JOHNS CREEK WALK II

DEVELOPMENT OF REGIONAL IMPACT TRANSPORTATION ANALYSIS

June 4, 2007

prepared for:

Atlantic Realty Partners

Project Number 15280554

TRANSPORTATION ANALYSIS OF

JOHNS CREEK WALK II

DEVELOPMENT OF REGIONAL IMPACT
JOHNS CREEK, GEORGIA

prepared for:

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TABLE OF CONTENTS

INTRODUCTION

URS Corporation was retained by Atlantic Realty Partners to evaluate the traffic impact of the proposed Johns Creek Walk II mixed-use development located on the west side of Medlock Bridge Road at Johns Creek Parkway in Johns Creek, Georgia.

A methodology meeting was held on April 30, 2007 at ARC's office prior to initiating this study. Based upon the meeting and outlined in GRTA's *Letter of Understanding* a methodology was developed and subsequently followed in the preparation of this study.

Project Description

Johns Creek Walk II is a proposed development that will consist of residential, senior housing, hotel, office and community space, and retail uses. The residential use for this site will be single-family attached units consisting of a mix of condominiums, town homes, and brownstones. A total of 191 residential units are planned. The senior housing component will consist of 125 units. The hotel component will consist of 95 rooms. In addition, approximately 8,000 square feet of office/community space and 48,000 square feet of retail with 30,000 square feet located within the development and 18,000 square feet located on three out parcels will be included in the proposed development. The location of the proposed development is indicated in Figure 1.

Phasing and Build-Out Schedule

The site will be analyzed in one phase with a projected build-out of 2009.

Existing and Proposed Zoning and Land Use Category

Currently, 27 of the 30 acres are zoned for Mixed-Use (MIX) following an amendment by Fulton County to the adopted land use plan. The remaining 3 acres are currently zoned Agricultural (AG). These three acres include a senior housing component that will require a rezoning to Mixed-Use (MIX). The site is designated a Living Working Corridor on Fulton County's *2025 Future Land Use Plan.* As such, the proposed development is consistent with this plan and no modification to the plan is being sought under this review.

Level of Service (LOS) Standards

In accordance with GRTA's *Letter of Understanding*, if the existing LOS for an intersection is below the acceptable LOS for a particular time period (LOS D is acceptable), then the measured LOS for that intersection and time period is the standard by which the "base" and "future" traffic conditions will be designed.

LOCATION MAP

FIGURE 1

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Site Access

Access to Johns Creek Walk II is proposed at three locations: one full-movement signalized access aligned with Johns Creek Parkway at Medlock Bridge Road, and two right-in / right-out driveways along Medlock Bridge Road, one between Johns Creek Parkway and Abbotts Bridge Road and one between Johns Creek Parkway and McGinnis Ferry Road.

TRIP GENERATION

Trip generation estimates for the proposed development were based on the rates and equations published in the standard reference *Trip Generation*, 7th edition, published by the Institute of Transportation Engineers (ITE). This reference contains traffic volume count data collected at similar land uses nationwide. Trip generation was based on the following ITE Land Codes: 230 – Condominium / Townhouse, 310 – Hotel, 710 – General Office, 820 – Shopping Center, and 252 – Senior Attached Housing.

For the purpose of calculating trip generation, Land Use 230 is applicable to all single-family attached residential units, including the brownstones. Therefore, the total residential trip generation is presented together. Likewise, the total retail square footage was considered together to best account for the combined impact of these uses. Additionally, pursuant to GRTA requirements the trips generated from the proposed senior housing component were calculated assuming, 80 percent of the land use to be ITE Code 230 with the remaining 20 percent to be ITE Code 252.

The mixed-use nature of this site will reduce the total number of trips generated on the external street network by providing complementary uses that can be accessed within the development, referred to as internal capture. Internal capture rates are contained in ITE's *Trip Generation*.

Pass-by trips are trips to retail uses made by vehicles that are already driving past the site. These vehicles are new turning movements into and out of the site driveways, but are not new vehicles on the roadway network. ITE provides guidelines for estimating the number of trips to a particular retail use that will be pass-by traffic during the evening peak hour. For most uses, there is no significant pass-by in the morning and was, therefore, assumed to be zero percent. Pass-by was calculated to be 48% of the net retail traffic during the evening peak hour. Over the 24-hour period, 30% pass-by traffic was assumed.

The net trip generation calculated for Johns Creek Walk II is presented in Table 1.

Table 1
Trip Generation

AM Peak Hour												
ITE Code	Land Use	Units	Total Trips		Internal Capture		Pass-By (0%)		New External Trips		
			In	Out	In	Out	In	Out	In	Out	Total
710	General Office Building	8,000 Sq. Feet	22	3	1	1	0	0	21	2	23
252	Senior Attached Housing	25 Units	1	1	0	0	0	0	1	1	2
310	Hotel	95 Rooms	32	21	0	0	0	0	32	21	53
230	Residential Condominium/Townhouse	291 Dwelling Units	21	100	3	3	0	0	18	97	115
820	Shopping Center	48,000 Sq. Feet	62	39	4	4	0	0	58	35	93
TOTAL			**138**	**164**	**8**	**8**	**0**	**0**	**130**	**156**	**286**
PM Peak Hour											
ITE Code	Land Use	Units	Total Trips		Internal Capture		Pass-By (48%)		New External Trips		
			In	Out	In	Out	In	Out	In	Out	Total
710	General Office Building	8,000 Sq. Feet	15	73	5	5	0	0	10	68	78
252	Senior Attached Housing	25 Units	2	1	1	1	0	0	1	0	1
310	Hotel	95 Rooms	30	26	0	0	0	0	30	26	56
230	Residential Condominium/Townhouse	291 Dwelling Units	96	48	25	17	0	0	71	31	102
820	Shopping Center	48,000 Sq. Feet	185	201	22	30	80	80	83	91	174
TOTAL			**328**	**349**	**53**	**53**	**80**	**80**	**195**	**216**	**411**
Daily											
ITE Code	Land Use	Units	Total Trips		Internal Capture		Pass-By (30%)		New External Trips		
			In	Out	In	Out	In	Out	In	Out	Total
710	General Office Building	8,000 Sq. Feet	96	95	14	24	-	-	82	71	153
252	Senior Attached Housing	25 Units	44	43	16	16	-	-	28	27	55
310	Hotel	95 Rooms	388	388	-	-	-	-	388	388	776
230	Residential Condominium/Townhouse	291 Dwelling Units	796	795	234	190	-	-	562	605	1,167
820	Shopping Center	48,000 Sq. Feet	2,107	2,107	227	261	559	559	1,321	1,287	2,608
TOTAL			**3,431**	**3,428**	**491**	**491**	**559**	**559**	**2,381**	**2,378**	**4,759**

TRIP DISTRIBUTION

For this development, trip distribution was based on a select zone analysis of the project location using a year 2010 model data set of the Atlanta Regional Commission (ARC) travel demand model. The projected trip distribution is shown in Figure 2.

STUDY NETWORK DETERMINATION

According to GRTA procedures, the study network includes any link for which the project's gross traffic contributes more than 7% of the service capacity. The trip distribution and daily trip generation described in Table 1 were the basis for the calculations. The results are presented in Table 2.

TRIP DISTRIBUTION

FIGURE 2

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Table 2
Study Network Determination

Roadway Segment	# of Lanes	Link Distance	# of Signals	Signals Per Mile	LOS Standard (Urban)	Adjusted Facility Service Volume	Project Traffic Distribution	External Project Trips Assigned	% Service Volume Consumed	Presumptive Impact
SR 141, Between Laurel Springs Road and Brookwood Road	2	1.16	1	0.86	D	16,600	6%	412	2.48%	No
SR 141, Between DeerLake Drive and Mathis Airport Road	2	0.7	1	1.43	D	16,600	13%	892	5.37%	No
SR 141, between McGinnis Ferry Road and DeerLake Drive	4	0.54	2	3.70	D	32,500	13%	892	2.74%	No
SR 141, between McGinnis Ferry Road and Johns Creek Parkway	4	0.97	2	2.06	D	32,500	26%	1,783	5.49%	No
SR 141, between Johns Creek Parkway and Abbots Bridge Road	4	0.53	2	3.77	D	32,500	68%	4,664	14.35%	Yes
SR 141, between Abbots Bridge Road and State Bridge Road	4	2.23	6	2.69	D	32,500	32%	2,195	6.75%	No
SR 141, between State Bridge Road and Old Alabama Road	4	0.47	2	4.26	D	32,500	19%	1,303	4.01%	No
SR 141, between Old Alabama Road and Medlock Bridge Road	4	2.36	2	0.85	D	35,000	17%	1,166	3.33%	No
SR 141, between Medlock Bridge Road and Holcomb Bridge Road	4	2.6	6	2.31	D	32,500	15%	1,029	3.17%	No
SR 141, between Holcomb Bridge Road and I-285	6	Freeway (Group 2)			D	96,200	6%	412	0.43%	No
McGinnis Ferry Road, between SR 141 and Sargent Road	2	0.65	2	3.08	D	14,900	9%	617	4.14%	No
McGinnis Ferry Road, between SR 141 and Old Alabama Road	2	1.03	2	1.94	D	16,600	4%	274	1.65%	No
Johns Creek Parkway, between SR 141 and McGinnis Ferry Road (southeast loop)	4	Non-State Roadway			D	31,700	6%	412	1.30%	No
SR 120 (Old Milton Parkway), between Kimball Bridge Road and SR 400	4	2.5	9	3.60	D	32,500	7%	480	1.48%	No
SR 120 (Kimball Bridge Road), between Old Milton Parkway and Jones Bridge Road	2	1.27	2	1.57	D	14,900	12%	823	5.52%	No
SR 120 (Abbots Bridge Road), between Jones Bridge Road and SR 141	2	2.47	3	1.21	D	24,800	18%	1,235	4.98%	No
SR 120 (Abbots Bridge Road), between SR 141 and Peachtree Industrial Boulevard	2	0.85	1	1.18	D	16,600	13%	892	5.37%	No
Laurel Springs Road, between SR 141 and Mathis Airport Road	4	Non-State Roadway			D	31,700	7%	480	1.51%	No

Note: All roadways unless otherwise noted were analyzed as State maintained two-Way Arterials

The results of these calculations indicated the following roadway links meet the 7% criteria and are proposed for inclusion:

- Medlock Bridge Road, between Johns Creek Parkway and Abbotts Bridge Road.

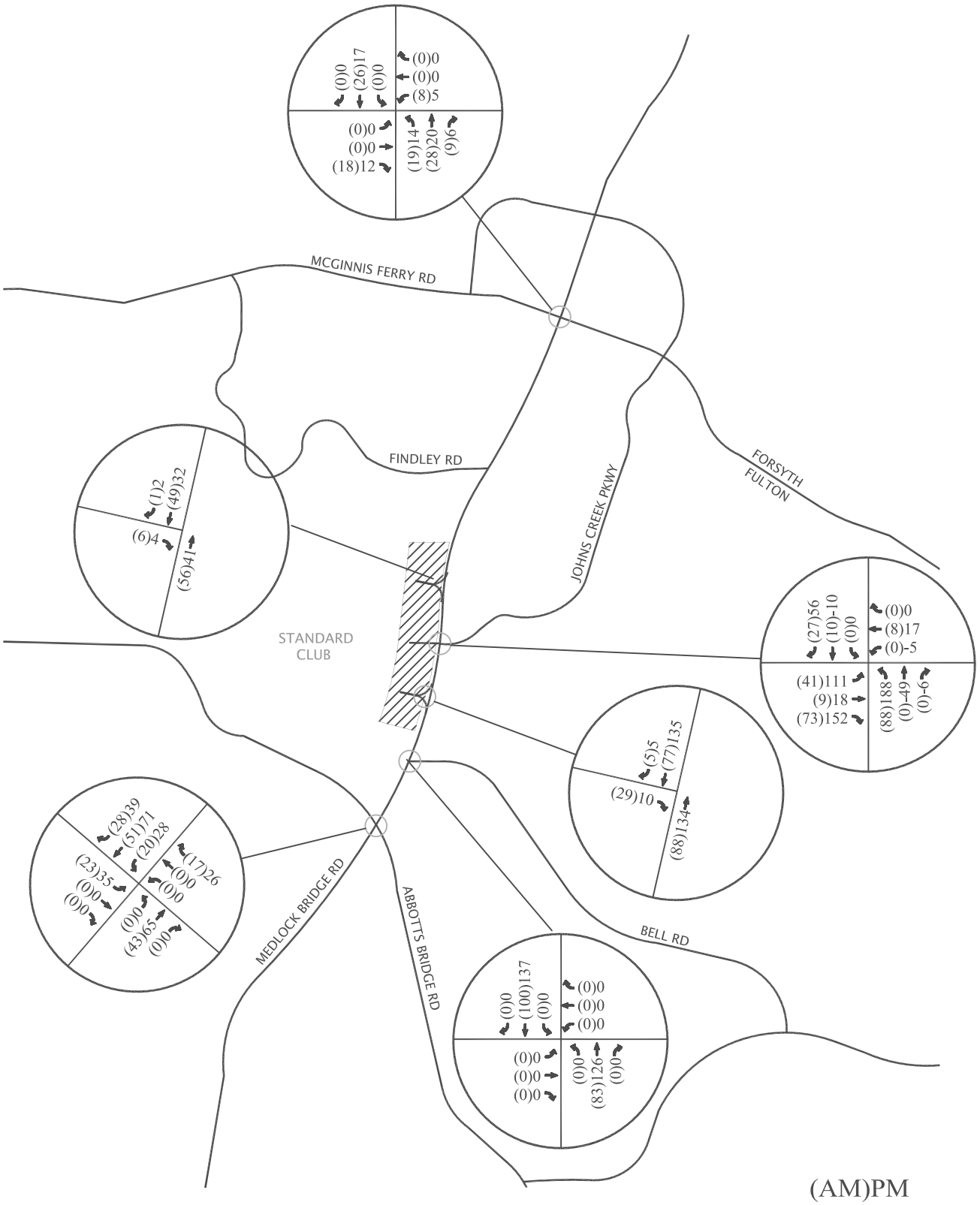
Based on the study network determination, the following intersections are included in the study network:

- Medlock Bridge Road and Johns Creek Parkway
- Medlock Bridge Road and Bell Road
- Medlock Bridge Road and Abbotts Bridge Road

In addition, the proposed project access points as well as the intersection of Medlock Bridge Road and McGinnis Ferry Road are included in the analysis.

PEAK HOUR TRAFFIC ASSIGNMENT

Net peak hour traffic volumes generated by Johns Creek Walk II, presented in Table 1, were assigned to each intersection in the study network according to the appropriate trip distributions shown in Figure 2. During this assignment, consideration was given to the driver's destination on site and ease of access at each driveway. Site-generated volumes for the project are shown in Figure 3 for the weekday AM and PM peak hours.



SITE GENERATED PEAK HOUR TRAFFIC VOLUMES

FIGURE 3

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EXISTING CONDITIONS

Existing Facilities

An inventory of the roadway facilities providing access to the site was performed. The following is a brief description of each facility. A schematic diagram of the study network is provided in Figure 4 to more clearly depict the intersection geometries.

Medlock Bridge Road (State Route 141)

Medlock Bridge Road, which is State Route (SR) 141 in the vicinity of the site, is a north-south, four-lane divided highway. Within the study network, Medlock Bridge Road is signalized at Abbotts Bridge Road, Johns Creek Parkway, and McGinnis Ferry Road. Medlock Bridge Road provides single exclusive left-turn and right-turn lanes along its northbound and southbound approaches at Abbotts Bridge Road and McGinnis Ferry Road. At Johns Creek Parkway, Medlock Bridge Road has a northbound U-turn lane, a northbound right-turn lane, and a southbound left-turn lane.

In 2005, Georgia Department of Transportation (DOT) reported an annual average daily traffic volume (AADT) of 31,220 vehicles per day (vpd) on Medlock Bridge Road south of Abbotts Bridge Road.

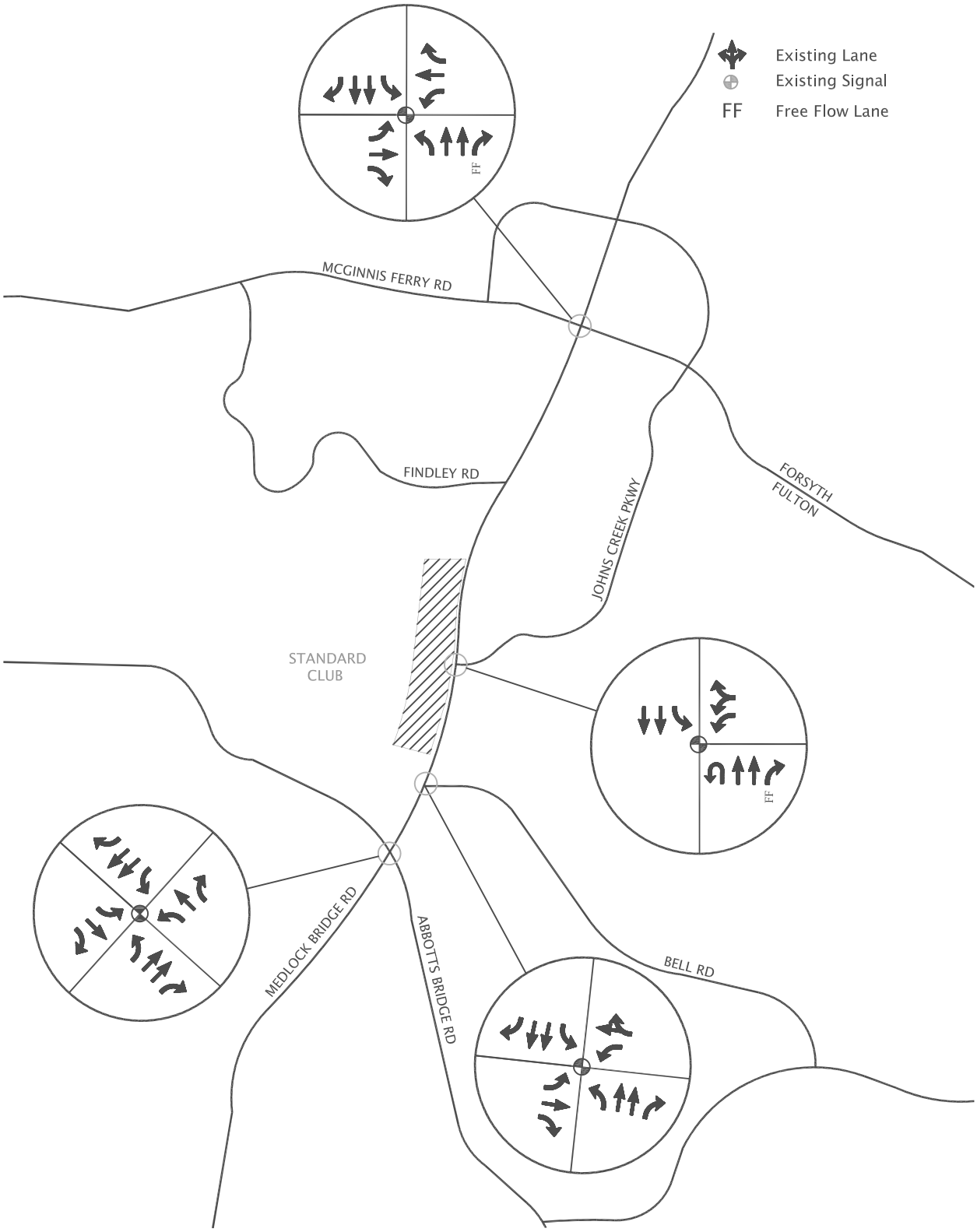
McGinnis Ferry Road

McGinnis Ferry Road is an east-west major collector street that has one through lane in each direction west of Medlock Bridge Road, but widens to a four-lane divided roadway east of Medlock Bridge Road to Johns Creek Parkway. McGinnis Ferry Road is signalized at Medlock Bridge Road and has a single exclusive left-turn lane and right-turn lane along each approach.

In 2005, Georgia DOT reported an AADT of 27,800 vpd west of Medlock Bridge Road and an AADT of 13,200 vpd east of Medlock Bridge Road.

Johns Creek Parkway

Johns Creek Parkway is a four-lane divided highway that extends east from Medlock Bridge Road, bends to the north to cross McGinnis Ferry Road, bends west to cross Medlock Bridge Road / Peachtree Parkway, then bends south to intersection McGinnis Ferry Road west of Medlock Bridge Road. This parkway serves low-density office and commercial uses. At the southern intersection of Medlock Bridge Road, Johns Creek Parkway has two receiving lanes, allowing the northbound right-turn movement from Medlock Bridge Road to operate as free-flow, and two approach lanes. At the intersection, both approach lanes may turn left and there is a channelized right-turn with no storage.



EXISTING LANE GEOMETRY

FIGURE 4

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Abbotts Bridge Road (State Route 120)

Abbotts Bridge Road extends east-west and is designated SR 120 in the vicinity of the site. Abbotts Bridge Road becomes Kimball Bridge Road at Jones Bridge Road. At its intersection with Medlock Bridge Road, Abbotts Bridge Road is signalized and has one through lane, one left-turn lane, and one right-turn lane along each approach. In 2005, Georgia DOT reported an AADT of 14,200 vpd on Abbotts Bridge Road west of Medlock Bridge Road.

Bell Road

Bell Road is a two land undivided collector that extends southeast from Medlock Bridge Road to Boles Road and then bends northeast to McGinnis Ferry Road. This roadway serves primarily residential uses. At the intersection with Medlock Bridge Road, Bell Road opens up to include a dedicated westbound left-turn lane. On the eastbound approach, Bell Road serves as an access point into the Johns Creek Walk I development

Existing Traffic Analysis

Four intersections were studied in the vicinity of the proposed Johns Creek Walk II development. They are as follows:

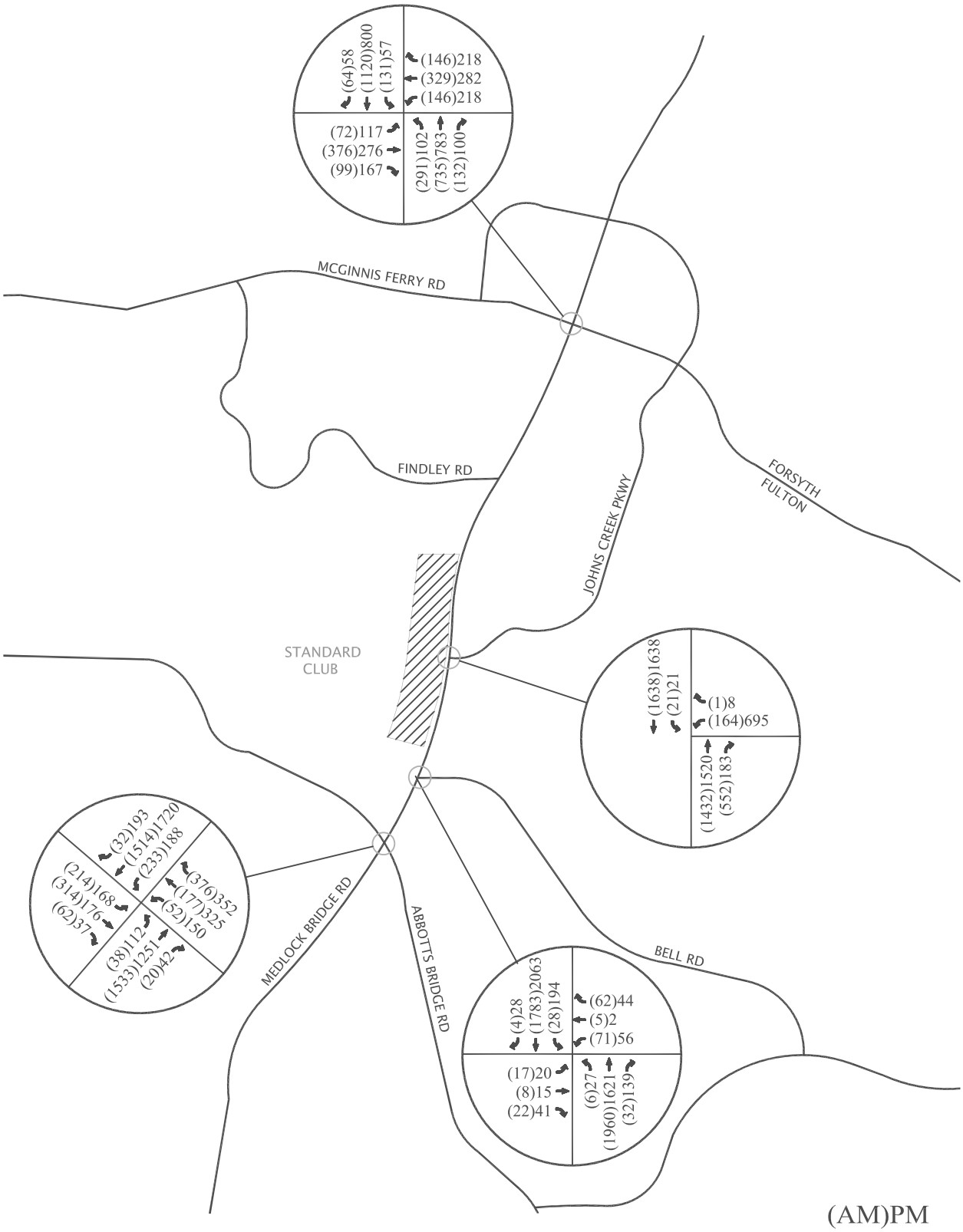
- Medlock Bridge Road at McGinnis Ferry Road;
- Medlock Bridge Road at Johns Creek Parkway;
- Medlock Bridge Road at Bell Road; and
- Medlock Bridge Road at Abbotts Bridge Road.

Turning movement counts were performed on Thursday, May 10, 2007 between 7:00 a.m. and 9:00 a.m. and between 4:00 p.m. and 6:00 p.m. The four consecutive 15-minute interval volumes that summed to produce the highest volume at each intersection were then determined. These volumes make up the peak-hour traffic volumes for the intersections counted and are shown in Figure 5 for the weekday peak hours. Existing traffic operations were analyzed at the intersections in accordance with Highway Capacity Manual (HCM) methodology. The results of this analysis are presented in Table 3.

Table 3
Existing Intersection Operations

Intersection	A.M. Peak Hour		P.M. Peak Hour	
	LOS	Control delay (sec/veh)	LOS	Control delay (sec/veh)
Medlock Bridge Road at McGinnis Ferry Road	D	41.8	D	39.2
Medlock Bridge Road at Johns Creek Parkway	B	18.2	B	18.9
Medlock Bridge Road at Bell Road	B	18.9	C	30.4
Medlock Bridge Road at Abbotts Bridge Road	**E**	57.3	**E**	59.7

As indicated by the results in Table 3, the intersection of Medlock Bridge Road with Abbotts Bridge Road currently operates at LOS E. Pursuant to the requirements in GRTA's *Letter of Understanding*, the LOS standard in both the AM and PM peak period is thus defaulted to LOS E. All other intersections operate at or above the acceptable LOS standard of D.



EXISTING CONDITION PEAK HOUR TRAFFIC VOLUMES FIGURE 5

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PLANNED GEOMETRIC IMPROVEMENTS

Planned geometric improvements within the study network were researched in order to determine the base geometry in 2009. Only short-term improvements funded in the Atlanta Regional Commission's Transportation Improvement Plan by 2009 were included. A description of planned projects is as follows:

McGinnis Ferry Road

ARC Project FN-233B plans widening of McGinnis Ferry Road from two lanes to four lanes between Sargent Road and the Chattahoochee River. This 5.39-mile widening project would encompass the intersection with Medlock Bridge Road. Widening this road to four-lanes was an existing condition recommendation. This project is proposed for completion in 2008 and will be paid for with state bonds and some local funds.

Abbotts Bridge Road

ARC Project FN-003A plans widening of Abbotts Bridge Road from two lanes to four lanes for 6.5 miles between Old Milton Parkway and Peachtree Industrial Boulevard. However, this project is programmed in 2016 and, is therefore, not included in the analysis of base conditions.

BASE CONDITIONS (2009)

Johns Creek Walk II is planned to be completed by 2009. Therefore, base traffic operations, or those that would exist without this development, are evaluated to project the need for system improvements. System improvements are those that are necessitated by background traffic conditions and are independent of traffic generated by the proposed development.

