alternative at each intersection. If a roundabout is recommended for these locations then a simulation will be created.
- Kari Ward presented the design alternatives for each intersection. The following alternatives for Arnold Mill were presented: (1) Realign the intersection 140 feet west and signalize, (2) realign the intersection 700 feet west and signalize, (3) no-build, and (4) installation of a roundabout.
- The following alternatives for Birmingham Highway were also presented: (1) realign the intersection 500 feet to the north and signalize, (2) realign the intersection 500 feet to the north and install a roundabout, (3) realign the intersection 500 feet to the north, signalized and reduce the speed to 35 mph, (4) no-build, and (5) installation of a roundabout at the existing intersection location.
- Ms. Ward showed the committee an example of a roundabout that was installed at an intersection with a similar design in Douglasville, GA.
- Ms. Voigt asked if the property around the Birmingham Highway intersection were developed as commercial, would access to the development negatively affect a roundabout?
- Mr. Anderson stated that GDOT requires driveways to be located at least 200 feet from a roundabout.
- Mr. Anderson also stated that the alternative with the least impact would be to install a roundabout at the current intersection location. A small amount of right-of-way would be required to adjust the intersection to a preferred 45 degree skew angle.
- Ms. Ward presented the following alternatives that were identified at CAC Meeting #1: (1) reroute traffic to Cox Road and cul-de-sac New Providence Road and (2) split interchange at Birmingham Highway.
- Carter Lucas then discussed short-term improvements that were identified during CAC Meeting #1. He stated that he had met with GDOT to discuss installation of a temporary signal at Arnold Mill. GDOT stated that they would not approve a

"temporary" signal. The "temporary" signal would have to go through the normal review process and that permanent materials would be required. Installation of a "temporary" signal would cost approximately $100,000 to $150,000. Based on the time required for the signal review process, the "temporary" signal will likely be installed only one year ahead of the projected "permanent" signal installation. In addition, the "temporary" signal could not be removed until the "permanent" signal is installed, which will cost an additional $100,000 to $150,000 in materials. In summary, it will cost twice as much to install a signal one year ahead of the projected schedule.

- Mr. Lucas stated that he had also met with City of Roswell staff to discuss the signal timing at the intersection of SR 140 at SR 372 (Crabapple Road). Unfortunately the meeting did not result in any changes to the signal timing, which seems to be playing a role in the queue of AM traffic through the SR 140 at CR 27 intersection.
- Ms. Voigt asked if there was any way to push the Birmingham project through faster than the projected 2013 completion date. She commented that this intersection is very dangerous and that residents shouldn't have to wait that long.
- Mr. Anderson stated that if state and federal funds are used to pay for the project then the project process, including a lengthy environmental review, must be followed. If the sequence of events gets out of order there is a risk of losing funding, so unfortunately the timeline can't really be moved ahead any faster.
- Mr. Lucas stated that the intersections are being designed concurrently. He asked if they could be separated if one runs into problems so that construction at the other intersection would not be delayed.
- Ms. Voigt suggested widening New Providence Road to allow for a dedicated right turn lane.
- Ms. Becker reviewed the upcoming meeting dates: CAC Meeting #3 March 18, 2010, PIOH April 20, 2010, and CAC Meeting #4 May 10, 2010.
- Many committee members stated that they are not available March 18, 2010 for CAC Meeting #3.
- Ms. Becker stated that she would send out an alternate date and let everyone know what works best for the committee as a whole.
- Ms. Becker also presented the project website to the committee and stated that the purpose of the website is to provide users with the materials presented at the CAC meetings and other relevant project information.
- Mr. Anderson stated that Street Smarts will begin the process of developing design details for the preferred alternative at each intersection and that these details will be presented at CAC Meeting #3.
- The meeting adjourned at 7:15 p.m.

INTERSECTION IMPROVEMENT PROJECTS

SR 140 ARNOLD MILL RD AT CR 27 NEW PROVIDENCE RD

SR 372 BIRMINGHAM HWY AT CR 27 PROVIDENCE / NEW PROVIDENCE RD

CAC MEETING #3 MEETING MINUTES

Date: March 23, 2010

Time: 6:00 PM

Location: City Hall, Executive Conference Room

Attendees:

Kevin O'Sullivan	Scott Lee: GDOT	Andy Anderson: Street Smarts
Yvonne Latorre	Kelvin Wilson: GDOT	Erika Becker: Street Smarts
Cathy Rhea	Sara Leaders: Milton	
Adam Orkin	Steve Bitney: Street Smarts	

