TRAFFIC IMPACT STUDY
FOR
PROPOSED EMBRY FARM ROAD RESIDENTIAL DEVELOPMENT ON ROGERS CIRCLE

CITY OF JOHNS CREEK, GEORGIA

Prepared for:

Toll Brother, Inc
2400 Lakeview Pkwy, Suite 650
Alpharetta, GA 30009

Prepared By:

A&R Engineering Inc.
2160 Kingston Court, Suite O
Marietta, GA 30067
Tel: (770) 690-9255 Fax: (770) 690-9210
www.areng.com

July 15, 2025
A & R Project # 24-118

TABLE OF CONTENTS

Item **Page**

1.0 Introduction 1
2.0 Existing Facilities / Conditions 4
2.1 Roadway Facilities 4
2.1.1 Bell Road 4
2.1.2 Rogers Circle 4
2.1.3 Embry Farm Road 4
2.1.4 Nellie Brook Court 4
3.0 Study Methodology 5
3.1 Unsignalized Intersections 5
3.2 Signalized Intersections 6
4.0 Existing 2025 Traffic Analysis 7
4.1 Existing Traffic Volumes 7
4.2 Existing Traffic Operations 10
5.0 Proposed Development 11
5.1 Trip Generation 13
5.2 Trip Distribution 13
6.0 Future 2027 Traffic Analysis 15
6.1 Future "No-Build" Conditions 15
6.1.1 Annual Traffic Growth 15
6.2 Future "Build" Conditions 15
6.3 Future Build Traffic Operations 18
6.4 Future Traffic Operations (Intersection 6 System Improvement) 19
7.0 Conclusions and Recommendations 21
7.1 Site Access Configuration / Site Mitigation Improvements 22
7.2 Recommendations for System Improvements 22
Appendix

LIST OF TABLES

Item **Page**

Table 1 – Level of Service Criteria for Unsignalized Intersections 5
Table 2 – Level of Service Criteria for Signalized Intersections 6
Table 3 – Existing Intersection Operations 10
Table 4 – Trip Generation 13
Table 5 – Future Intersection Operations 18
Table 6 – Future Intersection Operations (Intersection 6 – Improved) 19

LIST OF FIGURES

Item **Page**

Figure 1 – Location Map 3
Figure 2 – Existing Weekday Peak Hour Volumes 8
Figure 3 – Existing Traffic Control and Lane Geometry 9
Figure 4 – Site Plan 12
Figure 5 – Trip Distribution and New Site Generated Peak Hour Volumes 14
Figure 6 – Future (No-Build) Weekday Peak Hour Volumes 16
Figure 7 – Future (Build) Weekday Peak Hour Volumes 17
Figure 8 – Future Traffic Control and Lane Geometry 20

1.0 INTRODUCTION

The purpose of this study is to determine the traffic impact of the proposed Embry Farm Road residential development, which consists of 189 single-family residential homes on Rogers Circle in the City of Johns Creek. The development proposes the construction of a single-lane, four-legged roundabout on Rogers Circle by re-aligning the southern Embry Farm Road approach (the southern driveway of River Trail Middle School) to serve as the third leg, as well as re-aligning the existing Embry Farm Road approach to serve as the fourth leg to the intersection, which will act as the driveway to the proposed residential development. As a result, the new roundabout will replace two closely spaced, stop-controlled intersections on Rogers Circle and provide separate driveway on each side of the roundabout exit on Roger Circle. The development also proposes to extend the existing right turn lane from the elementary school to the new roundabout. Adding approximately 250 feet to increase the available storage for school drop-off and improve traffic flow. The location of the site is shown below.

The AM, School Dismissal and PM peak hours have been analysed in this study. This study includes the evaluation of traffic operations at the intersections of:

1. Rogers Circle at Nellie Brook Court
2. Rogers Circle at Embry Farm Proposed (Site driveway)
3. Roger Circle at Middle School Southern Driveway
4. Rogers Circle at Shakerag Elementary School Southern Driveway
5. Rogers Circle at Middle School Northern Driveway
6. Rogers Circle at Bell Road

Recommendations to improve traffic operations have been identified as appropriate and are discussed in detail in the following sections of the report. The location of the development and the surrounding roadway network is shown in Figure 1.

LOCATION MAP FIGURE 1

A&R Engineering Inc.

2.0 EXISTING FACILITIES / CONDITIONS

2.1 Roadway Facilities

The following is a brief description of each of the roadway facilities located in proximity to the site:

2.1.1 Bell Road

Bell Road is a north-south, two-lane, undivided roadway with the posted speed limit of 45 mph in the vicinity of the site. Georgia Department of Transportation (GDOT) traffic counts (Station ID: 121-0209) indicate that the estimated daily traffic volume on Bell Road in 2023 was 9,000 vehicles per day south of Rogers Circle. GDOT classifies Bell Road as a major collector roadway.

2.1.2 Rogers Circle

Rogers Circle is a north-south, two-lane, undivided roadway with a posted speed limit of 35 mph in the vicinity of the site.

2.1.3 Embry Farm Road

Embry Farm Road is an east-west, two lane, undivided roadway with a posted speed limit of 25 mph in the vicinity of the site.

2.1.4 Nellie Brook Court

Nellie Brook Court is a two lane, undivided roadway with a posted speed limit of 25 mph in the vicinity of the site.

3.0 STUDY METHODOLOGY

In this study, the methodology used for evaluating traffic operations at each of the subject intersections is based on the criteria set forth in the Transportation Research Board Highway Capacity Manual, 6th edition (HCM 6). Synchro software, which utilizes the HCM methodology, was used for the analysis. The following is a description of the methodology employed for the analysis of unsignalized and signalized intersections.

3.1 Unsignalized Intersections

For unsignalized intersections controlled by a stop sign on minor streets, the level of service (LOS) for motor vehicles with controlled movements is determined by the computed control delay according to the thresholds stated in Table 1 below. LOS is determined for each minor street movement (or shared movement), as well as major street left turns. LOS is not defined for the intersection as a whole or for major street approaches. The LOS of any controlled movement which experiences a volume-to-capacity ratio greater than 1 is designated as "F" regardless of the control delay.

Control delay for unsignalized intersections includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. Several factors affect the control delay for unsignalized intersections, such as the availability and distribution of gaps in the conflicting traffic stream, critical gaps, and follow-up time for a vehicle in the queue.

Level of service is assigned a letter designation from "A" through "F". Level of service "A" indicates excellent operations with little delay to motorists, while level of service "F" exists when there are insufficient gaps of acceptable size to allow vehicles on the side street to cross the main road without experiencing long delays.

TABLE 1 – LEVEL OF SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS

Control Delay (sec/vehicle)	LOS by Volume-to-Capacity Ratio*	
	v/c ≤ 1.0	**v/c > 1.0**
≤ 10	A	F
> 10 and ≤ 15	B	F
> 15 and ≤ 25	C	F
> 25 and ≤ 35	D	F
> 35 and ≤ 50	E	F
> 50	F	F

*The LOS criteria apply to each lane on a given approach and to each approach on the minor street. LOS is not calculated for major-street approaches or for the intersection.

Source: Highway Capacity Manual, 6th edition, Exhibit 20-2 *LOS Criteria: Motorized Vehicle Mode*

3.2 Signalized Intersections

According to HCM procedures, LOS can be calculated for the entire intersection, each intersection approach, and each lane group. HCM uses control delay alone to characterize LOS for the entire intersection or an approach. Control delay per vehicle is composed of initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. Both control delay and volume-to-capacity ratio are used to characterize LOS for a lane group. A volume-to-capacity ratio of greater than 1.0 for a lane group indicates failure from capacity perspective. Therefore, such a lane group is assigned LOS F regardless of the amount of control delay.

Table 2 below summarizes the LOS criteria from HCM for motorized vehicles at signalized intersection.

TABLE 2 – LEVEL OF SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS

Control Delay (sec/vehicle) *	LOS for Lane Group by Volume-to-Capacity Ratio*	
	v/c ≤ 1.0	**v/c > 1.0**
≤ 10	A	F
> 10 and ≤ 20	B	F
> 20 and ≤ 35	C	F
> 35 and ≤ 55	D	F
> 55 and ≤ 80	E	F
> 80	F	F

*For approach-based and intersection wide assessments, LOS is defined solely by control delay

Source: Highway Capacity Manual, 6th edition, Exhibit 19-8 *LOS Criteria: Motorized Vehicle Mode*

LOS A is typically assigned when the volume-to-capacity (v/c) ratio is low and either progression is exceptionally favorable, or the cycle length is very short. LOS B is typically assigned when the v/c ratio is low and either progression is highly favorable, or the cycle length is short. However, more vehicles are stopped than with LOS A. LOS C is typically assigned when progression is favorable, or the cycle length is moderate. Individual *cycle failures* (one or more queued vehicles are not able to depart because of insufficient capacity during the cycle) may begin to appear at this level. Many vehicles still pass through the intersection without stopping, but the number of vehicles stopping is significant. LOS D is typically assigned when the v/c ratio is high and either progression is ineffective, or the cycle length is long. There are many vehicle-stops and individual cycle failures are noticeable. LOS E is typically assigned when the v/c ratio is high, progression is very poor, the cycle length is long, and individual cycle failures are frequent. LOS F is typically assigned when the v/c ratio is very high, progression is very poor, the cycle length is long, and most cycles fail to clear the queue.

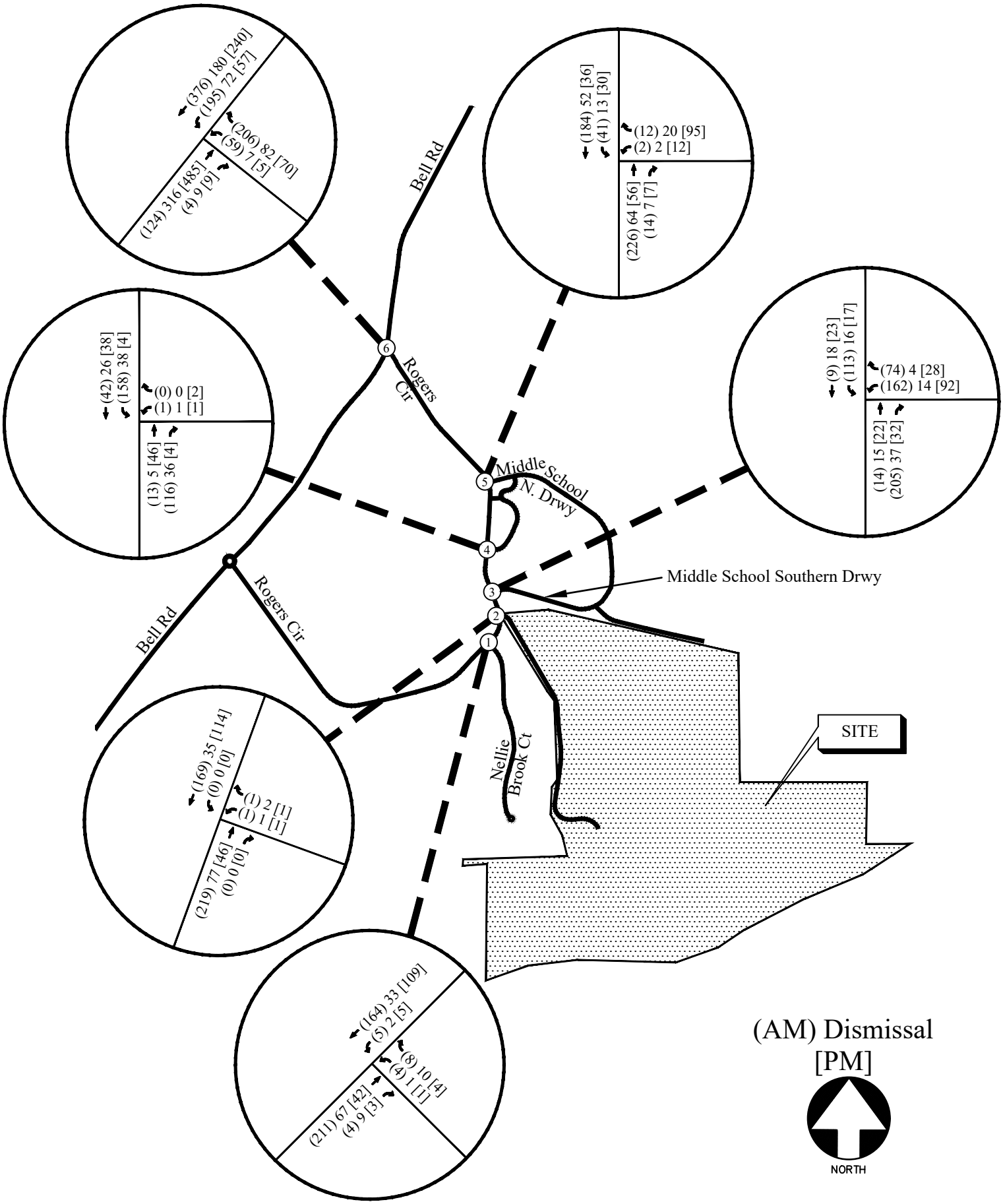
4.0 EXISTING 2025 TRAFFIC ANALYSIS

4.1 Existing Traffic Volumes

Existing traffic counts were obtained at the following study intersections:

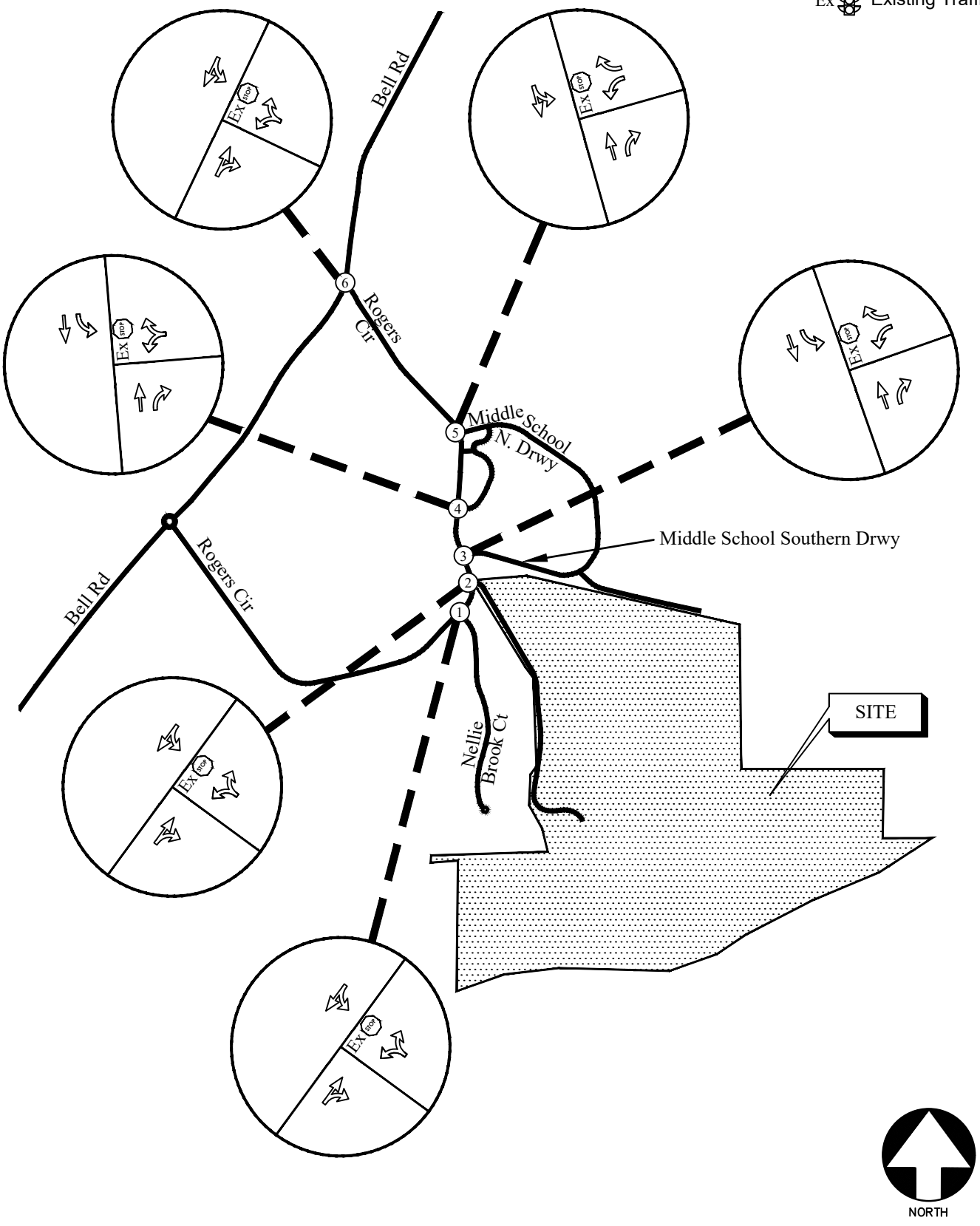
1. Rogers Circle at Nellie Brook Court
2. Rogers Circle at Embry Farm Road (Site Driveway)
3. Rogers Circle at Southern Access to River Trail Middle School
4. Rogers Circle at Shakerag Elementary School Southern Driveway
5. Rogers Circle at Northern Access to River Trail Middle School
6. Rogers Circle at Bell Road

Turning movement counts were collected on Tuesday, February 11, 2025. All turning movement counts were recorded during the AM, School Dismissal and PM peak hours between 7:00 AM to 9:00 AM, 2:00 PM to 6:00 PM respectively. The four consecutive 15-minute interval volumes that summed to produce the highest volume at the intersections were then determined. These volumes make up the peak hour traffic volumes for the intersections counted and are shown in Figure 2. The existing traffic control and lane geometry for the intersections are shown in Figure 3.