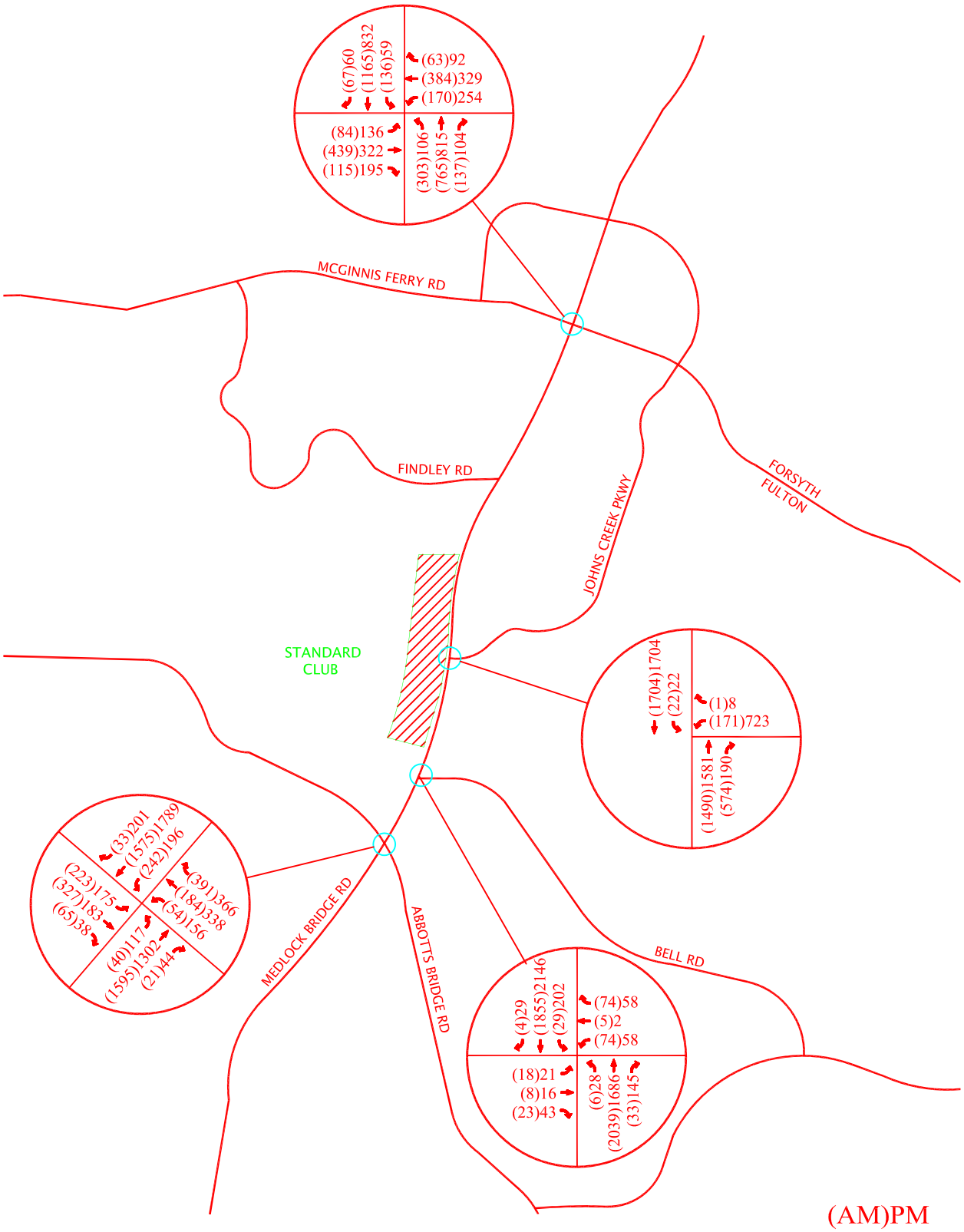
Base Year Traffic Volumes

To project background traffic volumes, a study of historical growth in the area was performed. Daily traffic volumes between 1997 and 2005 were charted to estimate growth trends. Historical daily traffic volumes in the vicinity of the site are presented in Table 4.

Table 4
Historical Daily Volume Data

Roadway	1997	1998	1999	2000	2001	2002	2003	2004	2005	Avg. % Change
McGinnis Ferry Rd. w. of Medlock Bridge Rd. (#0966)	17,134	17,510	25,426	24,120	22,484	22,134	20,820	21,190	27,800	6.2%
McGinnis Ferry Rd. e. of Medlock Bridge Rd. (#0961)	3,312	4,446	6,456	5,340	6,249	8,018	9,010	9,358	13,200	18.9%
Medlock Bridge Rd. s. of Abbotts Bridge Rd. (#0360)	28,247	28,983	26,723	32,999	32,764	31,588	33,820	34,430	31,220	1.3%
Abbotts Bridge Rd. w. of Medlock Bridge Rd. (#0318)	4,452	13,570	13,957	15,499	12,718	16,749	17,980	20,480	14,200	15.6%

The data in Table 4 indicates overall aggressive growth in the area along McGinnis Ferry Road and Abbotts Bridge Road, with more modest overall growth along Medlock Bridge Road. Growth between individual years, however, has fluctuated with some years showing rapid growth, some showing negative growth, and some remaining fairly constant. Most recent trends have been positive along McGinnis Ferry Road. However, observation of the two most recent years of data shows negative growth along Medlock Bridge and Abbotts Bridge Road. Long term trends are some indicator of future growth, however, in an area that has had such expansion over the past ten years, and they are less reliable since such aggressive growth is not sustainable. In this case, more recent trends are also considered. These seem to indicate that McGinnis Ferry Road could continue its pattern of growth through 2009 and other volumes will remain more stable. Therefore, an 8% growth rate was applied to McGinnis Ferry Road volumes for two years and a 2% growth rate was applied to volumes along Medlock Bridge Road and Abbotts Bridge Road for two years (from 2007 to 2009). These projected base condition traffic volumes for 2009 are presented in Figure 6.



BASE CONDITION PEAK HOUR TRAFFIC VOLUMES

FIGURE 6

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Base traffic operations in 2009 were analyzed at the intersections in accordance with HCM methodology. Results of these analyses are presented in Table 5.

Table 5
Base Intersection Operations (2009)

Intersection	A.M. Peak Hour		P.M. Peak Hour	
	LOS	Control delay (sec/veh)	LOS	Control delay (sec/veh)
Medlock Bridge Road at McGinnis Ferry Road	D	44.6	D	41.7
Medlock Bridge Road at Johns Creek Parkway	C	24.5	C	27.9
Medlock Bridge Road at Bell Road	C	34.6	C	32.2
Medlock Bridge Road at Abbotts Bridge Road	**E**	72.9	**E**	74.2

As indicated by the results in Table 5, the intersections of Medlock Bridge Road at Abbotts Bridge Road will still operate in 2009 at LOS E as during the existing 2007 peak hours. Therefore, all intersections will operate at or above acceptable LOS.

FUTURE TRAFFIC CONDITIONS (2009)

Future traffic volumes were projected by adding the site-generated traffic volumes to base condition traffic volumes in 2009. Projected future volumes in 2009 are shown in Figure 7 for the weekday AM and PM peak hours. Site access requirements at the full-movement access opposite Johns Creek Parkway will require a new dedicated southbound right turn lane, the conversion of the existing northbound U-turn lane into a dedicated northbound left turn lane, dedicated lanes for all eastbound movements out of the project with a receiving lane for the eastbound right turn lane to create free-flow operations, and a new westbound shared through/left lane.

Projected future traffic volumes were used to analyze full build-out traffic conditions according to HCM methodology. Each site access was also analyzed. Results of this analysis are presented in Table 6.

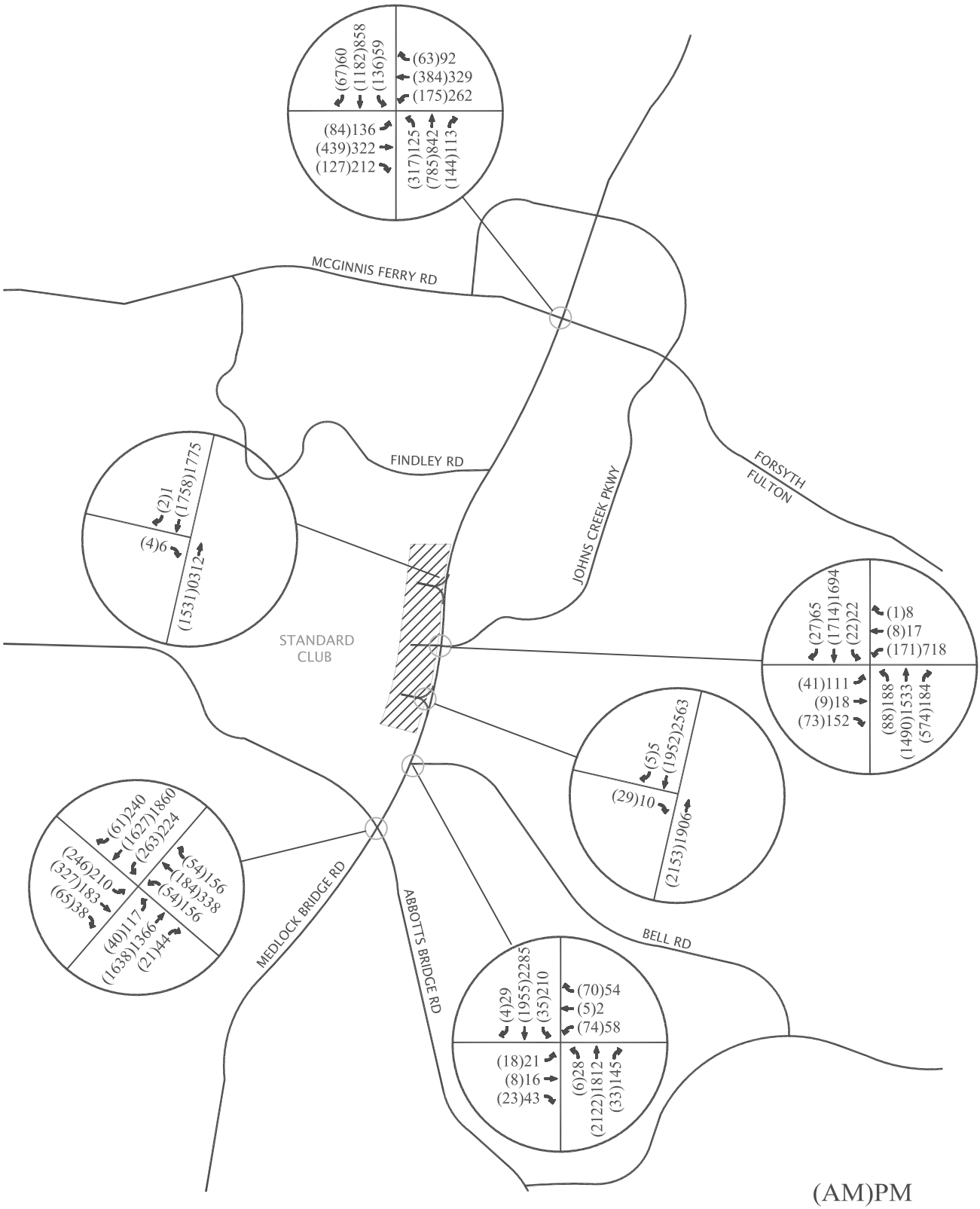
Table 6
Future Intersection Operations (2009)

Intersection	A.M. Peak Hour		P.M. Peak Hour	
	LOS	Control delay (sec/veh)	LOS	Control delay (sec/veh)
Medlock Bridge Road at McGinnis Ferry Road	D	47.6	D	45.9
Medlock Bridge Road at Johns Creek Walk II RI/RO Eastbound right-turn	C	19.2	C	19.5
Medlock Bridge Road at Johns Creek Parkway	C	21.7	D	53.7
Medlock Bridge Road at Johns Creek Walk II RI/RO Eastbound right-turn	C	24.1	D	34.9
Medlock Bridge Road at Bell Road	D	37.6	D	48.5
Medlock Bridge Road at Abbotts Bridge Road	**E**	78.8	**F**	91.4

With the addition of traffic generated by Johns Creek Walk II, operations at the intersection of Medlock Bridge Road and Abbotts Bridge Road will further decline in the PM peak hour to LOS F. However, the use of a permitted + overlap phase in this peak hour on the westbound-right turn movement at this intersection will restore the LOS to the existing condition standard of LOS E, as shown in Table 7. This improvement is also depicted in Figure 8.

Table 7
Future Intersection Operations With Improvements (2009)

Intersection	PM Peak Hour	
	LOS	Control delay (sec/veh)
Medlock Bridge Road at McGinnis Ferry Road	**E**	64.3



FUTURE WEEKDAY PEAK HOUR TRAFFIC VOLUMES

FIGURE 7

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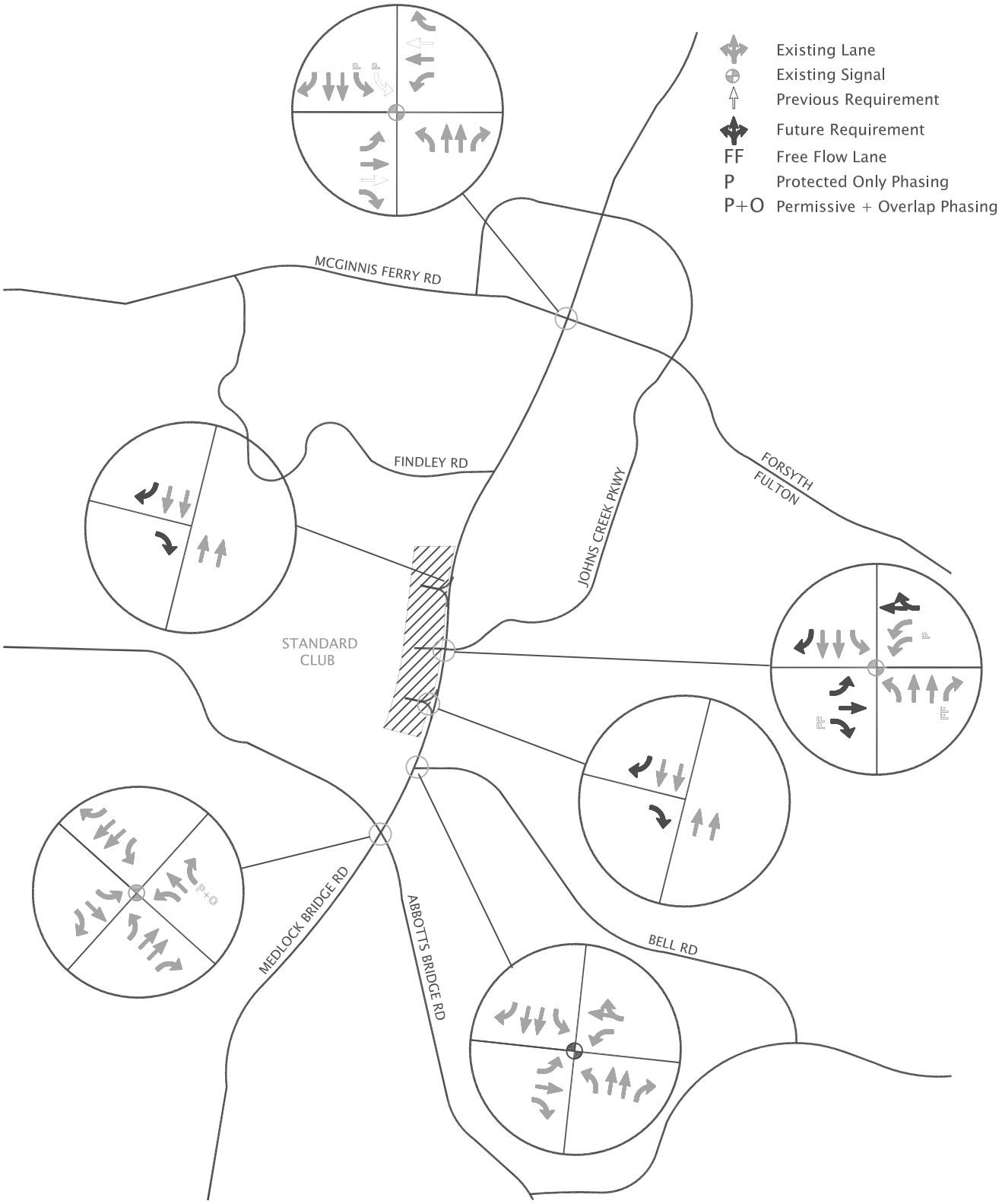

FUTURE CONDITION IMPROVEMENTS

FIGURE 8

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AREA OF INFLUENCE ANALYSIS

The purpose of the Area of Influence (AOI) analysis is to address the requirements of the *Procedures and Principles for GRTA Development of Regional Impact Review*, Section 3-103.7a pertaining to criteria for Non-Expedited Review. The methodology, data sources and findings are documented in the following sections.

Area of Influence Characteristics

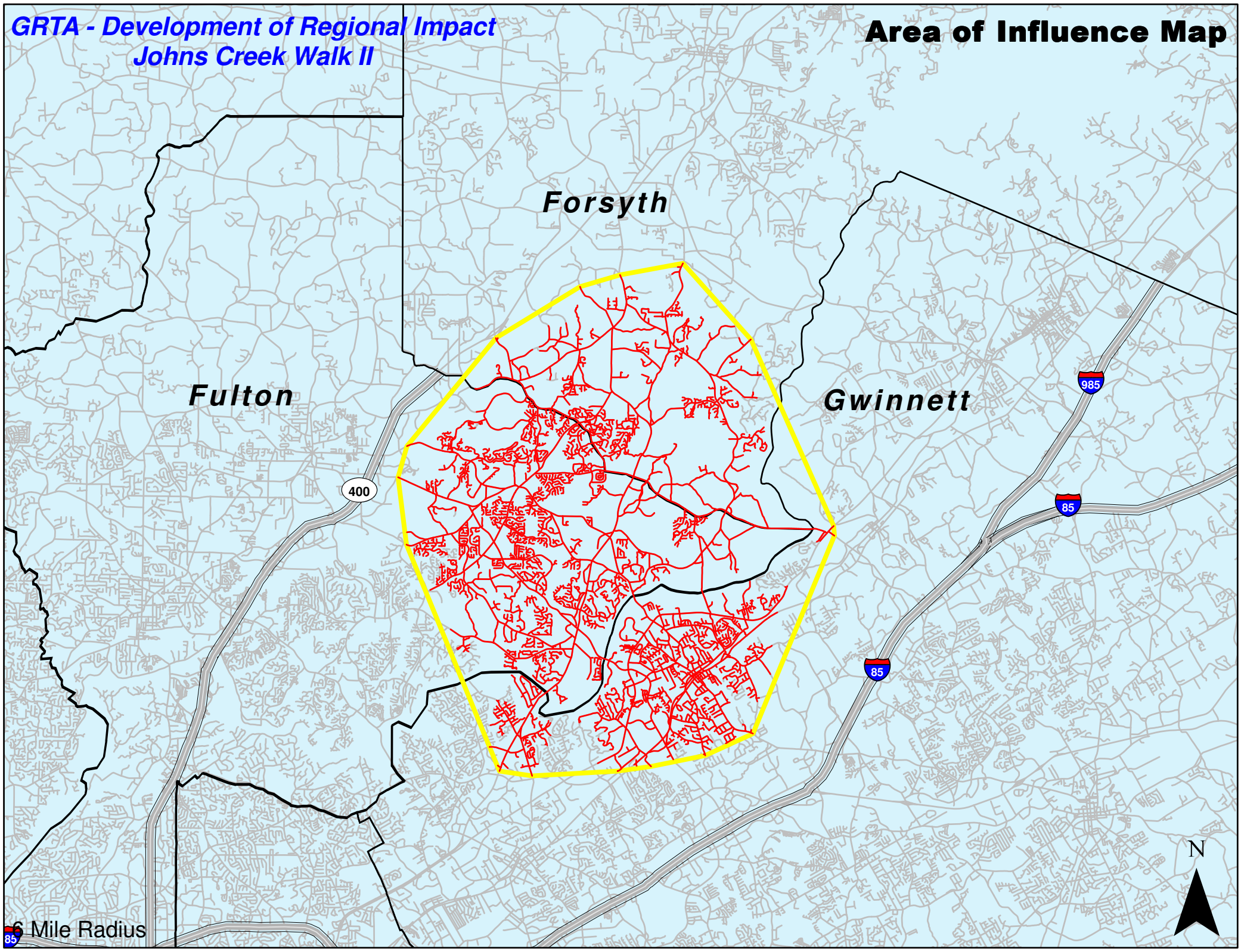
The AOI is defined as a six road-mile radius around the project site as depicted in Figure 12. This area was determined using ESRI's ArcView GIS network analyst tool and ARC's base roadway network. The AOI is shown in Figure 9 and encompasses portions of Fulton, Gwinnett, and Forsyth Counties. The City of Duluth, the City of Johns Creek, and the City of Berkeley Lake are located within the AOI. The City of Alpharetta and City of Suwannee are also located partially within the AOI. Approximate AOI statistics are presented in Tables 8 and 9.

Table 8
Area of Influence Overview

Data Item	Value	Data Source
Land Area (acres)	52,577	ARC
Employment	84,765	U.S. Census- ARC
Population	142,315	U.S. Census- ARC
Households	49,352	U.S. Census- ARC

Table 9
Jurisdictional Breakdown of the Area of Influence

Jurisdiction	Acres
Counties	
Fulton	22,090
Gwinnett	14,992
Forsyth	15,494
Cities	
City of Alpharetta	4,097
City of Suwannee	442
City of Duluth	5,703
City of Berkeley Lake	733


GRTA - Development of Regional Impact
Johns Creek Walk II
Area of Influence Map
Forsyth
Fulton
Gwinnett
400
985
85
85
85
N
6 Mile Radius

Adjacent Land Uses

According to ARC's 2000 Land Use/Land Cover data set, the most prevalent land use within the AOI is residential which accounts for approximately 53% of the land area. The breakdown of land uses in the AOI is presented in Table 10.

Table 10
Existing Land Uses

Land Use	Acres	%
Agriculture/ Forest	10,627	20.21%
Cemeteries	32	0.06%
Commercial	3,083	5.86%
Industrial	1,601	3.05%
Institutional	2,038	3.88%
Parks/ Recreational	3,729	7.09%
Residential (Low)	3,513	6.68%
Residential (Medium)	22,868	43.49%
Residential (High)	1,077	2.05%
Transportation/ Utilities/ Communications	42	0.08%
Wetlands	1,331	2.53%
Other	2,635	5.01%

Population

The year 2000 Census reported approximately 142,315 persons living within the AOI in 49,352 households. The average household size is 2.88 persons per household. Between the 1990 Census and the 2000 Census, population within the AOI increased from 67,278 persons or by 111.5% during the ten-year period. On an annual basis, growth is estimated at 7.8% per year.

Housing

Home values within the area of influence were obtained from census information within the ZIP codes of the AOI. The median home value within the AOI is $224,843. A summary of this information is presented in Table 11.

Table 11 Home Values in the Area of Influence		
Home Value	Number of Homes	Percent of Homes
< $50,000	230	0.7%
$50,000 - $99,999	1184	3.8%
$100,000 - $149,999	5454	17.4%
$150,000 - $199,999	6942	22.2%
$200,000 - $299,999	9647	30.8%
$300,000 - $499,999	5638	18.0%
$500,000 - $999,999	1914	6.1%
> $1,000,000	299	1.0%

Rental costs in the area were estimated based on census information for ZIP codes within the AOI. The median monthly rent within the AOI is $915, or $10,980 per year. A summary of rental unit costs is presented in Table 12.

Table 12 Rental Costs in the Area of Influence		
Monthly Rental Costs	Number of Units	Percent of Units
< $200*	285	2.2%
$200 - $299	25	0.2%
$300 - $499	256	2.0%
$500 - $749	1941	15.3%
$750 - $999	6683	52.7%
$1,000 - $1,499	3030	23.9%
> $1,500	450	3.5%

** includes 217 units indicating no cash rent*

Household Income

Reported household incomes within the AOI were taken from 2000 census data. A summary of the income data is presented in Table 13.

Table 13 Average Household Income in the Area of Influence (2004)		
Household Salary Range	# Households	Percentage
< $10,000	1,333	2.02%
$10,000 - $19,999	2,107	3.19%
$20,000 - $39,999	7,153	10.84%
$40,000 - $59,999	9,786	14.83%
$60,000 - $74,999	7,286	11.04%
$75,000 - $99,999	11,592	17.56%
$100,000 - $124,999	9,054	13.72%
$125,000 - $149,999	5,428	8.22%
$150,000 - $199,999	6,289	9.53%
> $200,000	5,972	9.05%

ASSESSMENT OF DRI CRITERIA

Criteria 1 (Quality, Character, Convenience, and Flexibility of Transportation Options)

A GRTA Xpress bus route that runs from Emory Johns Creek Hospital to Doraville MARTA Station currently passes in front of the Johns Creek Walk II development, but no stops are located within ¼ mile of the development.

Criteria 2 (Vehicle Miles Traveled)

Johns Creek Walk II is a mixed-use development that will provide housing, retail, and employment opportunities within close proximity of existing employment, housing, and retail opportunities, thereby providing the potential for reducing vehicle miles traveled.

Criteria 3 (Relationship between Location of Proposed DRI and Regional Mobility)

Johns Creek Walk II is not likely to improve regional mobility because it is not within ½ mile of a transit station, part of a publicly sponsored redevelopment, or within a City center.

Criteria 4 (Proximity to Public Transportation)

Johns Creek Walk II is not served by an existing mass transportation route.

Criteria 5 (Location within Transportation Management Area)

Johns Creek Walk II is not located within an established Transportation Management Area.

Criterion 6 (Vehicular Trip Reduction)

The mixed-use nature of the Johns Creek Walk II development allows a reduction in vehicular trips made to the site. Trip generation is expected to be reduced by approximately 18.9% during the AM peak hour, and 39.3% during the evening peak hour due to internal capture and retail pass-by. On a daily basis, vehicle trips are expected to be reduced by over 30.6%.

Criterion 7C (Land Use Balance)

Criterion 7c attempts to demonstrate the project is located in an AOI with employment opportunities which are such that at least 25% of the persons who are reasonably expected to live in the proposed DRI will have an opportunity to find employment appropriate to such persons' qualifications and experience within the AOI.

An evaluation was made based on present day AOI data. Table 14 presents a summary of the residential types, median costs, and average annual housing costs within the Johns Creek Walk II development.

Table 14 Johns Creek Walk II Housing Summary					
Housing Type	% units	# units	Approximate Price Range	Average Price	Avg. Annual Housing Cost
Condominium	61%	117	$199,000 – $299,000	$249,000	$17,530
Town homes	39%	74	$359,000 – $459,000	$409,000	$28,800

Based on the **Table 14**, residents of the Johns Creek Walk II development may be expected to pay between $17,530 and $28,800 a year for housing. A typical rule-of-thumb for housing affordability is that no more than thirty-percent of a household's gross income should be committed to monthly housing costs. Using this ratio, housing is available on-site for households who earn between $58,430 and $96,000 a year. Based on the data presented previously in Table 13, 29% of the households in the AOI have salaries ranging $60,000 to $100,000 a year, making the condominiums, comprising 61% of the total residential product, affordable. Approximately 40% of resident's salaries in the AOI are greater than $100,000 annually, making town homes affordable. If it is assumed that the potential residents John Creek Walk II will have the same general salary profile as the existing AOI, then it is reasonable to surmise that at least 25% of the employees in the AOI can afford the housing on site.

Criterion 8 (Relationship between Proposed DRI and Existing Development and Infrastructure)

Johns Creek Walk II is located in an area that is well-planned and has adequate public facilities and thus will not result in an unplanned and poorly served development.

CONCLUSIONS

Existing Conditions

Existing traffic conditions in the study area were evaluated to determine if there are currently operational deficiencies that need to be addressed. The study area includes the following:

- Medlock Bridge Road at McGinnis Ferry Road;
- Medlock Bridge Road at Johns Creek Parkway;
- Medlock Bridge Road at Bell Road; and
- Medlock Bridge Road at Abbotts Bridge Road.

Analyses of existing operations revealed an operating deficiency at the intersection of Medlock Bridge Road and Abbotts Bridge Road. This intersection operates at LOS E during the AM and PM peak hours.

Base Conditions

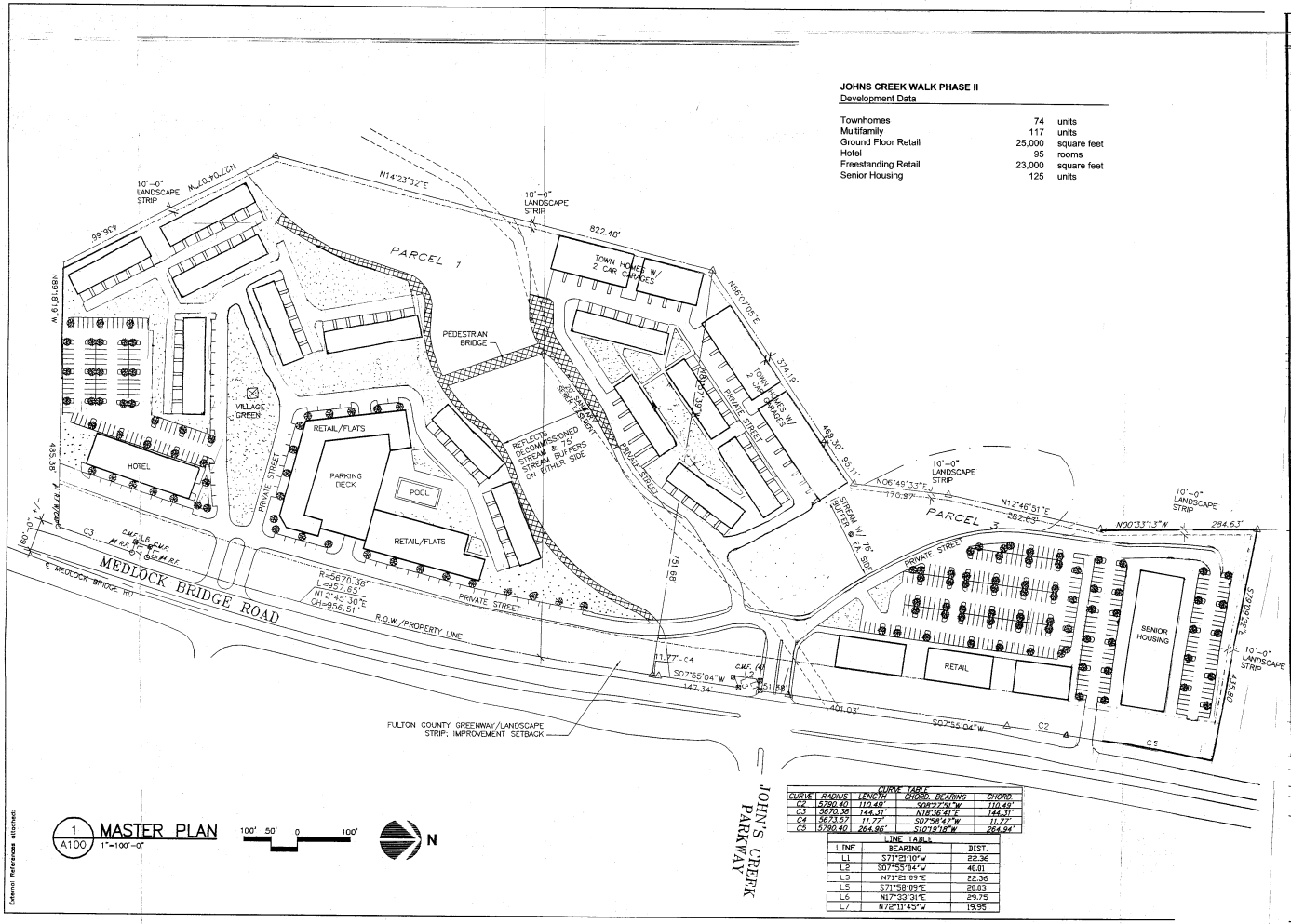
Base conditions are those that would exist in 2009 without development of Johns Creek Walk II. Base condition volumes were projected by applying historical growth factors to the existing traffic volumes. Growth in the area was estimated at 8% per year on McGinnis Ferry Road and 2% per year on all other streets in the system. These rates were applied for two years to represent conditions in 2009 independent of the proposed development. A review of the Atlanta Regional Commission's Transportation Improvement Plan indicates that widening of McGinnis Ferry Road from two lanes to four lanes is funded and projected for completion in 2008. Therefore, this was included in the analysis of base conditions. This improvement was required to serve existing condition deficiencies as well. As in the existing condition, there is a projected operating deficiency (LOS E) at Medlock Bridge Road's intersection with Abbotts Bridge Road.