Minutes:

- The meeting began 6:00 p.m. Self introductions were made by meeting attendees including committee members, GDOT staff, City of Milton staff and Street Smarts staff.
- Erika Becker gave an overview of the meeting purpose, which was to present the preferred design alternative for each intersection.
- Ms. Becker stated that installation of a traffic signal is the preferred alternative for the intersection of Arnold Mill Road (SR 140) at New Providence Road (CR 27). Future year 2032 AM and PM peak hour conditions simulations for the intersection were presented to the committee.
- Ms. Becker then presented a roundabout as the preferred alternative for the intersection of Birmingham Highway (SR 372) at Providence / New Providence Road (CR 27). Future year 2012 and 2032 AM peak hour conditions simulations for the intersection were presented to the committee.
- Andy Anderson stated that a signal would not be warranted at this location.
- A CAC member asked would a roundabout require more right-of-way (ROW) and therefore be more expensive than a signal?
- Mr. Anderson stated that the proposed roundabout would require more ROW at the

center, but when compared to the amount of ROW needed for a signalized intersection with turn lanes it is less and therefore less expensive. Mr. Anderson showed the committee the original signalized concept for the intersection and pointed out the greater amount of ROW that would be taken versus the ROW needed for the proposed roundabout.

- A CAC member asked about signage for the roundabout.
- Mr. Anderson stated that the roundabout will be well signed to alert oncoming drivers and that there will be a concrete apron for trucks and tractor-trailers.
- A CAC member asked if the approaches entering and exiting the roundabout could be separated more to allow for gaps to enter the roundabout.
- Mr. Anderson stated that, given the geometrics of the proposed intersection design, we've attempted to separated them as much as possible.
- A CAC member asked about the possibility of installing a "peak hour signal" at the Birmingham Highway intersection that would only operate during the AM and PM peak hours.
- Mr. Anderson stated that GDOT does not permit any type of "temporary" signal.
- A CAC member asked about funding for the roundabout.
- Mr. Anderson stated that GDOT will fund roundabouts at 100% as long as there is money available.
- In closing, Mr. Anderson stated that we will be working closely with GDOT to refine the proposed alternatives presented tonight to the CAC.
- The meeting adjourned at 7:00 p.m.

CONFERENCE CALL SUMMARY

Date: June 4, 2010 9:00 AM

Taken By: Kari Ward, PE

Subject: GDOT Traffic Review of Alternatives
HPP00-0005-00(448), P.I. No. 0005448, Fulton County, City of Milton
Birmingham Hwy/ SR 372 (09-SSI-03, 1876-504)

Attendees:

Scott Zehngraff, GDOT Traffic
Ken Werho, GDOT TOTMC
Paul Denard, GDOT Traffic
Kari Ward, Street Smarts
Arwin Lopez, Street Smarts

Meeting Summary:

The purpose of this meeting was to discuss the alternatives developed based on the ICTM comments emailed to GDOT Traffic for review on 5/27/10.

"Alt 1 CR27 Bypass"

"Alt 2 Dual Entry"

"Alt 5 Realign SR 372"