EXISTING WEEKDAY PEAK-HOUR VOLUMES FIGURE 2

A&R Engineering Inc.



EXISTING TRAFFIC CONTROL AND LANE GEOMETRY FIGURE 3

A&R Engineering Inc.

4.2 Existing Traffic Operations

Existing 2025 traffic operations were analyzed at the study intersections in accordance with the HCM methodology. The results of the analyses are shown in Table 3.

TABLE 3 – EXISTING INTERSECTION OPERATIONS

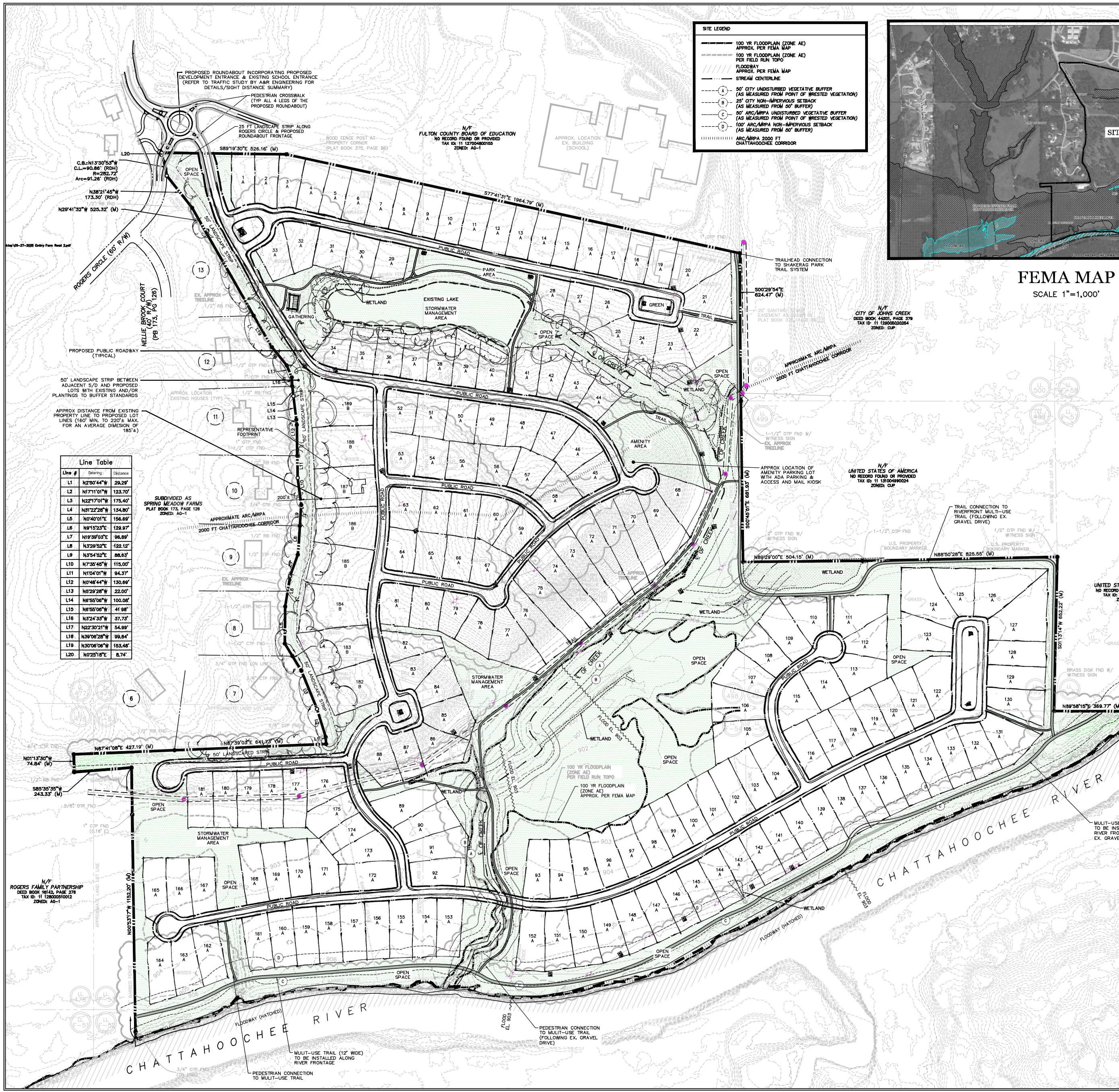
	Intersection	Traffic Control	LOS (Delay)		
			AM Peak	School Dismissal	PM Peak
1	**Rogers Circle @ Nellie Brook Ct** -Westbound Approach -Southbound Left	Stop Controlled on WB Approach	B (10.9) A (7.9)	A (8.8) A (7.4)	A (9.3) A (7.4)
2	**Rogers Circle @ Embry Farm Rd (Site Driveway)** -Westbound Approach -Southbound Left	Stop Controlled on WB Approach	B (11.2) A (7.9)	A (9.0) A (7.4)	A (9.8) A (7.4)
3	**Rogers Circle @ Embry Farm Rd (Southern Access to River Trail Middle School)** -Westbound Approach -Southbound Left	Stop Controlled on WB Approach	B (14.0) A (7.5)	A (9.1) A (7.3)	B (10.6) A (7.4)
4	**Rogers Circle @ Shakerag Elementary School Southern Driveway** -Westbound Approach -Southbound Left	Stop Controlled on WB Approach	C (16.5) A (8.5)	A (9.6) A (7.4)	A (8.8) A (7.4)
5	**Rogers Circle @ Embry Farm Rd (Northern Access to River Trail Middle School)** -Westbound Approach -Southbound Left	Stop Controlled on WB Approach	B (12.0) A (8.5)	A (9.4) A (7.6)	B (10.3) A (7.5)
6	**Bell Road @ Rogers Circle** -Westbound Approach -Southbound Left	Stop Controlled on WB Approach	D (33.2) A (8.1)	B (12.4) A (8.4)	B (13.1) A (8.7)

The results of existing traffic operations analysis indicate that all the study intersections are operating at a level of service "D" or better in all the AM, School Dismissal and PM peak hours.

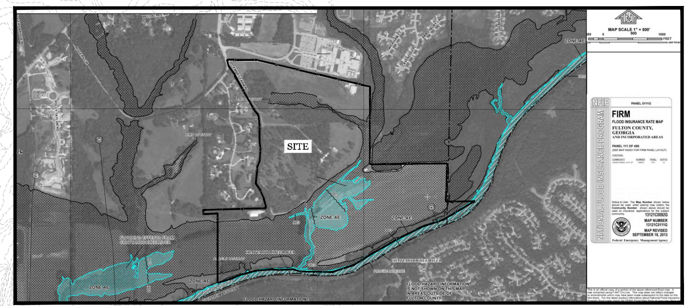
5.0 PROPOSED DEVELOPMENT

The proposed development will consist of 189 single-family residential homes.

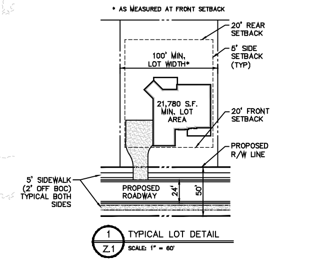
As outlined in the Introduction, the proposed development aims to construct a single-lane, four-legged roundabout at Rogers Circle. This will involve re-aligning the southern approach of Embry Farm Road (providing access to River Trail Middle School) to function as the third leg of the roundabout. Additionally, the existing Embry Farm Road approach will be re-aligned to serve as the fourth leg, providing access to the driveway of the proposed residential development. The new roundabout will replace two closely spaced, stop-controlled intersections along Johns Creek Road. A site plan detailing the layout is provided in Figure 4.



Line Table		
Line #	Bearing	Distance
L1	N2°50'44"W	29.29'
L2	N17°11'01"W	123.70'
L3	N22°17'01"W	175.40'
L4	N31°22'28"W	134.80'
L5	N0°40'01"E	156.69'
L6	N9°15'23"E	129.97'
L7	N19°39'03"E	96.89'
L8	N3°29'52"E	122.12'
L9	N3°54'52"E	88.63'
L10	N7°35'45"W	115.00'
L11	N1°04'01"W	94.37'
L12	N0°48'44"W	130.69'
L13	N5°29'28"W	22.00'
L14	N6°55'06"W	100.08'
L15	N6°55'06"W	41.98'
L16	N3°24'33"W	37.73'
L17	N22°30'21"W	54.99'
L18	N39°06'28"W	99.84'
L19	N30°06'06"W	153.48'
L20	N0°25'18"E	8.74'



FEMA MAP
SCALE 1"=1,000'



1 / Z.1 TYPICAL LOT DETAIL
SCALE: 1" = 60'

PLAN NOTES:

1. BOUNDARY INFORMATION TAKEN FROM ALTA/NSPS LAND TITLE SURVEY FOR TOLL SOUTHEAST LP COMPANY, INC. AND FIRST AMERCIAN TITLE INSURANCE COMPANY BY TRAVIS PRUITT & ASSOCIATES DATED 07.08.2024. REFER TO ALTA SURVEY FOR LOCATION OF OVERHEAD UTILITIES ONSITE. TOPOGRAPHY FROM FULTON GIS WITH FIELD RUN TOPO SOUTH OF EXISTING SEWER EASEMENT. APPROX. ADJACENT STRUCTURES & TREE LINE SHOWN BASED UPON AERIAL PHOTOGRAPHY.
2. EXISTING ZONING AG-1
   PROPOSED ZONING CUP
3. PROPERTY IS LOCATED OFF ROGERS CIRCLE IN LAND LOTS 478-480, 497-499, F-52 THRU F-56, 1ST DISTRICT, 1ST SECTION, CITY OF JOHNS CREEK, FULTON COUNTY, GEORGIA.
4. TOTAL SITE AREA = 204.10 ACRES± (REFER TO SITE ANALYSIS)
5. THIS PROPERTY CONTAINS A 100 YEAR FLOOD HAZARD AREA BASED ON FIRM MAP NUMBER 13121C0092G, DATED SEPTEMBER 18, 2013 (SEE FLOOD MAP THIS SHEET).
6. THIS PROPERTY CONTAINS BUFFERED STATE WATERS & JURISDICTIONAL WETLANDS AS FIELD DELINEATED BY CORBLU ECOLOGY GROUP.
7. A PORTION OF THIS PROPERTY FALLS WITHIN THE ARC/MRPA 2000 FT CHATTAHOOCHEE CORRIDOR AS DELINEATED ON THE PLAN.
8. PROPOSED DEVELOPMENT TO TIE TO EXISTING SANITARY SEWER OUTFALL LINE (SERVICE PROVIDED BY FULTON COUNTY).
9. STORMWATER MANAGEMENT TO BE PROVIDED IN ACCORDANCE WITH GEORGIA STORMWATER MANAGEMENT MANUAL. SOME SUBSURFACE WATER QUALITY MEASURES MAY BE UTILIZED (SUBJECT TO FINAL DESIGN).
10. PARKING SUMMARY:
    REQUIRED SPACES (2 SPACES/DWELLING UNIT) 378 SPACES REQUIRED
    PROPOSED SPACES* 378 SPACES PROVIDED
    *ALL PROPOSED HOMES TO HAVE A 2 CAR GARAGE.
    NOTE: AMENITY AREA PARKING SUBJECT TO FINAL LAYOUT.

SITE ANALYSIS

TOTAL SITE AREA		204.10 ACRES±
LOTS PROPOSED	(A) 1/2 ACRE SIDE ENTRY DETACHED	181 LOTS
	(B) 1 ACRE SIDE ENTRY DETACHED	8 LOTS
	TOTAL	189 LOTS
DENSITY PROPOSED		0.94 UNITS/AC
CUP ZONING CRITERIA		
MINIMUM LOT WIDTH (AS MEASURED TANGENT AT FRONT SETBACK)		100 FEET
MINIMUM LOT AREA		21,780 S.F.
MIN. HEATED S.F.		3,000 S.F.
MAXIMUM BUILDING HEIGHT		40 FEET
MINIMUM LOT FRONTAGE		35 FEET
BUILDING SETBACKS	FRONT	20 FEET
	SIDE	5 FEET
	CORNER SIDE	10 FEET
	REAR	20 FEET
LANDSCAPE STRIPS	ROGERS BRIDGE CIRCLE	25 FEET
	WEST PL AGAINST S/D AS SHOWN	50 FEET
PROPOSED OPEN SPACE		65.3 AC± (32.0%)

NORTH

0 100' 200' 400' 800'
SCALE: 1"= 200'

CP&E
CHRISTOPHER PLANNING & ENGINEERING
GEORGIA REGISTERED PROFESSIONAL ENGINEER 6/23/2025
GSWCC LEVEL II CERTIFIED
DESIGN PROFESSIONAL #05744
(EXP. 03.21.2027)
12460 CRABAPPLE ROAD, SUITE 202-612
ALPHARETTA, GA 3004
PHONE 770.331.7303

ZONING SITE PLAN
FOR:

EMBRY TRACT
AT ROGERS CIRCLE

LAND LOTS 478-480, 497-499,
& F-42 THRU F-56,
1ST DISTRICT, 1ST SECTION
CITY OF JOHNS CREEK
FULTON COUNTY, GEORGIA

FOR:

Toll Brothers
AMERICA'S LUXURY HOME BUILDER®

2400 LAKEVIEW PARKWAY
SUITE 650
ALPHARETTA, GA 30009

CONTACT:
MR. J.R. CROWE
678.699.1403

REVISIONS

1	02.12.2025	CLIENT COMMENTS
2	02.14.2025	CLIENT COMMENTS
3	02.17.2025	CLIENT COMMENTS
4	03.03.2025	CITY COMMENTS
5	06.27.2025	CITY COMMENTS

DATE: FEBRUARY 7, 2025
CP&E DRAWING NO: 2023164z2.dwg

ZONING
SITE PLAN

SHEET NO. Z.2

5.1 Trip Generation

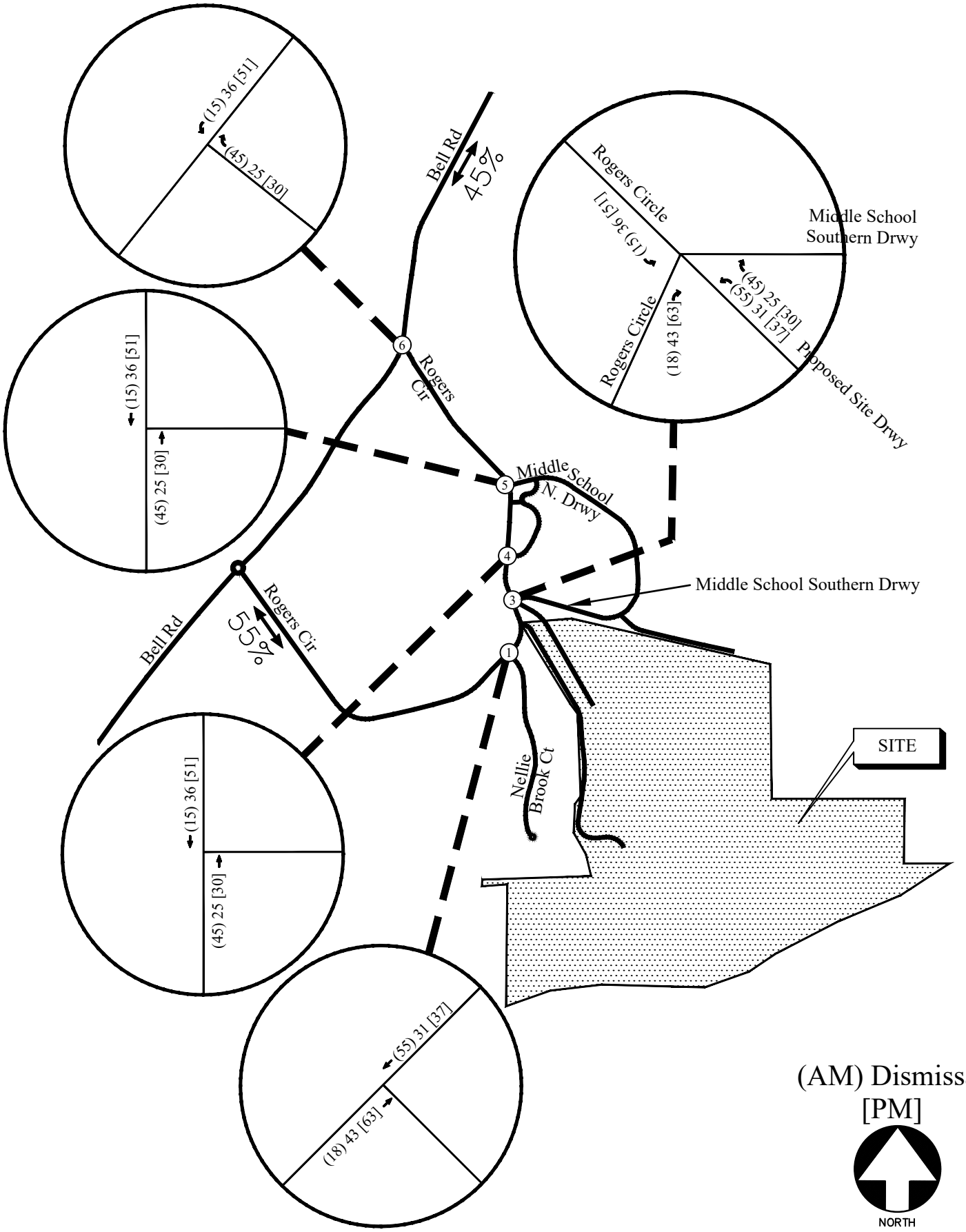
Trip generation estimates for the project were based on the rates and equations published in the 11th edition of the Institute of Transportation Engineers (ITE) Trip Generation Manual. This reference contains traffic volume count data collected at similar facilities nationwide. The trip generation was based on the following ITE land use: *210 – Single-family Detached Housing*. The calculated total trip generation for the proposed development is shown in Table 4.