Future Conditions

The development of Johns Creek Walk II is projected to add 4,759 new trips per day. An additional capacity deficiency (to LOS F) was noted at the Medlock Bridge Road and Abbotts Bridge Road intersection in the PM peak hour which can be mitigated with the use of a permitted + overlap phasing for the westbound right turn. Site access requirements at the full-movement access opposite Johns Creek Parkway will add a new dedicated southbound right turn lane, the conversion of the existing northbound U-turn lane into a dedicated northbound left turn lane, dedicated lanes for all eastbound movements out of the project with a receiving lane for the eastbound right turn lane to create free-flow operations, and a new westbound shared through/left lane.

Appendix

Proposed Site Plan



1 / A100 MASTER PLAN
1"=100'-0"

100' 50' 0 100'

N

JOHNS CREEK WALK PHASE II
Development Data

Townhomes	74	units
Multifamily	117	units
Ground Floor Retail	25,000	square feet
Hotel	95	rooms
Freestanding Retail	23,000	square feet
Senior Housing	125	units

NOT FOR CONSTRUCTION

SUBMITTED 4/3/07 TO JOHNS CREEK

Drawn: AACO
Checked: VB
Date:
Job No.: 06280

Revisions:

No.	Date

JOHNS CREEK WALK PHASE II
ATLANTIC REALTY PARTNERS
FULTON COUNTY, GEORGIA

Sizemore Group

Title: MASTER PLAN
Scale: 1"=100'-0"
Sheet: A100

External Reference attached:

Turning Movement Counts

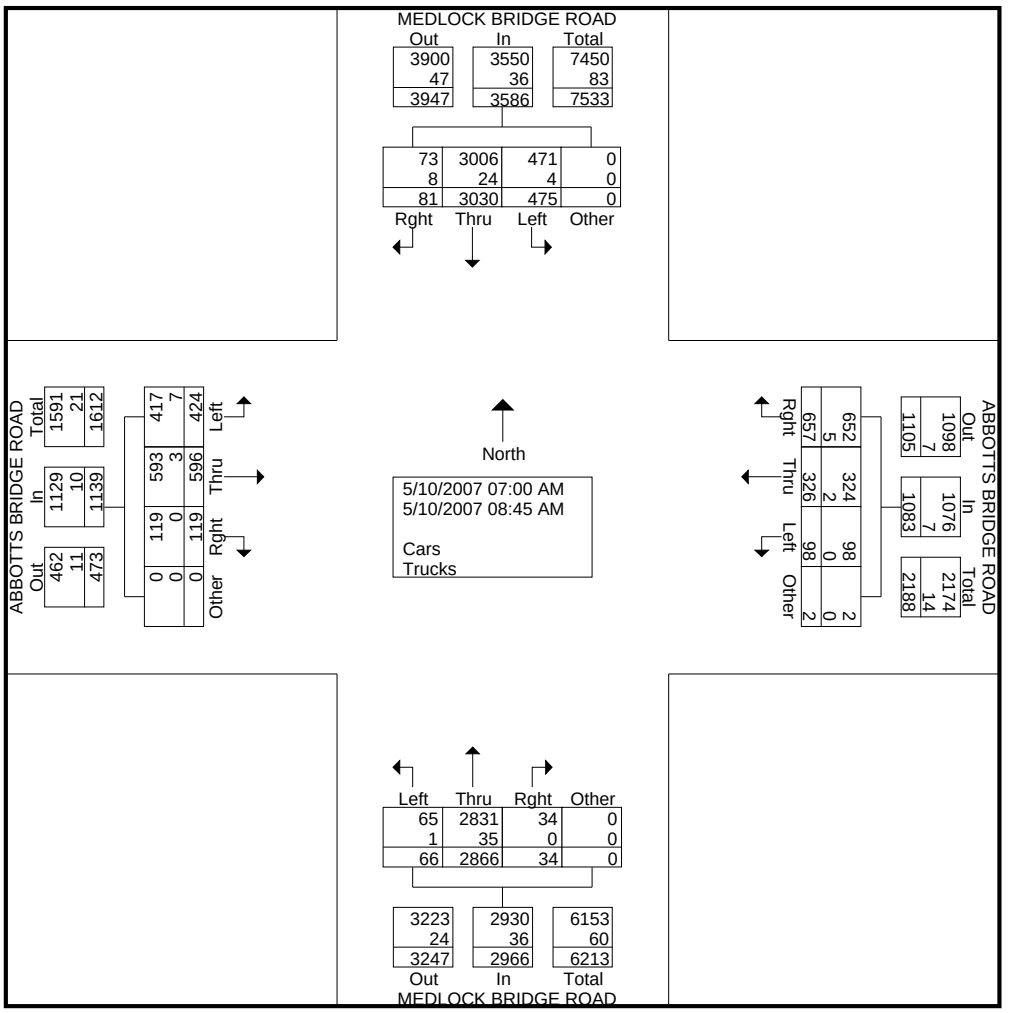
All Traffic Data Services, Inc.

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

File Name : AbbottsBrdg&MedlockBrdgAM
Site Code : 00000000
Start Date : 5/10/2007
Page No : 1

Groups Printed- Cars - Trucks

	MEDLOCK BRIDGE ROAD Southbound					ABBOTTS BRIDGE ROAD Westbound					MEDLOCK BRIDGE ROAD Northbound					ABBOTTS BRIDGE 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	57	413	14	0	484	8	67	72	1	148	7	309	8	0	324	32	65	17	0	114	1070
07:15 AM	63	440	13	0	516	10	54	89	0	153	7	397	9	0	413	31	66	23	0	120	1202
07:30 AM	66	337	6	0	409	14	52	95	0	161	19	348	8	0	375	51	87	12	0	150	1095
07:45 AM	58	353	6	0	417	19	42	101	0	162	5	365	1	0	371	69	78	11	0	158	1108
Total	244	1543	39	0	1826	51	215	357	1	624	38	1419	26	0	1483	183	296	63	0	542	4475
08:00 AM	46	384	7	0	437	9	29	91	0	129	7	423	2	0	432	63	83	16	0	162	1160
08:15 AM	66	447	12	0	525	15	27	80	0	122	3	361	4	0	368	50	61	11	0	122	1137
08:30 AM	62	385	16	0	463	7	21	53	0	81	4	250	2	0	256	61	83	12	0	156	956
08:45 AM	57	271	7	0	335	16	34	76	1	127	14	413	0	0	427	67	73	17	0	157	1046
Total	231	1487	42	0	1760	47	111	300	1	459	28	1447	8	0	1483	241	300	56	0	597	4299
Grand Total	475	3030	81	0	3586	98	326	657	2	1083	66	2866	34	0	2966	424	596	119	0	1139	8774
Apprch %	13.2	84.5	2.3	0		9	30.1	60.7	0.2		2.2	96.6	1.1	0		37.2	52.3	10.4	0		
Total %	5.4	34.5	0.9	0	40.9	1.1	3.7	7.5	0	12.3	0.8	32.7	0.4	0	33.8	4.8	6.8	1.4	0	13	
Cars	471	3006	73	0	3550	98	324	652	2	1076	65	2831	34	0	2930	417	593	119	0	1129	8685
% Cars	99.2	99.2	90.1	0	99	100	99.4	99.2	100	99.4	98.5	98.8	100	0	98.8	98.3	99.5	100	0	99.1	99
Trucks	4	24	8	0	36	0	2	5	0	7	1	35	0	0	36	7	3	0	0	10	89
% Trucks	0.8	0.8	9.9	0	1	0	0.6	0.8	0	0.6	1.5	1.2	0	0	1.2	1.7	0.5	0	0	0.9	1



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

File Name : AbbottsBrdg&MedlockBrdgAM
Site Code : 00000000
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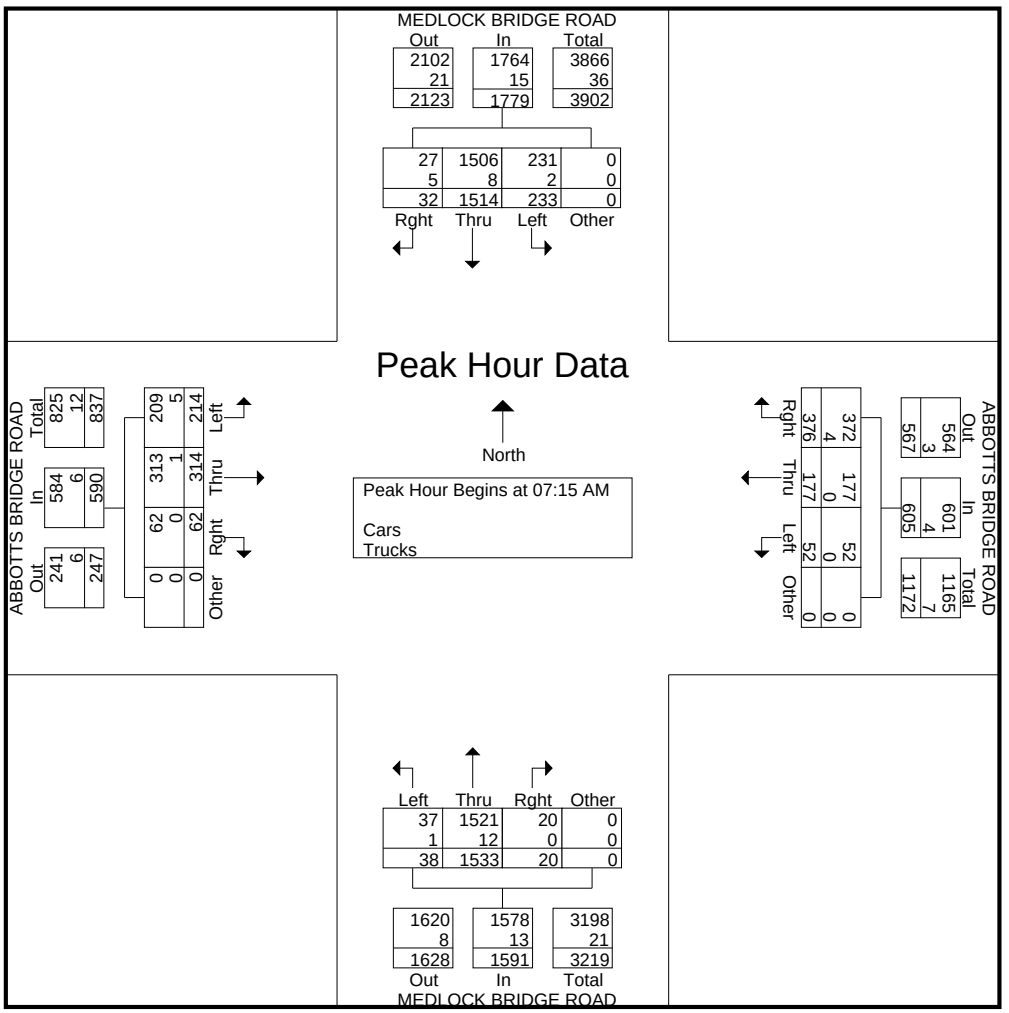
Page No : 2

	MEDLOCK BRIDGE ROAD Southbound					ABBOTTS BRIDGE ROAD Westbound					MEDLOCK BRIDGE ROAD Northbound					ABBOTTS BRIDGE 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 07:15 AM																					
07:15 AM	63	**440**	**13**	0	**516**	10	**54**	89	0	153	7	397	**9**	0	413	31	66	**23**	0	120	**1202**
07:30 AM	**66**	337	6	0	409	14	52	95	0	161	**19**	348	8	0	375	51	**87**	12	0	150	1095
07:45 AM	58	353	6	0	417	**19**	42	**101**	0	**162**	5	365	1	0	371	**69**	78	11	0	158	1108
08:00 AM	46	384	7	0	437	9	29	91	0	129	7	**423**	2	0	**432**	63	83	16	0	**162**	1160
Total Volume	233	1514	32	0	1779	52	177	376	0	605	38	1533	20	0	1591	214	314	62	0	590	4565
% App. Total	13.1	85.1	1.8	0		8.6	29.3	62.1	0		2.4	96.4	1.3	0		36.3	53.2	10.5	0		
PHF	.883	.860	.615	.000	.862	.684	.819	.931	.000	.934	.500	.906	.556	.000	.921	.775	.902	.674	.000	.910	.949
Cars	231	1506										1521									
% Cars	99.1	99.5	84.4	0	99.2	100	100	98.9	0	99.3	97.4	99.2	100	0	99.2	97.7	99.7	100	0	99.0	99.2
Trucks	2	8	5	0	15	0	0	4	0	4	1	12	0	0	13	5	1	0	0	6	38
% Trucks	0.9	0.5	15.6	0	0.8	0	0	1.1	0	0.7	2.6	0.8	0	0	0.8	2.3	0.3	0	0	1.0	0.8



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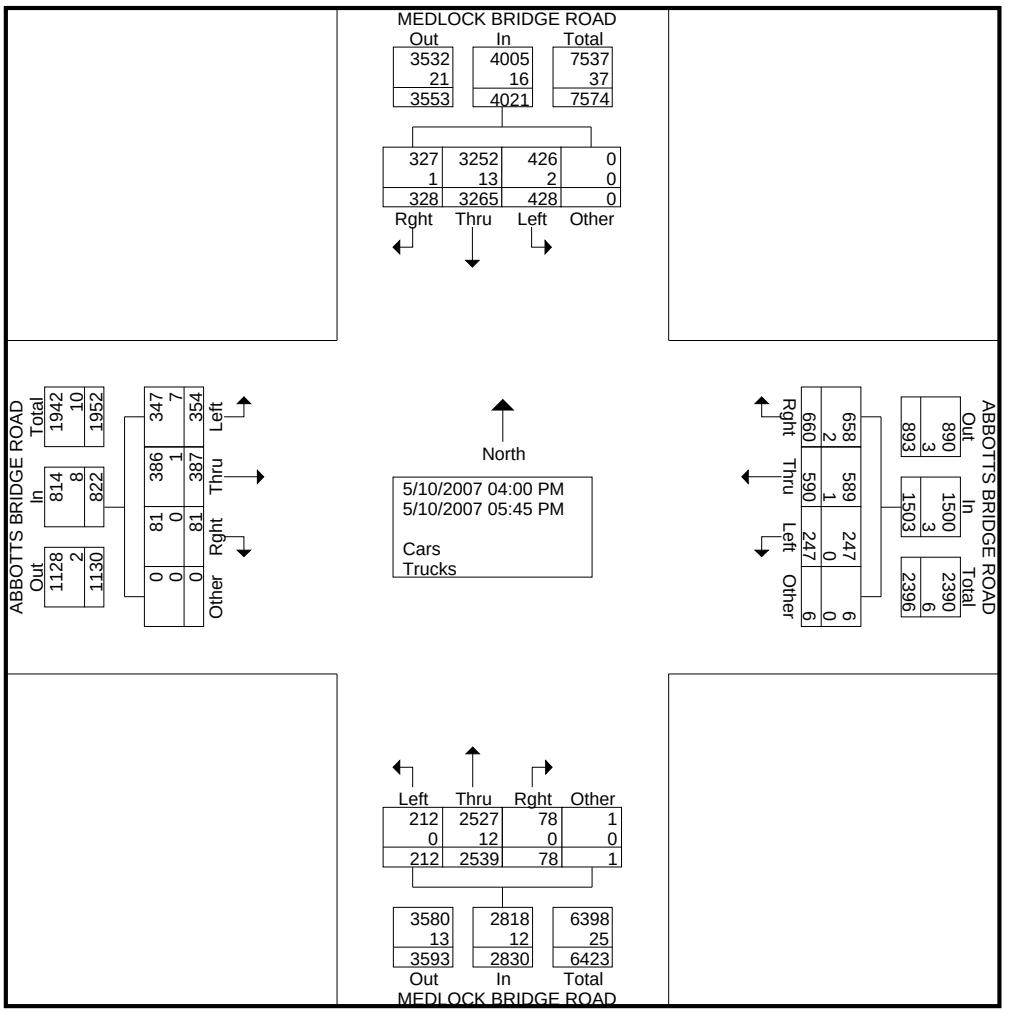
1336 Farmer Road
Conyers, Ga. 30012
404-374-1283

File Name : AbbottsBrdg&MedlockBrdgPM
Site Code : 00000000
Start Date : 5/10/2007
Page No : 1

Groups Printed- Cars - Trucks

	MEDLOCK BRIDGE ROAD Southbound					ABBOTTS BRIDGE ROAD Westbound					MEDLOCK BRIDGE ROAD Northbound					ABBOTTS BRIDGE 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
04:00 PM	71	333	22	0	426	22	80	97	0	199	29	309	11	0	349	38	74	14	0	126	1100
04:15 PM	52	391	34	0	477	12	39	58	4	113	14	342	8	0	364	52	58	14	0	124	1078
04:30 PM	75	409	38	0	522	34	45	72	0	151	26	323	3	0	352	40	42	7	0	89	1114
04:45 PM	54	432	30	0	516	38	90	87	1	216	23	335	12	0	370	29	32	10	0	71	1173
Total	252	1565	124	0	1941	106	254	314	5	679	92	1309	34	0	1435	159	206	45	0	410	4465
05:00 PM	53	479	41	0	573	50	72	110	1	233	30	301	5	0	336	42	48	12	0	102	1244
05:15 PM	35	421	54	0	510	33	87	80	0	200	27	304	16	1	348	60	47	3	0	110	1168
05:30 PM	46	388	68	0	502	29	76	75	0	180	32	311	9	0	352	37	49	12	0	98	1132
05:45 PM	42	412	41	0	495	29	101	81	0	211	31	314	14	0	359	56	37	9	0	102	1167
Total	176	1700	204	0	2080	141	336	346	1	824	120	1230	44	1	1395	195	181	36	0	412	4711
Grand Total	428	3265	328	0	4021	247	590	660	6	1503	212	2539	78	1	2830	354	387	81	0	822	9176
Apprch %	10.6	81.2	8.2	0		16.4	39.3	43.9	0.4		7.5	89.7	2.8	0		43.1	47.1	9.9	0		
Total %	4.7	35.6	3.6	0	43.8	2.7	6.4	7.2	0.1	16.4	2.3	27.7	0.9	0	30.8	3.9	4.2	0.9	0	9	
Cars	426	3252	327	0	4005	247	589	658	6	1500	212	2527	78	1	2818	347	386	81	0	814	9137
% Cars	99.5	99.6	99.7	0	99.6	100	99.8	99.7	100	99.8	100	99.5	100	100	99.6	98	99.7	100	0	99	99.6
Trucks	2	13	1	0	16	0	1	2	0	3	0	12	0	0	12	7	1	0	0	8	39
% Trucks	0.5	0.4	0.3	0	0.4	0	0.2	0.3	0	0.2	0	0.5	0	0	0.4	2	0.3	0	0	1	0.4



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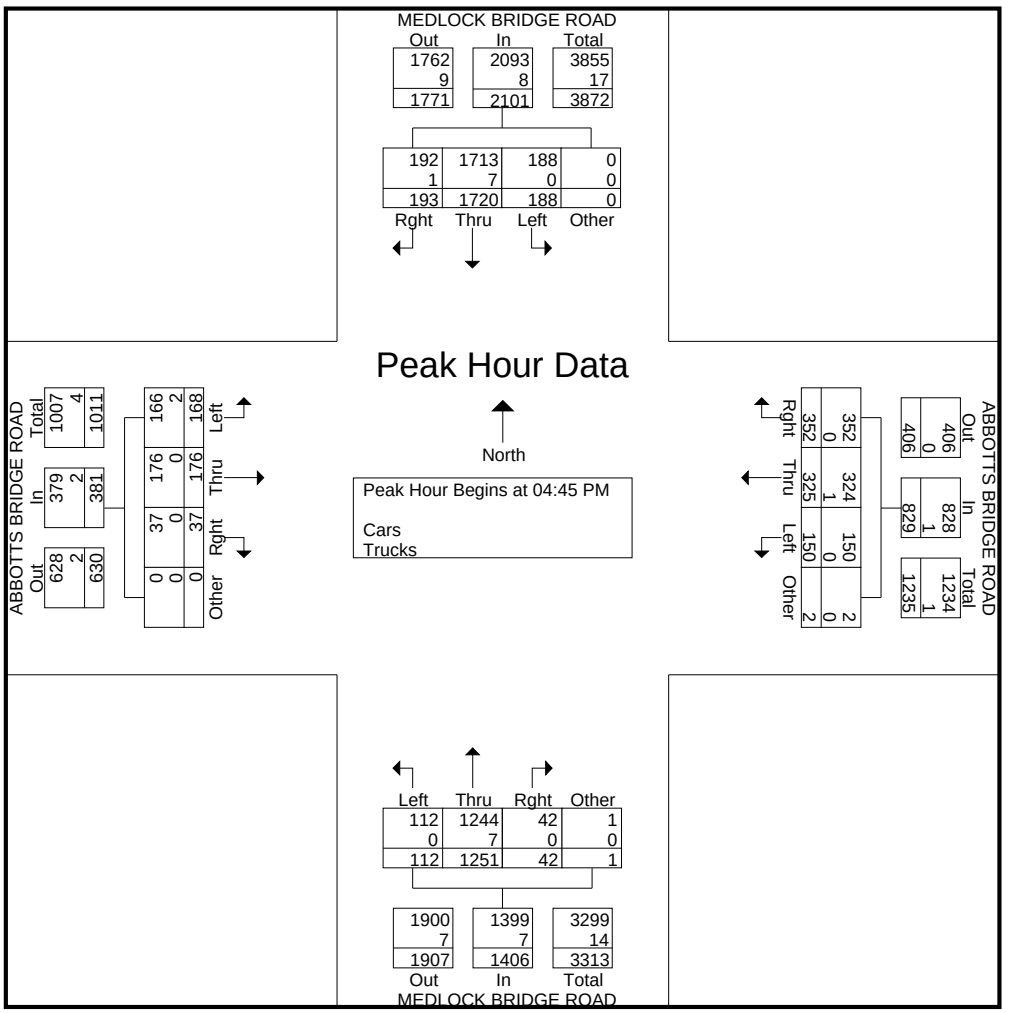
1336 Farmer Road
Conyers, Ga. 30012
404-374-1283

File Name : AbbottsBrdg&MedlockBrdgPM
Site Code : 00000000
Start Date : 5/10/2007
Page No : 2

	MEDLOCK BRIDGE ROAD Southbound					ABBOTTS BRIDGE ROAD Westbound					MEDLOCK BRIDGE ROAD Northbound					ABBOTTS BRIDGE 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 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	**54**	432	30	0	516	38	**90**	87	**1**	216	23	**335**	12	0	**370**	29	32	10	0	71	1173
05:00 PM	53	**479**	41	0	**573**	**50**	72	**110**	1	**233**	30	301	5	0	336	42	48	**12**	0	102	**1244**
05:15 PM	35	421	54	0	510	33	87	80	0	200	27	304	**16**	**1**	348	**60**	47	3	0	**110**	1168
05:30 PM	46	388	**68**	0	502	29	76	75	0	180	**32**	311	9	0	352	37	**49**	12	0	98	1132
Total Volume	188	1720	193	0	2101	150	325	352	2	829	112	1251	42	1	1406	168	176	37	0	381	4717
% App. Total	8.9	81.9	9.2	0		18.1	39.2	42.5	0.2		8	89	3	0.1		44.1	46.2	9.7	0		
PHF	.870	.898	.710	.000	.917	.750	.903	.800	.500	.889	.875	.934	.656	.250	.950	.700	.898	.771	.000	.866	.948
Cars	188	1713										1244									
% Cars	100	99.6	99.5	0	99.6	100	99.7	100	100	99.9	100	99.4	100	100	99.5	98.8	100	100	0	99.5	99.6
Trucks	0	7	1	0	8	0	1	0	0	1	0	7	0	0	7	2	0	0	0	2	18
% Trucks	0	0.4	0.5	0	0.4	0	0.3	0	0	0.1	0	0.6	0	0	0.5	1.2	0	0	0	0.5	0.4



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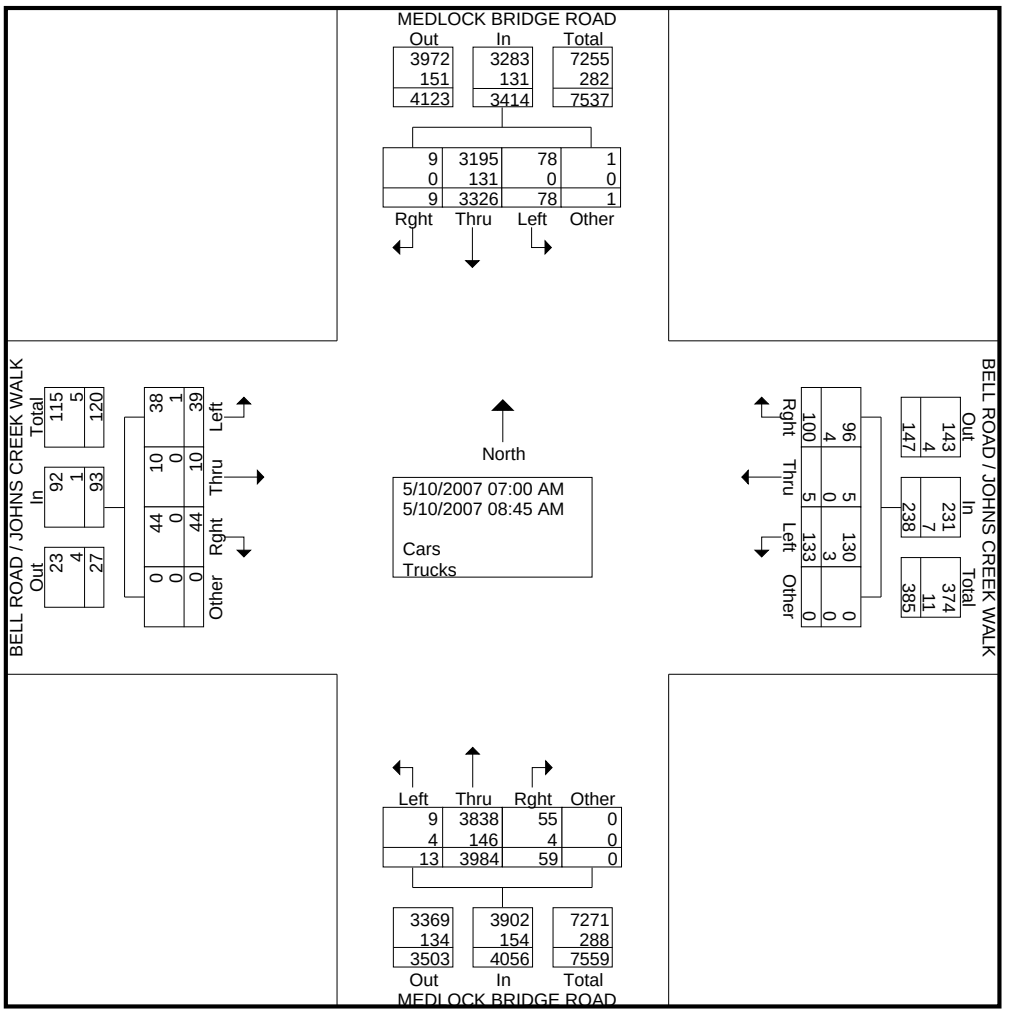
1336 Farmer Road
Conyers, Ga. 30012
404-374-1283

File Name : Bell-JohnsCreek&MedlockBrdgAM
Site Code : 00000000
Start Date : 5/10/2007
Page No : 1

Groups Printed- Cars - Trucks

	MEDLOCK BRIDGE ROAD Southbound					BELL ROAD / JOHNS CREEK WALK Westbound					MEDLOCK BRIDGE ROAD Northbound					BELL ROAD / JOHNS CREEK WALK 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	3	508	0	0	511	17	1	19	0	37	2	446	5	0	453	2	1	5	0	8	1009
07:15 AM	12	431	1	1	445	22	0	27	0	49	2	482	9	0	493	2	2	7	0	11	998
07:30 AM	2	407	1	0	410	18	1	8	0	27	2	484	8	0	494	4	2	9	0	15	946
07:45 AM	11	437	2	0	450	14	3	8	0	25	0	548	10	0	558	9	3	1	0	13	1046
Total	28	1783	4	1	1816	71	5	62	0	138	6	1960	32	0	1998	17	8	22	0	47	3999
08:00 AM	5	379	0	0	384	13	0	3	0	16	0	545	6	0	551	5	0	10	0	15	966
08:15 AM	7	453	3	0	463	25	0	5	0	30	3	520	8	0	531	6	1	6	0	13	1037
08:30 AM	11	376	1	0	388	16	0	8	0	24	1	455	4	0	460	4	1	1	0	6	878
08:45 AM	27	335	1	0	363	8	0	22	0	30	3	504	9	0	516	7	0	5	0	12	921
Total	50	1543	5	0	1598	62	0	38	0	100	7	2024	27	0	2058	22	2	22	0	46	3802
Grand Total	78	3326	9	1	3414	133	5	100	0	238	13	3984	59	0	4056	39	10	44	0	93	7801
Apprch %	2.3	97.4	0.3	0		55.9	2.1	42	0		0.3	98.2	1.5	0		41.9	10.8	47.3	0		
Total %	1	42.6	0.1	0	43.8	1.7	0.1	1.3	0	3.1	0.2	51.1	0.8	0	52	0.5	0.1	0.6	0	1.2	
Cars	78	3195	9	1	3283	130	5	96	0	231	9	3838	55	0	3902	38	10	44	0	92	7508
% Cars	100	96.1	100	100	96.2	97.7	100	96	0	97.1	69.2	96.3	93.2	0	96.2	97.4	100	100	0	98.9	96.2
Trucks	0	131	0	0	131	3	0	4	0	7	4	146	4	0	154	1	0	0	0	1	293
% Trucks	0	3.9	0	0	3.8	2.3	0	4	0	2.9	30.8	3.7	6.8	0	3.8	2.6	0	0	0	1.1	3.8