Comments from Attendees

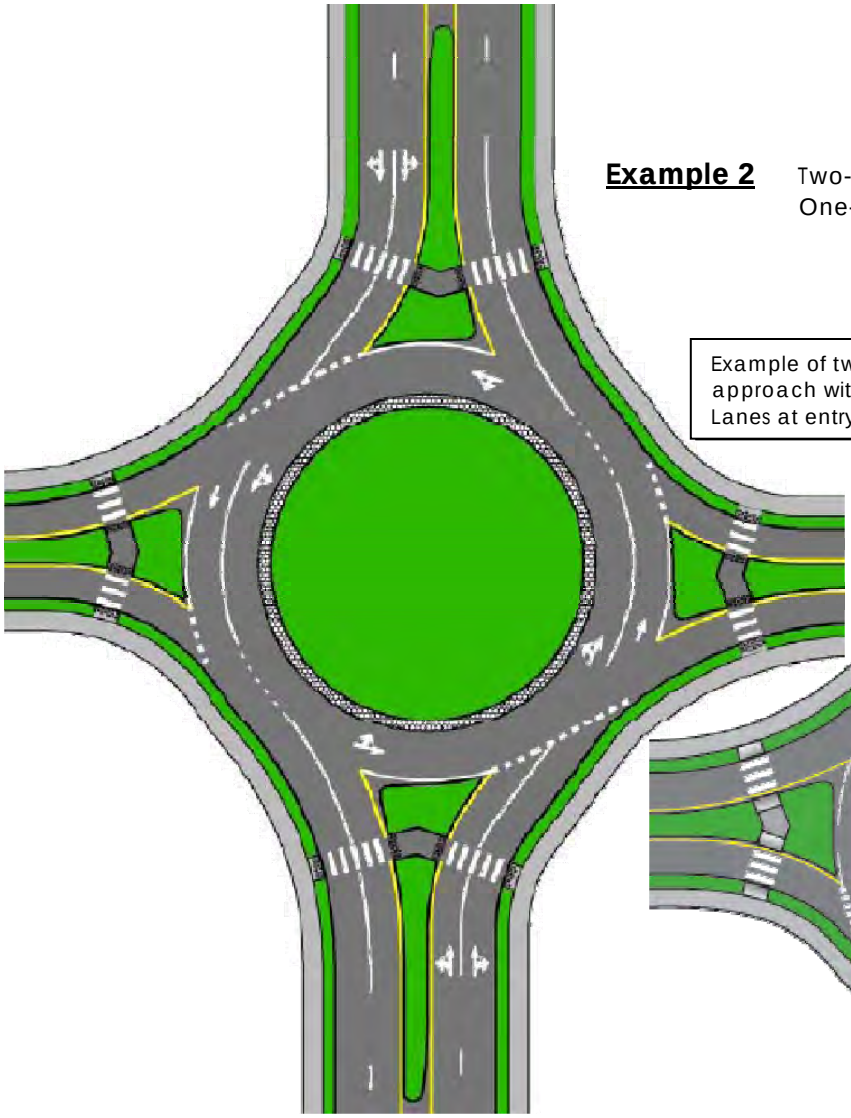
Traffic Safety and Design

Scott Zehngraff, GDOT Traffic

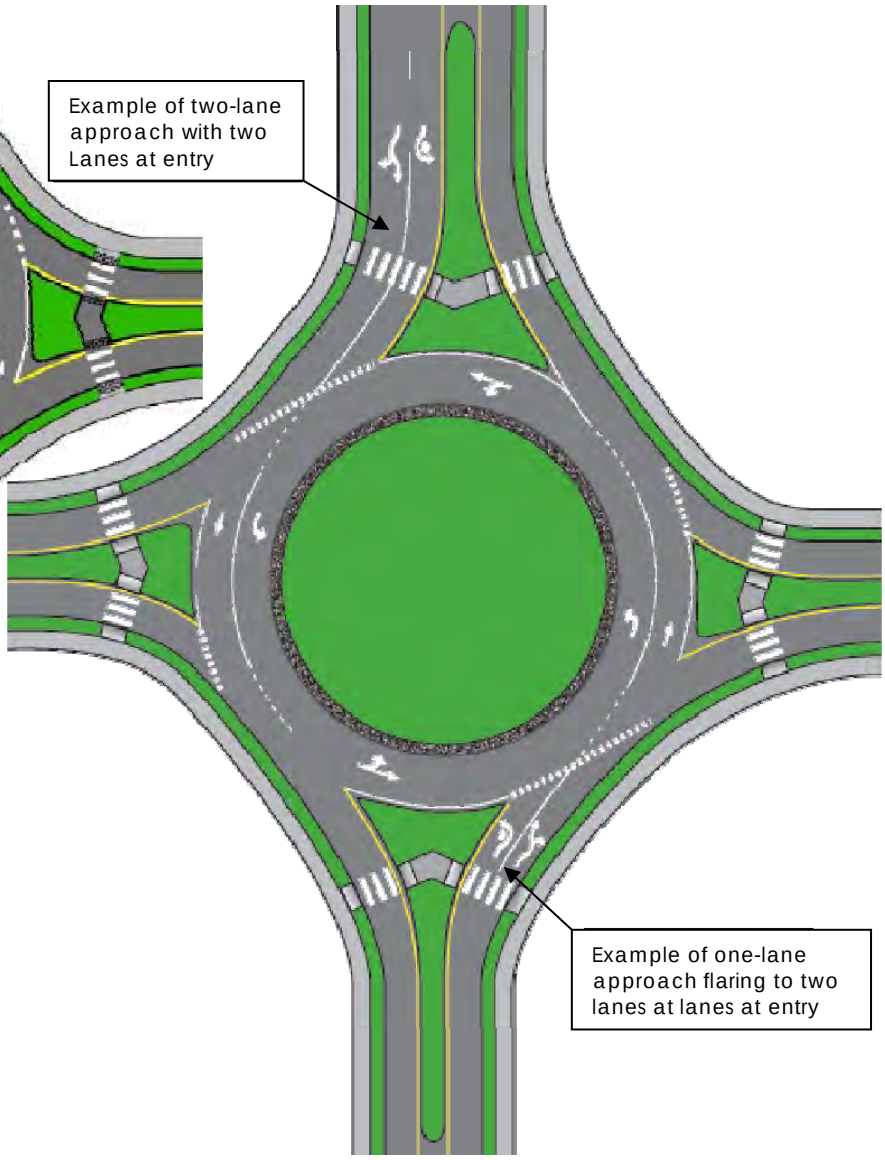
1. Eliminate "Alt 1 CR27 Bypass"
2. "Alt 2 Dual Entry" will work.
3. "Alt 5 Realign SR 372" is best solution; it doesn't have tight angles and allows more separation between the approaches but requires more R/W than "Alt 2 Dual Entry".