TABLE 4 – TRIP GENERATION

Land Use	Size	AM Peak Hour			School Dismissal Peak Hour			PM Peak Hour			24-Hour
		Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total	2-Way
ITE 210 – Single-Family Detached Housing	189 Units	33	100	133	79	56	135	114	67	181	1,812

5.2 Trip Distribution

The trip distribution describes how traffic arrives and departs from the site. An overall trip distribution was developed for the site based on a review of the existing travel patterns in the area and the locations of major roadways and highways that will serve the development. The site-generated peak hour traffic volumes, shown in Table 4, were assigned to the study area intersection based on this distribution. The outer-leg distribution and AM and PM peak hour new traffic generated by the site are shown in Figure 5.



TRIP DISTRIBUTION AND NEW SITE-GENERATED WEEKDAY PEAK HOUR VOLUMES

FIGURE 5

A&R Engineering Inc.

6.0 FUTURE 2027 TRAFFIC ANALYSIS

The future 2027 traffic operations are analysed for the "Build" and "No-Build" conditions.

6.1 Future "No-Build" Conditions

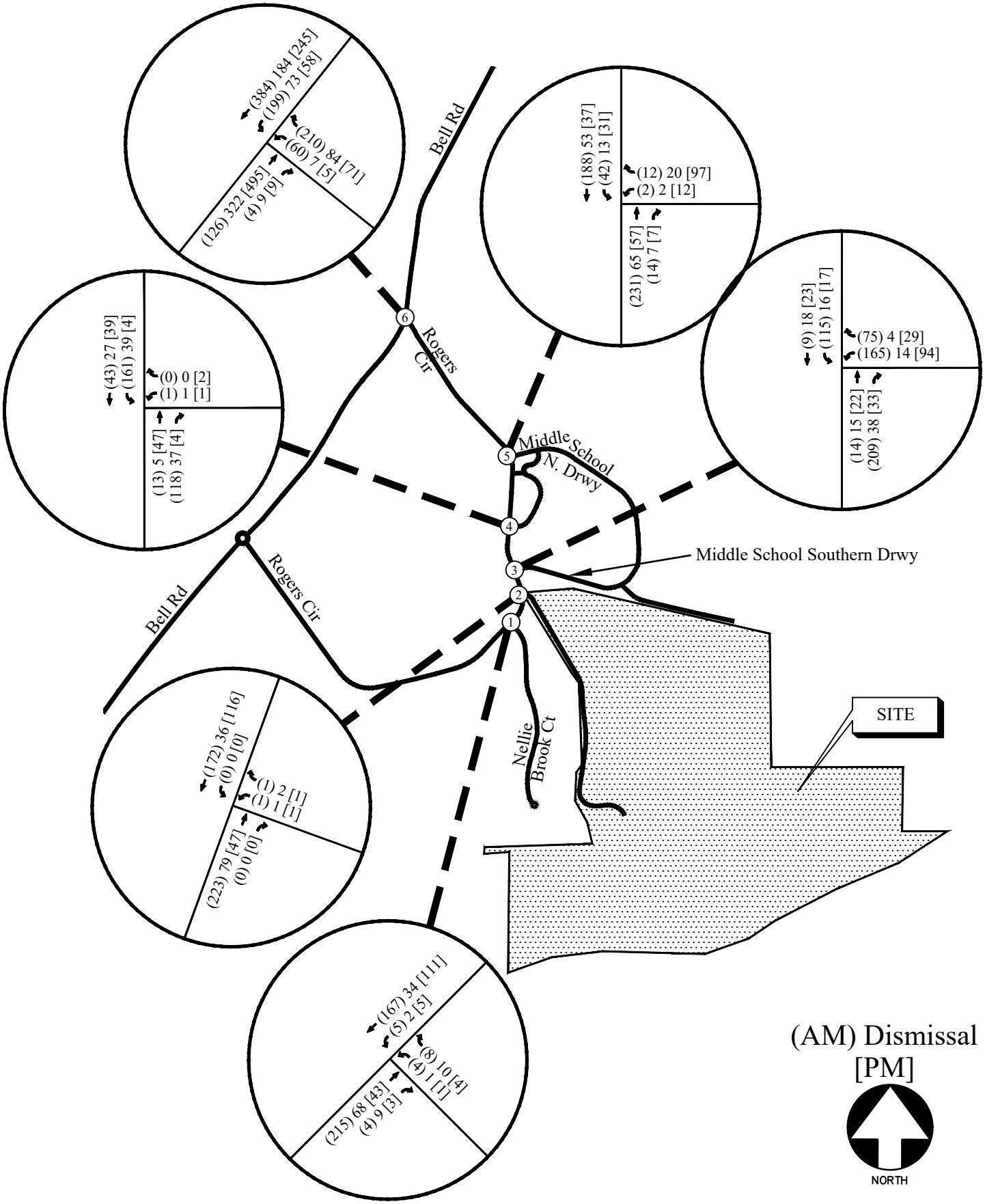
The "No-Build" (or background) conditions provide an assessment of how traffic will operate in the study horizon year without the study site being developed as proposed, with projected increases in through traffic volumes due to normal annual growth. The Future "No-Build" volumes consist of the existing traffic volumes (Figure 2) plus increases for annual growth of through traffic.

6.1.1 Annual Traffic Growth

In order to evaluate future traffic operations in this area, a projection of normal traffic growth was applied to the existing volumes. The Georgia Department of Transportation recorded average daily traffic volumes at several locations in the vicinity of the site. Reviewing the data over the last five years (2018 – 2019 & 2021 – 2023) revealed growth of approximately 1% in the area. This growth factor was applied to the existing traffic volumes between collector and arterial roadways to estimate the future year traffic volumes prior to the addition of site-generated traffic. The resulting Future "No-Build" volumes on the roadway are shown in Figure 6.

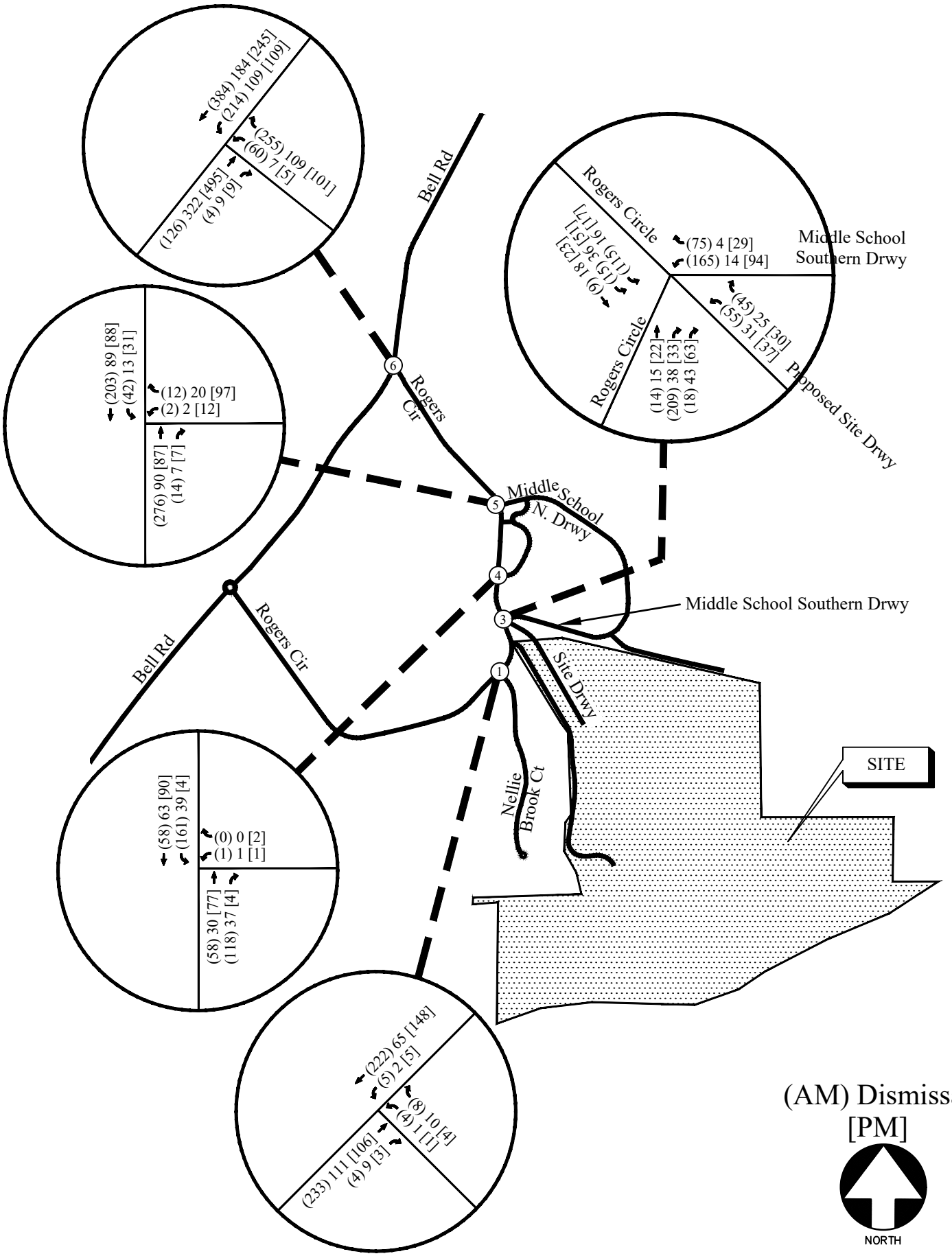
6.2 Future "Build" Conditions

The "Build" or development conditions include the estimated background traffic from the "No-Build" conditions plus the added traffic from the proposed development. To evaluate future traffic operations in this area, the additional traffic volumes from the site (Figure 5) were added to base traffic volumes (Figure 6) to calculate the future traffic volumes after the construction of the development. These total future "Build" traffic volumes are shown in Figure 7.



FUTURE (NO-BUILD) WEEKDAY PEAK HOUR VOLUMES FIGURE 6

A&R Engineering Inc.



FUTURE (BUILD) WEEKDAY PEAK HOUR VOLUMES FIGURE 7

A&R Engineering Inc.

6.3 Future Build Traffic Operations

The future "No-Build" and "Build" traffic operations were analysed using the volumes in Figure 6 and Figure 7, respectively. The results of the future traffic operations analysis are shown below in Table 5.

TABLE 5 – FUTURE INTERSECTION OPERATIONS

	Intersection	Future Condition: LOS (Delay)					
		NO-BUILD			BUILD		
		AM	Dismissal	PM	AM	Dismissal	PM
1	**Rogers Circle @ Nellie Brook Ct**						
	-Westbound Approach	B (11.0)	A (8.8)	A (9.3)	B (11.5)	A (9.2)	B (10.4)
	-Southbound Left	A (7.9)	A (7.4)	A (7.5)	A (8.0)	A (7.5)	A (7.8)
2	**Rogers Circle @ Embry Farm Rd (Site Driveway)**				See intersection # 3 below for proposed 4-legged roundabout combining intersections 2 & 3 in "Build" conditions.		
	-Westbound Approach	B (11.3)	A (9.0)	A (9.8)			
	-Southbound Left	A (7.9)	A (7.4)	A (7.4)			
3	**Rogers Circle @ Embry Farm Rd Middle School Southern Driveway**				**A (5.8)**	**A (3.6)**	**A (4.8)**
	-WB (Middle School Southern Driveway)	B (14.3)	A (9.1)	B (10.6)	A (5.9)	A (3.1)	A (5.1)
	-Northwest (Site Driveway)	-	-	-	A (6.0)	A (3.8)	A (4.5)
	-Northbound (Roger Circle)	-	-	-	A (5.2)	A (3.5)	A (5.1)
	-Southbound Left Roger Circle	-	-	-	A (5.5)	A (3.5)	A (3.7)
4	**Rogers Circle @ Shakerag Elementary School Southern Driveway**						
	-Westbound Approach	C (16.8)	A (9.6)	A (8.8)	C (19.1)	B (10.3)	A (9.2)
	-Southbound Left	A (8.5)	A (7.4)	A (7.4)	A (8.9)	A (7.5)	A (7.5)
5	**Rogers Circle @ Embry Farm Rd (Northern Access to River Trail Middle School)**						
	-Westbound Approach	B (12.1)	A (9.5)	B (10.3)	B (13.2)	B (10.0)	B (11.3)
	-Southbound Left	A (8.5)	A (7.7)	A (7.5)	A (8.8)	A (7.8)	A (7.7)
6	**Bell Road @ Rogers Circle**						
	-Westbound Approach	E (37.1)	B (12.6)	B (13.3)	E (49.3)	B (13.2)	B (14.0)
	-Southbound Left	A (8.1)	A (8.4)	A (8.7)	A (8.2)	A (8.6)	A (8.9)

The results of "No Build" traffic operations analysis indicate that most of the study intersections are operating at a level of service "C" or better during the AM, School Dismissal and PM peak hours. However, the westbound approach of Bell Road at Rogers Circle will operate at a Level of Service "E" during the AM peak hour.

With the proposed single-lane four-legged roundabout combining intersections 2 and 3, the results of the future "Build" traffic operations analysis indicates that most of study intersections will operate at a level of service "C" or better during the AM, School Dismissal and PM peak hours. However, the westbound approach of Bell Road at Rogers Circle will be operating at a level of service "E" during the AM peak hour. These projected delays at intersection 6 are addressed in section 6.4 on the following page.