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File Name : Bell-JohnsCreek&MedlockBrdgAM
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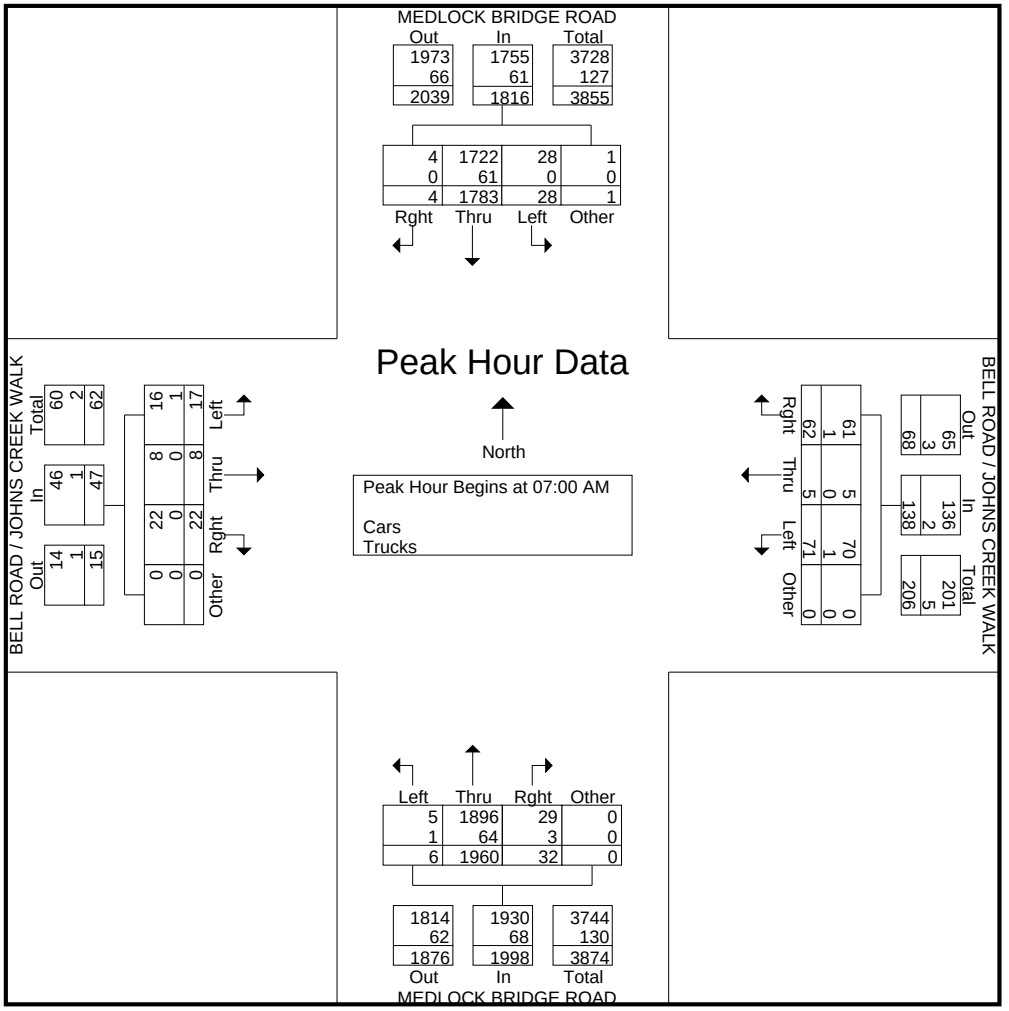
Page No : 2

	MEDLOCK BRIDGE ROAD Southbound					BELL ROAD / JOHNS CREEK WALK Westbound					MEDLOCK BRIDGE ROAD Northbound					BELL ROAD / JOHNS CREEK WALK 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 07:00 AM																					
07:00 AM	3	**508**	0	0	**511**	17	1	19	0	37	**2**	446	5	0	453	2	1	5	0	8	1009
07:15 AM	**12**	431	1	**1**	445	**22**	0	**27**	0	**49**	2	482	9	0	493	2	2	7	0	11	998
07:30 AM	2	407	1	0	410	18	1	8	0	27	2	484	8	0	494	4	2	**9**	0	**15**	946
07:45 AM	11	437	**2**	0	450	14	**3**	8	0	25	0	**548**	**10**	0	**558**	**9**	**3**	1	0	13	**1046**
Total Volume	28	1783	4	1	1816	71	5	62	0	138	6	1960	32	0	1998	17	8	22	0	47	3999
% App. Total	1.5	98.2	0.2	0.1		51.4	3.6	44.9	0		0.3	98.1	1.6	0		36.2	17	46.8	0		
PHF	.583	.877	.500	.250	.888	.807	.417	.574	.000	.704	.750	.894	.800	.000	.895	.472	.667	.611	.000	.783	.956
Cars	28	1722										1896									
% Cars	100	96.6	100	100	96.6	98.6	100	98.4	0	98.6	83.3	96.7	90.6	0	96.6	94.1	100	100	0	97.9	96.7
Trucks	0	61	0	0	61	1	0	1	0	2	1	64	3	0	68	1	0	0	0	1	132
% Trucks	0	3.4	0	0	3.4	1.4	0	1.6	0	1.4	16.7	3.3	9.4	0	3.4	5.9	0	0	0	2.1	3.3



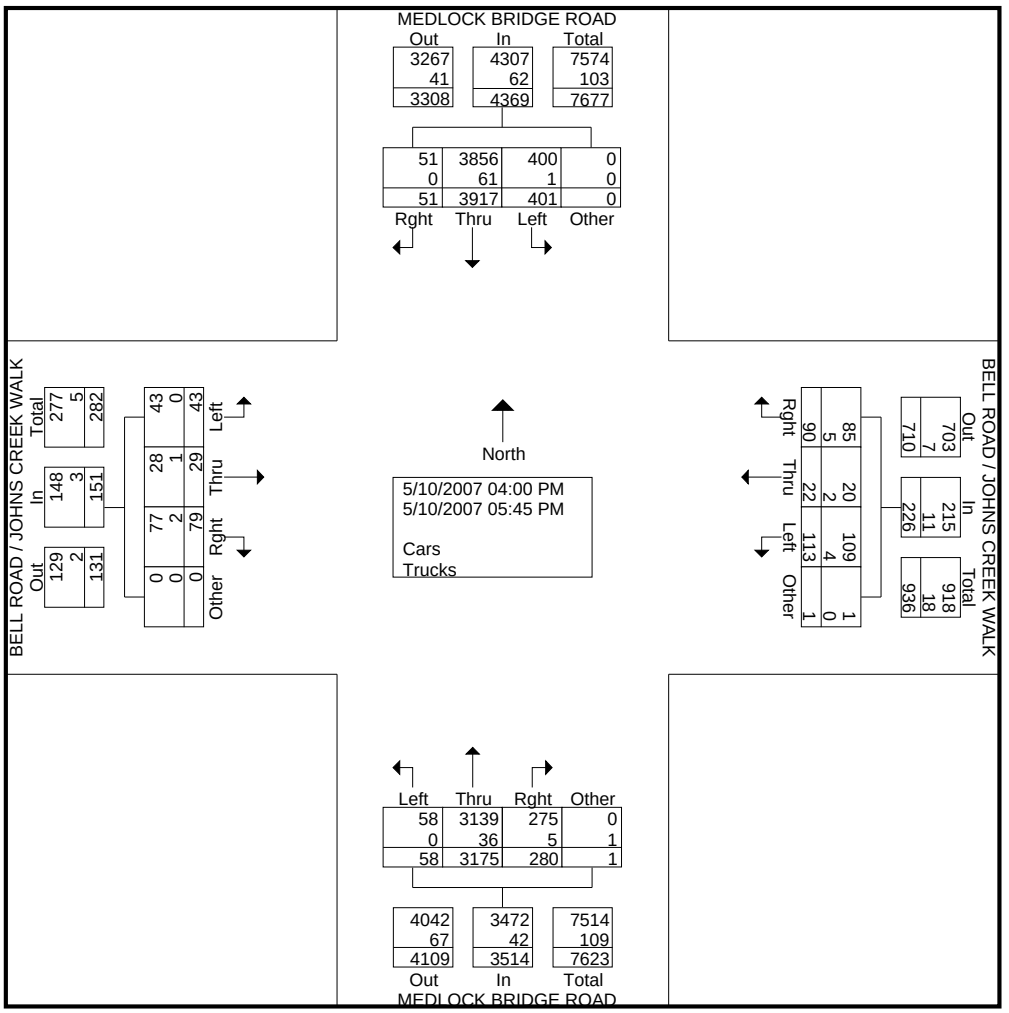
All Traffic Data Services, Inc.

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

File Name : Bell-JohnsCreek&MedlockBrdgPM
Site Code : 00000000
Start Date : 5/10/2007

Groups Printed- Cars - Trucks

	MEDLOCK BRIDGE ROAD Southbound					BELL ROAD / JOHNS CREEK WALK Westbound					MEDLOCK BRIDGE ROAD Northbound					BELL ROAD / JOHNS CREEK WALK 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
04:00 PM	65	414	7	0	486	8	3	17	0	28	5	400	32	0	437	8	2	12	0	22	973
04:15 PM	50	483	3	0	536	7	1	7	0	15	5	419	26	0	450	7	2	13	0	22	1023
04:30 PM	56	507	8	0	571	6	0	10	0	16	8	393	36	0	437	3	3	5	0	11	1035
04:45 PM	40	504	8	0	552	17	0	10	0	27	5	412	37	0	454	5	6	13	0	24	1057
Total	211	1908	26	0	2145	38	4	44	0	86	23	1624	131	0	1778	23	13	43	0	79	4088
05:00 PM	48	569	9	0	626	26	1	17	0	44	9	397	40	0	446	5	4	10	0	19	1135
05:15 PM	36	483	8	0	527	18	2	7	0	27	12	382	40	1	435	3	7	9	0	19	1008
05:30 PM	55	470	2	0	527	14	1	8	0	23	2	393	27	0	422	4	0	8	0	12	984
05:45 PM	51	487	6	0	544	17	14	14	1	46	12	379	42	0	433	8	5	9	0	22	1045
Total	190	2009	25	0	2224	75	18	46	1	140	35	1551	149	1	1736	20	16	36	0	72	4172
Grand Total	401	3917	51	0	4369	113	22	90	1	226	58	3175	280	1	3514	43	29	79	0	151	8260
Apprch %	9.2	89.7	1.2	0		50	9.7	39.8	0.4		1.7	90.4	8	0		28.5	19.2	52.3	0		
Total %	4.9	47.4	0.6	0	52.9	1.4	0.3	1.1	0	2.7	0.7	38.4	3.4	0	42.5	0.5	0.4	1	0	1.8	
Cars	400	3856	51	0	4307	109	20	85	1	215	58	3139	275	0	3472	43	28	77	0	148	8142
% Cars	99.8	98.4	100	0	98.6	96.5	90.9	94.4	100	95.1	100	98.9	98.2	0	98.8	100	96.6	97.5	0	98	98.6
Trucks	1	61	0	0	62	4	2	5	0	11	0	36	5	1	42	0	1	2	0	3	118
% Trucks	0.2	1.6	0	0	1.4	3.5	9.1	5.6	0	4.9	0	1.1	1.8	100	1.2	0	3.4	2.5	0	2	1.4

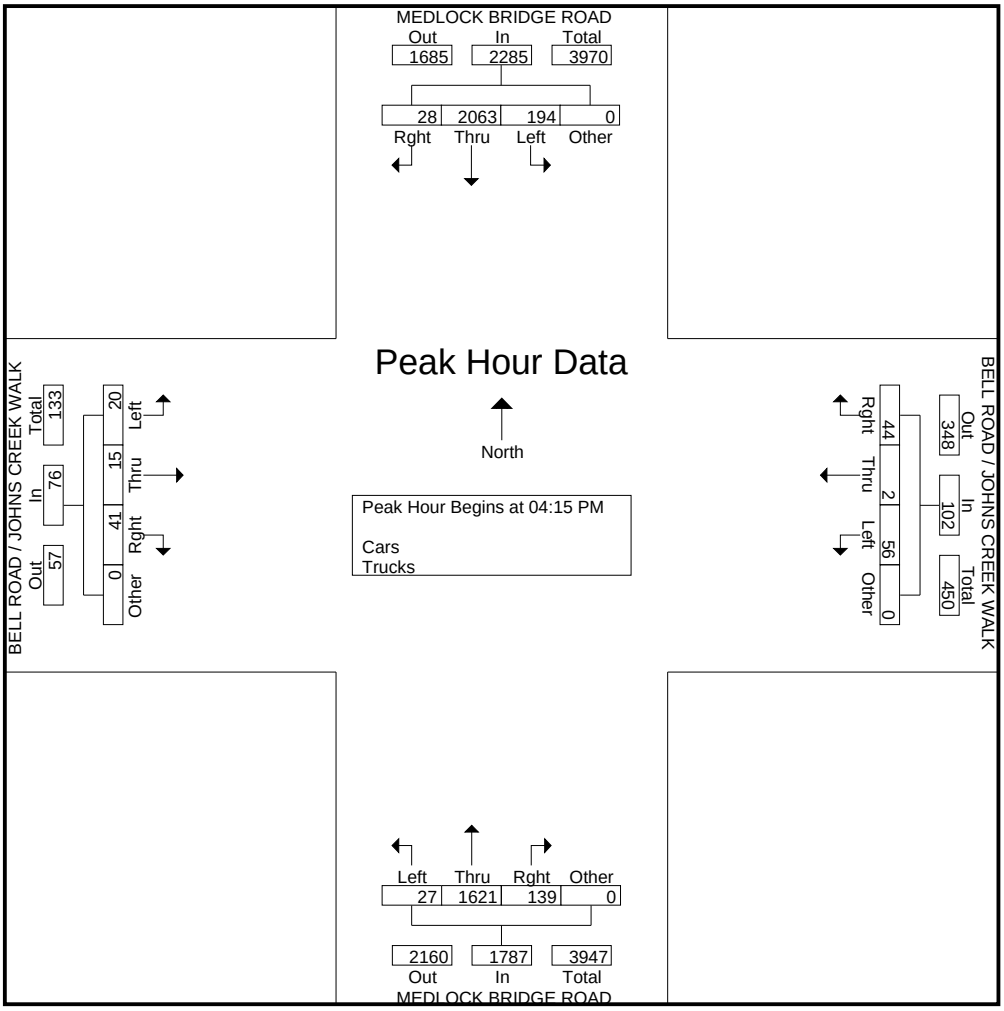


All Traffic Data Services, Inc.

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

File Name : Bell-JohnsCreek&MedlockBrdgPM
Site Code : 00000000
Start Date : 5/10/2007
Page No : 2

	MEDLOCK BRIDGE ROAD Southbound					BELL ROAD / JOHNS CREEK WALK Westbound					MEDLOCK BRIDGE ROAD Northbound					BELL ROAD / JOHNS CREEK WALK 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 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	50	483	3	0	536	7	**1**	7	0	15	5	**419**	26	0	450	**7**	2	**13**	0	22	1023
04:30 PM	**56**	507	8	0	571	6	0	10	0	16	8	393	36	0	437	3	3	5	0	11	1035
04:45 PM	40	504	8	0	552	17	0	10	0	27	5	412	37	0	**454**	5	**6**	13	0	**24**	1057
05:00 PM	48	**569**	**9**	0	**626**	**26**	1	**17**	0	**44**	**9**	397	**40**	0	446	5	4	10	0	19	**1135**
Total Volume	194	2063	28	0	2285	56	2	44	0	102	27	1621	139	0	1787	20	15	41	0	76	4250
% App. Total	8.5	90.3	1.2	0		54.9	2	43.1	0		1.5	90.7	7.8	0		26.3	19.7	53.9	0		
PHF	.866	.906	.778	.000	.913	.538	.500	.647	.000	.580	.750	.967	.869	.000	.984	.714	.625	.788	.000	.792	.936



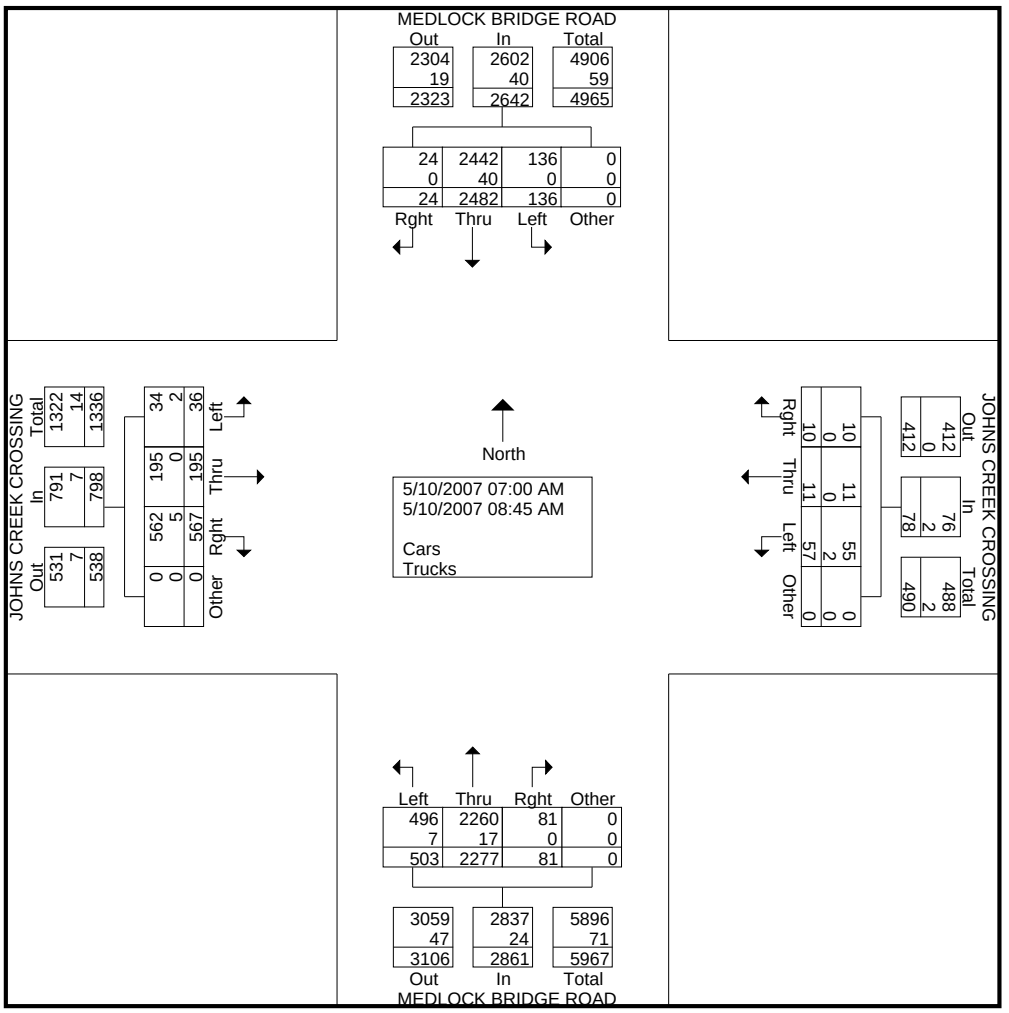
All Traffic Data Services, Inc.

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

File Name : JohnsCreek&MedlockBrdgAM
Site Code : 00000000
Start Date : 5/10/2007
Page No : 1

Groups Printed- Cars - Trucks

	MEDLOCK BRIDGE ROAD Southbound					JOHNS CREEK CROSSING Westbound					MEDLOCK BRIDGE ROAD Northbound					JOHNS CREEK CROSSING 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	9	321	3	0	333	5	1	1	0	7	60	270	4	0	334	1	18	72	0	91	765
07:15 AM	10	329	2	0	341	8	2	1	0	11	67	303	2	0	372	2	23	83	0	108	832
07:30 AM	14	338	1	0	353	7	2	0	0	9	70	278	12	0	360	11	15	57	0	83	805
07:45 AM	16	319	1	0	336	8	0	2	0	10	60	291	16	0	367	6	18	72	0	96	809
Total	49	1307	7	0	1363	28	5	4	0	37	257	1142	34	0	1433	20	74	284	0	378	3211
08:00 AM	20	256	0	0	276	9	2	2	0	13	57	291	5	0	353	3	30	77	0	110	752
08:15 AM	24	358	2	0	384	3	1	1	0	5	68	301	14	0	383	4	30	85	0	119	891
08:30 AM	20	303	7	0	330	8	3	1	0	12	62	257	15	0	334	5	28	68	0	101	777
08:45 AM	23	258	8	0	289	9	0	2	0	11	59	286	13	0	358	4	33	53	0	90	748
Total	87	1175	17	0	1279	29	6	6	0	41	246	1135	47	0	1428	16	121	283	0	420	3168
Grand Total	136	2482	24	0	2642	57	11	10	0	78	503	2277	81	0	2861	36	195	567	0	798	6379
Apprch %	5.1	93.9	0.9	0		73.1	14.1	12.8	0		17.6	79.6	2.8	0		4.5	24.4	71.1	0		
Total %	2.1	38.9	0.4	0	41.4	0.9	0.2	0.2	0	1.2	7.9	35.7	1.3	0	44.9	0.6	3.1	8.9	0	12.5	
Cars	136	2442	24	0	2602	55	11	10	0	76	496	2260	81	0	2837	34	195	562	0	791	6306
% Cars	100	98.4	100	0	98.5	96.5	100	100	0	97.4	98.6	99.3	100	0	99.2	94.4	100	99.1	0	99.1	98.9
Trucks	0	40	0	0	40	2	0	0	0	2	7	17	0	0	24	2	0	5	0	7	73
% Trucks	0	1.6	0	0	1.5	3.5	0	0	0	2.6	1.4	0.7	0	0	0.8	5.6	0	0.9	0	0.9	1.1

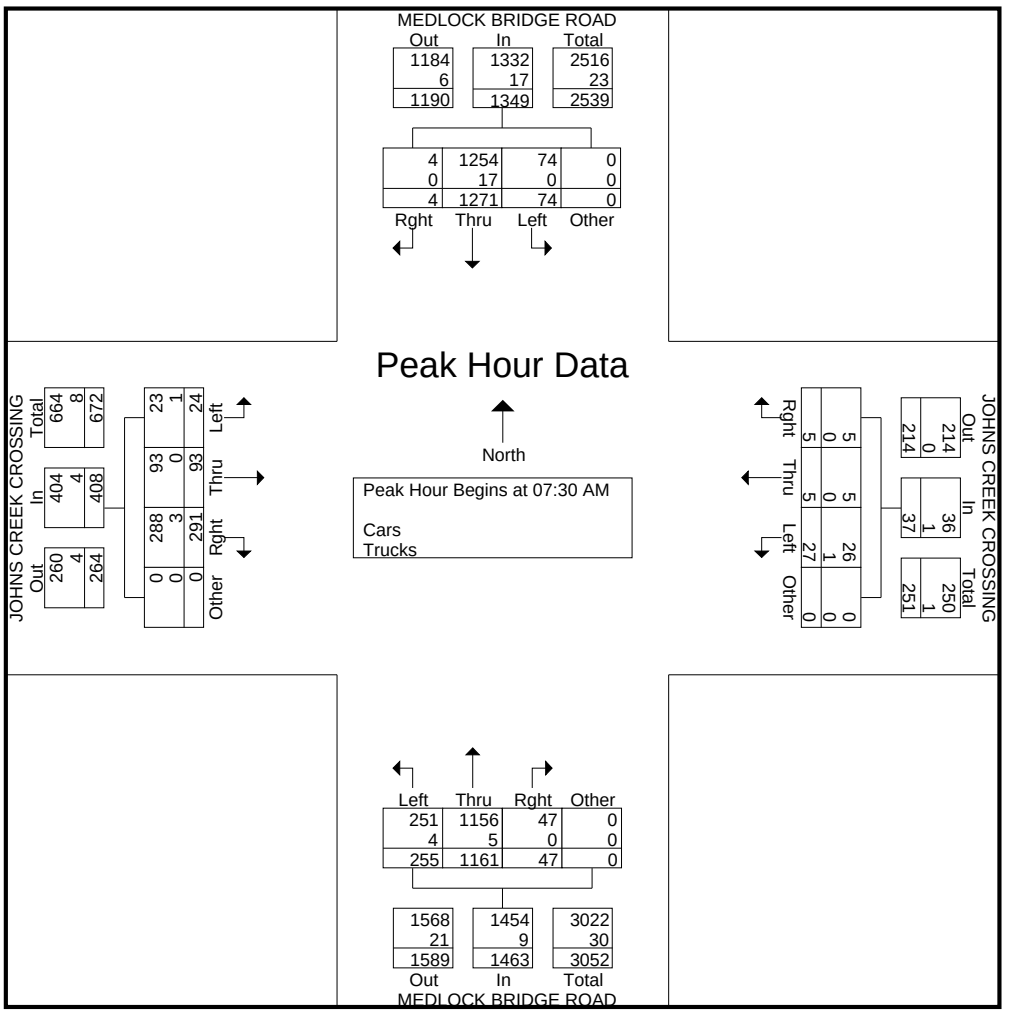


All Traffic Data Services, Inc.

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

File Name : JohnsCreek&MedlockBrdgAM
Site Code : 00000000
Start Date : 5/10/2007
Page No : 2

	MEDLOCK BRIDGE ROAD Southbound					JOHNS CREEK CROSSING Westbound					MEDLOCK BRIDGE ROAD Northbound					JOHNS CREEK CROSSING 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	14	338	1	0	353	7	**2**	0	0	9	**70**	278	12	0	360	**11**	15	57	0	83	805
07:45 AM	16	319	1	0	336	8	0	**2**	0	10	60	291	**16**	0	367	6	18	72	0	96	809
08:00 AM	20	256	0	0	276	**9**	2	2	0	**13**	57	291	5	0	353	3	**30**	77	0	110	752
08:15 AM	**24**	**358**	**2**	0	**384**	3	1	1	0	5	68	**301**	14	0	**383**	4	30	**85**	0	**119**	**891**
Total Volume	74	1271	4	0	1349	27	5	5	0	37	255	1161	47	0	1463	24	93	291	0	408	3257
% App. Total	5.5	94.2	0.3	0		73	13.5	13.5	0		17.4	79.4	3.2	0		5.9	22.8	71.3	0		
PHF	.771	.888	.500	.000	.878	.750	.625	.625	.000	.712	.911	.964	.734	.000	.955	.545	.775	.856	.000	.857	.914
Cars	74	1254										1156									
% Cars	100	98.7	100	0	98.7	96.3	100	100	0	97.3	98.4	99.6	100	0	99.4	95.8	100	99.0	0	99.0	99.0
Trucks	0	17	0	0	17	1	0	0	0	1	4	5	0	0	9	1	0	3	0	4	31
% Trucks	0	1.3	0	0	1.3	3.7	0	0	0	2.7	1.6	0.4	0	0	0.6	4.2	0	1.0	0	1.0	1.0



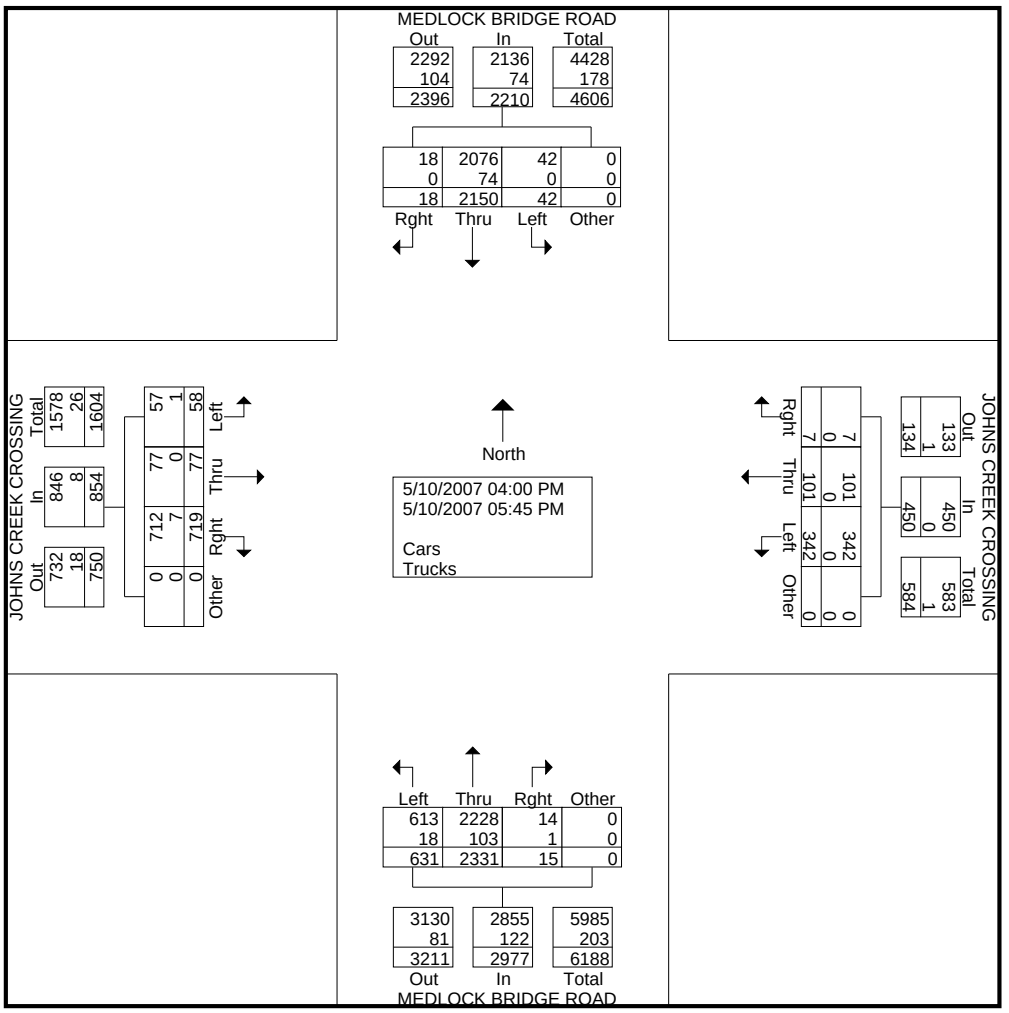
All Traffic Data Services, Inc.