4. For future expansion to a multilane roundabout, submit alternative to show multilane roundabout with dual exits on SR 372 (see Example 1).
5. Add flare and pavement markings on the eastbound New providence Road and northbound SR372 approaches (see Example 2).

Example 1 Two-Lane Entries and Exits on Major Route
One-Lane Entries and Exits on Minor Route



Example 2 Two-Lane Entries and One-Lane Exists on Major Route
One-Lane Entries and Exists on Minor Route



6. Send GDOT Traffic revisions discussed for review; copy Ken Werho, Paul Denard and Kelvin Wilson.

Ken Werho, GDOT TOTMC

1. Show the truck apron on the layouts.
2. Show the splitter islands on "Alt 5 Realign SR 372" the same as "Alt 3 Dual Entry".

Paul Enard, GDOT TOTMC

1. Label the inscribed diameter.

Scott Zehngraff, GDOT Traffic

Q: What is the inscribed diameter?

Arwin Lopez, StreetSmarts

A: 100' radius (200' diameter)

Action Items:

Send GDOT Traffic revisions discussed for review; copy Ken Werho, Paul Denard and Kelvin Wilson.

The meeting was adjourned at 9:20 am.

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE: P. I. Nos. 0000533 & 0005448 OFFICE: Environmental Services
DATE: April 21, 2010

FROM: Glenn Bowman, P.E., State Environmental Administrator

TO: Distribution Below

SUBJECT: PUBLIC INFORMATION OPEN HOUSE SYNOPSIS

PROJECT Nos. & COUNTY: HPP00-0000-00(533) & HPP00-0005-00(448), Fulton

PROJECT DESCRIPTION: Proposed intersection improvements at SR 140 Arnold Mill Rd and CR 27 New Providence Rd and at SR 372 Birmingham Hwy and CR 27 Providence / New Providence Rd.

DATE: April 20, 2010

NUMBER IN ATTENDANCE: 76

FOR: 25

CONDITIONAL: 3

UNCOMMITTED: 0

AGAINST: 1

OFFICIALS IN ATTENDANCE:
1. William C. Lust, P.E., Milton City Council, District 3
2. Julie Zahner Bailey, Milton City Council, District 2

ADDITIONAL COMMENTS: Most of the attendees were in favor of the projects. Several commented that they are concerned with speeding at each location and that they would like the projects completed sooner to alleviate that problem. Several attendees also commented that the public will need to be educated on using the proposed roundabout at Birmingham Hwy.

PREPARED BY: Erika Becker, Street Smarts for Georgia DOT

TELEPHONE No.: (770) 813-0882

cc: Gerald M. Ross, P.E.
Ben Buchan, P.E.
Bryant Poole, P.E.
Kelvin Wilson
Mac Cranford
Scott Lee
Glenn Bowman, P.E.

Vance C. Smith, Jr., Commissioner

GEORGIA DEPARTMENT OF TRANSPORTATION

One Georgia Center, 600 West Peachtree Street, NW
Atlanta, Georgia 30308
Telephone: (404) 631-1000

July 19, 2010

«AddressBlock»

Re: Projects HPP00-0000-00(533) & HPP00-0005-00(448), Fulton County - P.I. Nos. 0000533 & 0005448
City of Milton Intersection Improvement Projects

«GreetingLine»

Thank you for attending the April 20, 2010 Public Information Open House on the proposed projects. Your attendance at this meeting and your comments are appreciated. Please accept our sincerest apologies for the delay in responding. Your comments will be made a part of the official record of the project.