6.4 Future Traffic Operations (Intersection 6 System Improvement)

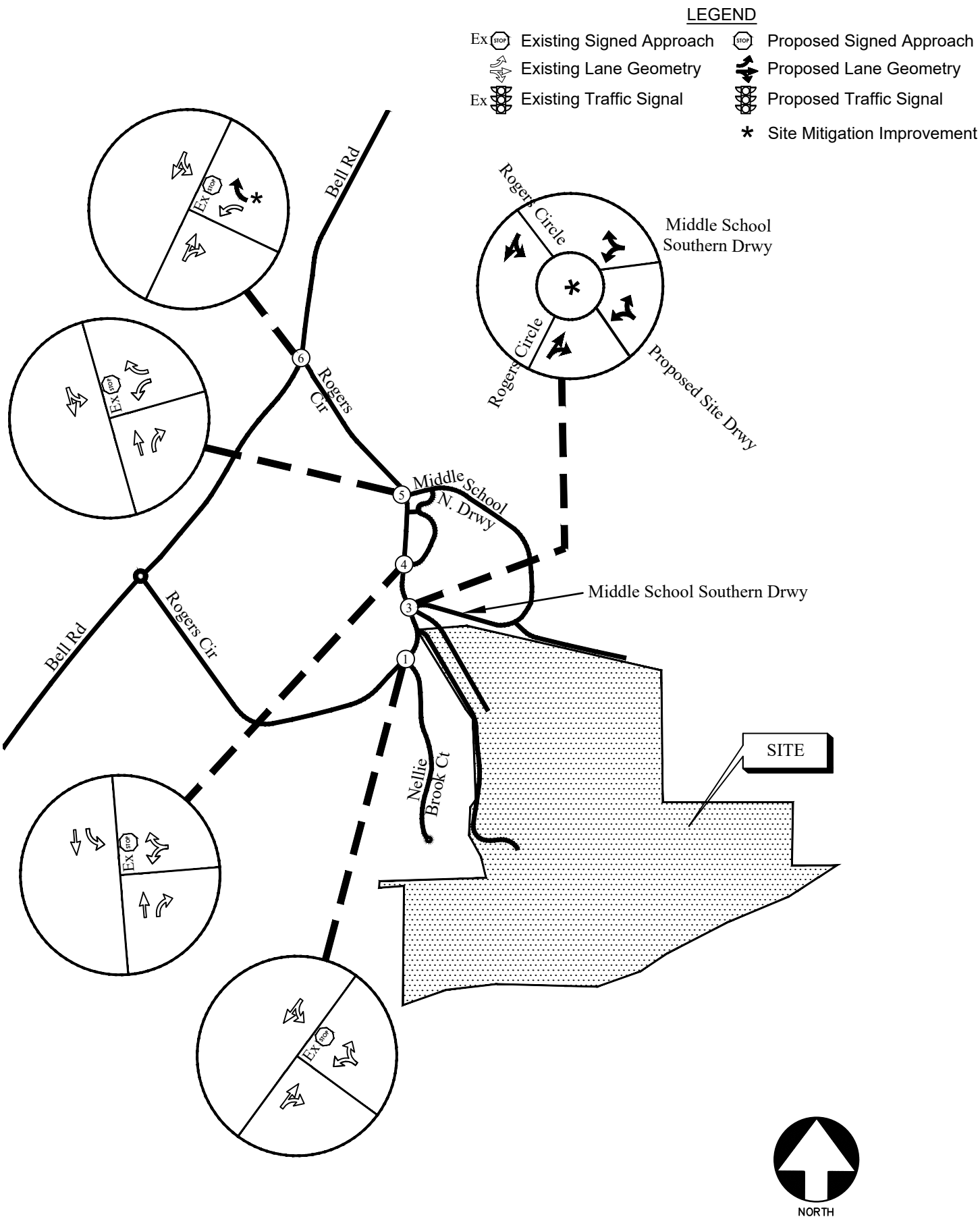
Since the Rogers Circle approach at intersection 6 is projected to experience heavy delays in the future with or without the addition of traffic from the proposed residential development, it is recommended that a right turn lane be consider in the future as a system improvement for the side street approach. The results of the system improvement are show below in Table 6.

TABLE 6 – FUTURE INTERSECTION OPERATIONS (INTERSECTION 6 – IMPROVED)

Intersection		Future Condition: LOS (Delay)					
		NO-BUILD			BUILD		
		AM	Dismissal	PM	AM	Dismissal	PM
6	**Bell Road @ Rogers Circle** -Westbound Approach -Southbound Left	 C (18.8) A (8.1)	 A (12.2) A (8.4)	 A (13.0) A (8.7)	 C (19.3) A (8.2)	 B (12.6) A (8.6)	 B (13.6) A (8.9)

The results of the improved conditions traffic analyses indicate that adding a right turn lane at intersection 6 will reduce the projected delay times during the peak periods on Rogers Circle.

Recommendations on traffic control and lane geometry are shown in Figure 8



FUTURE TRAFFIC CONTROL AND LANE GEOMETRY FIGURE 8

A&R Engineering Inc.

7.0 CONCLUSIONS AND RECOMMENDATIONS

Traffic impacts were evaluated from the proposed residential development that will be located to the southeast corner of the intersection of Rogers Circle and Embry Farm Road in City of Johns Creek, Georgia. The development will consist of 189 single family detached homes.

The development proposes the construction of a single-lane, four-legged roundabout on Rogers Circle by re-aligning the southern Embry Farm Road approach (the southern driveway of River Trail Middle School) to serve as the third leg, as well as re-aligning the existing Embry Farm Road approach to serve as the fourth leg to the intersection, which will act as the driveway to the proposed residential development. As a result, the new roundabout will replace two closely spaced, stop-controlled intersections on Rogers Circle and provide separate driveway on each side of the roundabout exits on Roger Circle. The development also proposes to extend the existing right turn lane from the elementary school to the new roundabout. Adding approximately 250 feet to increase the available storage for school drop-off and improve traffic flow.

Existing and future operations after the completion of the project were analysed at the intersections of:

1. Rogers Circle at Nellie Brook Court
2. Rogers Circle at Embry Farm (Site driveway)
3. Roger Circle at Middle School Southern Driveway
4. Rogers Circle at Shakerag Elementary School Southern Driveway
5. Rogers Circle at Middle School Northern Driveway
6. Rogers Circle at Bell Road

The analysis included the evaluation of Future operations for “No-Build” and “Build” conditions, the differences between “No-Build” and “Build” accounts for increase in traffic due to proposed development.

The results of “No Build” traffic operations analysis indicate that most of the study intersections are operating at a level of service “C” or better during the AM, School Dismissal and PM peak hours. However, the westbound approach of Bell Road at Rogers Circle will operate at a Level of Service "E" during the AM peak hour.

With the proposed single-lane four-legged roundabout combining intersections 2 and 3, the results of the future “Build” traffic operations analysis indicates that most of study intersections will operate at a level of service “C” or better during the AM, School Dismissal and PM peak hours. However, the westbound approach of Bell Road at Rogers Circle will be operating at a level of service “E” during the AM peak hour. These projected delays at intersection 6 are addressed in section 6.4 on the following page. Given that the Rogers Circle approach at intersection 6 is projected to experience heavy delays in the future with or without the addition of traffic from the proposed residential development, it is recommended that a right turn lane be consider in the future as a system improvement for the side street approach. Traffic analysis of the proposed improvement suggests that adding a right turn lane at intersection 6 will reduce the projected delay times during the peak periods on Rogers Circle.

7.1 Site Access Configuration / Site Mitigation Improvements

The developer proposes to construct a single-lane four-legged roundabout on Rogers Circle, replacing the two stop-controlled, closely spaced intersections of Embry Farm Road (Southern River Trail Middle School access) and the existing Embry Farm Road (residential driveway) intersections. The proposed roundabout will have the following four legs:

Northbound Approach – Rogers Circle
Southbound Approach – Rogers Circle
Westbound Approach – Embry Farm Road (River Trail Middle School Access)
Northwest Approach – Proposed Residential Development Driveway

Intersection 4: Rogers Circle at Shakerag Elementary School Southern Driveway

- Extend the existing right turn lane that services the elementary school to the new proposed roundabout to provide additional space for vehicles entering the school.

A concept roundabout design will be prepared and submitted for approval.

7.2 Recommendations for System Improvements

Intersection 6: Bell Road at Roger Circle

- A right turn lane on Roger Circle is recommended as a system improvement.

Appendix

Existing Intersection Traffic Counts .....
Linear Regression of Daily Traffic.....
Existing Intersection Analysis.....
Future “No-Build” Intersection Analysis.....
Future “Build” Intersection Analysis.....
Traffic Volume Worksheets .....

EXISTING INTERSECTION TRAFFIC COUNTS

A & R Engineering, Inc.

2160 Kingston Court, Suite 'O',

TMC Data
Rogers Circle @ Bell Road
7-9am | 2-4pm | 4-6pm

File Name : 20250044
Site Code : 20250044
Start Date : 2/11/2025
Page No : 1

Groups Printed- Cars, Buses & Trucks

	Bell Road Northbound				Bell Road Southbound				Eastbound				Rogers Circle Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	24	2	26	89	54	0	143	0	0	0	0	7	0	61	68	237
07:15 AM	0	20	1	21	59	92	0	151	0	0	0	0	34	0	103	137	309
07:30 AM	0	32	1	33	15	110	0	125	0	0	0	0	10	0	30	40	198
07:45 AM	0	48	0	48	32	120	0	152	0	0	0	0	8	0	12	20	220
Total	0	124	4	128	195	376	0	571	0	0	0	0	59	0	206	265	964
08:00 AM	0	40	2	42	49	81	0	130	0	0	0	0	2	0	31	33	205
08:15 AM	0	57	2	59	74	91	0	165	0	0	0	0	3	0	47	50	274
08:30 AM	0	36	0	36	43	95	0	138	0	0	0	0	3	0	72	75	249
08:45 AM	0	48	1	49	8	110	0	118	0	0	0	0	3	0	9	12	179
Total	0	181	5	186	174	377	0	551	0	0	0	0	11	0	159	170	907
*** BREAK ***																	
02:00 PM	0	45	2	47	11	26	0	37	0	0	0	0	1	0	9	10	94
02:15 PM	0	44	2	46	22	34	0	56	0	0	0	0	7	0	29	36	138
02:30 PM	0	63	3	66	4	41	0	45	0	0	0	0	3	0	34	37	148
02:45 PM	0	57	0	57	7	32	0	39	0	0	0	0	5	0	8	13	109
Total	0	209	7	216	44	133	0	177	0	0	0	0	16	0	80	96	489
03:00 PM	0	65	1	66	8	55	0	63	0	0	0	0	1	0	10	11	140
03:15 PM	0	70	0	70	12	39	0	51	0	0	0	0	0	0	14	14	135
03:30 PM	0	83	3	86	19	41	0	60	0	0	0	0	4	0	29	33	179
03:45 PM	0	98	5	103	33	45	0	78	0	0	0	0	2	0	29	31	212
Total	0	316	9	325	72	180	0	252	0	0	0	0	7	0	82	89	666
04:00 PM	0	93	2	95	9	34	0	43	0	0	0	0	4	0	87	91	229
04:15 PM	0	94	4	98	4	45	0	49	0	0	0	0	1	0	17	18	165
04:30 PM	0	107	2	109	14	63	0	77	0	0	0	0	2	0	11	13	199
04:45 PM	0	122	6	128	19	53	0	72	0	0	0	0	0	0	12	12	212
Total	0	416	14	430	46	195	0	241	0	0	0	0	7	0	127	134	805
05:00 PM	0	126	1	127	13	61	0	74	0	0	0	0	1	0	28	29	230
05:15 PM	0	130	0	130	11	63	0	74	0	0	0	0	2	0	19	21	225
05:30 PM	0	107	3	110	7	64	0	71	0	0	0	0	0	0	13	13	194
05:45 PM	0	88	1	89	4	68	0	72	0	0	0	0	2	0	9	11	172
Total	0	451	5	456	35	256	0	291	0	0	0	0	5	0	69	74	821
Grand Total	0	1697	44	1741	566	1517	0	2083	0	0	0	0	105	0	723	828	4652
Apprch %	0	97.5	2.5		27.2	72.8	0		0	0	0		12.7	0	87.3		
Total %	0	36.5	0.9	37.4	12.2	32.6	0	44.8	0	0	0	0	2.3	0	15.5	17.8	

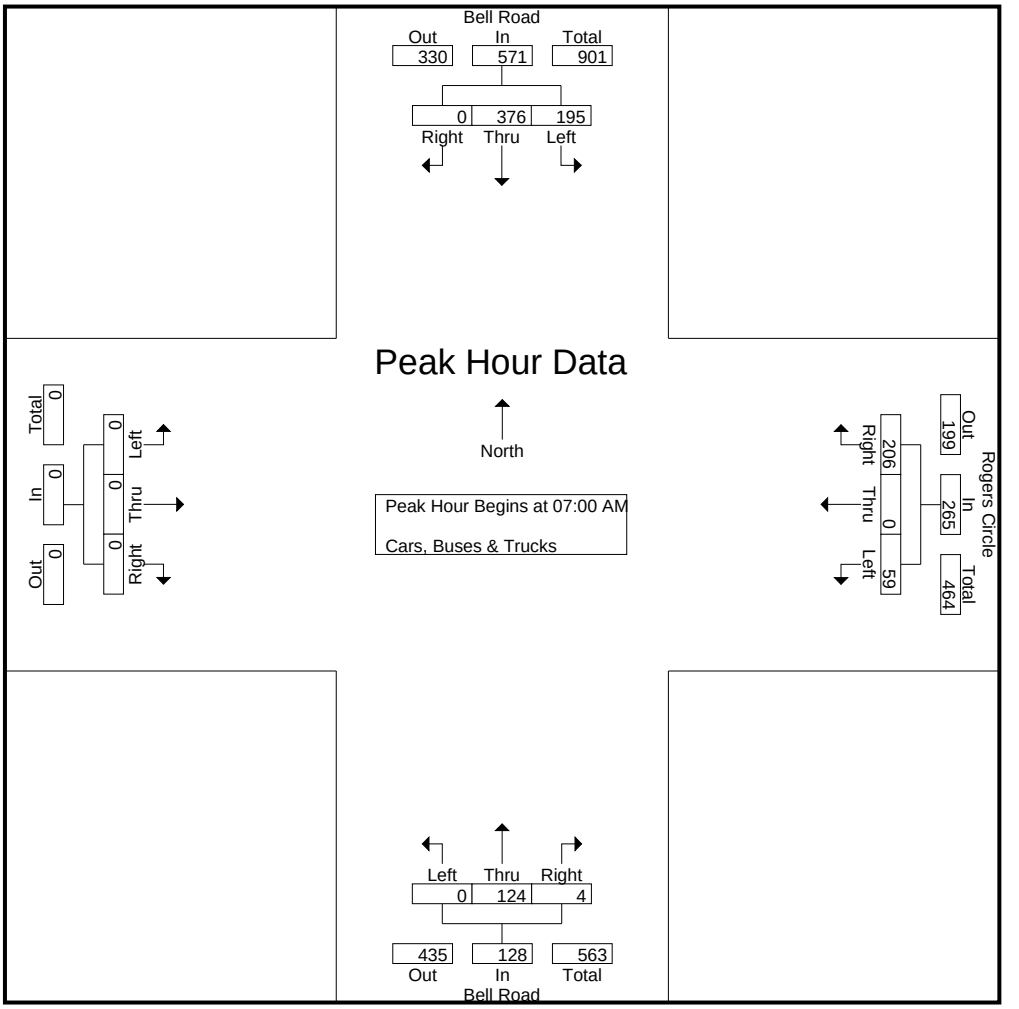
A & R Engineering, Inc.

2160 Kingston Court, Suite 'O',

TMC Data
Rogers Circle @ Bell Road
7-9am | 2-4pm | 4-6pm

File Name : 20250044
Site Code : 20250044
Start Date : 2/11/2025
Page No : 2

	Bell Road Northbound				Bell Road Southbound				Eastbound				Rogers Circle Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	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	0	24	**2**	26	**89**	54	0	143	0	0	0	0	7	0	61	68	237
07:15 AM	0	20	1	21	59	92	0	151	0	0	0	0	**34**	0	**103**	**137**	**309**
07:30 AM	0	32	1	33	15	110	0	125	0	0	0	0	10	0	30	40	198
07:45 AM	0	**48**	0	**48**	32	**120**	0	**152**	0	0	0	0	8	0	12	20	220
Total Volume	0	124	4	128	195	376	0	571	0	0	0	0	59	0	206	265	964
% App. Total	0	96.9	3.1		34.2	65.8	0		0	0	0		22.3	0	77.7		
PHF	.000	.646	.500	.667	.548	.783	.000	.939	.000	.000	.000	.000	.434	.000	.500	.484	.780



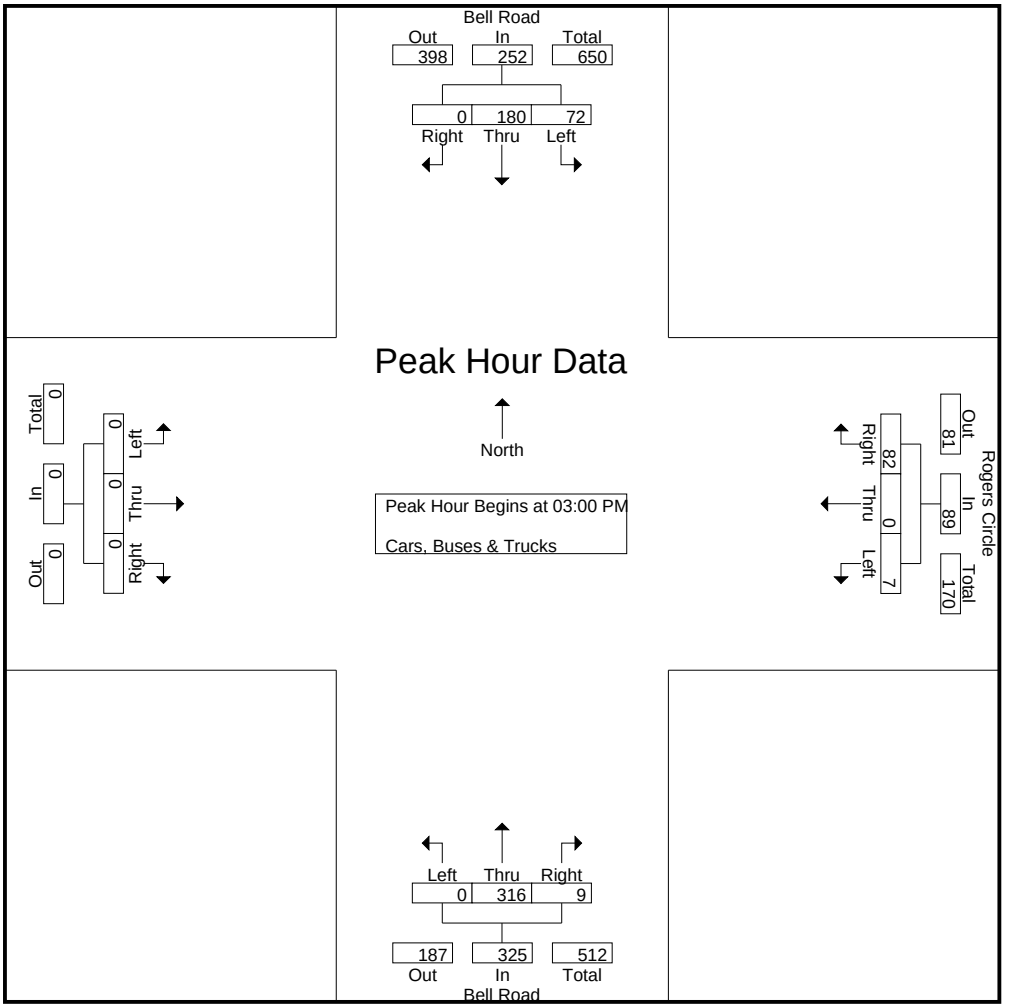
A & R Engineering, Inc.