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

File Name : JohnsCreek&MedlockBrdgPM
Site Code : 00000000
Start Date : 5/10/2007
Page No : 1

Groups Printed- Cars - Trucks

	MEDLOCK BRIDGE ROAD Southbound					JOHNS CREEK CROSSING Westbound					MEDLOCK BRIDGE ROAD Northbound					JOHNS CREEK CROSSING 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
04:00 PM	1	255	1	0	257	46	9	3	0	58	83	257	4	0	344	4	7	82	0	93	752
04:15 PM	5	264	3	0	272	46	18	0	0	64	89	319	5	0	413	13	14	109	0	136	885
04:30 PM	4	277	2	0	283	56	13	2	0	71	63	298	1	0	362	9	7	95	0	111	827
04:45 PM	5	294	3	0	302	42	13	0	0	55	82	284	2	0	368	9	6	83	0	98	823
Total	15	1090	9	0	1114	190	53	5	0	248	317	1158	12	0	1487	35	34	369	0	438	3287
05:00 PM	5	275	1	0	281	61	11	1	0	73	66	308	1	0	375	1	5	73	0	79	808
05:15 PM	14	252	3	0	269	23	15	0	0	38	68	303	1	0	372	12	14	95	0	121	800
05:30 PM	1	271	1	0	273	31	15	0	0	46	95	287	0	0	382	5	8	80	0	93	794
05:45 PM	7	262	4	0	273	37	7	1	0	45	85	275	1	0	361	5	16	102	0	123	802
Total	27	1060	9	0	1096	152	48	2	0	202	314	1173	3	0	1490	23	43	350	0	416	3204
Grand Total	42	2150	18	0	2210	342	101	7	0	450	631	2331	15	0	2977	58	77	719	0	854	6491
Apprch %	1.9	97.3	0.8	0		76	22.4	1.6	0		21.2	78.3	0.5	0		6.8	9	84.2	0		
Total %	0.6	33.1	0.3	0	34	5.3	1.6	0.1	0	6.9	9.7	35.9	0.2	0	45.9	0.9	1.2	11.1	0	13.2	
Cars	42	2076	18	0	2136	342	101	7	0	450	613	2228	14	0	2855	57	77	712	0	846	6287
% Cars	100	96.6	100	0	96.7	100	100	100	0	100	97.1	95.6	93.3	0	95.9	98.3	100	99	0	99.1	96.9
Trucks	0	74	0	0	74	0	0	0	0	0	18	103	1	0	122	1	0	7	0	8	204
% Trucks	0	3.4	0	0	3.3	0	0	0	0	0	2.9	4.4	6.7	0	4.1	1.7	0	1	0	0.9	3.1

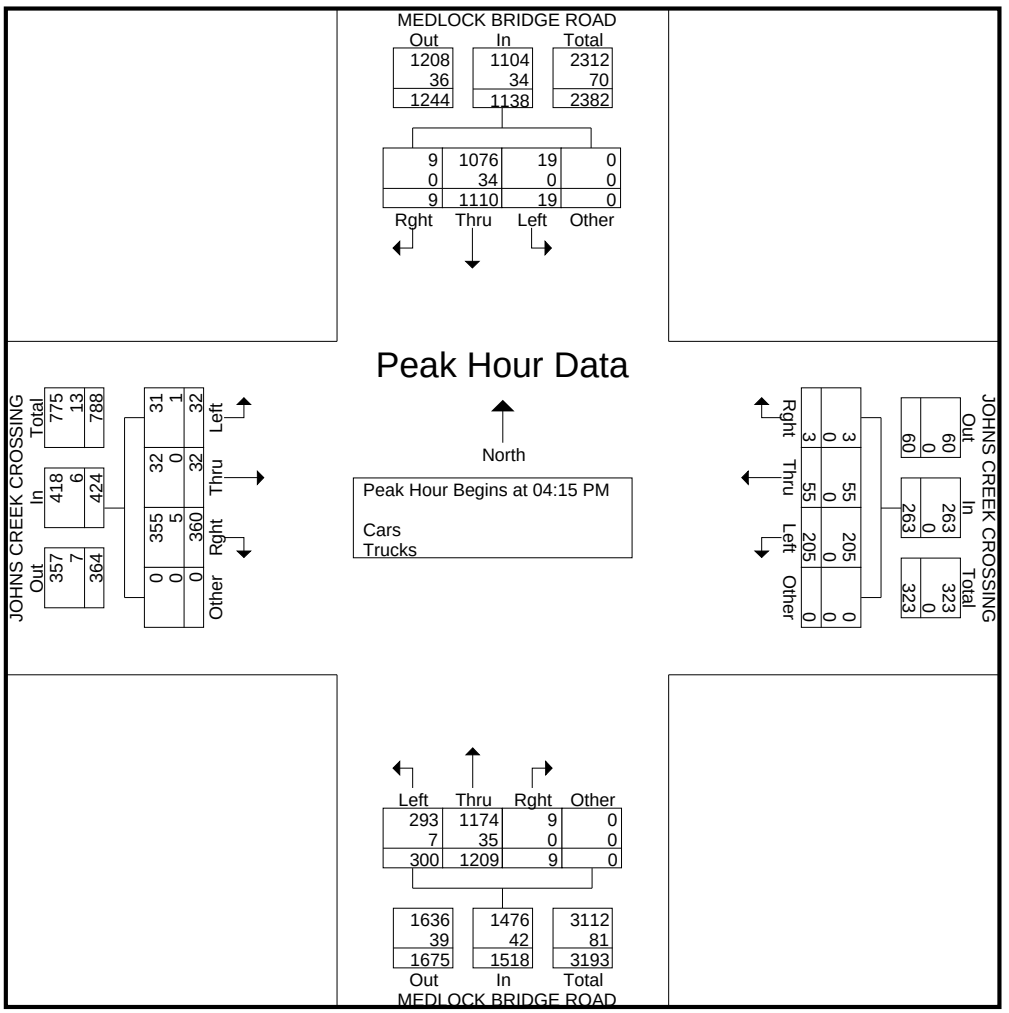


All Traffic Data Services, Inc.

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

File Name : JohnsCreek&MedlockBrdgPM
Site Code : 00000000
Start Date : 5/10/2007
Page No : 2

	MEDLOCK BRIDGE ROAD Southbound					JOHNS CREEK CROSSING Westbound					MEDLOCK BRIDGE ROAD Northbound					JOHNS CREEK CROSSING 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 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	**5**	264	**3**	0	272	46	**18**	0	0	64	**89**	**319**	**5**	0	**413**	**13**	**14**	**109**	0	**136**	**885**
04:30 PM	4	277	2	0	283	56	13	**2**	0	71	63	298	1	0	362	9	7	95	0	111	827
04:45 PM	5	**294**	3	0	**302**	42	13	0	0	55	82	284	2	0	368	9	6	83	0	98	823
05:00 PM	5	275	1	0	281	**61**	11	1	0	**73**	66	308	1	0	375	1	5	73	0	79	808
Total Volume	19	1110	9	0	1138	205	55	3	0	263	300	1209	9	0	1518	32	32	360	0	424	3343
% App. Total	1.7	97.5	0.8	0		77.9	20.9	1.1	0		19.8	79.6	0.6	0		7.5	7.5	84.9	0		
PHF	.950	.944	.750	.000	.942	.840	.764	.375	.000	.901	.843	.947	.450	.000	.919	.615	.571	.826	.000	.779	.944
Cars	19	1076										1174									
% Cars	100	96.9	100	0	97.0	100	100	100	0	100	97.7	97.1	100	0	97.2	96.9	100	98.6	0	98.6	97.5
Trucks	0	34	0	0	34	0	0	0	0	0	7	35	0	0	42	1	0	5	0	6	82
% Trucks	0	3.1	0	0	3.0	0	0	0	0	0	2.3	2.9	0	0	2.8	3.1	0	1.4	0	1.4	2.5



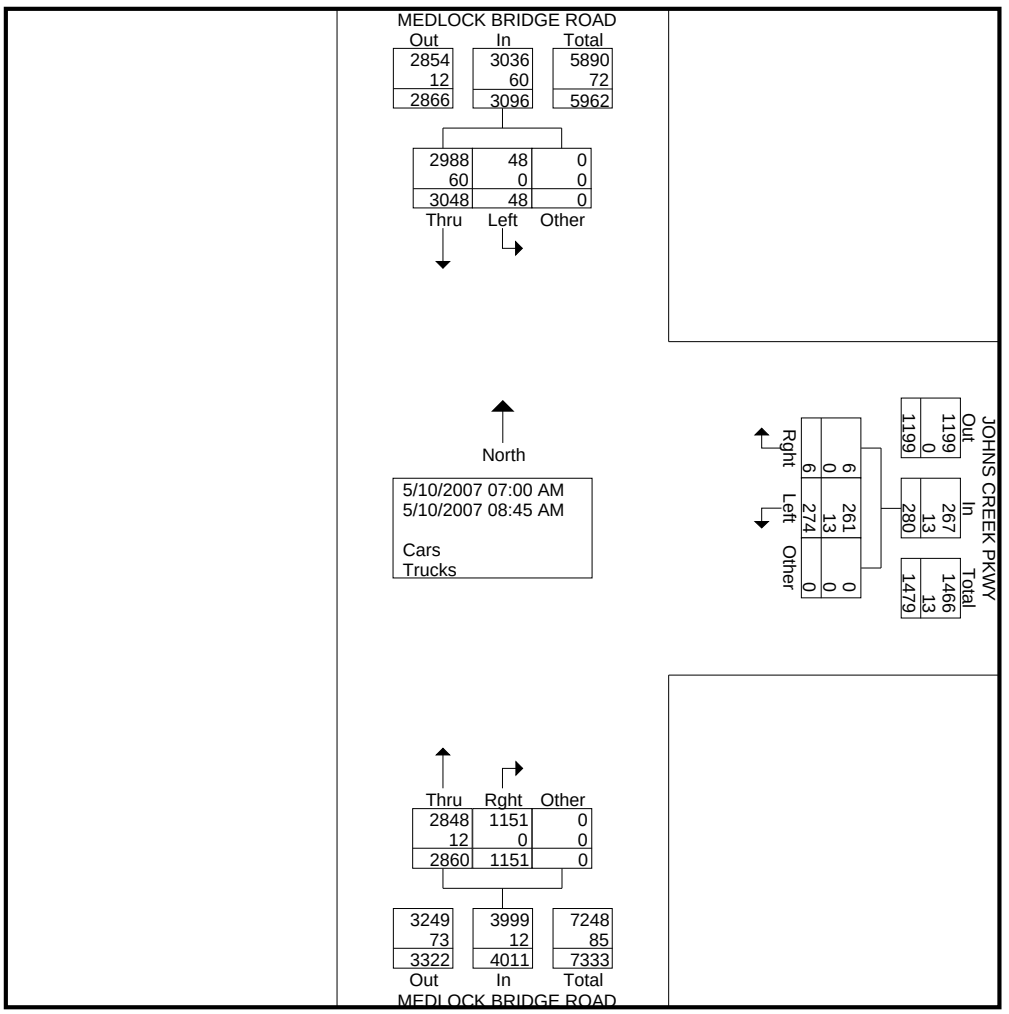
All Traffic Data Services, Inc.

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

File Name : JohnsCreekPkwy&MedlockBrdgAM
Site Code : 00000000
Start Date : 5/10/2007
Page No : 1

Groups Printed- Cars - Trucks

	MEDLOCK BRIDGE ROAD Southbound				JOHNS CREEK PKWY Westbound				MEDLOCK BRIDGE ROAD Northbound				
Start Time	Left	Thru	Other	App. Total	Left	Rght	Other	App. Total	Thru	Rght	Other	App. Total	Int. Total
07:00 AM	2	457	0	459	78	0	0	78	317	123	0	440	977
07:15 AM	6	401	0	407	30	0	0	30	371	125	0	496	933
07:30 AM	8	389	0	397	24	0	0	24	360	123	0	483	904
07:45 AM	5	391	0	396	32	1	0	33	384	181	0	565	994
Total	21	1638	0	1659	164	1	0	165	1432	552	0	1984	3808
08:00 AM	2	331	0	333	33	2	0	35	360	176	0	536	904
08:15 AM	12	419	0	431	39	1	0	40	367	154	0	521	992
08:30 AM	9	348	0	357	23	1	0	24	333	137	0	470	851
08:45 AM	4	312	0	316	15	1	0	16	368	132	0	500	832
Total	27	1410	0	1437	110	5	0	115	1428	599	0	2027	3579
Grand Total	48	3048	0	3096	274	6	0	280	2860	1151	0	4011	7387
Apprch %	1.6	98.4	0		97.9	2.1	0		71.3	28.7	0		
Total %	0.6	41.3	0	41.9	3.7	0.1	0	3.8	38.7	15.6	0	54.3	
Cars	48	2988	0	3036	261	6	0	267	2848	1151	0	3999	7302
% Cars	100	98	0	98.1	95.3	100	0	95.4	99.6	100	0	99.7	98.8
Trucks	0	60	0	60	13	0	0	13	12	0	0	12	85
% Trucks	0	2	0	1.9	4.7	0	0	4.6	0.4	0	0	0.3	1.2

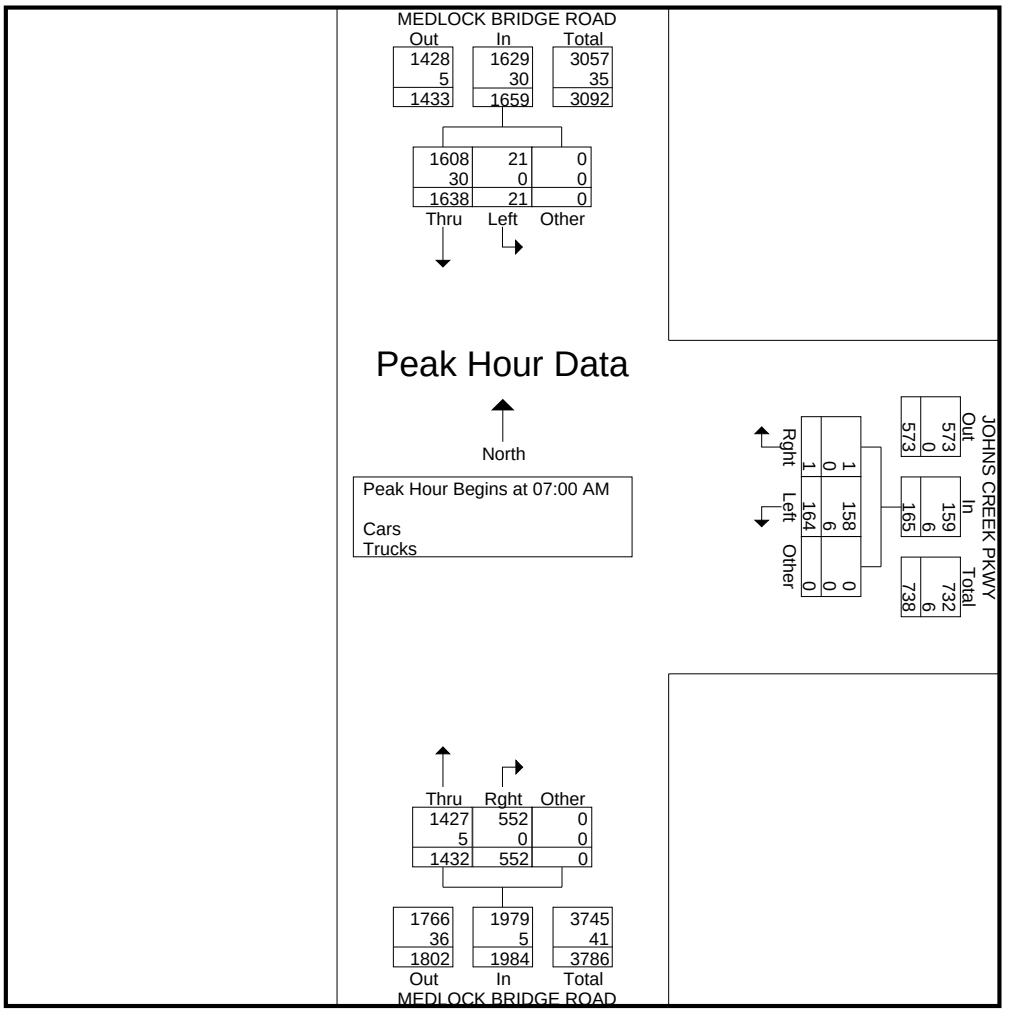


All Traffic Data Services, Inc.

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

File Name : JohnsCreekPkwy&MedlockBrdgAM
Site Code : 00000000
Start Date : 5/10/2007
Page No : 2

	MEDLOCK BRIDGE ROAD Southbound				JOHNS CREEK PKWY Westbound				MEDLOCK BRIDGE ROAD Northbound				
Start Time	Left	Thru	Other	App. Total	Left	Rght	Other	App. Total	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 07:00 AM													
07:00 AM	2	**457**	0	**459**	**78**	0	0	**78**	317	123	0	440	977
07:15 AM	6	401	0	407	30	0	0	30	371	125	0	496	933
07:30 AM	**8**	389	0	397	24	0	0	24	360	123	0	483	904
07:45 AM	5	391	0	396	32	**1**	0	33	**384**	**181**	0	**565**	**994**
Total Volume	21	1638	0	1659	164	1	0	165	1432	552	0	1984	3808
% App. Total	1.3	98.7	0		99.4	0.6	0		72.2	27.8	0		
PHF	.656	.896	.000	.904	.526	.250	.000	.529	.932	.762	.000	.878	.958
Cars	21	1608	0	1629	158	1	0	159	1427	552	0	1979	3767
% Cars	100	98.2	0	98.2	96.3	100	0	96.4	99.7	100	0	99.7	98.9
Trucks	0	30	0	30	6	0	0	6	5	0	0	5	41
% Trucks	0	1.8	0	1.8	3.7	0	0	3.6	0.3	0	0	0.3	1.1



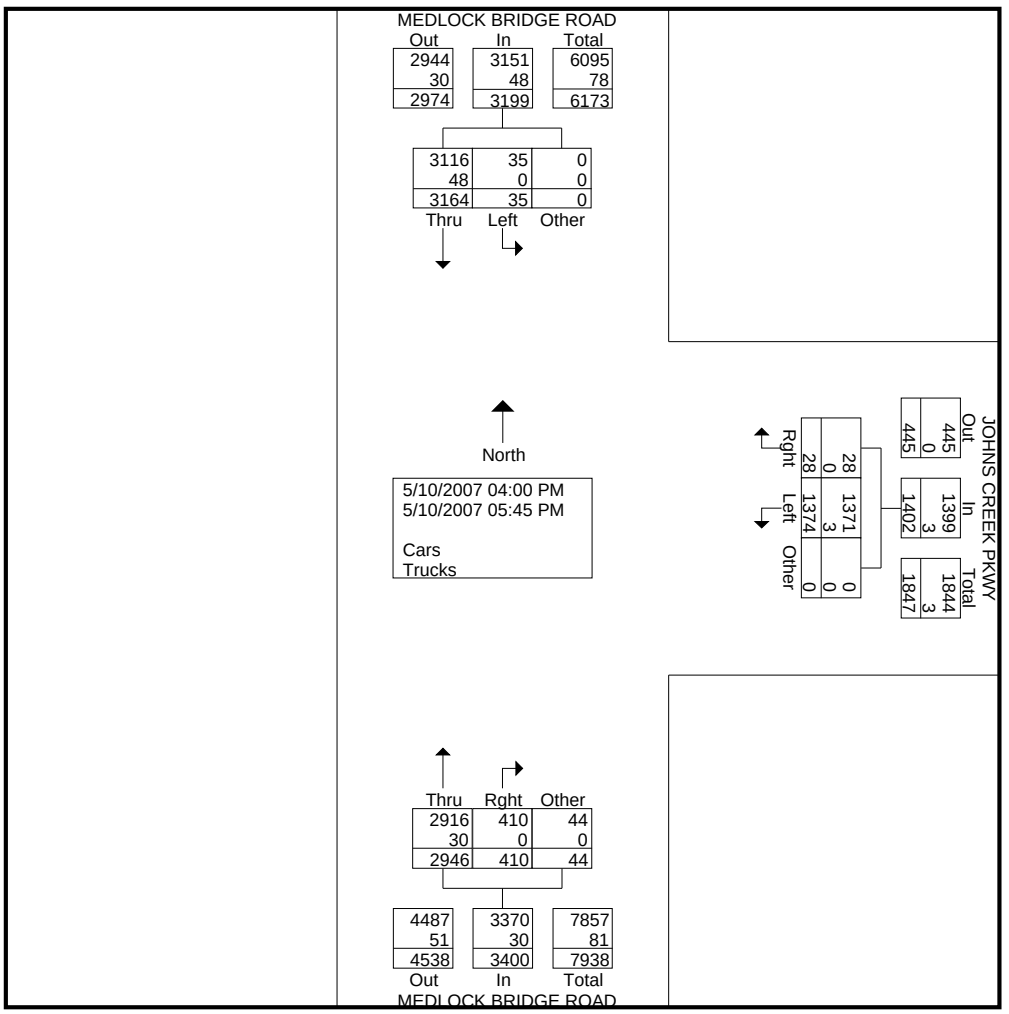
All Traffic Data Services, Inc.

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

File Name : JohnsCreekPkwy&MedlockBrdgPM
Site Code : 00000000
Start Date : 5/10/2007

Groups Printed- Cars - Trucks

	MEDLOCK BRIDGE ROAD Southbound				JOHNS CREEK PKWY Westbound				MEDLOCK BRIDGE ROAD Northbound				
Start Time	Left	Thru	Other	App. Total	Left	Rght	Other	App. Total	Thru	Rght	Other	App. Total	Int. Total
04:00 PM	2	386	0	388	181	2	0	183	361	57	6	424	995
04:15 PM	3	411	0	414	133	2	0	135	397	54	2	453	1002
04:30 PM	3	421	0	424	178	0	0	178	365	47	7	419	1021
04:45 PM	4	411	0	415	164	4	0	168	371	42	8	421	1004
Total	12	1629	0	1641	656	8	0	664	1494	200	23	1717	4022
05:00 PM	11	395	0	406	220	2	0	222	387	40	7	434	1062
05:15 PM	2	370	0	372	173	12	0	185	368	60	4	432	989
05:30 PM	8	374	0	382	162	3	0	165	360	62	5	427	974
05:45 PM	2	396	0	398	163	3	0	166	337	48	5	390	954
Total	23	1535	0	1558	718	20	0	738	1452	210	21	1683	3979
Grand Total	35	3164	0	3199	1374	28	0	1402	2946	410	44	3400	8001
Apprch %	1.1	98.9	0		98	2	0		86.6	12.1	1.3		
Total %	0.4	39.5	0	40	17.2	0.3	0	17.5	36.8	5.1	0.5	42.5	
Cars	35	3116	0	3151	1371	28	0	1399	2916	410	44	3370	7920
% Cars	100	98.5	0	98.5	99.8	100	0	99.8	99	100	100	99.1	99
Trucks	0	48	0	48	3	0	0	3	30	0	0	30	81
% Trucks	0	1.5	0	1.5	0.2	0	0	0.2	1	0	0	0.9	1

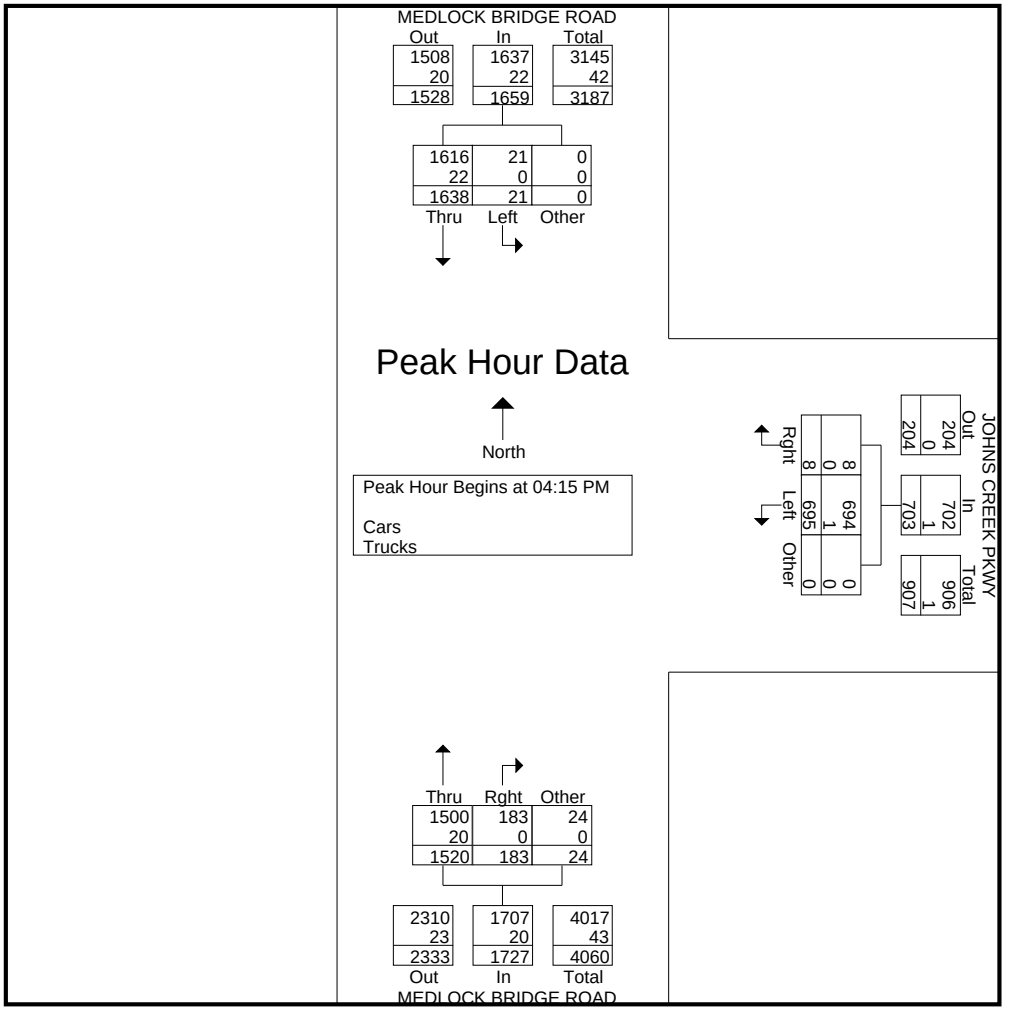


All Traffic Data Services, Inc.

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

File Name : JohnsCreekPkwy&MedlockBrdgPM
Site Code : 00000000
Start Date : 5/10/2007

	MEDLOCK BRIDGE ROAD Southbound				JOHNS CREEK PKWY Westbound				MEDLOCK BRIDGE ROAD Northbound				
Start Time	Left	Thru	Other	App. Total	Left	Rght	Other	App. Total	Thru	Rght	Other	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:15 PM													
04:15 PM	3	411	0	414	133	2	0	135	**397**	**54**	2	**453**	1002
04:30 PM	3	**421**	0	**424**	178	0	0	178	365	47	7	419	1021
04:45 PM	4	411	0	415	164	**4**	0	168	371	42	**8**	421	1004
05:00 PM	**11**	395	0	406	**220**	2	0	**222**	387	40	7	434	**1062**
Total Volume	21	1638	0	1659	695	8	0	703	1520	183	24	1727	4089
% App. Total	1.3	98.7	0		98.9	1.1	0		88	10.6	1.4		
PHF	.477	.973	.000	.978	.790	.500	.000	.792	.957	.847	.750	.953	.963
Cars	21	1616	0	1637	694	8	0	702	1500	183	24	1707	4046
% Cars	100	98.7	0	98.7	99.9	100	0	99.9	98.7	100	100	98.8	98.9
Trucks	0	22	0	22	1	0	0	1	20	0	0	20	43
% Trucks	0	1.3	0	1.3	0.1	0	0	0.1	1.3	0	0	1.2	1.1



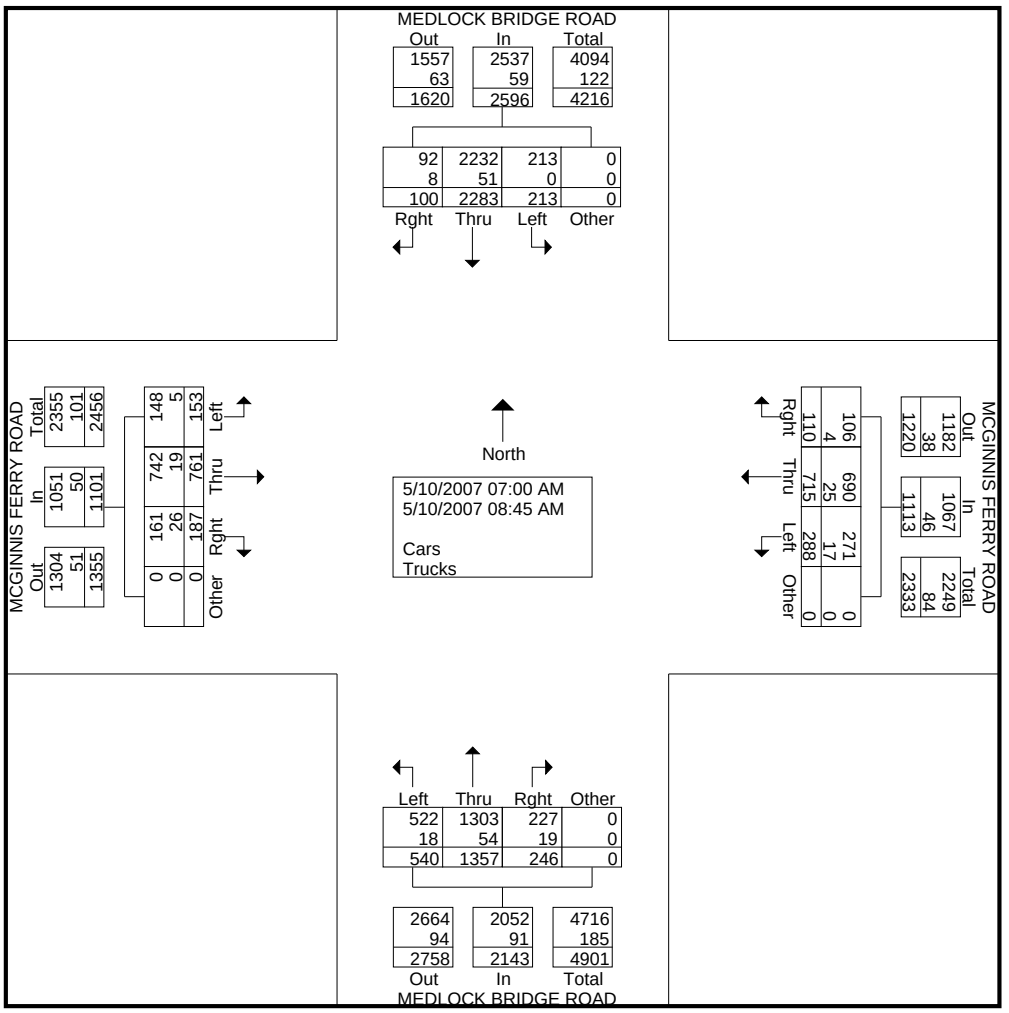
All Traffic Data Services, Inc.