A total of 76 people attended the PIOH. Of the 41 comments received, 33 were in support of the projects, 1 was opposed to the projects, 0 were uncommitted, 4 expressed conditional support for the projects and 4 gave no answer. *(It should be noted that one response stated that they were both in support of the projects and expressed conditional support.)*

The attendees that left a comment at the PIOH and the persons that sent in comments afterwards raised the following questions and concerns. The Georgia Department of Transportation (Department), in cooperation with the City of Milton, has prepared this one response letter that addresses all comments received so that everyone can be aware of the concerns raised and the responses given. Please find the comments summarized below (in italics) followed by our response.

- *Numerous comments were received that were in support of the project. Several commenters asked about the current project schedule.*

Response: All comments are appreciated and have been made a part of the official record of the project. The anticipated schedule for both projects is as follows:

ANTICIPATED PROJECT SCHEDULE	
Approved Concept Report	07/2010
Complete Preliminary Plans	12/2010
Complete Right-of-Way Plans	06/2011
Begin R/W Acquisition	08/2011
Complete Final Construction Plans	11/2011
Let to Construction	11/2012

- *"I think that Birmingham Hwy-Providence Rd. needs a light! Something needs to be done! Bad intersection."*

Response: An engineering study was performed for this intersection and it was determined that a roundabout would be the most appropriate solution.

- *"Why is the roundabout a better idea than a light and turn lanes? I don't know of any other roundabouts nearby. Are people really going to be able to move through a roundabout that much better than a light? Traffic is definitely an issue during rush hour, so I agree that something needs to be done, but I'm just not confident that a roundabout is the right answer. Thanks for posting the info online, that was very helpful."*

Response: Based upon the engineering study performed for the intersection, it was determined that a roundabout would be the most appropriate solution for this location. While we do appreciate your suggestion for a traffic signal at this location, we have decided to move forward with our roundabout concept at this time.

- *"Slower speed limit on approach to all intersections."*

Response: The design of the roundabout will require vehicles to reduce their speed when traveling through the intersection. The speed limit will also be reduced at each approach to the Birmingham/Providence roundabout.

- *"Why put a sidewalk with the volume of traffic and ends up nowhere."*
  "Elevations are important to future use of my properties. What happens to sidewalks to nowhere?"
  "Yes, if a stop light is placed at intersection of SR 140 and CR 27 and curbs are added in addition to the multi-use trail. Please email more information to residents who sign up for Milton notices."
  "10' multiuse trail on New Providence Road should extend to bridge. Bridge should get lights and connect to sidewalk by the school and Providence Lake Subdivision."

Response: Sidewalks and multi-use trails are included in the proposed intersection improvements as they relate to the City of Milton Trail Plan and Trail Development Standards. However, at this time, we cannot implement the full plan. Connections will be made as development and/or redevelopment occurs. In addition, these standards can be accessed from the City of Milton's webpage at cityofmiltonga.us/transportation/inventory/F_Milton_Trail.pdf.

- *"I attended the Open House last week and am writing to submit comments on the roundabout proposal for Birmingham Hwy/New Providence Rd. The current proposal shows the location of the road directly on top of our backyard. It appears to actually consume approximately one-third of our one acre property that our home sits on. The new road would literally run across the entire width of our backyard DIRECTLY behind our home. The steep hill and mature pine trees that make up our backyard serve as an effective visual and sound barrier to New Providence Road behind our home and removing these to make room for the new road would significantly impair our property. Providence at Atlanta National is a gated community that is fenced in all around. The safety this provides for my children to play was a major factor in purchasing in this neighborhood. To have this removed and THEN for the road to be built so close to our home is very troubling. We are very concerned about the physical and financial impact this plan would have on our home and we would like to learn what other options could be considered. When is the final decision regarding this proposal being made?"*

Response: The alignment and design of the proposed roundabout has been moved north to minimize impacts to the subject property to the extent possible. Unfortunately, land acquisition and personal property impacts for transportation purposes can be required on projects. Since this is a federally funded project, rights-of-way acquisition will be strictly governed by numerous state and federal laws and regulations. The City of Milton, responsible for purchasing rights-of-way for this project, will send out letters under separate cover to those property owners who would be affected by land acquisition for the proposed project. For additional information or to speak with the local sponsor in more detail about your concerns, please contact Sara Leaders (City of Milton) at (678) 242-2500.