2160 Kingston Court, Suite 'O',

TMC Data
Rogers Circle @ Bell Road
7-9am | 2-4pm | 4-6pm

File Name : 20250044
Site Code : 20250044
Start Date : 2/11/2025
Page No : 3

	Bell Road Northbound				Bell Road Southbound				Eastbound				Rogers Circle Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 03:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:00 PM																	
03:00 PM	0	65	1	66	8	**55**	0	63	0	0	0	0	1	0	10	11	140
03:15 PM	0	70	0	70	12	39	0	51	0	0	0	0	0	0	14	14	135
03:30 PM	0	83	3	86	19	41	0	60	0	0	0	0	**4**	0	**29**	**33**	179
03:45 PM	0	**98**	**5**	**103**	**33**	45	0	**78**	0	0	0	0	2	0	29	31	**212**
Total Volume	0	316	9	325	72	180	0	252	0	0	0	0	7	0	82	89	666
% App. Total	0	97.2	2.8		28.6	71.4	0		0	0	0		7.9	0	92.1		
PHF	.000	.806	.450	.789	.545	.818	.000	.808	.000	.000	.000	.000	.438	.000	.707	.674	.785



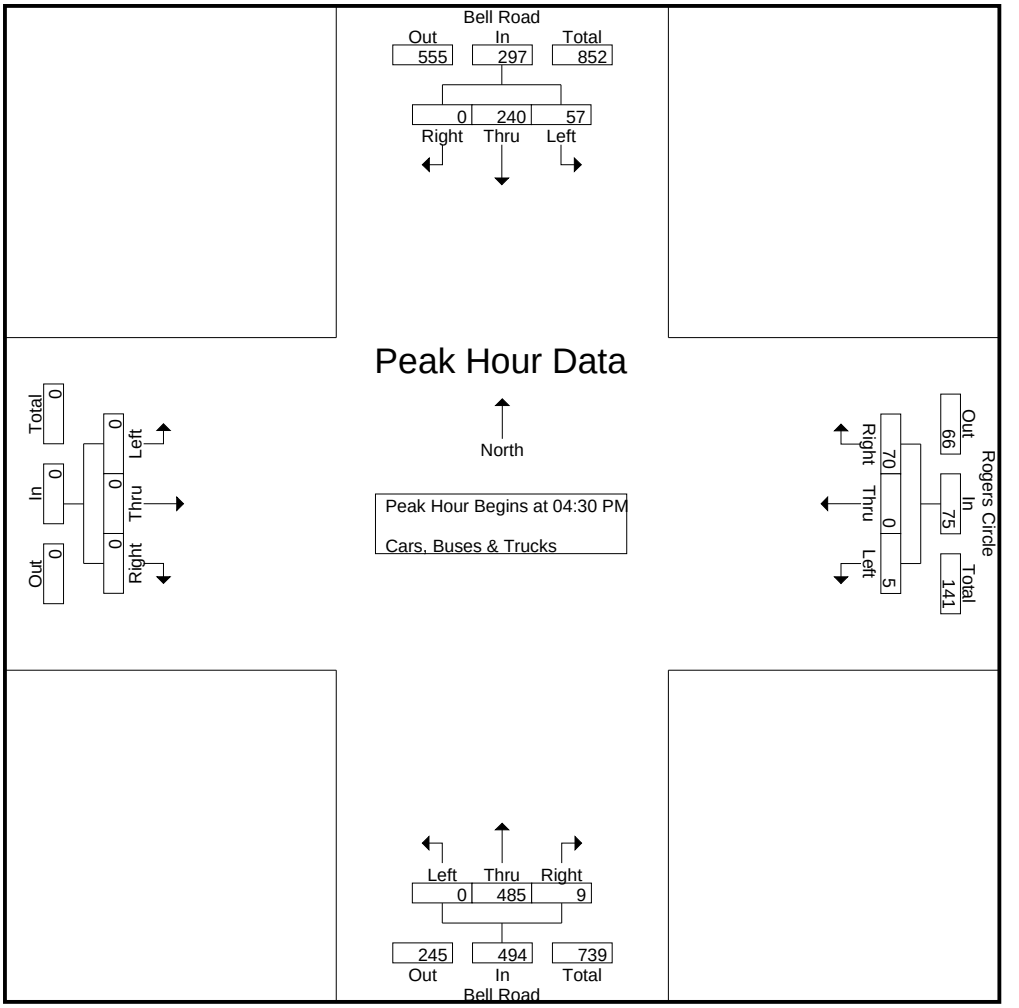
A & R Engineering, Inc.

2160 Kingston Court, Suite 'O',

TMC Data
Rogers Circle @ Bell Road
7-9am | 2-4pm | 4-6pm

File Name : 20250044
Site Code : 20250044
Start Date : 2/11/2025
Page No : 4

	Bell Road Northbound				Bell Road Southbound				Eastbound				Rogers Circle Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	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 04:30 PM																	
04:30 PM	0	107	2	109	14	**63**	0	**77**	0	0	0	0	**2**	0	11	13	199
04:45 PM	0	122	**6**	128	**19**	53	0	72	0	0	0	0	0	0	12	12	212
05:00 PM	0	126	1	127	13	61	0	74	0	0	0	0	1	0	**28**	**29**	**230**
05:15 PM	0	**130**	0	**130**	11	63	0	74	0	0	0	0	2	0	19	21	225
Total Volume	0	485	9	494	57	240	0	297	0	0	0	0	5	0	70	75	866
% App. Total	0	98.2	1.8		19.2	80.8	0		0	0	0		6.7	0	93.3		
PHF	.000	.933	.375	.950	.750	.952	.000	.964	.000	.000	.000	.000	.625	.000	.625	.647	.941



A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC Data
Rogers Circle @ Embry Farm Road (Norther
7-9 am | 4-6 pm

File Name : 20250045
Site Code : 20250045
Start Date : 02-11-2025
Page No : 1

Groups Printed- Cars, Buses & Trucks

	Rogers Cir Northbound				Rogers Cir Southbound				Eastbound				Embry Farm Rd Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	33	1	34	16	45	0	61	0	0	0	0	1	0	2	3	98
07:15 AM	0	109	9	118	5	98	0	103	0	0	0	0	1	0	6	7	228
07:30 AM	0	80	3	83	9	28	0	37	0	0	0	0	0	0	0	0	120
07:45 AM	0	4	1	5	11	13	0	24	0	0	0	0	0	0	4	4	33
Total	0	226	14	240	41	184	0	225	0	0	0	0	2	0	12	14	479
08:00 AM	0	15	1	16	23	22	0	45	0	0	0	0	0	0	19	19	80
08:15 AM	0	23	4	27	23	34	0	57	0	0	0	0	2	0	13	15	99
08:30 AM	0	33	3	36	18	58	0	76	0	0	0	0	2	0	30	32	144
08:45 AM	0	19	0	19	4	9	0	13	0	0	0	0	2	0	13	15	47
Total	0	90	8	98	68	123	0	191	0	0	0	0	6	0	75	81	370
*** BREAK ***																	
02:00 PM	0	2	4	6	3	12	0	15	0	0	0	0	0	0	1	1	22
02:15 PM	0	1	2	3	3	14	0	17	0	0	0	0	0	0	3	3	23
02:30 PM	0	58	1	59	6	21	0	27	0	0	0	0	2	0	14	16	102
02:45 PM	0	3	0	3	1	5	0	6	0	0	0	0	0	0	2	2	11
Total	0	64	7	71	13	52	0	65	0	0	0	0	2	0	20	22	158
03:00 PM	0	8	0	8	1	1	0	2	0	0	0	0	2	0	6	8	18
03:15 PM	0	9	0	9	3	11	0	14	0	0	0	0	0	0	2	2	25
03:30 PM	0	15	1	16	2	8	0	10	0	0	0	0	2	0	12	14	40
03:45 PM	0	11	6	17	13	20	0	33	0	0	0	0	0	0	15	15	65
Total	0	43	7	50	19	40	0	59	0	0	0	0	4	0	35	39	148
04:00 PM	0	32	1	33	15	6	0	21	0	0	0	0	10	0	55	65	119
04:15 PM	0	9	0	9	1	3	0	4	0	0	0	0	0	0	22	22	35
04:30 PM	0	4	0	4	1	7	0	8	0	0	0	0	2	0	3	5	17
04:45 PM	0	5	0	5	5	8	0	13	0	0	0	0	0	0	9	9	27
Total	0	50	1	51	22	24	0	46	0	0	0	0	12	0	89	101	198
05:00 PM	0	9	1	10	6	17	0	23	0	0	0	0	0	0	9	9	42
05:15 PM	0	11	0	11	0	3	0	3	0	0	0	0	0	0	15	15	29
05:30 PM	0	7	0	7	5	4	0	9	0	0	0	0	0	0	5	5	21
05:45 PM	0	4	0	4	0	3	0	3	0	0	0	0	0	0	7	7	14
Total	0	31	1	32	11	27	0	38	0	0	0	0	0	0	36	36	106
Grand Total	0	504	38	542	174	450	0	624	0	0	0	0	26	0	267	293	1459
Apprch %	0	93	7		27.9	72.1	0		0	0	0		8.9	0	91.1		
Total %	0	34.5	2.6	37.1	11.9	30.8	0	42.8	0	0	0	0	1.8	0	18.3	20.1	

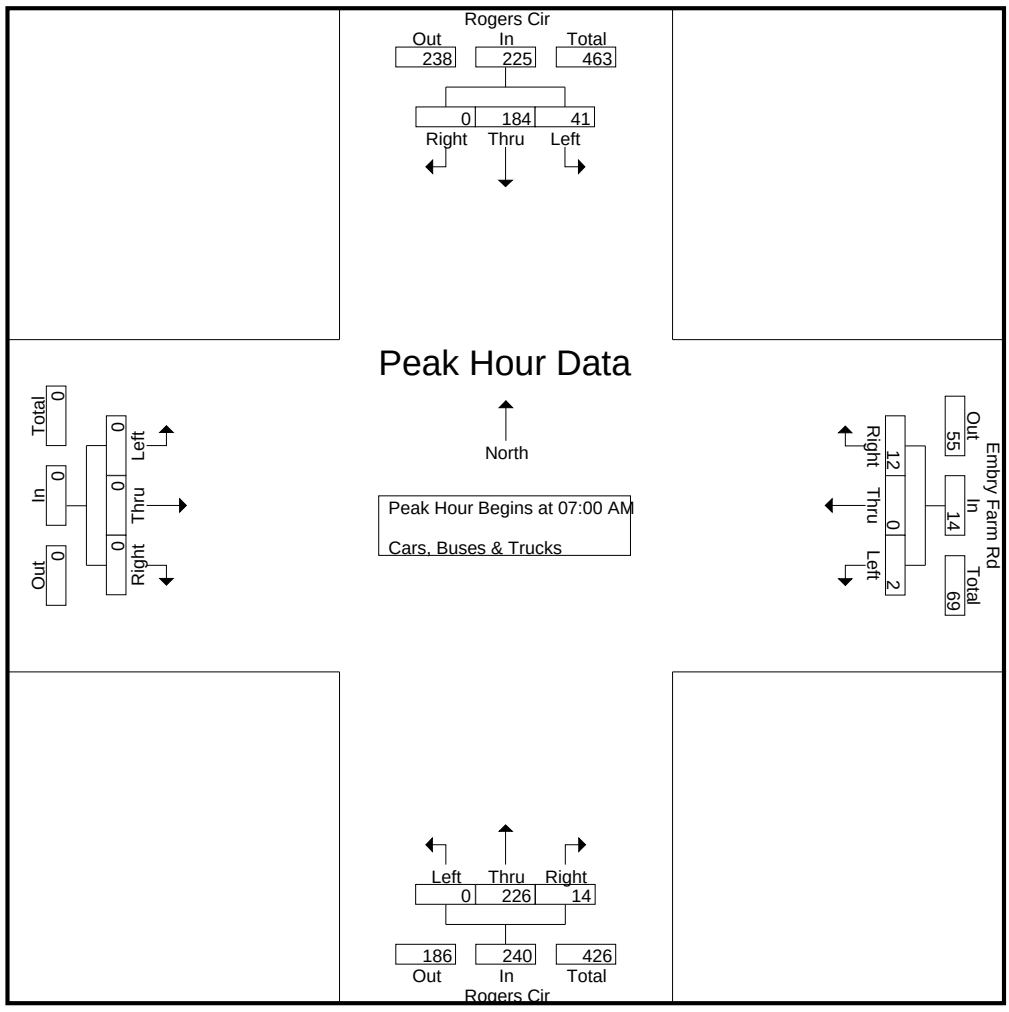
A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC Data
Rogers Circle @ Embry Farm Road (Norther
7-9 am | 4-6 pm

File Name : 20250045
Site Code : 20250045
Start Date : 02-11-2025
Page No : 2

	Rogers Cir Northbound				Rogers Cir Southbound				Eastbound				Embry Farm Rd Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	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	0	33	1	34	**16**	45	0	61	0	0	0	0	**1**	0	2	3	98
07:15 AM	0	**109**	**9**	**118**	5	**98**	0	**103**	0	0	0	0	1	0	**6**	**7**	**228**
07:30 AM	0	80	3	83	9	28	0	37	0	0	0	0	0	0	0	0	120
07:45 AM	0	4	1	5	11	13	0	24	0	0	0	0	0	0	4	4	33
Total Volume	0	226	14	240	41	184	0	225	0	0	0	0	2	0	12	14	479
% App. Total	0	94.2	5.8		18.2	81.8	0		0	0	0		14.3	0	85.7		
PHF	.000	.518	.389	.508	.641	.469	.000	.546	.000	.000	.000	.000	.500	.000	.500	.500	.525