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

File Name : McGinnisFerry&MedlockBrdgAM
Site Code : 00000000
Start Date : 5/10/2007
Page No : 1

Groups Printed- Cars - Trucks

	MEDLOCK BRIDGE ROAD Southbound					MCGINNIS FERRY ROAD Westbound					MEDLOCK BRIDGE ROAD Northbound					MCGINNIS FERRY 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	19	282	7	0	308	37	98	17	0	152	63	111	21	0	195	14	78	24	0	116	771
07:15 AM	18	302	4	0	324	32	97	6	0	135	80	159	31	0	270	23	105	21	0	149	878
07:30 AM	17	318	15	0	350	27	96	14	0	137	54	175	29	0	258	27	102	20	0	149	894
07:45 AM	33	280	18	0	331	42	69	16	0	127	64	186	21	0	271	18	93	22	0	133	862
Total	87	1182	44	0	1313	138	360	53	0	551	261	631	102	0	994	82	378	87	0	547	3405
08:00 AM	30	237	9	0	276	29	75	10	0	114	66	173	38	0	277	18	84	25	0	127	794
08:15 AM	36	317	11	0	364	38	90	12	0	140	84	167	34	0	285	17	102	27	0	146	935
08:30 AM	32	286	26	0	344	37	95	16	0	148	77	209	39	0	325	19	97	25	0	141	958
08:45 AM	28	261	10	0	299	46	95	19	0	160	52	177	33	0	262	17	100	23	0	140	861
Total	126	1101	56	0	1283	150	355	57	0	562	279	726	144	0	1149	71	383	100	0	554	3548
Grand Total	213	2283	100	0	2596	288	715	110	0	1113	540	1357	246	0	2143	153	761	187	0	1101	6953
Apprch %	8.2	87.9	3.9	0		25.9	64.2	9.9	0		25.2	63.3	11.5	0		13.9	69.1	17	0		
Total %	3.1	32.8	1.4	0	37.3	4.1	10.3	1.6	0	16	7.8	19.5	3.5	0	30.8	2.2	10.9	2.7	0	15.8	
Cars	213	2232	92	0	2537	271	690	106	0	1067	522	1303	227	0	2052	148	742	161	0	1051	6707
% Cars	100	97.8	92	0	97.7	94.1	96.5	96.4	0	95.9	96.7	96	92.3	0	95.8	96.7	97.5	86.1	0	95.5	96.5
Trucks	0	51	8	0	59	17	25	4	0	46	18	54	19	0	91	5	19	26	0	50	246
% Trucks	0	2.2	8	0	2.3	5.9	3.5	3.6	0	4.1	3.3	4	7.7	0	4.2	3.3	2.5	13.9	0	4.5	3.5

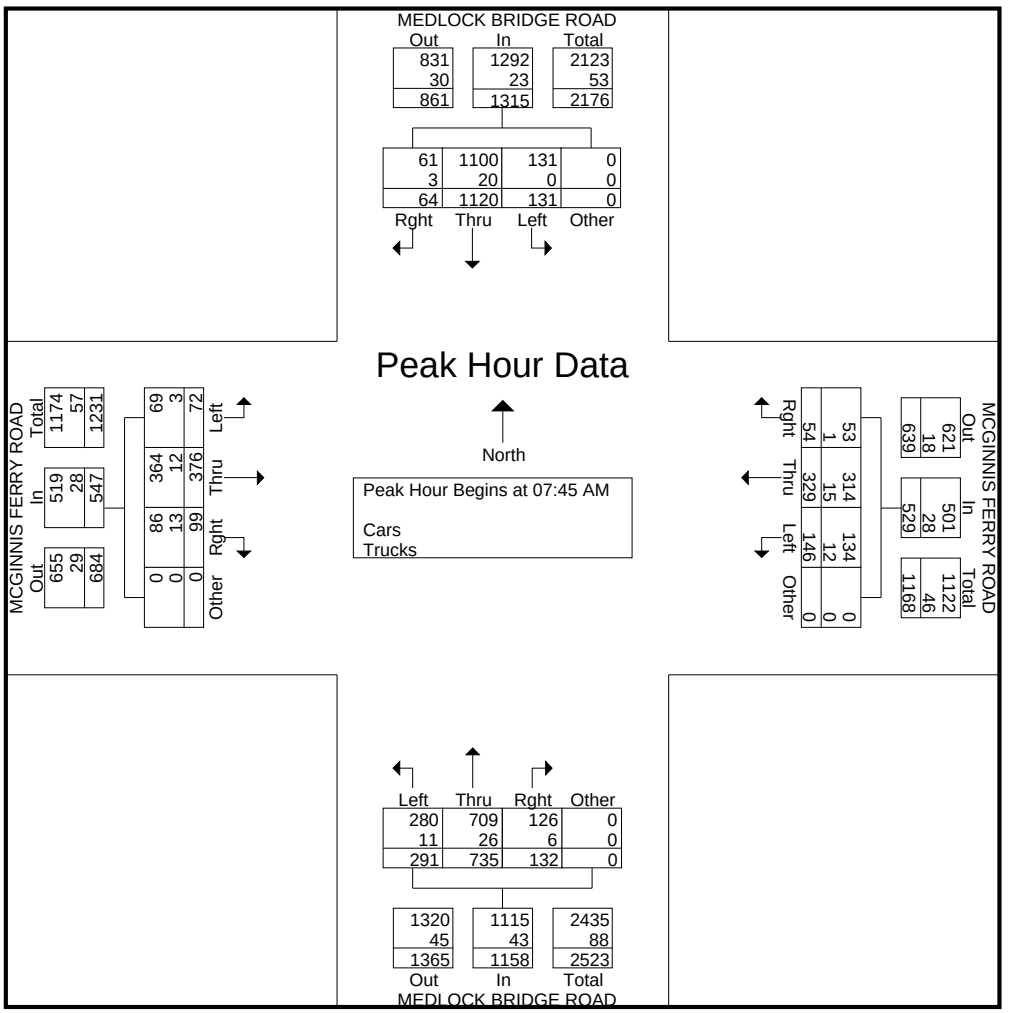


All Traffic Data Services, Inc.

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

File Name : McGinnisFerry&MedlockBrdgAM
Site Code : 00000000
Start Date : 5/10/2007
Page No : 2

	MEDLOCK BRIDGE ROAD Southbound					MCGINNIS FERRY ROAD Westbound					MEDLOCK BRIDGE ROAD Northbound					MCGINNIS FERRY 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 07:45 AM																					
07:45 AM	33	280	18	0	331	**42**	69	**16**	0	127	64	186	21	0	271	18	93	22	0	133	862
08:00 AM	30	237	9	0	276	29	75	10	0	114	66	173	38	0	277	18	84	25	0	127	794
08:15 AM	**36**	**317**	11	0	**364**	38	90	12	0	140	**84**	167	34	0	285	17	**102**	**27**	0	**146**	935
08:30 AM	32	286	**26**	0	344	37	**95**	16	0	**148**	77	**209**	**39**	0	**325**	**19**	97	25	0	141	**958**
Total Volume	131	1120	64	0	1315	146	329	54	0	529	291	735	132	0	1158	72	376	99	0	547	3549
% App. Total	10	85.2	4.9	0		27.6	62.2	10.2	0		25.1	63.5	11.4	0		13.2	68.7	18.1	0		
PHF	.910	.883	.615	.000	.903	.869	.866	.844	.000	.894	.866	.879	.846	.000	.891	.947	.922	.917	.000	.937	.926
Cars	131	1100																			
% Cars	100	98.2	95.3	0	98.3	91.8	95.4	98.1	0	94.7	96.2	96.5	95.5	0	96.3	95.8	96.8	86.9	0	94.9	96.6
Trucks	0	20	3	0	23	12	15	1	0	28	11	26	6	0	43	3	12	13	0	28	122
% Trucks	0	1.8	4.7	0	1.7	8.2	4.6	1.9	0	5.3	3.8	3.5	4.5	0	3.7	4.2	3.2	13.1	0	5.1	3.4



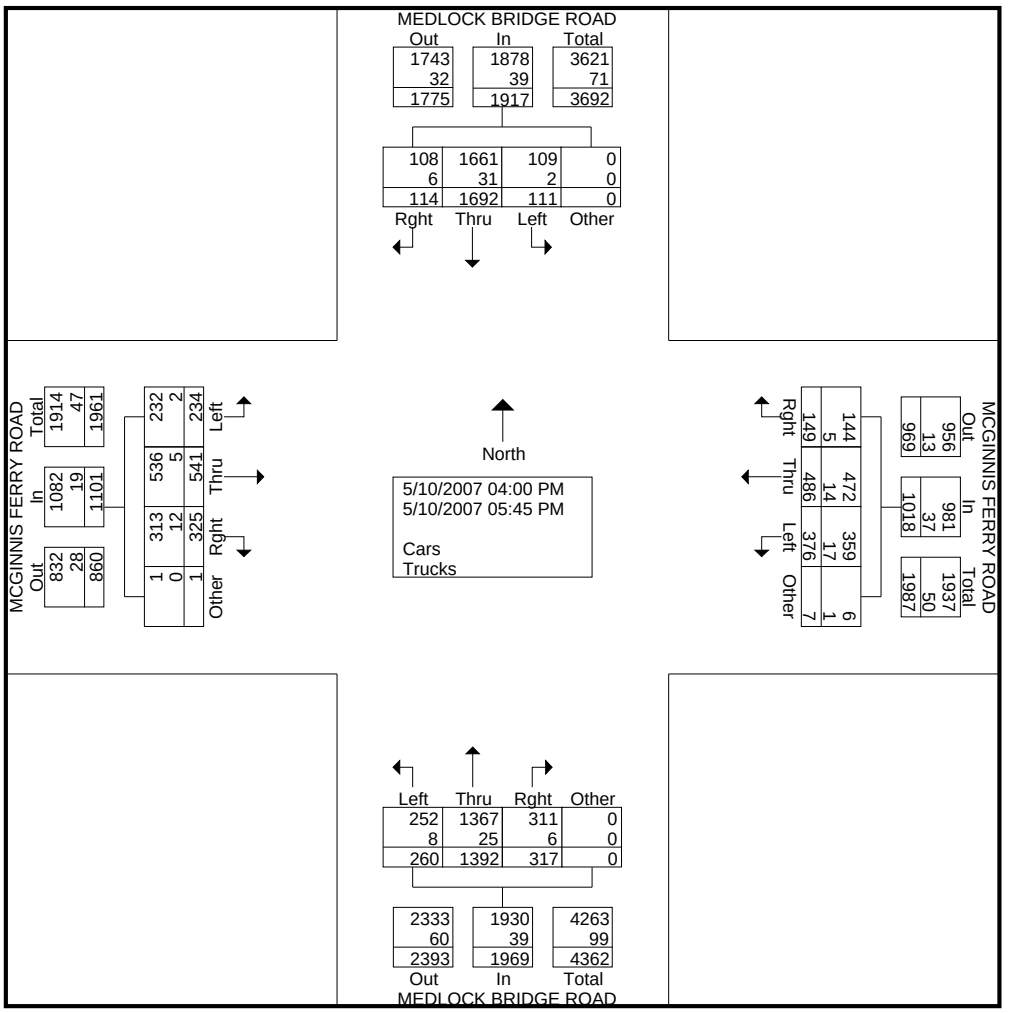
All Traffic Data Services, Inc.

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

File Name : McGinnisFerry&MedlockBrdgPM
Site Code : 00000000
Start Date : 5/10/2007
Page No : 1

Groups Printed- Cars - Trucks

	MEDLOCK BRIDGE ROAD Southbound					MCGINNIS FERRY ROAD Westbound					MEDLOCK BRIDGE ROAD Northbound					MCGINNIS FERRY 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
04:00 PM	6	201	17	0	224	60	91	8	0	159	23	233	19	0	275	19	68	32	0	119	777
04:15 PM	17	172	9	0	198	50	78	18	1	147	44	192	20	0	256	24	82	41	0	147	748
04:30 PM	13	190	14	0	217	69	48	31	0	148	24	176	22	0	222	35	79	56	0	170	757
04:45 PM	21	237	18	0	276	39	65	22	0	126	11	182	39	0	232	39	47	38	0	124	758
Total	57	800	58	0	915	218	282	79	1	580	102	783	100	0	985	117	276	167	0	560	3040
05:00 PM	17	211	14	0	242	34	48	29	6	117	29	176	42	0	247	24	74	41	0	139	745
05:15 PM	8	227	13	0	248	33	58	13	0	104	32	153	65	0	250	29	64	48	0	141	743
05:30 PM	15	221	10	0	246	41	36	12	0	89	45	136	54	0	235	25	53	34	0	112	682
05:45 PM	14	233	19	0	266	50	62	16	0	128	52	144	56	0	252	39	74	35	1	149	795
Total	54	892	56	0	1002	158	204	70	6	438	158	609	217	0	984	117	265	158	1	541	2965
Grand Total	111	1692	114	0	1917	376	486	149	7	1018	260	1392	317	0	1969	234	541	325	1	1101	6005
Apprch %	5.8	88.3	5.9	0		36.9	47.7	14.6	0.7		13.2	70.7	16.1	0		21.3	49.1	29.5	0.1		
Total %	1.8	28.2	1.9	0	31.9	6.3	8.1	2.5	0.1	17	4.3	23.2	5.3	0	32.8	3.9	9	5.4	0	18.3	
Cars	109	1661	108	0	1878	359	472	144	6	981	252	1367	311	0	1930	232	536	313	1	1082	5871
% Cars	98.2	98.2	94.7	0	98	95.5	97.1	96.6	85.7	96.4	96.9	98.2	98.1	0	98	99.1	99.1	96.3	100	98.3	97.8
Trucks	2	31	6	0	39	17	14	5	1	37	8	25	6	0	39	2	5	12	0	19	134
% Trucks	1.8	1.8	5.3	0	2	4.5	2.9	3.4	14.3	3.6	3.1	1.8	1.9	0	2	0.9	0.9	3.7	0	1.7	2.2



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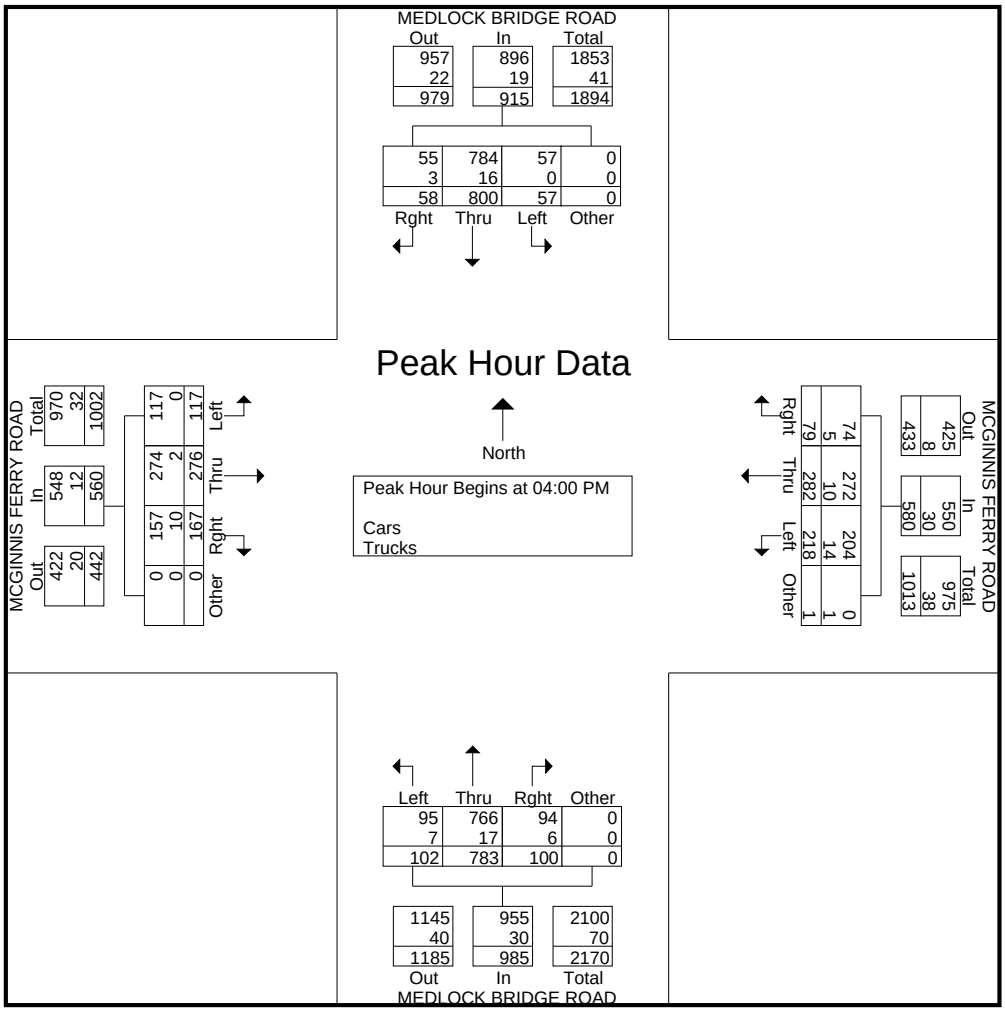
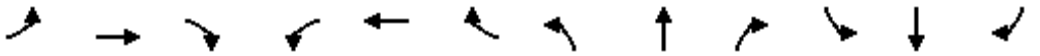
1336 Farmer Road
Conyers, Ga. 30012
404-374-1283

File Name : McGinnisFerry&MedlockBrdgPM
Site Code : 00000000
Start Date : 5/10/2007
Page No : 2

	MEDLOCK BRIDGE ROAD Southbound					MCGINNIS FERRY ROAD Westbound					MEDLOCK BRIDGE ROAD Northbound					MCGINNIS FERRY 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 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	6	201	17	0	224	60	**91**	8	0	**159**	23	**233**	19	0	**275**	19	68	32	0	119	**777**
04:15 PM	17	172	9	0	198	50	78	18	**1**	147	**44**	192	20	0	256	24	**82**	41	0	147	748
04:30 PM	13	190	14	0	217	**69**	48	**31**	0	148	24	176	22	0	222	35	79	**56**	0	**170**	757
04:45 PM	**21**	**237**	**18**	0	**276**	39	65	22	0	126	11	182	**39**	0	232	**39**	47	38	0	124	758
Total Volume	57	800	58	0	915	218	282	79	1	580	102	783	100	0	985	117	276	167	0	560	3040
% App. Total	6.2	87.4	6.3	0		37.6	48.6	13.6	0.2		10.4	79.5	10.2	0		20.9	49.3	29.8	0		
PHF	.679	.844	.806	.000	.829	.790	.775	.637	.250	.912	.580	.840	.641	.000	.895	.750	.841	.746	.000	.824	.978
Cars	57	784	55	0	896	204	272	74	0	550	95	766	94	0	955	117	274	157	0	548	2949
% Cars	100	98.0	94.8	0	97.9	93.6	96.5	93.7	0	94.8	93.1	97.8	94.0	0	97.0	100	99.3	94.0	0	97.9	97.0
Trucks	0	16	3	0	19	14	10	5	1	30	7	17	6	0	30	0	2	10	0	12	91
% Trucks	0	2.0	5.2	0	2.1	6.4	3.5	6.3	100	5.2	6.9	2.2	6.0	0	3.0	0	0.7	6.0	0	2.1	3.0



Existing Year Analysis

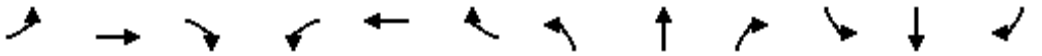


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	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)	1736	1845	1429	1671	1810	1583	1736	3471	1553	1805	3539	1538
Flt Permitted	0.24	1.00	1.00	0.17	1.00	1.00	0.11	1.00	1.00	0.26	1.00	1.00
Satd. Flow (perm)	430	1845	1429	306	1810	1583	198	3471	1553	490	3539	1538
Volume (vph)	72	376	99	145	329	54	291	735	132	131	1120	64
Peak-hour factor, PHF	0.95	0.92	0.92	0.87	0.87	0.84	0.87	0.88	0.85	0.91	0.88	0.61
Adj. Flow (vph)	76	409	108	167	378	64	334	835	155	144	1273	105
Lane Group Flow (vph)	76	409	108	167	378	64	334	835	155	144	1273	105
Heavy Vehicles (%)	4%	3%	13%	8%	5%	2%	4%	4%	4%	0%	2%	5%
Turn Type	pm+pt		Perm	pm+pt		Perm	pm+pt		Free	pm+pt		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		Free	6		6
Actuated Green, G (s)	25.0	21.0	21.0	29.0	23.0	23.0	51.0	38.0	90.0	42.0	33.0	33.0
Effective Green, g (s)	25.0	21.0	21.0	29.0	23.0	23.0	51.0	38.0	90.0	42.0	33.0	33.0
Actuated g/C Ratio	0.28	0.23	0.23	0.32	0.26	0.26	0.57	0.42	1.00	0.47	0.37	0.37
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Grp Cap (vph)	177	431	333	190	463	405	351	1466	1553	360	1298	564
v/s Ratio Prot	0.02	0.22		c0.06	0.21		c0.15	0.24		0.04	0.36	
v/s Ratio Perm	0.10		0.08	c0.23		0.04	c0.39		0.10	0.15		0.07
v/c Ratio	0.43	0.95	0.32	0.88	0.82	0.16	0.95	0.57	0.10	0.40	0.98	0.19
Uniform Delay, d1	25.4	34.0	28.6	26.7	31.5	26.0	26.1	19.8	0.0	14.3	28.2	19.4
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	7.4	32.3	2.6	39.8	14.7	0.8	37.2	1.6	0.1	3.3	20.8	0.7
Delay (s)	32.8	66.3	31.2	66.4	46.2	26.8	63.3	21.4	0.1	17.6	49.0	20.1
Level of Service	C	E	C	E	D	C	E	C	A	B	D	C
Approach Delay (s)		55.6			49.7			29.5			44.0	
Approach LOS		E			D			C			D	

Intersection Summary					
HCM Average Control Delay	41.8	HCM Level of Service	D		
HCM Volume to Capacity ratio	0.93				
Cycle Length (s)	90.0	Sum of lost time (s)	12.0		
Intersection Capacity Utilization	97.8%	ICU Level of Service	E		
c Critical Lane Group					

Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations							
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	4.0	4.0	4.0
Lane Util. Factor	0.97			0.95	1.00	1.00	0.95
Frt	1.00			1.00	0.85	1.00	1.00
Flt Protected	0.95			1.00	1.00	0.95	1.00
Satd. Flow (prot)	3373			3610	1615	1805	3539
Flt Permitted	0.95			1.00	1.00	0.08	1.00
Satd. Flow (perm)	3373			3610	1615	155	3539
Volume (vph)	164	1	0	1432	552	21	1638
Peak-hour factor, PHF	0.53	0.25	0.92	0.93	0.76	0.66	0.90
Adj. Flow (vph)	309	4	0	1540	726	32	1820
Lane Group Flow (vph)	313	0	0	1540	726	32	1820
Heavy Vehicles (%)	4%	0%	0%	0%	0%	0%	2%
Turn Type			Perm		Free	Perm	
Protected Phases	8			2			6
Permitted Phases			2		Free	6	
Actuated Green, G (s)	41.0			71.0	120.0	71.0	71.0
Effective Green, g (s)	41.0			71.0	120.0	71.0	71.0
Actuated g/C Ratio	0.34			0.59	1.00	0.59	0.59
Clearance Time (s)	4.0			4.0		4.0	4.0
Lane Grp Cap (vph)	1152			2136	1615	92	2094
v/s Ratio Prot	0.09			0.43			c0.51
v/s Ratio Perm					c0.45	0.21	
v/c Ratio	0.27			0.72	0.45	0.35	0.87
Uniform Delay, d1	28.7			17.4	0.0	12.6	20.6
Progression Factor	1.00			0.98	1.00	1.00	1.00
Incremental Delay, d2	0.6			0.9	0.4	10.1	5.2
Delay (s)	29.2			18.0	0.4	22.7	25.8
Level of Service	C			B	A	C	C
Approach Delay (s)	29.2			12.4			25.8
Approach LOS	C			B			C

Intersection Summary			
HCM Average Control Delay	19.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.71		
Cycle Length (s)	120.0	Sum of lost time (s)	4.0
Intersection Capacity Utilization	65.9%	ICU Level of Service	B
c Critical Lane Group			

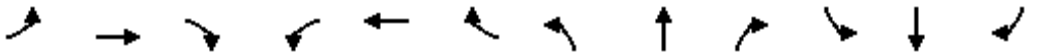


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	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)	1770	1900	1615	1805	1900	1599	1752	3574	1615	1787	3610	1392
Flt Permitted	0.30	1.00	1.00	0.22	1.00	1.00	0.07	1.00	1.00	0.06	1.00	1.00
Satd. Flow (perm)	564	1900	1615	411	1900	1599	121	3574	1615	118	3610	1392
Volume (vph)	214	314	62	52	177	376	38	1533	20	233	1514	32
Peak-hour factor, PHF	0.78	0.90	0.67	0.68	0.82	0.93	0.50	0.91	0.56	0.88	0.86	0.62
Adj. Flow (vph)	274	349	93	76	216	404	76	1685	36	265	1760	52
Lane Group Flow (vph)	274	349	93	76	216	404	76	1685	36	265	1760	52
Heavy Vehicles (%)	2%	0%	0%	0%	0%	1%	3%	1%	0%	1%	0%	16%
Turn Type	pm+pt		Perm	pm+pt		Perm	pm+pt		Perm	pm+pt		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		6
Actuated Green, G (s)	35.0	27.0	27.0	26.0	22.0	22.0	70.0	61.0	61.0	76.0	64.0	64.0
Effective Green, g (s)	35.0	27.0	27.0	26.0	22.0	22.0	70.0	61.0	61.0	76.0	64.0	64.0
Actuated g/C Ratio	0.29	0.22	0.22	0.22	0.18	0.18	0.58	0.51	0.51	0.63	0.53	0.53
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Grp Cap (vph)	255	428	363	136	348	293	193	1817	821	242	1925	742
v/s Ratio Prot	c0.08	0.18		0.02	0.11		0.03	0.47		c0.11	0.49	
v/s Ratio Perm	0.23		0.06	0.10		c0.25	0.20		0.02	c0.59		0.04
v/c Ratio	1.07	0.82	0.26	0.56	0.62	1.38	0.39	0.93	0.04	1.10	0.91	0.07
Uniform Delay, d1	41.1	44.1	38.2	39.6	45.2	49.0	23.4	27.4	14.8	40.1	25.5	13.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.20	0.69	0.45
Incremental Delay, d2	77.5	15.6	1.7	15.5	8.1	190.5	5.9	9.7	0.1	70.1	4.7	0.1
Delay (s)	118.6	59.8	39.9	55.1	53.2	239.5	29.4	37.2	14.9	118.3	22.3	6.2
Level of Service	F	E	D	E	D	F	C	D	B	F	C	A
Approach Delay (s)		79.7			161.6			36.4			34.1	
Approach LOS		E			F			D			C	