- *"The project is great as designed. My concern is what can be done in the interim. I also doubt funding will flow in time for 2012 construction. I recommend some additional speed control measures and police presence to help with accident reduction."*

Response: Interim improvements have been investigated, but were not found to be feasible and/or cost effective at this time.

- *"On a timer at the 2 rush hours, there should be a left turn arrow for eastbound traffic at New Providence Rd. Love the roundabout on Birmingham Hwy!! They work beautifully with heavy traffic in the U.K. and New Zealand. Great job! Yes!! Let's get started!"*

Response: A dedicated left-turn lane is planned for the intersection improvement.

- *"One of the major issues that I see every morning is that traffic from Cobb and Cherokee are traveling east on Cox Road towards Arnold Mill. Instead of using the light, cars are turning on Etris Road and then Cagle Road and waiting for traffic to let them out on Arnold Mill. This causes a lot of congestion and hope that it is being considered in the planning of the new intersection."*

Response: The installation of a traffic signal at the intersection of Arnold Mill and New Providence will provide a protected movement for left-turning vehicles. However, the signal will not likely deter cut-through traffic on Cagle Road as it is used as a bypass to avoid much of the traffic on Arnold Mill Road.

Thank you again for your input on these projects. Should you have any questions, please call the Department's project manager Kelvin Wilson at (770) 986-1115 or Jonathan Cox, at (404) 631-1197 of my staff.

Sincerely,

Glenn Bowman, P.E.
State Environmental Administrator

GB/JC/eb

City of Milton
13000 Deerfield Parkway Suite 107C Milton, Georgia 30004

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 CITY OF MILTON, in FULTON County supports the consideration of a roundabout at the location specified below.

Local Street Names: BIRMINGHAM HWY at PROVIDENCE RD/NEW PROVIDENCE RD

State/County Route Numbers: SR 372 at CR 27

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 (if needed)
- Any maintenance costs associated with the landscaping (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.

This is the 4th day of October, 2010

Attest: _____
Clerk

By: _____

Title: MAYOR

September 23, 2010

Mr. Kelvin Wilson
GDOT District Seven Design
5025 New Peachtree Road
Chamblee, GA 30341

Re: QC/QA Certification: Concept Report
HPP00-0005-00(448), Fulton County, City of Milton
PI No. 0005448, SR 372/Birmingham Hwy @ CR 27/Providence Rd/New Providence

Mr. Wilson:

In accordance to GDOT's request for Consultant QC/QA certification, this letter certifies that the Concept Report for PI No. 0005448 SR 372/Birmingham Hwy @ CR 27/Providence Rd/New Providence Rd in Fulton County has been prepared in compliance with GDOT standards, is accurate and has been reviewed by our internal quality control and quality assurance policies, procedures and measures.

Please do not hesitate to contact me if you have any questions or require additional information.

Sincerely,

Kari Ward

Kari Ward, P.E.
Project Manager

3160 Main Street • Suite 100 • Duluth, GA 30096 • phone: (770) 813-0882 • fax: (770) 813-0688 • www.streetsmarts.us

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

PROJECT CONCEPT REPORT

Project Number: HPP00-0005-00(448)
County: Fulton
P. I. Number: 0005448
Federal Route Number: N/A
State Route Number: 372

No. GDOT (Originator) Date 9/1/10

CHECK PRINT

Drawing checked against calculations, and calculation check confirmed.

By Ken Ward (Checker) Date 9/1/10

Checked K Ward (Red Markup (Checker)) Date: 9/1/10
Backchecked Arwin C. (Green ✓ or ✗ (Originator)) Date: 9/17/10
Corrected Arwin C. (Green Circle (CAD Operator)) Date: 9/17/10
Verified K Ward (Red Markup (Checker)) Date: 9/23/10

The project consists of realigning the intersection of SR 372/Birmingham Hwy @ CR 27/Providence Rd/New Providence approximately 300' to the north such that intersecting skew angle with SR 372 is 80 degrees, and improving the vertical sight distance along SR 372. The existing non-signalized 4-way intersection will be replaced with a roundabout.

Submitted for approval:

DATE _____ _____
Design Consultant Name and Firm Name

DATE _____ _____
Local Government

DATE _____ _____
District Engineer

DATE _____ _____
Project Manager

Recommendation for approval:

DATE _____ _____
Program Control Administrator

DATE _____ _____
State Environmental Administrator

DATE _____ _____
State Traffic Engineer

DATE _____ _____
Project Review Engineer

DATE _____ _____
State Transportation Financial Management Administrator

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).

DATE _____ _____
State Transportation Planning Administrator