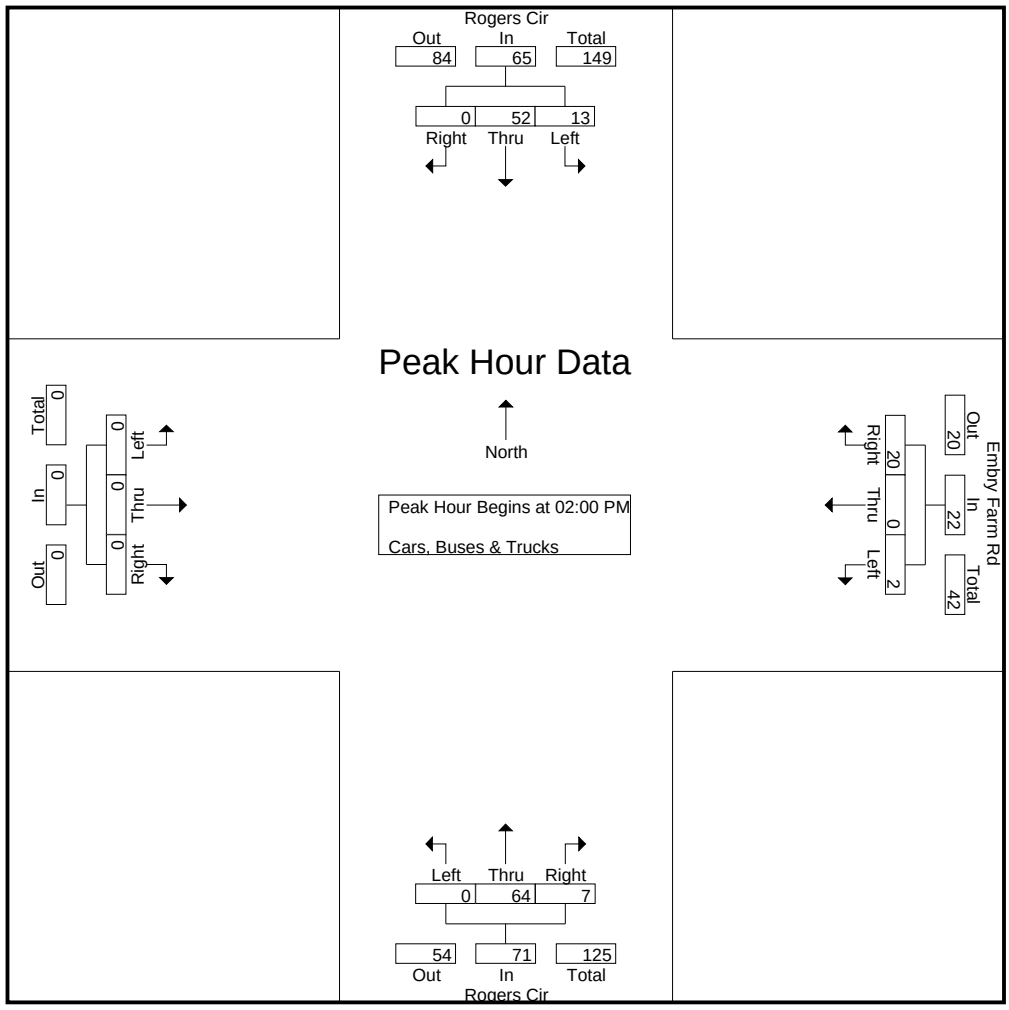
A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC Data
Rogers Circle @ Embry Farm Road (Norther
7-9 am | 4-6 pm

File Name : 20250045
Site Code : 20250045
Start Date : 02-11-2025
Page No : 3

	Rogers Cir Northbound				Rogers Cir Southbound				Eastbound				Embry Farm Rd Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 03:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 02:00 PM																	
02:00 PM	0	2	**4**	6	3	12	0	15	0	0	0	0	0	0	1	1	22
02:15 PM	0	1	2	3	3	14	0	17	0	0	0	0	0	0	3	3	23
02:30 PM	0	**58**	1	**59**	**6**	**21**	0	**27**	0	0	0	0	**2**	0	**14**	**16**	**102**
02:45 PM	0	3	0	3	1	5	0	6	0	0	0	0	0	0	2	2	11
Total Volume	0	64	7	71	13	52	0	65	0	0	0	0	2	0	20	22	158
% App. Total	0	90.1	9.9		20	80	0		0	0	0		9.1	0	90.9		
PHF	.000	.276	.438	.301	.542	.619	.000	.602	.000	.000	.000	.000	.250	.000	.357	.344	.387



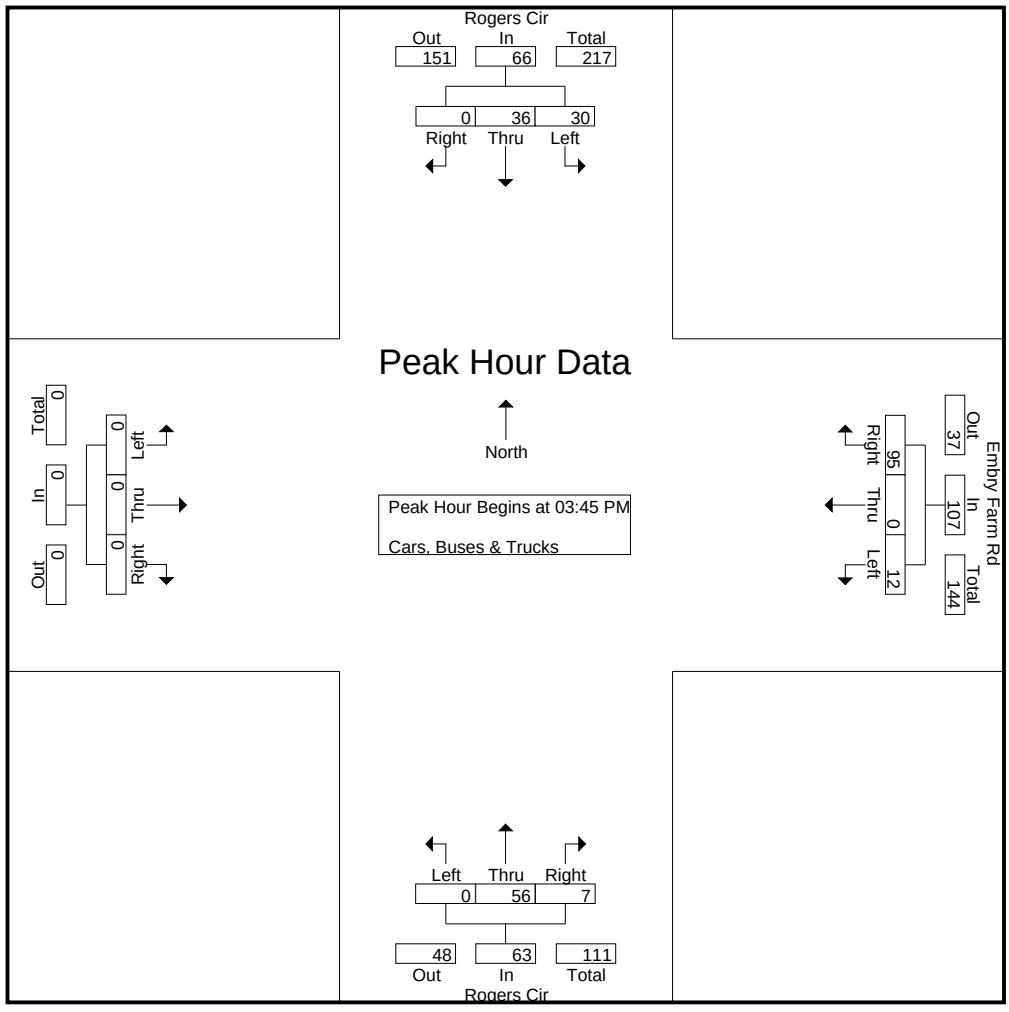
A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC Data
Rogers Circle @ Embry Farm Road (Norther
7-9 am | 4-6 pm

File Name : 20250045
Site Code : 20250045
Start Date : 02-11-2025
Page No : 4

	Rogers Cir Northbound				Rogers Cir Southbound				Eastbound				Embry Farm Rd Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:45 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:45 PM																	
03:45 PM	0	11	**6**	17	13	**20**	0	**33**	0	0	0	0	0	0	15	15	65
04:00 PM	0	**32**	1	**33**	**15**	6	0	21	0	0	0	0	**10**	0	**55**	**65**	**119**
04:15 PM	0	9	0	9	1	3	0	4	0	0	0	0	0	0	22	22	35
04:30 PM	0	4	0	4	1	7	0	8	0	0	0	0	2	0	3	5	17
Total Volume	0	56	7	63	30	36	0	66	0	0	0	0	12	0	95	107	236
% App. Total	0	88.9	11.1		45.5	54.5	0		0	0	0		11.2	0	88.8		
PHF	.000	.438	.292	.477	.500	.450	.000	.500	.000	.000	.000	.000	.300	.000	.432	.412	.496



A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC Data
Rogers Circle @ Embry Farm Road
(Middle School Southern Drwy)
7-9am | 2-4pm | 4-6pm

File Name : 20250046
Site Code : 20250046
Start Date : 02-11-2025
Page No : 1

Groups Printed- Cars, Buses & Trucks

	Rogers Circle Northbound				Rogers Circle Southbound				Eastbound				Embry Farm Rd (Middle School Southern Drwy) Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	10	4	14	1	1	0	2	0	0	0	0	1	0	0	1	17
07:15 AM	0	36	7	43	2	16	0	18	0	0	0	0	7	0	1	8	69
07:30 AM	0	80	4	84	0	13	0	13	0	0	0	0	10	0	1	11	108
07:45 AM	0	4	6	10	1	8	0	9	0	0	0	0	3	0	0	3	22
Total	0	130	21	151	4	38	0	42	0	0	0	0	21	0	2	23	216
08:00 AM	0	2	31	33	6	1	0	7	0	0	0	0	15	0	3	18	58
08:15 AM	0	3	42	45	21	1	0	22	0	0	0	0	32	0	9	41	108
08:30 AM	0	5	81	86	32	3	0	35	0	0	0	0	48	0	23	71	192
08:45 AM	0	4	51	55	54	4	0	58	0	0	0	0	67	0	39	106	219
Total	0	14	205	219	113	9	0	122	0	0	0	0	162	0	74	236	577
*** BREAK ***																	
02:00 PM	0	10	4	14	2	2	0	4	0	0	0	0	1	0	0	1	19
02:15 PM	0	9	2	11	1	4	0	5	0	0	0	0	5	0	1	6	22
02:30 PM	0	12	3	15	0	2	0	2	0	0	0	0	3	0	4	7	24
02:45 PM	0	5	3	8	1	15	0	16	0	0	0	0	5	0	0	5	29
Total	0	36	12	48	4	23	0	27	0	0	0	0	14	0	5	19	94
03:00 PM	0	0	2	2	2	1	0	3	0	0	0	0	2	0	0	2	7
03:15 PM	0	5	8	13	1	3	0	4	0	0	0	0	4	0	2	6	23
03:30 PM	0	5	9	14	4	4	0	8	0	0	0	0	5	0	2	7	29
03:45 PM	0	5	18	23	9	10	0	19	0	0	0	0	3	0	0	3	45
Total	0	15	37	52	16	18	0	34	0	0	0	0	14	0	4	18	104
04:00 PM	0	10	18	28	12	3	0	15	0	0	0	0	4	0	3	7	50
04:15 PM	0	5	8	13	1	12	0	13	0	0	0	0	73	0	20	93	119
04:30 PM	0	5	6	11	0	4	0	4	0	0	0	0	12	0	5	17	32
04:45 PM	0	2	0	2	4	4	0	8	0	0	0	0	3	0	0	3	13
Total	0	22	32	54	17	23	0	40	0	0	0	0	92	0	28	120	214
05:00 PM	0	6	12	18	6	3	0	9	0	0	0	0	2	0	2	4	31
05:15 PM	0	1	16	17	13	2	0	15	0	0	0	0	16	0	7	23	55
05:30 PM	0	6	4	10	0	5	0	5	0	0	0	0	12	0	4	16	31
05:45 PM	0	5	4	9	2	1	0	3	0	0	0	0	4	0	1	5	17
Total	0	18	36	54	21	11	0	32	0	0	0	0	34	0	14	48	134
Grand Total	0	235	343	578	175	122	0	297	0	0	0	0	337	0	127	464	1339
Apprch %	0	40.7	59.3		58.9	41.1	0		0	0	0		72.6	0	27.4		
Total %	0	17.6	25.6	43.2	13.1	9.1	0	22.2	0	0	0	0	25.2	0	9.5	34.7	

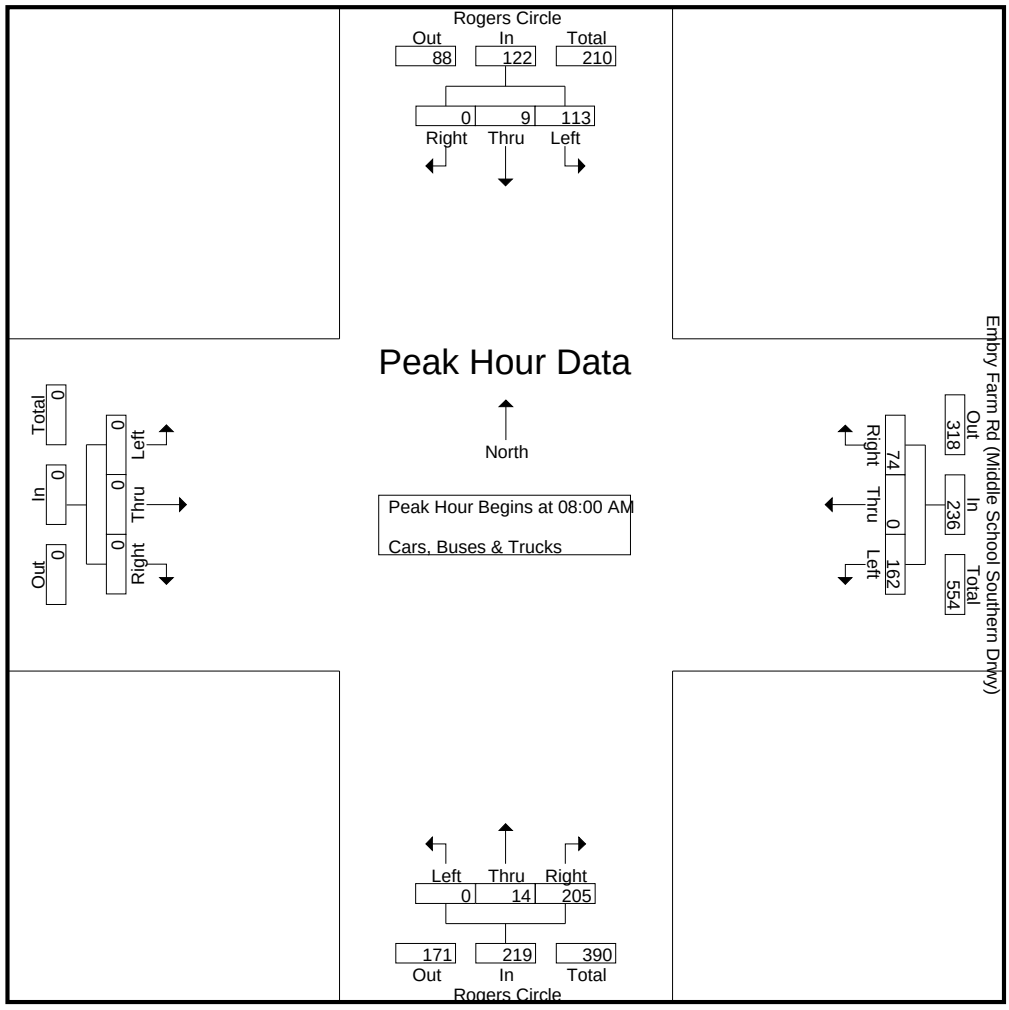
A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC Data
Rogers Circle @ Embry Farm Road
(Middle School Southern Drwy)
7-9am | 2-4pm | 4-6pm

File Name : 20250046
Site Code : 20250046
Start Date : 02-11-2025
Page No : 2

	Rogers Circle Northbound				Rogers Circle Southbound				Eastbound				Embry Farm Rd (Middle School Southern Drwy) Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	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 08:00 AM																	
08:00 AM	0	2	31	33	6	1	0	7	0	0	0	0	15	0	3	18	58
08:15 AM	0	3	42	45	21	1	0	22	0	0	0	0	32	0	9	41	108
08:30 AM	0	**5**	**81**	**86**	32	3	0	35	0	0	0	0	48	0	23	71	192
08:45 AM	0	4	51	55	**54**	**4**	0	**58**	0	0	0	0	**67**	0	**39**	**106**	**219**
Total Volume	0	14	205	219	113	9	0	122	0	0	0	0	162	0	74	236	577
% App. Total	0	6.4	93.6		92.6	7.4	0		0	0	0		68.6	0	31.4		
PHF	.000	.700	.633	.637	.523	.563	.000	.526	.000	.000	.000	.000	.604	.000	.474	.557	.659