Intersection Summary			
HCM Average Control Delay	57.9	HCM Level of Service	E
HCM Volume to Capacity ratio	1.19		
Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	101.1%	ICU Level of Service	F
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.86		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1703	1900	1615	1787	1614		1543	3505	1482	1805	3505	1615
Flt Permitted	0.53	1.00	1.00	0.75	1.00		0.05	1.00	1.00	0.05	1.00	1.00
Satd. Flow (perm)	952	1900	1615	1410	1614		81	3505	1482	95	3505	1615
Volume (vph)	17	8	22	71	5	62	6	1960	32	28	1783	4
Peak-hour factor, PHF	0.47	0.67	0.61	0.81	0.42	0.57	0.75	0.89	0.80	0.58	0.88	0.50
Adj. Flow (vph)	36	12	36	88	12	109	8	2202	40	48	2026	8
Lane Group Flow (vph)	36	12	36	88	121	0	8	2202	40	48	2026	8
Heavy Vehicles (%)	6%	0%	0%	1%	0%	2%	17%	3%	9%	0%	3%	0%
Turn Type	pm+pt		Perm	pm+pt			pm+pt		Perm	pm+pt		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8			2		2	6		6
Actuated Green, G (s)	20.0	16.0	16.0	20.0	16.0		84.0	80.0	80.0	84.0	80.0	80.0
Effective Green, g (s)	20.0	16.0	16.0	20.0	16.0		84.0	80.0	80.0	84.0	80.0	80.0
Actuated g/C Ratio	0.17	0.13	0.13	0.17	0.13		0.70	0.67	0.67	0.70	0.67	0.67
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Grp Cap (vph)	184	253	215	248	215		105	2337	988	124	2337	1077
v/s Ratio Prot	0.01	0.01		c0.01	c0.07		0.00	c0.63		c0.01	0.58	
v/s Ratio Perm	0.03		0.02	0.05			0.05		0.03	0.26		0.00
v/c Ratio	0.20	0.05	0.17	0.35	0.56		0.08	0.94	0.04	0.39	0.87	0.01
Uniform Delay, d1	42.6	45.4	46.1	43.9	48.7		18.0	17.9	6.9	26.5	15.8	6.7
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.49	1.16	2.28	1.98	0.41	0.04
Incremental Delay, d2	2.4	0.4	1.7	3.9	10.2		0.4	3.5	0.0	5.4	2.9	0.0
Delay (s)	45.0	45.7	47.8	47.8	59.0		27.4	24.2	15.6	57.8	9.4	0.3
Level of Service	D	D	D	D	E		C	C	B	E	A	A
Approach Delay (s)		46.3			54.3			24.1			10.4	
Approach LOS		D			D			C			B	

Intersection Summary			
HCM Average Control Delay	19.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.84		
Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	79.1%	ICU Level of Service	C
c Critical Lane Group			

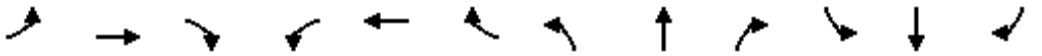


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	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)	1805	1881	1524	1703	1827	1524	1687	3539	1524	1805	3539	1538
Flt Permitted	0.44	1.00	1.00	0.20	1.00	1.00	0.09	1.00	1.00	0.21	1.00	1.00
Satd. Flow (perm)	836	1881	1524	360	1827	1524	161	3539	1524	408	3539	1538
Volume (vph)	117	276	167	218	282	79	102	763	100	57	800	58
Peak-hour factor, PHF	0.75	0.84	0.75	0.79	0.78	0.64	0.58	0.84	0.64	0.68	0.84	0.81
Adj. Flow (vph)	156	329	223	276	362	123	176	908	156	84	952	72
Lane Group Flow (vph)	156	329	223	276	362	123	176	908	156	84	952	72
Heavy Vehicles (%)	0%	1%	6%	6%	4%	6%	7%	2%	6%	0%	2%	5%
Turn Type	pm+pt		Perm	pm+pt		Perm	pm+pt		Free	pm+pt		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		Free	6		6
Actuated Green, G (s)	38.0	28.0	28.0	53.0	39.0	39.0	59.0	49.0	120.0	46.0	40.0	40.0
Effective Green, g (s)	38.0	28.0	28.0	53.0	39.0	39.0	59.0	49.0	120.0	46.0	40.0	40.0
Actuated g/C Ratio	0.32	0.23	0.23	0.44	0.32	0.32	0.49	0.41	1.00	0.38	0.33	0.33
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Grp Cap (vph)	345	439	356	394	594	495	270	1445	1524	226	1180	513
v/s Ratio Prot	0.04	0.17		c0.12	0.20		c0.08	0.26		0.02	c0.27	
v/s Ratio Perm	0.11		0.15	c0.19		0.08	0.24		0.10	0.12		0.05
v/c Ratio	0.45	0.75	0.63	0.70	0.61	0.25	0.65	0.63	0.10	0.37	0.81	0.14
Uniform Delay, d1	30.8	42.7	41.3	24.8	34.1	29.7	25.2	28.3	0.0	24.7	36.5	28.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.74	1.27	1.00	1.00	1.00	1.00
Incremental Delay, d2	4.2	11.2	8.1	10.0	4.6	1.2	8.2	1.4	0.1	4.6	6.0	0.6
Delay (s)	35.0	53.9	49.4	34.7	38.7	30.9	52.2	37.4	0.1	29.3	42.4	28.5
Level of Service	D	D	D	C	D	C	D	D	A	C	D	C
Approach Delay (s)		48.3			36.0			34.8			40.5	
Approach LOS		D			D			C			D	

Intersection Summary			
HCM Average Control Delay	39.2	HCM Level of Service	D
HCM Volume to Capacity ratio	0.73		
Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	82.0%	ICU Level of Service	D
c Critical Lane Group			

Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations							
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	4.0	4.0	4.0
Lane Util. Factor	0.97			0.95	1.00	1.00	0.95
Frt	1.00			1.00	0.85	1.00	1.00
Flt Protected	0.95			1.00	1.00	0.95	1.00
Satd. Flow (prot)	3504			3574	1615	1805	3574
Flt Permitted	0.95			1.00	1.00	0.09	1.00
Satd. Flow (perm)	3504			3574	1615	162	3574
Volume (vph)	695	8	0	1520	183	21	1638
Peak-hour factor, PHF	0.79	0.50	0.92	0.96	0.85	0.48	0.97
Adj. Flow (vph)	880	16	0	1583	215	44	1689
Lane Group Flow (vph)	896	0	0	1583	215	44	1689
Heavy Vehicles (%)	0%	0%	0%	1%	0%	0%	1%
Turn Type			Perm		Free	Perm	
Protected Phases	8			2			6
Permitted Phases			2		Free	6	
Actuated Green, G (s)	37.0			75.0	120.0	75.0	75.0
Effective Green, g (s)	37.0			75.0	120.0	75.0	75.0
Actuated g/C Ratio	0.31			0.62	1.00	0.62	0.62
Clearance Time (s)	4.0			4.0		4.0	4.0
Lane Grp Cap (vph)	1080			2234	1615	101	2234
v/s Ratio Prot	c0.26			0.44			c0.47
v/s Ratio Perm					0.13	0.27	
v/c Ratio	0.83			0.71	0.13	0.44	0.76
Uniform Delay, d1	38.6			15.1	0.0	11.6	16.0
Progression Factor	1.00			0.74	1.00	0.75	0.70
Incremental Delay, d2	7.4			1.2	0.1	10.5	1.9
Delay (s)	46.0			12.4	0.1	19.1	13.1
Level of Service	D			B	A	B	B
Approach Delay (s)	46.0			10.9			13.3
Approach LOS	D			B			B

Intersection Summary			
HCM Average Control Delay	18.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.78		
Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	78.9%	ICU Level of Service	C
c Critical Lane Group			



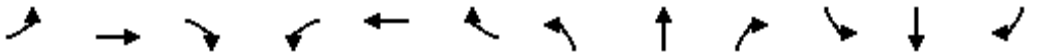
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	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)	1787	1900	1615	1805	1900	1615	1805	3574	1615	1805	3610	1615
Flt Permitted	0.17	1.00	1.00	0.45	1.00	1.00	0.07	1.00	1.00	0.07	1.00	1.00
Satd. Flow (perm)	314	1900	1615	853	1900	1615	138	3574	1615	129	3610	1615
Volume (vph)	168	176	37	150	325	352	112	1251	42	188	1720	193
Peak-hour factor, PHF	0.70	0.90	0.77	0.75	0.90	0.80	0.88	0.93	0.66	0.87	0.90	0.71
Adj. Flow (vph)	240	196	48	200	361	440	127	1345	64	216	1911	272
Lane Group Flow (vph)	240	196	48	200	361	440	127	1345	64	216	1911	272
Heavy Vehicles (%)	1%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%
Turn Type	pm+pt		Perm	pm+pt		Perm	pm+pt		Perm	pm+pt		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		6
Actuated Green, G (s)	36.0	24.0	24.0	34.0	23.0	23.0	60.0	55.0	55.0	73.0	64.0	64.0
Effective Green, g (s)	36.0	24.0	24.0	34.0	23.0	23.0	60.0	55.0	55.0	73.0	64.0	64.0
Actuated g/C Ratio	0.30	0.20	0.20	0.28	0.19	0.19	0.50	0.46	0.46	0.61	0.53	0.53
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Grp Cap (vph)	242	380	323	329	364	310	138	1638	740	274	1925	861
v/s Ratio Prot	c0.10	0.10		0.06	0.19		0.04	0.38		c0.09	c0.53	
v/s Ratio Perm	0.20		0.03	0.12		c0.27	0.42		0.04	0.39		0.17
v/c Ratio	0.99	0.52	0.15	0.61	0.99	1.42	0.92	0.82	0.09	0.79	0.99	0.32
Uniform Delay, d1	37.3	42.8	39.6	34.9	48.4	48.5	59.3	28.2	18.3	33.4	27.8	15.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.06	0.79	0.74
Incremental Delay, d2	55.8	4.9	1.0	8.1	45.2	206.7	57.7	4.8	0.2	8.1	10.7	0.3
Delay (s)	93.1	47.8	40.5	43.0	93.6	255.2	117.0	33.0	18.6	43.4	32.7	12.0
Level of Service	F	D	D	D	F	F	F	C	B	D	C	B
Approach Delay (s)		69.5			154.5			39.3			31.3	
Approach LOS		E			F			D			C	

Intersection Summary			
HCM Average Control Delay	59.7	HCM Level of Service	E
HCM Volume to Capacity ratio	1.09		
Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	105.5%	ICU Level of Service	F
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.86		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1805	1863	1615	1736	1536		1805	3574	1583	1805	3505	1583
Flt Permitted	0.70	1.00	1.00	0.74	1.00		0.06	1.00	1.00	0.05	1.00	1.00
Satd. Flow (perm)	1321	1863	1615	1355	1536		110	3574	1583	104	3505	1583
Volume (vph)	20	15	41	56	2	44	27	1621	139	194	2063	28
Peak-hour factor, PHF	0.71	0.62	0.79	0.54	0.50	0.65	0.75	0.97	0.87	0.87	0.91	0.78
Adj. Flow (vph)	28	24	52	104	4	68	36	1671	160	223	2267	36
Lane Group Flow (vph)	28	24	52	104	72	0	36	1671	160	223	2267	36
Heavy Vehicles (%)	0%	2%	0%	4%	9%	6%	0%	1%	2%	0%	3%	2%
Turn Type	pm+pt		Perm	pm+pt			pm+pt		Perm	pm+pt		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8			2		2	6		6
Actuated Green, G (s)	20.0	16.0	16.0	20.0	16.0		73.0	69.0	69.0	88.0	80.0	80.0
Effective Green, g (s)	20.0	16.0	16.0	20.0	16.0		73.0	69.0	69.0	88.0	80.0	80.0
Actuated g/C Ratio	0.17	0.13	0.13	0.17	0.13		0.61	0.57	0.57	0.73	0.67	0.67
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Grp Cap (vph)	236	248	215	239	205		123	2055	910	289	2337	1055
v/s Ratio Prot	0.00	0.01		c0.01	0.05		0.01	0.47		c0.10	c0.65	
v/s Ratio Perm	0.02		0.03	c0.06			0.17		0.10	0.47		0.02
v/c Ratio	0.12	0.10	0.24	0.44	0.35		0.29	0.81	0.18	0.77	0.97	0.03
Uniform Delay, d1	42.3	45.7	46.6	44.4	47.3		26.7	20.4	12.1	36.4	18.9	6.8
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.32	1.35	3.60	1.06	0.92	1.19
Incremental Delay, d2	1.0	0.8	2.7	5.7	4.7		2.7	1.7	0.2	11.4	9.0	0.0
Delay (s)	43.3	46.4	49.2	50.1	52.0		38.0	29.2	43.6	50.0	26.3	8.1
Level of Service	D	D	D	D	D		D	C	D	D	C	A
Approach Delay (s)		47.0			50.9			30.6			28.1	
Approach LOS		D			D			C			C	

Intersection Summary			
HCM Average Control Delay	30.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.87		
Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	88.4%	ICU Level of Service	D
c Critical Lane Group			

Base Year Analysis

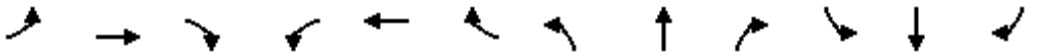


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	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)	1736	3505	1429	1671	3438	1583	1736	3471	1553	1805	3539	1538
Flt Permitted	0.25	1.00	1.00	0.22	1.00	1.00	0.07	1.00	1.00	0.30	1.00	1.00
Satd. Flow (perm)	457	3505	1429	391	3438	1583	124	3471	1553	567	3539	1538
Volume (vph)	84	439	115	170	384	63	303	765	137	136	1165	67
Peak-hour factor, PHF	0.95	0.92	0.92	0.87	0.87	0.84	0.87	0.88	0.85	0.91	0.88	0.61
Adj. Flow (vph)	88	477	125	195	441	75	348	869	161	149	1324	110
Lane Group Flow (vph)	88	477	125	195	441	75	348	869	161	149	1324	110
Heavy Vehicles (%)	4%	3%	13%	8%	5%	2%	4%	4%	4%	0%	2%	5%
Turn Type	pm+pt		Perm	pm+pt		Perm	pm+pt		Free	pm+pt		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		Free	6		6
Actuated Green, G (s)	24.0	16.0	16.0	28.0	18.0	18.0	82.0	65.0	120.0	68.0	55.0	55.0
Effective Green, g (s)	24.0	16.0	16.0	28.0	18.0	18.0	82.0	65.0	120.0	68.0	55.0	55.0
Actuated g/C Ratio	0.20	0.13	0.13	0.23	0.15	0.15	0.68	0.54	1.00	0.57	0.46	0.46
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Grp Cap (vph)	177	467	191	198	516	237	394	1880	1553	455	1622	705
v/s Ratio Prot	0.03	0.14		c0.08	0.13		c0.17	0.25		0.04	0.37	
v/s Ratio Perm	0.07		0.09	c0.15		0.05	c0.44		0.10	0.15		0.07
v/c Ratio	0.50	1.02	0.65	0.98	0.85	0.32	0.88	0.46	0.10	0.33	0.82	0.16
Uniform Delay, d1	40.8	52.0	49.4	43.1	49.7	45.5	37.0	16.8	0.0	12.4	28.1	19.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.76	0.35	1.00	1.00	1.00	1.00
Incremental Delay, d2	9.6	47.2	16.2	60.2	16.4	3.5	16.8	0.5	0.1	1.9	4.7	0.5
Delay (s)	50.5	99.2	65.5	103.3	66.1	49.0	81.9	6.4	0.1	14.3	32.8	19.4
Level of Service	D	F	E	F	E	D	F	A	A	B	C	B
Approach Delay (s)		86.9			74.5			24.7			30.1	
Approach LOS		F			E			C			C	

Intersection Summary			
HCM Average Control Delay	44.6	HCM Level of Service	D
HCM Volume to Capacity ratio	0.92		
Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	93.2%	ICU Level of Service	E
c Critical Lane Group			

Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations							
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	4.0	4.0	4.0
Lane Util. Factor	0.97			0.95	1.00	1.00	0.95
Frt	1.00			1.00	0.85	1.00	1.00
Flt Protected	0.95			1.00	1.00	0.95	1.00
Satd. Flow (prot)	3373			3610	1615	1805	3539
Flt Permitted	0.95			1.00	1.00	0.07	1.00
Satd. Flow (perm)	3373			3610	1615	133	3539
Volume (vph)	171	1	0	1490	574	22	1704
Peak-hour factor, PHF	0.53	0.25	0.92	0.93	0.76	0.66	0.90
Adj. Flow (vph)	323	4	0	1602	755	33	1893
Lane Group Flow (vph)	327	0	0	1602	755	33	1893
Heavy Vehicles (%)	4%	0%	0%	0%	0%	0%	2%
Turn Type			Perm		Free	Perm	
Protected Phases	8			2			6
Permitted Phases			2		Free	6	
Actuated Green, G (s)	41.0			71.0	120.0	71.0	71.0
Effective Green, g (s)	41.0			71.0	120.0	71.0	71.0
Actuated g/C Ratio	0.34			0.59	1.00	0.59	0.59
Clearance Time (s)	4.0			4.0		4.0	4.0
Lane Grp Cap (vph)	1152			2136	1615	79	2094
v/s Ratio Prot	0.10			0.44			c0.53
v/s Ratio Perm					c0.47	0.25	
v/c Ratio	0.28			0.75	0.47	0.42	0.90
Uniform Delay, d1	28.8			18.0	0.0	13.3	21.5
Progression Factor	1.00			1.85	1.00	0.99	0.92
Incremental Delay, d2	0.6			0.8	0.3	11.2	5.2
Delay (s)	29.4			34.1	0.3	24.4	25.0
Level of Service	C			C	A	C	C
Approach Delay (s)	29.4			23.3			25.0
Approach LOS	C			C			C

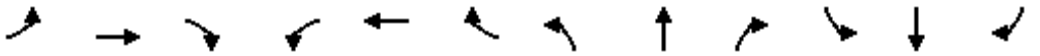
Intersection Summary			
HCM Average Control Delay	24.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.73		
Cycle Length (s)	120.0	Sum of lost time (s)	4.0
Intersection Capacity Utilization	68.3%	ICU Level of Service	B
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	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)	1770	1863	1583	1770	1863	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.27	1.00	1.00	0.22	1.00	1.00	0.08	1.00	1.00	0.07	1.00	1.00
Satd. Flow (perm)	504	1863	1583	402	1863	1583	141	3539	1583	131	3539	1583
Volume (vph)	223	327	65	54	184	391	40	1595	21	242	1575	33
Peak-hour factor, PHF	0.78	0.90	0.67	0.68	0.82	0.93	0.50	0.91	0.56	0.88	0.86	0.62
Adj. Flow (vph)	286	363	97	79	224	420	80	1753	38	275	1831	53
Lane Group Flow (vph)	286	363	97	79	224	420	80	1753	38	275	1831	53
Turn Type	pm+pt		Perm	pm+pt		Perm	pm+pt		Perm	pm+pt		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		6
Actuated Green, G (s)	33.0	25.0	25.0	23.0	19.0	19.0	57.0	53.0	53.0	69.0	61.0	61.0
Effective Green, g (s)	33.0	25.0	25.0	23.0	19.0	19.0	57.0	53.0	53.0	69.0	61.0	61.0
Actuated g/C Ratio	0.30	0.23	0.23	0.21	0.17	0.17	0.52	0.48	0.48	0.63	0.55	0.55
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Grp Cap (vph)	266	423	360	134	322	273	132	1705	763	261	1963	878
v/s Ratio Prot	c0.10	0.19		0.02	0.12		0.02	0.50		c0.11	0.52	
v/s Ratio Perm	0.22		0.06	0.10		c0.27	0.29		0.02	c0.55		0.03
v/c Ratio	1.08	0.86	0.27	0.59	0.70	1.54	0.61	1.03	0.05	1.05	0.93	0.06
Uniform Delay, d1	36.1	40.8	35.0	36.8	42.8	45.5	23.3	28.5	15.1	51.2	22.6	11.3
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	76.6	19.7	1.8	17.6	11.8	259.9	19.0	29.3	0.1	70.5	9.6	0.1
Delay (s)	112.7	60.5	36.8	54.4	54.5	305.4	42.2	57.8	15.3	121.7	32.3	11.4
Level of Service	F	E	D	D	D	F	D	E	B	F	C	B
Approach Delay (s)		77.4			200.2			56.3			43.1	
Approach LOS		E			F			E			D	

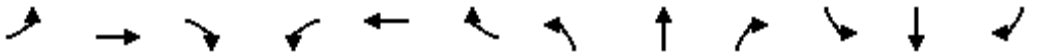
Intersection Summary			
HCM Average Control Delay	72.9	HCM Level of Service	E
HCM Volume to Capacity ratio	1.14		
Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	104.7%	ICU Level of Service	F

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.86		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1703	1900	1615	1787	1613		1543	3505	1482	1805	3505	1615
Flt Permitted	0.51	1.00	1.00	0.75	1.00		0.05	1.00	1.00	0.05	1.00	1.00
Satd. Flow (perm)	922	1900	1615	1410	1613		81	3505	1482	95	3505	1615
Volume (vph)	18	8	23	74	5	65	6	2039	33	29	1855	4
Peak-hour factor, PHF	0.47	0.67	0.61	0.81	0.42	0.57	0.75	0.89	0.80	0.58	0.88	0.50
Adj. Flow (vph)	38	12	38	91	12	114	8	2291	41	50	2108	8
Lane Group Flow (vph)	38	12	38	91	126	0	8	2291	41	50	2108	8
Heavy Vehicles (%)	6%	0%	0%	1%	0%	2%	17%	3%	9%	0%	3%	0%
Turn Type	pm+pt		Perm	pm+pt			pm+pt		Perm	pm+pt		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8			2		2	6		6
Actuated Green, G (s)	20.0	16.0	16.0	20.0	16.0		84.0	80.0	80.0	84.0	80.0	80.0
Effective Green, g (s)	20.0	16.0	16.0	20.0	16.0		84.0	80.0	80.0	84.0	80.0	80.0
Actuated g/C Ratio	0.17	0.13	0.13	0.17	0.13		0.70	0.67	0.67	0.70	0.67	0.67
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Grp Cap (vph)	180	253	215	248	215		105	2337	988	124	2337	1077
v/s Ratio Prot	0.01	0.01		c0.01	c0.08		0.00	c0.65		c0.01	0.60	
v/s Ratio Perm	0.03		0.02	0.05			0.05		0.03	0.27		0.00
v/c Ratio	0.21	0.05	0.18	0.37	0.59		0.08	0.98	0.04	0.40	0.90	0.01
Uniform Delay, d1	42.7	45.4	46.2	43.9	48.9		20.9	19.2	6.9	30.8	16.7	6.7
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.46	1.77	1.83
Incremental Delay, d2	2.7	0.4	1.8	4.1	11.2		1.4	14.5	0.1	5.3	3.6	0.0
Delay (s)	45.3	45.7	47.9	48.1	60.1		22.3	33.8	6.9	50.3	33.3	12.3
Level of Service	D	D	D	D	E		C	C	A	D	C	B
Approach Delay (s)		46.5			55.0			33.3			33.6	
Approach LOS		D			E			C			C	

Intersection Summary			
HCM Average Control Delay	34.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.87		
Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	81.7%	ICU Level of Service	D
c Critical Lane Group			

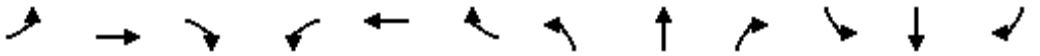


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	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)	1805	3574	1524	1703	3471	1524	1687	3539	1524	1805	3539	1538
Flt Permitted	0.51	1.00	1.00	0.22	1.00	1.00	0.10	1.00	1.00	0.21	1.00	1.00
Satd. Flow (perm)	960	3574	1524	391	3471	1524	171	3539	1524	398	3539	1538
Volume (vph)	136	322	195	254	329	92	106	815	104	59	832	60
Peak-hour factor, PHF	0.75	0.84	0.75	0.79	0.78	0.64	0.58	0.84	0.64	0.68	0.84	0.81
Adj. Flow (vph)	181	383	260	322	422	144	183	970	162	87	990	74
Lane Group Flow (vph)	181	383	260	322	422	144	183	970	162	87	990	74
Heavy Vehicles (%)	0%	1%	6%	6%	4%	6%	7%	2%	6%	0%	2%	5%
Turn Type	pm+pt		Perm	pm+pt		Perm	pm+pt		Free	pm+pt		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		Free	6		6
Actuated Green, G (s)	32.0	18.0	18.0	49.0	31.0	31.0	63.0	53.0	120.0	49.0	43.0	43.0
Effective Green, g (s)	32.0	18.0	18.0	49.0	31.0	31.0	63.0	53.0	120.0	49.0	43.0	43.0
Actuated g/C Ratio	0.27	0.15	0.15	0.41	0.26	0.26	0.52	0.44	1.00	0.41	0.36	0.36
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Grp Cap (vph)	355	536	229	455	897	394	292	1563	1524	233	1268	551
v/s Ratio Prot	0.06	0.11		c0.16	0.12		c0.08	0.27		0.02	c0.28	
v/s Ratio Perm	0.08		c0.17	0.13		0.09	0.25		0.11	0.13		0.05
v/c Ratio	0.51	0.71	1.14	0.71	0.47	0.37	0.63	0.62	0.11	0.37	0.78	0.13
Uniform Delay, d1	35.9	48.6	51.0	27.0	37.6	36.4	23.2	25.8	0.0	22.8	34.3	26.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	2.00	0.71	1.00	1.00	1.00	1.00
Incremental Delay, d2	5.2	7.9	100.8	9.0	1.8	2.6	6.5	1.2	0.1	4.5	4.8	0.5
Delay (s)	41.0	56.5	151.8	35.9	39.3	39.1	53.0	19.5	0.1	27.4	39.1	26.5
Level of Service	D	E	F	D	D	D	D	B	A	C	D	C
Approach Delay (s)		83.1			38.1			21.8			37.4	
Approach LOS		F			D			C			D	

Intersection Summary			
HCM Average Control Delay	41.7	HCM Level of Service	D
HCM Volume to Capacity ratio	0.80		
Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	79.2%	ICU Level of Service	C
c Critical Lane Group			

Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations							
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	4.0	4.0	4.0
Lane Util. Factor	0.97			0.95	1.00	1.00	0.95
Frt	1.00			1.00	0.85	1.00	1.00
Flt Protected	0.95			1.00	1.00	0.95	1.00
Satd. Flow (prot)	3505			3574	1615	1805	3574
Flt Permitted	0.95			1.00	1.00	0.07	1.00
Satd. Flow (perm)	3505			3574	1615	141	3574
Volume (vph)	723	8	0	1581	190	22	1704
Peak-hour factor, PHF	0.79	0.52	0.92	0.96	0.85	0.48	0.97
Adj. Flow (vph)	915	15	0	1647	224	46	1757
Lane Group Flow (vph)	930	0	0	1647	224	46	1757
Heavy Vehicles (%)	0%	0%	0%	1%	0%	0%	1%
Turn Type			Perm		Free	Perm	
Protected Phases	8			2			6
Permitted Phases			2		Free	6	
Actuated Green, G (s)	37.0			75.0	120.0	75.0	75.0
Effective Green, g (s)	37.0			75.0	120.0	75.0	75.0
Actuated g/C Ratio	0.31			0.62	1.00	0.62	0.62
Clearance Time (s)	4.0			4.0		4.0	4.0
Lane Grp Cap (vph)	1081			2234	1615	88	2234
v/s Ratio Prot	c0.27			0.46			c0.49
v/s Ratio Perm					0.14	0.33	
v/c Ratio	0.86			0.74	0.14	0.52	0.79
Uniform Delay, d1	39.1			15.6	0.0	12.5	16.6
Progression Factor	1.00			2.16	1.00	0.80	0.72
Incremental Delay, d2	9.0			1.3	0.1	15.9	2.2
Delay (s)	48.0			35.0	0.1	25.9	14.2
Level of Service	D			D	A	C	B
Approach Delay (s)	48.0			30.8			14.5
Approach LOS	D			C			B

Intersection Summary			
HCM Average Control Delay	27.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.81		
Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	81.8%	ICU Level of Service	D
c Critical Lane Group			



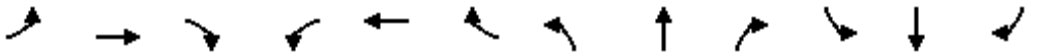
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	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)	1787	1900	1615	1805	1900	1615	1805	3574	1615	1805	3610	1615
Flt Permitted	0.21	1.00	1.00	0.44	1.00	1.00	0.09	1.00	1.00	0.08	1.00	1.00
Satd. Flow (perm)	396	1900	1615	845	1900	1615	169	3574	1615	155	3610	1615
Volume (vph)	175	183	38	156	338	366	117	1302	44	196	1789	201
Peak-hour factor, PHF	0.70	0.90	0.77	0.75	0.90	0.80	0.88	0.93	0.66	0.87	0.90	0.71
Adj. Flow (vph)	250	203	49	208	376	458	133	1400	67	225	1988	283
Lane Group Flow (vph)	250	203	49	208	376	458	133	1400	67	225	1988	283
Heavy Vehicles (%)	1%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%
Turn Type	pm+pt		Perm	pm+pt		Perm	pm+pt		Perm	pm+pt		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		6
Actuated Green, G (s)	28.0	19.0	19.0	26.0	18.0	18.0	49.0	45.0	45.0	61.0	53.0	53.0
Effective Green, g (s)	28.0	19.0	19.0	26.0	18.0	18.0	49.0	45.0	45.0	61.0	53.0	53.0
Actuated g/C Ratio	0.28	0.19	0.19	0.26	0.18	0.18	0.49	0.45	0.45	0.61	0.53	0.53
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Grp Cap (vph)	236	361	307	297	342	291	148	1608	727	293	1913	856
v/s Ratio Prot	c0.10	0.11		0.06	0.20		0.04	0.39		c0.09	c0.55	
v/s Ratio Perm	0.20		0.03	0.13		c0.28	0.40		0.04	0.38		0.18
v/c Ratio	1.06	0.56	0.16	0.70	1.10	1.57	0.90	0.87	0.09	0.77	1.04	0.33
Uniform Delay, d1	33.9	36.7	33.8	32.0	41.0	41.0	49.7	24.9	15.8	25.8	23.5	13.4
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	75.1	6.2	1.1	12.9	78.1	274.2	50.9	6.8	0.3	17.4	31.6	1.0
Delay (s)	109.0	42.9	34.9	44.9	119.1	315.2	100.7	31.6	16.0	43.2	55.1	14.4
Level of Service	F	D	C	D	F	F	F	C	B	D	E	B
Approach Delay (s)		75.1			190.5			36.7			49.4	
Approach LOS		E			F			D			D	