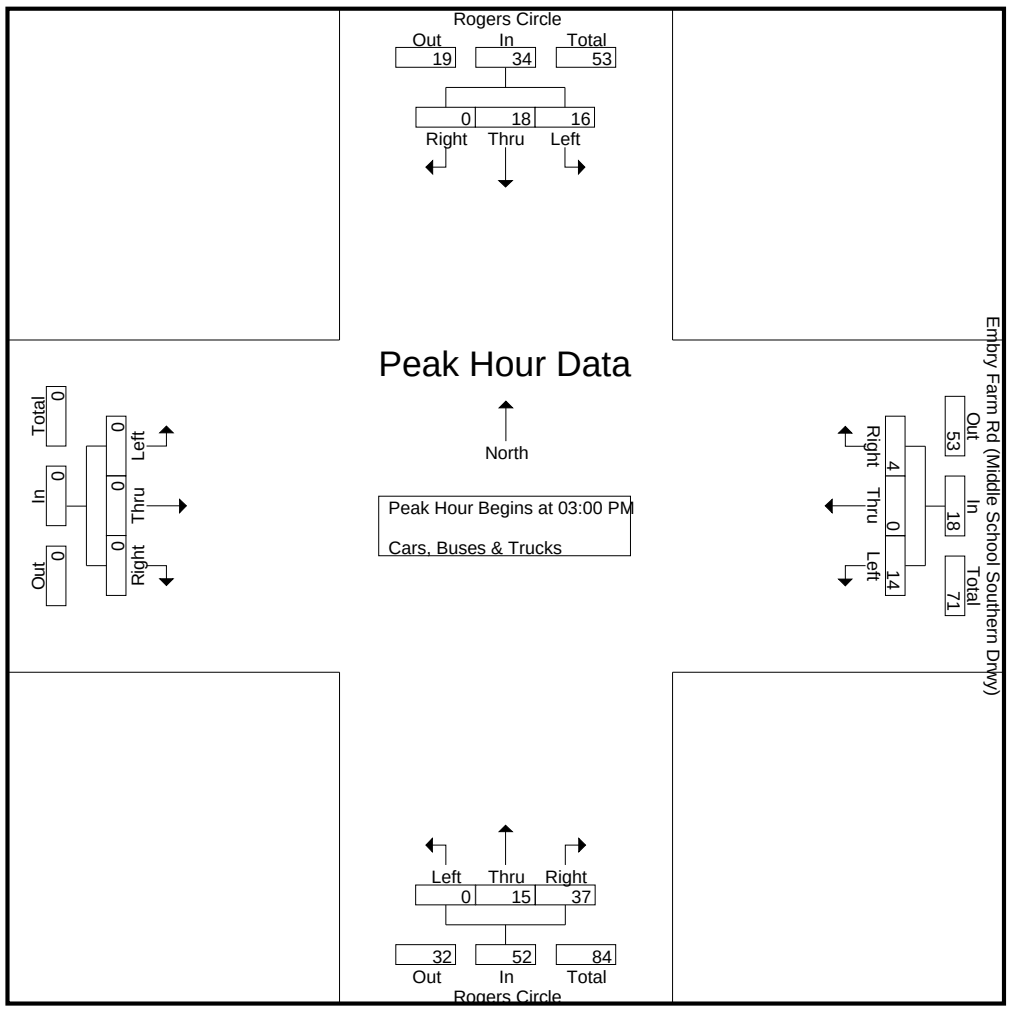
A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC Data
Rogers Circle @ Embry Farm Road
(Middle School Southern Drwy)
7-9am | 2-4pm | 4-6pm

File Name : 20250046
Site Code : 20250046
Start Date : 02-11-2025
Page No : 3

	Rogers Circle Northbound				Rogers Circle Southbound				Eastbound				Embry Farm Rd (Middle School Southern Drwy) Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 03:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:00 PM																	
03:00 PM	0	0	2	2	2	1	0	3	0	0	0	0	2	0	0	2	7
03:15 PM	0	**5**	8	13	1	3	0	4	0	0	0	0	4	0	**2**	6	23
03:30 PM	0	5	9	14	4	4	0	8	0	0	0	0	**5**	0	2	**7**	29
03:45 PM	0	5	**18**	**23**	**9**	**10**	0	**19**	0	0	0	0	3	0	0	3	**45**
Total Volume	0	15	37	52	16	18	0	34	0	0	0	0	14	0	4	18	104
% App. Total	0	28.8	71.2		47.1	52.9	0		0	0	0		77.8	0	22.2		
PHF	.000	.750	.514	.565	.444	.450	.000	.447	.000	.000	.000	.000	.700	.000	.500	.643	.578



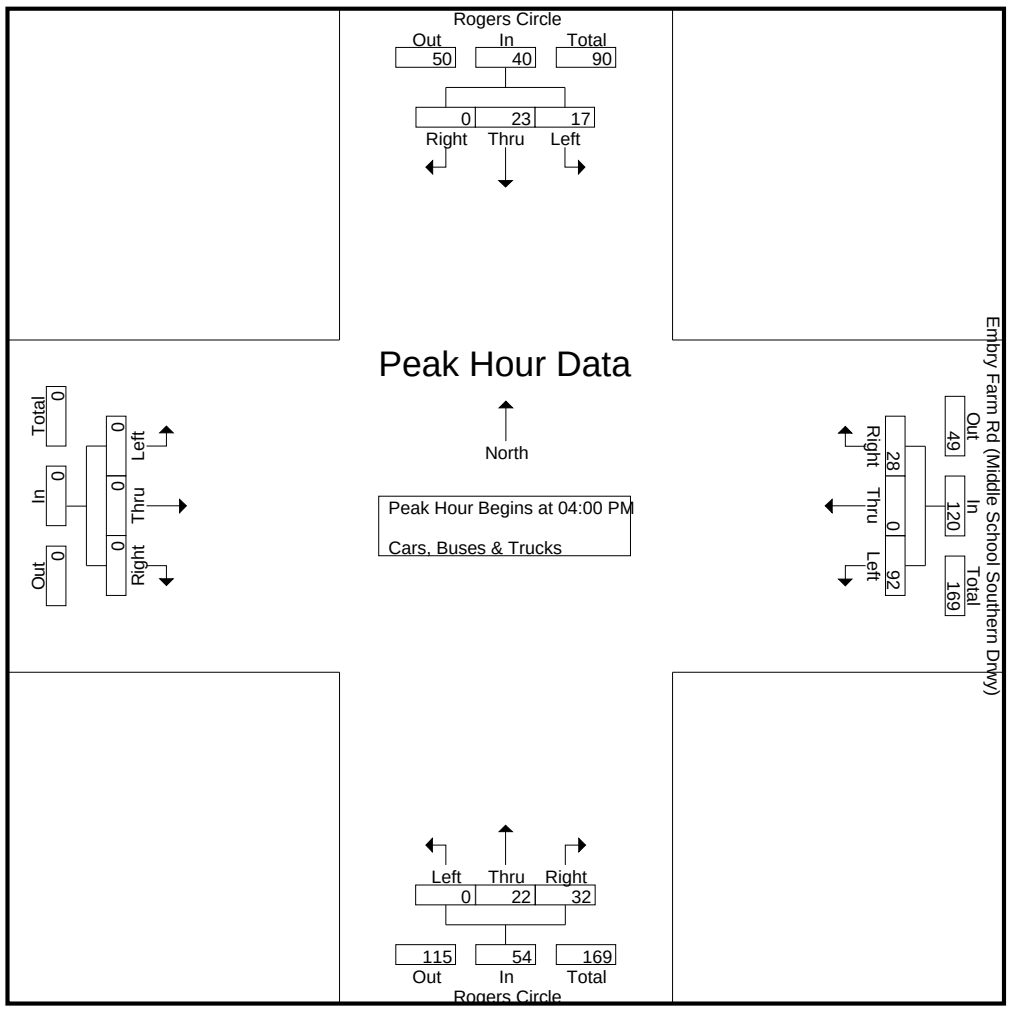
A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC Data
Rogers Circle @ Embry Farm Road
(Middle School Southern Drwy)
7-9am | 2-4pm | 4-6pm

File Name : 20250046
Site Code : 20250046
Start Date : 02-11-2025
Page No : 4

	Rogers Circle Northbound				Rogers Circle Southbound				Eastbound				Embry Farm Rd (Middle School Southern Drwy) Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	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	0	**10**	**18**	**28**	**12**	3	0	**15**	0	0	0	0	4	0	3	7	50
04:15 PM	0	5	8	13	1	**12**	0	13	0	0	0	0	**73**	0	**20**	**93**	**119**
04:30 PM	0	5	6	11	0	4	0	4	0	0	0	0	12	0	5	17	32
04:45 PM	0	2	0	2	4	4	0	8	0	0	0	0	3	0	0	3	13
Total Volume	0	22	32	54	17	23	0	40	0	0	0	0	92	0	28	120	214
% App. Total	0	40.7	59.3		42.5	57.5	0		0	0	0		76.7	0	23.3		
PHF	.000	.550	.444	.482	.354	.479	.000	.667	.000	.000	.000	.000	.315	.000	.350	.323	.450



A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC Data
Rogers Circle @ Elementary School
Southern Driveway
7-9 am | 2-4 pm | 4-6 pm

File Name : 20250047
Site Code : 20250047
Start Date : 02-11-2025
Page No : 1

Groups Printed- Cars, Buses & Trucks

	Rogers Circle Northbound				Rogers Circle Southbound				Eastbound				Elementary School Southern Driveway Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	4	9	13	14	3	0	17	0	0	0	0	0	0	0	0	30
07:15 AM	0	4	41	45	62	26	0	88	0	0	0	0	0	0	0	0	133
07:30 AM	0	1	66	67	79	9	0	88	0	0	0	0	0	0	0	0	155
07:45 AM	0	4	0	4	3	4	0	7	0	0	0	0	1	0	0	1	12
Total	0	13	116	129	158	42	0	200	0	0	0	0	1	0	0	1	330
08:00 AM	0	3	0	3	0	9	0	9	0	0	0	0	0	0	0	0	12
08:15 AM	0	17	0	17	0	29	0	29	0	0	0	0	0	0	0	0	46
08:30 AM	0	33	1	34	4	45	0	49	0	0	0	0	1	0	0	1	84
08:45 AM	0	35	0	35	1	37	0	38	0	0	0	0	0	0	0	0	73
Total	0	88	1	89	5	120	0	125	0	0	0	0	1	0	0	1	215
*** BREAK ***																	
02:00 PM	0	1	8	9	11	4	0	15	0	0	0	0	1	0	0	1	25
02:15 PM	0	3	1	4	0	3	0	3	0	0	0	0	0	0	0	0	7
02:30 PM	0	1	18	19	18	6	0	24	0	0	0	0	0	0	0	0	43
02:45 PM	0	0	9	9	9	13	0	22	0	0	0	0	0	0	0	0	31
Total	0	5	36	41	38	26	0	64	0	0	0	0	1	0	0	1	106
03:00 PM	0	3	0	3	0	4	0	4	0	0	0	0	0	0	0	0	7
03:15 PM	0	4	4	8	1	7	0	8	0	0	0	0	0	0	2	2	18
03:30 PM	0	4	1	5	4	9	0	13	0	0	0	0	0	0	1	1	19
03:45 PM	0	6	3	9	4	18	0	22	0	0	0	0	1	0	0	1	32
Total	0	17	8	25	9	38	0	47	0	0	0	0	1	0	3	4	76
04:00 PM	0	16	0	16	2	12	0	14	0	0	0	0	1	0	2	3	33
04:15 PM	0	23	0	23	0	11	0	11	0	0	0	0	0	0	0	0	34
04:30 PM	0	4	2	6	2	6	0	8	0	0	0	0	0	0	0	0	14
04:45 PM	0	3	2	5	0	9	0	9	0	0	0	0	0	0	0	0	14
Total	0	46	4	50	4	38	0	42	0	0	0	0	1	0	2	3	95
05:00 PM	0	5	1	6	2	11	0	13	0	0	0	0	0	0	0	0	19
05:15 PM	0	8	3	11	2	9	0	11	0	0	0	0	0	0	0	0	22
05:30 PM	0	6	3	9	1	6	0	7	0	0	0	0	0	0	0	0	16
05:45 PM	0	5	0	5	2	2	0	4	0	0	0	0	0	0	0	0	9
Total	0	24	7	31	7	28	0	35	0	0	0	0	0	0	0	0	66
Grand Total	0	193	172	365	221	292	0	513	0	0	0	0	5	0	5	10	888
Apprch %	0	52.9	47.1		43.1	56.9	0		0	0	0		50	0	50		
Total %	0	21.7	19.4	41.1	24.9	32.9	0	57.8	0	0	0	0	0.6	0	0.6	1.1	

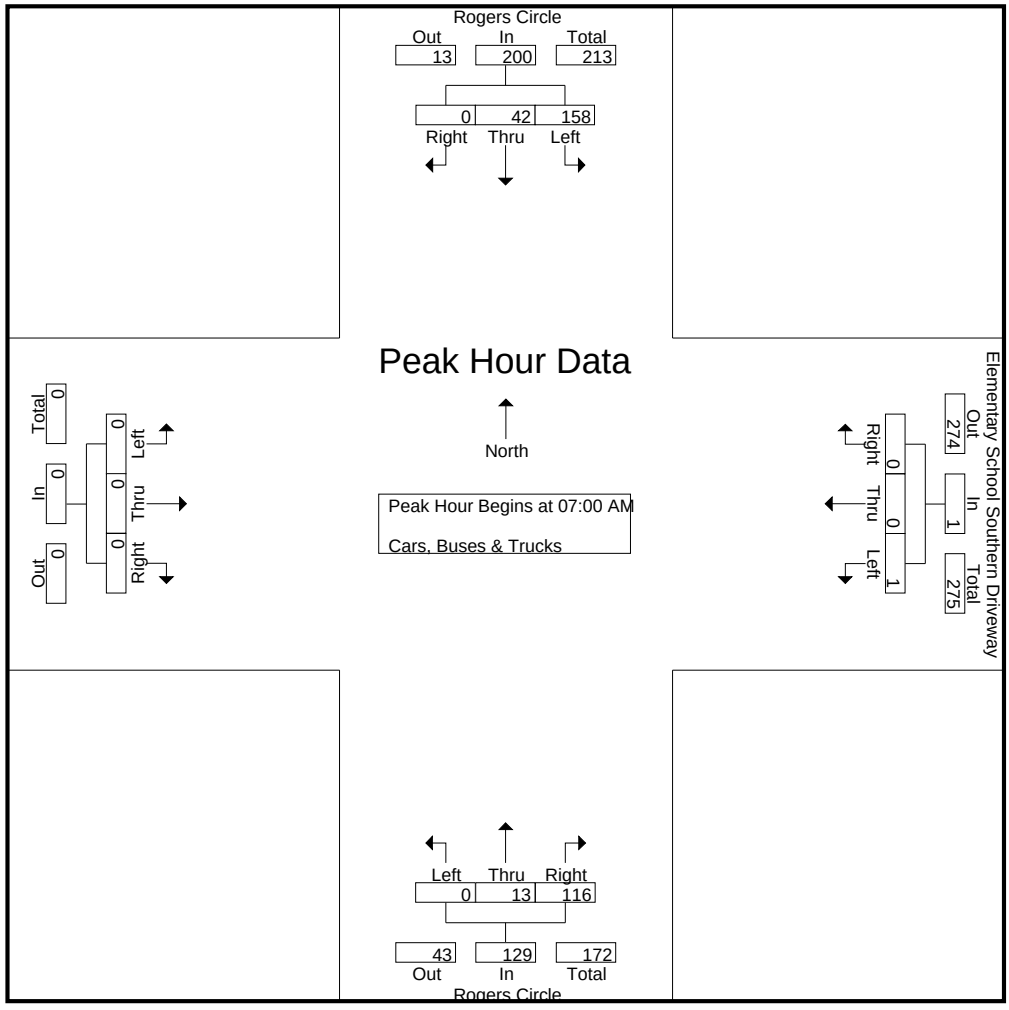
A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC Data
Rogers Circle @ Elementary School
Southern Driveway
7-9 am | 2-4 pm | 4-6 pm

File Name : 20250047
Site Code : 20250047
Start Date : 02-11-2025
Page No : 2

	Rogers Circle Northbound				Rogers Circle Southbound				Eastbound				Elementary School Southern Driveway Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	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	0	**4**	9	13	14	3	0	17	0	0	0	0	0	0	0	0	30
07:15 AM	0	4	41	45	62	**26**	0	**88**	0	0	0	0	0	0	0	0	133
07:30 AM	0	1	**66**	**67**	**79**	9	0	88	0	0	0	0	0	0	0	0	**155**
07:45 AM	0	4	0	4	3	4	0	7	0	0	0	0	**1**	0	0	**1**	12
Total Volume	0	13	116	129	158	42	0	200	0	0	0	0	1	0	0	1	330
% App. Total	0	10.1	89.9		79	21	0		0	0	0		100	0	0		
PHF	.000	.813	.439	.481	.500	.404	.000	.568	.000	.000	.000	.000	.250	.000	.000	.250	.532