Intersection Summary			
HCM Average Control Delay	74.2	HCM Level of Service	E
HCM Volume to Capacity ratio	1.16		
Cycle Length (s)	100.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	109.3%	ICU Level of Service	F
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.86		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1805	1863	1615	1736	1536		1805	3574	1583	1805	3505	1583
Flt Permitted	0.69	1.00	1.00	0.74	1.00		0.06	1.00	1.00	0.05	1.00	1.00
Satd. Flow (perm)	1302	1863	1615	1352	1536		110	3574	1583	104	3505	1583
Volume (vph)	21	16	43	58	2	46	28	1686	145	202	2146	29
Peak-hour factor, PHF	0.71	0.62	0.79	0.54	0.50	0.65	0.75	0.97	0.87	0.87	0.91	0.78
Adj. Flow (vph)	30	26	54	107	4	71	37	1738	167	232	2358	37
Lane Group Flow (vph)	30	26	54	107	75	0	37	1738	167	232	2358	37
Heavy Vehicles (%)	0%	2%	0%	4%	9%	6%	0%	1%	2%	0%	3%	2%
Turn Type	pm+pt		Perm	pm+pt			pm+pt		Perm	pm+pt		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8			2		2	6		6
Actuated Green, G (s)	20.0	16.0	16.0	20.0	16.0		73.0	69.0	69.0	88.0	80.0	80.0
Effective Green, g (s)	20.0	16.0	16.0	20.0	16.0		73.0	69.0	69.0	88.0	80.0	80.0
Actuated g/C Ratio	0.17	0.13	0.13	0.17	0.13		0.61	0.57	0.57	0.73	0.67	0.67
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Grp Cap (vph)	234	248	215	238	205		123	2055	910	289	2337	1055
v/s Ratio Prot	0.00	0.01		c0.01	0.05		0.01	0.49		c0.10	c0.67	
v/s Ratio Perm	0.02		0.03	c0.06			0.17		0.11	0.49		0.02
v/c Ratio	0.13	0.10	0.25	0.45	0.37		0.30	0.85	0.18	0.80	1.01	0.04
Uniform Delay, d1	42.4	45.7	46.6	44.5	47.4		57.2	21.1	12.1	37.6	20.0	6.8
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.22	0.87	1.05
Incremental Delay, d2	1.1	0.8	2.8	6.0	5.0		6.2	4.5	0.4	12.4	16.1	0.0
Delay (s)	43.5	46.6	49.4	50.6	52.4		63.4	25.6	12.6	58.1	33.6	7.2
Level of Service	D	D	D	D	D		E	C	B	E	C	A
Approach Delay (s)		47.1			51.3			25.2			35.4	
Approach LOS		D			D			C			D	

Intersection Summary			
HCM Average Control Delay	32.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.91		
Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	91.1%	ICU Level of Service	E
c Critical Lane Group			

Future Year Analysis

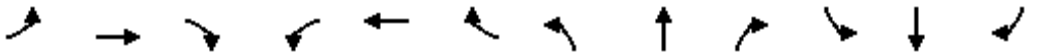


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.95	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)	1736	3505	1429	1671	3438	1583	1736	3471	1553	3502	3539	1538
Flt Permitted	0.25	1.00	1.00	0.20	1.00	1.00	0.09	1.00	1.00	0.24	1.00	1.00
Satd. Flow (perm)	463	3505	1429	352	3438	1583	161	3471	1553	878	3539	1538
Volume (vph)	84	439	127	175	384	63	317	785	144	136	1182	67
Peak-hour factor, PHF	0.95	0.92	0.92	0.87	0.87	0.84	0.87	0.88	0.85	0.91	0.88	0.61
Adj. Flow (vph)	88	477	138	201	441	75	364	892	169	149	1343	110
Lane Group Flow (vph)	88	477	138	201	441	75	364	892	169	149	1343	110
Heavy Vehicles (%)	4%	3%	13%	8%	5%	2%	4%	4%	4%	0%	2%	5%
Turn Type	pm+pt		Perm	pm+pt		Perm	pm+pt		Perm	pm+pt		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		6
Actuated Green, G (s)	25.0	18.0	18.0	29.0	20.0	20.0	78.0	62.0	62.0	76.0	61.0	61.0
Effective Green, g (s)	25.0	18.0	18.0	29.0	20.0	20.0	78.0	62.0	62.0	76.0	61.0	61.0
Actuated g/C Ratio	0.21	0.15	0.15	0.24	0.17	0.17	0.65	0.52	0.52	0.63	0.51	0.51
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Grp Cap (vph)	171	526	214	184	573	264	315	1793	802	884	1799	782
v/s Ratio Prot	0.03	0.14		c0.08	0.13		c0.15	0.26		0.02	0.38	
v/s Ratio Perm	0.08		0.10	c0.18		0.05	c0.60		0.11	0.09		0.07
v/c Ratio	0.51	0.91	0.64	1.09	0.77	0.28	1.16	0.50	0.21	0.17	0.75	0.14
Uniform Delay, d1	40.0	50.2	48.0	42.4	47.8	43.7	35.3	18.9	15.7	9.6	23.4	15.6
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	10.6	21.9	14.0	93.2	9.6	2.7	99.8	1.0	0.6	0.4	2.9	0.4
Delay (s)	50.6	72.1	62.0	135.6	57.4	46.4	135.1	19.9	16.3	10.0	26.2	16.0
Level of Service	D	E	E	F	E	D	F	B	B	A	C	B
Approach Delay (s)		67.4			78.2			48.9			24.0	
Approach LOS		E			E			D			C	

Intersection Summary			
HCM Average Control Delay	47.6	HCM Level of Service	D
HCM Volume to Capacity ratio	1.13		
Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	95.0%	ICU Level of Service	E
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	0.97	1.00		1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.95		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	1863	1583	3367	1788		1770	3610	1615	1805	3539	1583
Flt Permitted	0.75	1.00	1.00	0.95	1.00		0.06	1.00	1.00	0.11	1.00	1.00
Satd. Flow (perm)	1395	1863	1583	3367	1788		110	3610	1615	200	3539	1583
Volume (vph)	41	9	73	171	8	1	88	1490	574	22	1714	27
Peak-hour factor, PHF	0.92	0.92	0.92	0.53	0.92	0.25	0.92	0.93	0.76	0.66	0.90	0.92
Adj. Flow (vph)	45	10	79	323	9	4	96	1602	755	33	1904	29
Lane Group Flow (vph)	45	10	79	323	13	0	96	1602	755	33	1904	29
Heavy Vehicles (%)	2%	2%	2%	4%	2%	0%	2%	0%	0%	0%	2%	2%
Turn Type	pm+pt		Free	Prot			Perm		Free	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		Free				2		Free	6		6
Actuated Green, G (s)	21.0	16.0	150.0	16.0	27.0		106.0	106.0	150.0	106.0	106.0	106.0
Effective Green, g (s)	21.0	16.0	150.0	16.0	27.0		106.0	106.0	150.0	106.0	106.0	106.0
Actuated g/C Ratio	0.14	0.11	1.00	0.11	0.18		0.71	0.71	1.00	0.71	0.71	0.71
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Grp Cap (vph)	208	199	1583	359	322		78	2551	1615	141	2501	1119
v/s Ratio Prot	0.01	0.01		c0.10	0.01			0.44			0.54	
v/s Ratio Perm	0.02		0.05				c0.87		c0.47	0.17		0.02
v/c Ratio	0.22	0.05	0.05	0.90	0.04		1.23	0.63	0.47	0.23	0.76	0.03
Uniform Delay, d1	56.9	60.2	0.0	66.2	50.8		22.0	11.6	0.0	7.7	14.0	6.6
Progression Factor	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	2.4	0.5	0.1	27.8	0.2		176.3	1.2	1.0	3.9	2.2	0.0
Delay (s)	59.3	60.7	0.1	94.0	51.0		198.3	12.8	1.0	11.6	16.2	6.6
Level of Service	E	E	A	F	D		F	B	A	B	B	A
Approach Delay (s)		24.5			92.4			16.4			16.0	
Approach LOS		C			F			B			B	

Intersection Summary			
HCM Average Control Delay	21.7	HCM Level of Service	C
HCM Volume to Capacity ratio	1.09		
Cycle Length (s)	150.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	83.8%	ICU Level of Service	D
c Critical Lane Group			

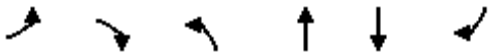


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	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)	1770	1900	1615	1805	1900	1599	1752	3574	1615	1787	3610	1392
Flt Permitted	0.29	1.00	1.00	0.22	1.00	1.00	0.08	1.00	1.00	0.08	1.00	1.00
Satd. Flow (perm)	542	1900	1615	422	1900	1599	154	3574	1615	145	3610	1392
Volume (vph)	246	327	65	54	184	408	40	1638	21	263	1627	61
Peak-hour factor, PHF	0.78	0.90	0.67	0.68	0.82	0.93	0.50	0.91	0.56	0.88	0.86	0.62
Adj. Flow (vph)	315	363	97	79	224	439	80	1800	38	299	1892	98
Lane Group Flow (vph)	315	363	97	79	224	439	80	1800	38	299	1892	98
Heavy Vehicles (%)	2%	0%	0%	0%	0%	1%	3%	1%	0%	1%	0%	16%
Turn Type	pm+pt		Perm	pm+pt		Perm	pm+pt		Perm	pm+pt		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		6
Actuated Green, G (s)	30.0	22.0	22.0	22.0	18.0	18.0	52.0	48.0	48.0	62.0	54.0	54.0
Effective Green, g (s)	30.0	22.0	22.0	22.0	18.0	18.0	52.0	48.0	48.0	62.0	54.0	54.0
Actuated g/C Ratio	0.30	0.22	0.22	0.22	0.18	0.18	0.52	0.48	0.48	0.62	0.54	0.54
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Grp Cap (vph)	261	418	355	148	342	288	144	1716	775	254	1949	752
v/s Ratio Prot	c0.10	0.19		0.02	0.12		0.02	0.50		c0.12	0.52	
v/s Ratio Perm	0.27		0.06	0.10		c0.27	0.27		0.02	c0.61		0.07
v/c Ratio	1.21	0.87	0.27	0.53	0.65	1.52	0.56	1.05	0.05	1.18	0.97	0.13
Uniform Delay, d1	33.5	37.6	32.4	32.5	38.1	41.0	23.2	26.0	13.8	47.2	22.2	11.4
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	123.4	21.0	1.9	13.1	9.4	252.9	14.6	35.8	0.1	113.0	14.6	0.4
Delay (s)	157.0	58.6	34.3	45.7	47.5	293.9	37.8	61.8	14.0	160.2	36.8	11.7
Level of Service	F	E	C	D	D	F	D	E	B	F	D	B
Approach Delay (s)		95.5			193.1			59.9			51.8	
Approach LOS		F			F			E			D	

Intersection Summary			
HCM Average Control Delay	78.8	HCM Level of Service	E
HCM Volume to Capacity ratio	1.24		
Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	108.9%	ICU Level of Service	F
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.86		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1703	1900	1615	1787	1611		1543	3505	1482	1805	3505	1615
Flt Permitted	0.48	1.00	1.00	0.75	1.00		0.05	1.00	1.00	0.05	1.00	1.00
Satd. Flow (perm)	869	1900	1615	1410	1611		81	3505	1482	95	3505	1615
Volume (vph)	18	8	23	74	5	70	6	2122	33	35	1955	4
Peak-hour factor, PHF	0.47	0.67	0.61	0.81	0.42	0.57	0.75	0.89	0.80	0.58	0.88	0.50
Adj. Flow (vph)	38	12	38	91	12	123	8	2384	41	60	2222	8
Lane Group Flow (vph)	38	12	38	91	135	0	8	2384	41	60	2222	8
Heavy Vehicles (%)	6%	0%	0%	1%	0%	2%	17%	3%	9%	0%	3%	0%
Turn Type	pm+pt		Perm	pm+pt			pm+pt		Perm	pm+pt		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8			2		2	6		6
Actuated Green, G (s)	20.0	16.0	16.0	20.0	16.0		84.0	80.0	80.0	84.0	80.0	80.0
Effective Green, g (s)	20.0	16.0	16.0	20.0	16.0		84.0	80.0	80.0	84.0	80.0	80.0
Actuated g/C Ratio	0.17	0.13	0.13	0.17	0.13		0.70	0.67	0.67	0.70	0.67	0.67
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Grp Cap (vph)	173	253	215	248	215		105	2337	988	124	2337	1077
v/s Ratio Prot	0.01	0.01		c0.01	c0.08		0.00	c0.68		c0.02	0.63	
v/s Ratio Perm	0.03		0.02	0.05			0.05		0.03	0.32		0.00
v/c Ratio	0.22	0.05	0.18	0.37	0.63		0.08	1.02	0.04	0.48	0.95	0.01
Uniform Delay, d1	42.7	45.4	46.2	43.9	49.2		26.2	20.0	6.9	58.0	18.2	6.7
Progression Factor	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	2.9	0.4	1.8	4.1	13.1		1.4	23.9	0.1	12.9	10.2	0.0
Delay (s)	45.6	45.7	47.9	48.1	62.3		27.6	43.9	6.9	70.9	28.4	6.7
Level of Service	D	D	D	D	E		C	D	A	E	C	A
Approach Delay (s)		46.6			56.6			43.2			29.4	
Approach LOS		D			E			D			C	

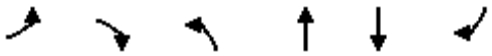
Intersection Summary			
HCM Average Control Delay	37.6	HCM Level of Service	D
HCM Volume to Capacity ratio	0.91		
Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	91.0%	ICU Level of Service	E
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	0	4	0	1531	1758	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	0	4	0	1664	1911	2
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
vC, conflicting volume	2743	955	1913			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	98	100			
cM capacity (veh/h)	16	259	306			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	4	832	832	955	955	2
Volume Left	0	0	0	0	0	0
Volume Right	4	0	0	0	0	2
cSH	259	1700	1700	1700	1700	1700
Volume to Capacity	0.02	0.49	0.49	0.56	0.56	0.00
Queue Length (ft)	1	0	0	0	0	0
Control Delay (s)	19.2	0.0	0.0	0.0	0.0	0.0
Lane LOS	C					
Approach Delay (s)	19.2	0.0		0.0		
Approach LOS	C					

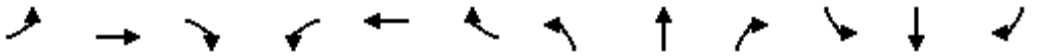
Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	62.8%	ICU Level of Service	B



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	0	29	0	2153	1952	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	0	32	0	2340	2122	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
vC, conflicting volume	3292	1061	2127			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	86	100			
cM capacity (veh/h)	7	220	252			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	32	1170	1170	1061	1061	5
Volume Left	0	0	0	0	0	0
Volume Right	32	0	0	0	0	5
cSH	220	1700	1700	1700	1700	1700
Volume to Capacity	0.14	0.69	0.69	0.62	0.62	0.00
Queue Length (ft)	12	0	0	0	0	0
Control Delay (s)	24.1	0.0	0.0	0.0	0.0	0.0
Lane LOS	C					
Approach Delay (s)	24.1	0.0		0.0		
Approach LOS	C					

Intersection Summary				
Average Delay	0.2			
Intersection Capacity Utilization	68.7%	ICU Level of Service	B	

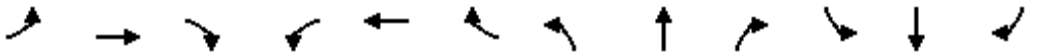


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.95	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)	1805	3574	1524	1703	3471	1524	1687	3539	1524	3502	3539	1538
Flt Permitted	0.51	1.00	1.00	0.20	1.00	1.00	0.09	1.00	1.00	0.23	1.00	1.00
Satd. Flow (perm)	960	3574	1524	359	3471	1524	151	3539	1524	856	3539	1538
Volume (vph)	136	322	212	262	329	92	125	842	113	59	858	60
Peak-hour factor, PHF	0.75	0.84	0.75	0.79	0.78	0.64	0.58	0.84	0.64	0.68	0.84	0.81
Adj. Flow (vph)	181	383	283	332	422	144	216	1002	177	87	1021	74
Lane Group Flow (vph)	181	383	283	332	422	144	216	1002	177	87	1021	74
Heavy Vehicles (%)	0%	1%	6%	6%	4%	6%	7%	2%	6%	0%	2%	5%
Turn Type	pm+pt		Perm	pm+pt		Perm	pm+pt		Perm	pm+pt		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		6
Actuated Green, G (s)	31.0	17.0	17.0	47.0	29.0	29.0	65.0	57.0	57.0	47.0	43.0	43.0
Effective Green, g (s)	31.0	17.0	17.0	47.0	29.0	29.0	65.0	57.0	57.0	47.0	43.0	43.0
Actuated g/C Ratio	0.26	0.14	0.14	0.39	0.24	0.24	0.54	0.48	0.48	0.39	0.36	0.36
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Grp Cap (vph)	347	506	216	432	839	368	312	1681	724	423	1268	551
v/s Ratio Prot	0.06	0.11		c0.17	0.12		c0.10	0.28		0.01	c0.29	
v/s Ratio Perm	0.07		c0.19	0.13		0.09	0.27		0.12	0.07		0.05
v/c Ratio	0.52	0.76	1.31	0.77	0.50	0.39	0.69	0.60	0.24	0.21	0.81	0.13
Uniform Delay, d1	36.7	49.5	51.5	28.7	39.3	38.1	29.3	23.1	18.7	23.1	34.7	26.0
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	5.5	10.1	168.7	12.4	2.2	3.1	11.9	1.6	0.8	1.1	5.5	0.5
Delay (s)	42.2	59.7	220.2	41.0	41.4	41.2	41.2	24.6	19.5	24.2	40.2	26.5
Level of Service	D	E	F	D	D	D	D	C	B	C	D	C
Approach Delay (s)		109.6			41.2			26.6			38.2	
Approach LOS		F			D			C			D	

Intersection Summary			
HCM Average Control Delay	49.1	HCM Level of Service	D
HCM Volume to Capacity ratio	0.86		
Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	82.5%	ICU Level of Service	D
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	0.97	1.00		1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.93		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	1863	1583	3502	1747		1770	3574	1615	1805	3574	1583
Flt Permitted	0.73	1.00	1.00	0.95	1.00		0.12	1.00	1.00	0.12	1.00	1.00
Satd. Flow (perm)	1369	1863	1583	3502	1747		233	3574	1615	238	3574	1583
Volume (vph)	111	18	152	718	17	8	188	1533	184	22	1694	65
Peak-hour factor, PHF	0.92	0.92	0.92	0.79	0.92	0.50	0.92	0.96	0.85	0.48	0.97	0.92
Adj. Flow (vph)	121	20	165	909	18	16	204	1597	216	46	1746	71
Lane Group Flow (vph)	121	20	165	909	34	0	204	1597	216	46	1746	71
Heavy Vehicles (%)	2%	2%	2%	0%	2%	0%	2%	1%	0%	0%	1%	2%
Turn Type	pm+pt		Free	Prot			Perm		Free	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		Free				2		Free	6		6
Actuated Green, G (s)	16.0	6.0	65.0	15.0	11.0		32.0	32.0	65.0	32.0	32.0	32.0
Effective Green, g (s)	16.0	6.0	65.0	15.0	11.0		32.0	32.0	65.0	32.0	32.0	32.0
Actuated g/C Ratio	0.25	0.09	1.00	0.23	0.17		0.49	0.49	1.00	0.49	0.49	0.49
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Grp Cap (vph)	399	172	1583	808	296		115	1760	1615	117	1760	779
v/s Ratio Prot	0.05	0.01		c0.26	0.02			0.45			0.49	
v/s Ratio Perm	c0.03		0.10				c0.88		0.13	0.19		0.04
v/c Ratio	0.30	0.12	0.10	1.12	0.11		1.77	0.91	0.13	0.39	0.99	0.09
Uniform Delay, d1	19.8	27.1	0.0	25.0	22.9		16.5	15.1	0.0	10.4	16.4	8.8
Progression Factor	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	2.0	1.4	0.1	71.9	0.8		381.1	8.3	0.2	9.6	19.7	0.2
Delay (s)	21.8	28.4	0.1	96.9	23.7		397.6	23.5	0.2	20.0	36.0	9.0
Level of Service	C	C	A	F	C		F	C	A	C	D	A
Approach Delay (s)		10.5			94.3			58.8			34.6	
Approach LOS		B			F			E			C	

Intersection Summary			
HCM Average Control Delay	53.7	HCM Level of Service	D
HCM Volume to Capacity ratio	1.43		
Cycle Length (s)	65.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	102.2%	ICU Level of Service	F
c Critical Lane Group			

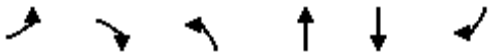


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	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)	1787	1900	1615	1805	1900	1615	1805	3574	1615	1805	3610	1615
Flt Permitted	0.17	1.00	1.00	0.37	1.00	1.00	0.07	1.00	1.00	0.06	1.00	1.00
Satd. Flow (perm)	314	1900	1615	696	1900	1615	131	3574	1615	123	3610	1615
Volume (vph)	210	183	38	156	338	392	117	1366	44	224	1860	240
Peak-hour factor, PHF	0.70	0.90	0.77	0.75	0.90	0.80	0.88	0.93	0.66	0.87	0.90	0.71
Adj. Flow (vph)	300	203	49	208	376	490	133	1469	67	257	2067	338
Lane Group Flow (vph)	300	203	49	208	376	490	133	1469	67	257	2067	338
Heavy Vehicles (%)	1%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%
Turn Type	pm+pt		Perm	pm+pt		Perm	pm+pt		Perm	pm+pt		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		6
Actuated Green, G (s)	40.0	24.0	24.0	42.0	25.0	25.0	63.0	58.0	58.0	77.0	68.0	68.0
Effective Green, g (s)	40.0	24.0	24.0	42.0	25.0	25.0	63.0	58.0	58.0	77.0	68.0	68.0
Actuated g/C Ratio	0.31	0.18	0.18	0.32	0.19	0.19	0.48	0.45	0.45	0.59	0.52	0.52
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Grp Cap (vph)	278	351	298	370	365	311	128	1595	721	267	1888	845
v/s Ratio Prot	c0.13	0.11		0.07	0.20		0.04	0.41		c0.11	c0.57	
v/s Ratio Perm	0.20		0.03	0.11		c0.30	0.46		0.04	0.46		0.21
v/c Ratio	1.08	0.58	0.16	0.56	1.03	1.58	1.04	0.92	0.09	0.96	1.09	0.40
Uniform Delay, d1	39.5	48.4	44.6	34.2	52.5	52.5	64.7	33.8	20.8	42.6	31.0	18.7
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	76.6	6.8	1.2	6.1	55.1	274.0	90.4	10.2	0.3	46.3	51.7	1.4
Delay (s)	116.2	55.2	45.8	40.2	107.6	326.5	155.0	44.1	21.1	88.8	82.7	20.1
Level of Service	F	E	D	D	F	F	F	D	C	F	F	C
Approach Delay (s)		87.5			194.4			52.0			75.4	
Approach LOS		F			F			D			E	

Intersection Summary			
HCM Average Control Delay	91.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.13		
Cycle Length (s)	130.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	114.2%	ICU Level of Service	G
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.86		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1805	1863	1615	1736	1534		1805	3574	1583	1805	3505	1583
Flt Permitted	0.64	1.00	1.00	0.74	1.00		0.06	1.00	1.00	0.06	1.00	1.00
Satd. Flow (perm)	1224	1863	1615	1352	1534		112	3574	1583	106	3505	1583
Volume (vph)	21	16	43	58	2	54	28	1812	145	210	2285	29
Peak-hour factor, PHF	0.71	0.62	0.79	0.54	0.50	0.65	0.75	0.97	0.87	0.87	0.91	0.78
Adj. Flow (vph)	30	26	54	107	4	83	37	1868	167	241	2511	37
Lane Group Flow (vph)	30	26	54	107	87	0	37	1868	167	241	2511	37
Heavy Vehicles (%)	0%	2%	0%	4%	9%	6%	0%	1%	2%	0%	3%	2%
Turn Type	pm+pt		Perm	pm+pt			pm+pt		Perm	pm+pt		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8			2		2	6		6
Actuated Green, G (s)	20.0	16.0	16.0	20.0	16.0		72.0	68.0	68.0	88.0	80.0	80.0
Effective Green, g (s)	20.0	16.0	16.0	20.0	16.0		72.0	68.0	68.0	88.0	80.0	80.0
Actuated g/C Ratio	0.17	0.13	0.13	0.17	0.13		0.60	0.57	0.57	0.73	0.67	0.67
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Grp Cap (vph)	223	248	215	238	205		124	2025	897	304	2337	1055
v/s Ratio Prot	0.00	0.01		c0.01	0.06		0.01	0.52		c0.11	c0.72	
v/s Ratio Perm	0.02		0.03	c0.06			0.17		0.11	0.48		0.02
v/c Ratio	0.13	0.10	0.25	0.45	0.42		0.30	0.92	0.19	0.79	1.07	0.04
Uniform Delay, d1	42.4	45.7	46.6	44.5	47.8		57.2	23.6	12.6	38.8	20.0	6.8
Progression Factor	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	1.3	0.8	2.8	6.0	6.3		6.1	8.5	0.5	18.8	42.3	0.1
Delay (s)	43.6	46.6	49.4	50.6	54.1		63.3	32.1	13.1	57.6	62.3	6.9
Level of Service	D	D	D	D	D		E	C	B	E	E	A
Approach Delay (s)		47.2			52.1			31.1			61.2	
Approach LOS		D			D			C			E	

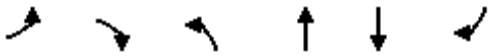
Intersection Summary			
HCM Average Control Delay	48.5	HCM Level of Service	D
HCM Volume to Capacity ratio	0.95		
Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	95.4%	ICU Level of Service	E
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	0	6	0	1645	1775	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	0	7	0	1788	1929	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
vC, conflicting volume	2823	965	1930			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	97	100			
cM capacity (veh/h)	14	255	301			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	7	894	894	965	965	1
Volume Left	0	0	0	0	0	0
Volume Right	7	0	0	0	0	1
cSH	255	1700	1700	1700	1700	1700
Volume to Capacity	0.03	0.53	0.53	0.57	0.57	0.00
Queue Length (ft)	2	0	0	0	0	0
Control Delay (s)	19.5	0.0	0.0	0.0	0.0	0.0
Lane LOS	C					
Approach Delay (s)	19.5	0.0		0.0		
Approach LOS	C					

Intersection Summary				
Average Delay	0.0			
Intersection Capacity Utilization	63.3%	ICU Level of Service	B	

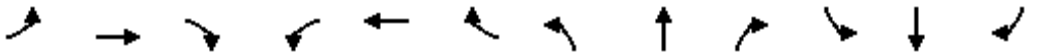


Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	0	10	0	1906	2563	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	0	11	0	2072	2786	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
vC, conflicting volume	3822	1393	2791			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	92	100			
cM capacity (veh/h)	3	131	137			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	11	1036	1036	1393	1393	5
Volume Left	0	0	0	0	0	0
Volume Right	11	0	0	0	0	5
cSH	131	1700	1700	1700	1700	1700
Volume to Capacity	0.08	0.61	0.61	0.82	0.82	0.00
Queue Length (ft)	7	0	0	0	0	0
Control Delay (s)	34.9	0.0	0.0	0.0	0.0	0.0
Lane LOS	D					
Approach Delay (s)	34.9	0.0		0.0		
Approach LOS	D					

Intersection Summary				
Average Delay	0.1			
Intersection Capacity Utilization	87.0%	ICU Level of Service	D	

Future Year Analysis
with Recommended Improvements



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	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)	1787	1900	1615	1805	1900	1615	1805	3574	1615	1805	3610	1615
Flt Permitted	0.21	1.00	1.00	0.47	1.00	1.00	0.09	1.00	1.00	0.08	1.00	1.00
Satd. Flow (perm)	396	1900	1615	895	1900	1615	165	3574	1615	152	3610	1615
Volume (vph)	210	183	38	156	338	392	117	1366	44	224	1860	240
Peak-hour factor, PHF	0.70	0.90	0.77	0.75	0.90	0.80	0.88	0.93	0.66	0.87	0.90	0.71
Adj. Flow (vph)	300	203	49	208	376	490	133	1469	67	257	2067	338
Lane Group Flow (vph)	300	203	49	208	376	490	133	1469	67	257	2067	338
Heavy Vehicles (%)	1%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%
Turn Type	pm+pt		Perm	pm+pt		pm+ov	pm+pt		Perm	pm+pt		Perm
Protected Phases	7	4		3	8	1	5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		6
Actuated Green, G (s)	29.0	19.0	19.0	25.0	17.0	28.0	50.0	46.0	46.0	61.0	53.0	53.0
Effective Green, g (s)	29.0	19.0	19.0	25.0	17.0	28.0	50.0	46.0	46.0	61.0	53.0	53.0
Actuated g/C Ratio	0.29	0.19	0.19	0.25	0.17	0.28	0.50	0.46	0.46	0.61	0.53	0.53
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Grp Cap (vph)	254	361	307	297	323	517	148	1644	743	275	1913	856
v/s Ratio Prot	c0.12	0.11		0.06	0.20	c0.10	0.04	0.41		c0.10	c0.57	
v/s Ratio Perm	c0.22		0.03	0.12		0.20	0.41		0.04	0.47		0.21
v/c Ratio	1.18	0.56	0.16	0.70	1.16	0.95	0.90	0.89	0.09	0.93	1.08	0.39
Uniform Delay, d1	47.2	36.7	33.8	32.7	41.5	35.3	49.7	24.8	15.2	29.6	23.5	14.0
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	114.4	6.2	1.1	12.9	102.4	28.5	50.9	7.9	0.2	39.8	46.1	1.4
Delay (s)	161.6	42.9	34.9	45.6	143.9	63.8	100.7	32.6	15.5	69.4	69.6	15.3
Level of Service	F	D	C	D	F	E	F	C	B	E	E	B
Approach Delay (s)		106.7			88.3			37.4			62.7	
Approach LOS		F			F			D			E	

Intersection Summary			
HCM Average Control Delay	64.3	HCM Level of Service	E
HCM Volume to Capacity ratio	1.08		
Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	114.2%	ICU Level of Service	G
c Critical Lane Group			