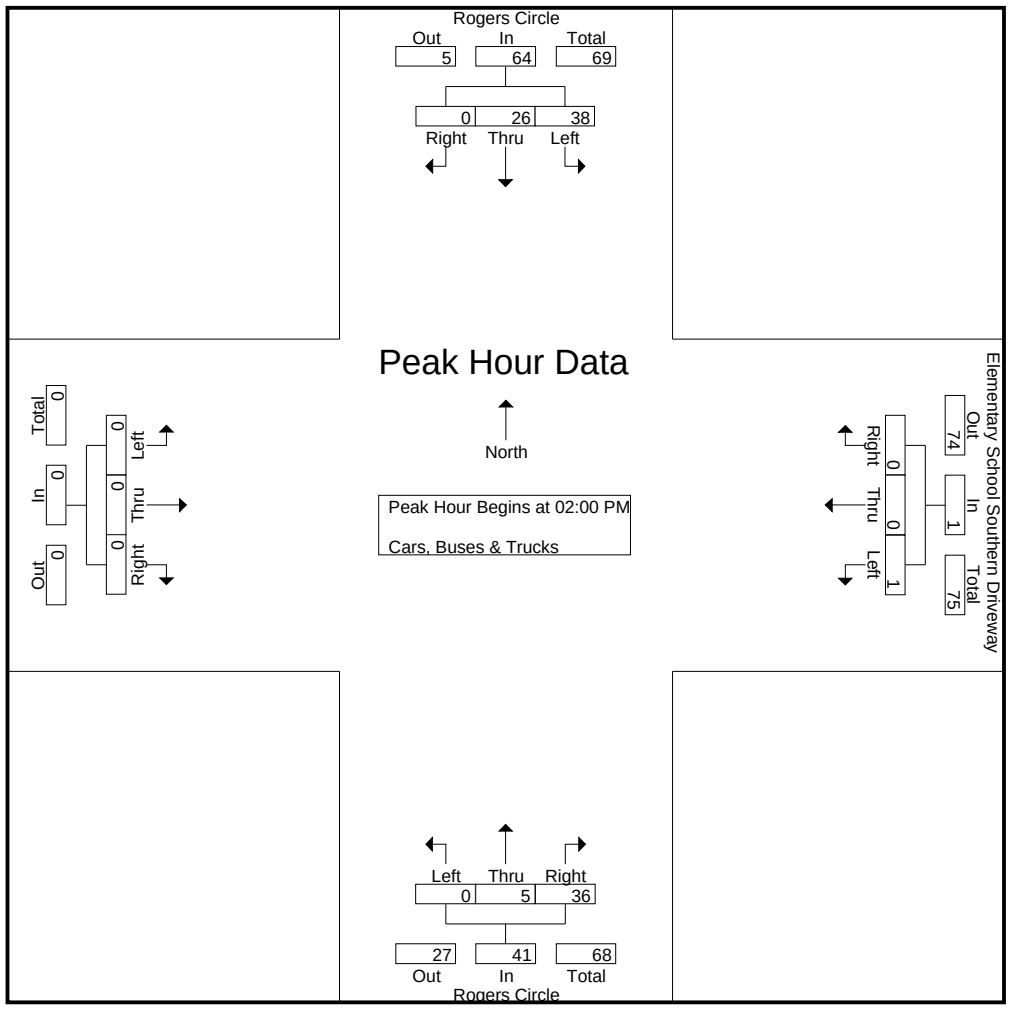
A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC Data
Rogers Circle @ Elementary School
Southern Driveway
7-9 am | 2-4 pm | 4-6 pm

File Name : 20250047
Site Code : 20250047
Start Date : 02-11-2025
Page No : 3

	Rogers Circle Northbound				Rogers Circle Southbound				Eastbound				Elementary School Southern Driveway Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 03:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 02:00 PM																	
02:00 PM	0	1	8	9	11	4	0	15	0	0	0	0	**1**	0	0	**1**	25
02:15 PM	0	**3**	1	4	0	3	0	3	0	0	0	0	0	0	0	0	7
02:30 PM	0	1	**18**	**19**	**18**	6	0	**24**	0	0	0	0	0	0	0	0	**43**
02:45 PM	0	0	9	9	9	**13**	0	22	0	0	0	0	0	0	0	0	31
Total Volume	0	5	36	41	38	26	0	64	0	0	0	0	1	0	0	1	106
% App. Total	0	12.2	87.8		59.4	40.6	0		0	0	0		100	0	0		
PHF	.000	.417	.500	.539	.528	.500	.000	.667	.000	.000	.000	.000	.250	.000	.000	.250	.616



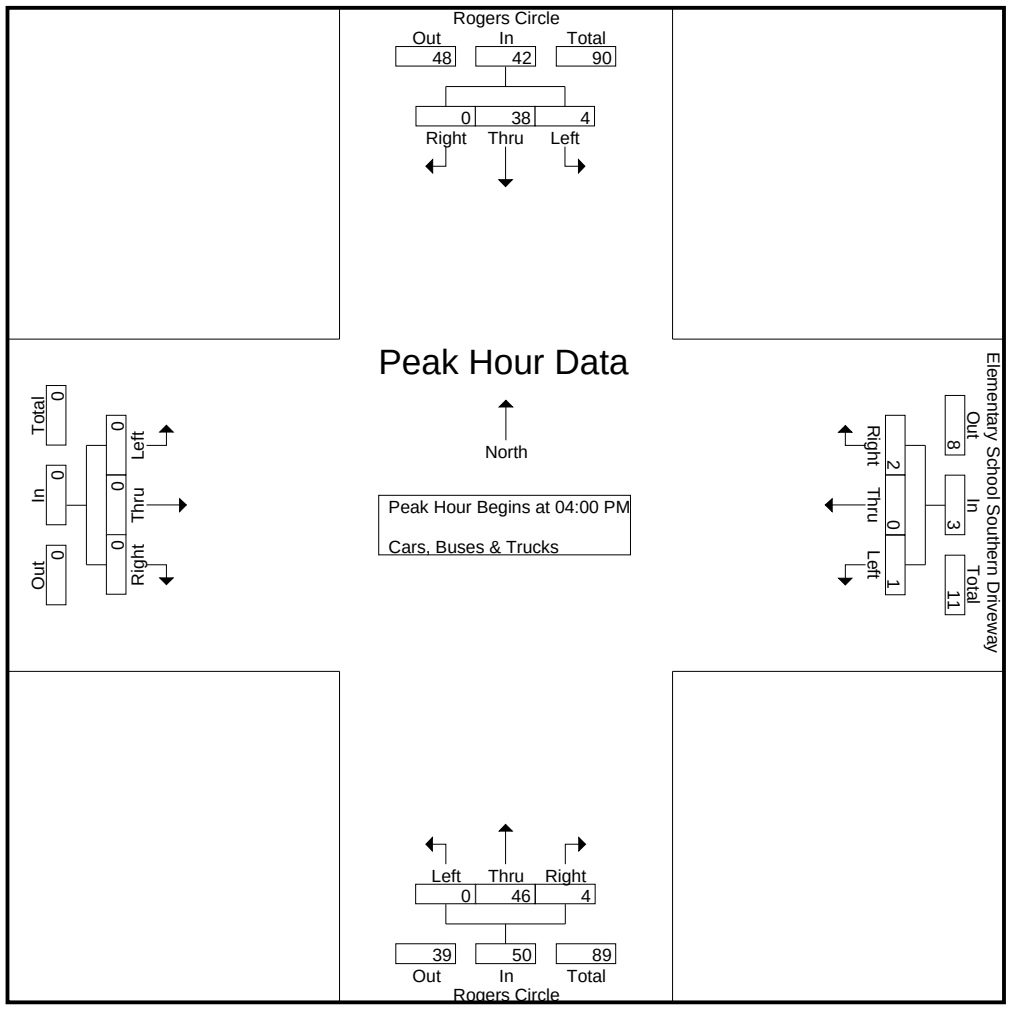
A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC Data
Rogers Circle @ Elementary School
Southern Driveway
7-9 am | 2-4 pm | 4-6 pm

File Name : 20250047
Site Code : 20250047
Start Date : 02-11-2025
Page No : 4

	Rogers Circle Northbound				Rogers Circle Southbound				Eastbound				Elementary School Southern Driveway Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	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	0	16	0	16	**2**	**12**	0	**14**	0	0	0	0	**1**	0	**2**	**3**	33
04:15 PM	0	**23**	0	**23**	0	11	0	11	0	0	0	0	0	0	0	0	**34**
04:30 PM	0	4	**2**	6	2	6	0	8	0	0	0	0	0	0	0	0	14
04:45 PM	0	3	2	5	0	9	0	9	0	0	0	0	0	0	0	0	14
Total Volume	0	46	4	50	4	38	0	42	0	0	0	0	1	0	2	3	95
% App. Total	0	92	8		9.5	90.5	0		0	0	0		33.3	0	66.7		
PHF	.000	.500	.500	.543	.500	.792	.000	.750	.000	.000	.000	.000	.250	.000	.250	.250	.699



A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC Data
Rogers Circle @ Nellie Brook Court
7-9 am | 2-4 pm | 4-6 pm

File Name : 20250049
Site Code : 20250049
Start Date : 02-11-2025
Page No : 1

Groups Printed- Cars, Buses & Trucks

	Rogers Circle Northbound				Rogers Circle Southbound				Eastbound				Nellie Brook Court Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	36	0	36	1	19	0	20	0	0	0	0	0	0	1	1	57
07:15 AM	0	91	0	91	0	25	0	25	0	0	0	0	4	0	1	5	121
07:30 AM	0	11	2	13	1	14	0	15	0	0	0	0	2	0	0	2	30
07:45 AM	0	28	1	29	0	11	0	11	0	0	0	0	1	0	0	1	41
Total	0	166	3	169	2	69	0	71	0	0	0	0	7	0	2	9	249
08:00 AM	0	45	1	46	3	31	0	34	0	0	0	0	1	0	4	5	85
08:15 AM	0	78	1	79	1	46	0	47	0	0	0	0	1	0	0	1	127
08:30 AM	0	60	1	61	1	76	0	77	0	0	0	0	1	0	4	5	143
08:45 AM	0	8	0	8	0	17	0	17	0	0	0	0	0	0	1	1	26
Total	0	191	3	194	5	170	0	175	0	0	0	0	3	0	9	12	381
*** BREAK ***																	
02:00 PM	0	11	0	11	1	8	0	9	0	0	0	0	1	0	0	1	21
02:15 PM	0	12	1	13	0	3	0	3	0	0	0	0	0	0	3	3	19
02:30 PM	0	9	1	10	2	20	0	22	0	0	0	0	0	0	0	0	32
02:45 PM	0	2	0	2	1	2	0	3	0	0	0	0	2	0	0	2	7
Total	0	34	2	36	4	33	0	37	0	0	0	0	3	0	3	6	79
03:00 PM	0	9	1	10	0	7	0	7	0	0	0	0	0	0	2	2	19
03:15 PM	0	13	1	14	1	8	0	9	0	0	0	0	1	0	1	2	25
03:30 PM	0	20	6	26	0	12	0	12	0	0	0	0	0	0	2	2	40
03:45 PM	0	25	1	26	1	6	0	7	0	0	0	0	0	0	5	5	38
Total	0	67	9	76	2	33	0	35	0	0	0	0	1	0	10	11	122
04:00 PM	0	15	2	17	4	76	0	80	0	0	0	0	1	0	0	1	98
04:15 PM	0	8	1	9	0	22	0	22	0	0	0	0	0	0	2	2	33
04:30 PM	0	2	0	2	1	6	0	7	0	0	0	0	0	0	0	0	9
04:45 PM	0	17	0	17	0	5	0	5	0	0	0	0	0	0	2	2	24
Total	0	42	3	45	5	109	0	114	0	0	0	0	1	0	4	5	164
05:00 PM	0	17	2	19	1	13	0	14	0	0	0	0	2	0	0	2	35
05:15 PM	0	10	0	10	0	18	0	18	0	0	0	0	1	0	0	1	29
05:30 PM	0	8	2	10	0	7	0	7	0	0	0	0	1	0	2	3	20
05:45 PM	0	2	1	3	1	7	0	8	0	0	0	0	0	0	0	0	11
Total	0	37	5	42	2	45	0	47	0	0	0	0	4	0	2	6	95
Grand Total	0	537	25	562	20	459	0	479	0	0	0	0	19	0	30	49	1090
Apprch %	0	95.6	4.4		4.2	95.8	0		0	0	0		38.8	0	61.2		
Total %	0	49.3	2.3	51.6	1.8	42.1	0	43.9	0	0	0	0	1.7	0	2.8	4.5	

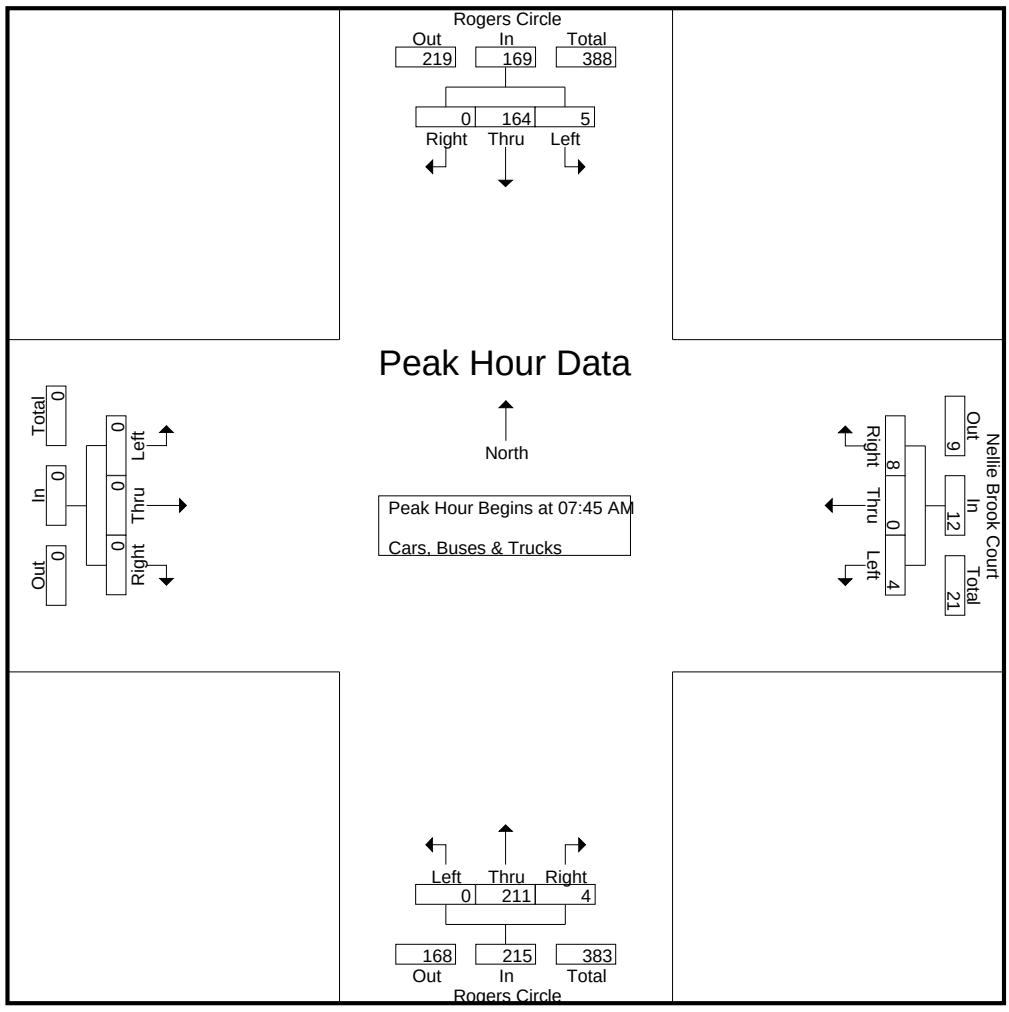
A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC Data
Rogers Circle @ Nellie Brook Court
7-9 am | 2-4 pm | 4-6 pm

File Name : 20250049
Site Code : 20250049
Start Date : 02-11-2025
Page No : 2

	Rogers Circle Northbound				Rogers Circle Southbound				Eastbound				Nellie Brook Court Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	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	0	28	**1**	29	0	11	0	11	0	0	0	0	**1**	0	0	1	41
08:00 AM	0	45	1	46	**3**	31	0	34	0	0	0	0	1	0	**4**	**5**	85
08:15 AM	0	**78**	1	**79**	1	46	0	47	0	0	0	0	1	0	0	1	127
08:30 AM	0	60	1	61	1	**76**	0	**77**	0	0	0	0	1	0	4	5	**143**
Total Volume	0	211	4	215	5	164	0	169	0	0	0	0	4	0	8	12	396
% App. Total	0	98.1	1.9		3	97	0		0	0	0		33.3	0	66.7		
PHF	.000	.676	1.00	.680	.417	.539	.000	.549	.000	.000	.000	.000	1.00	.000	.500	.600	.692



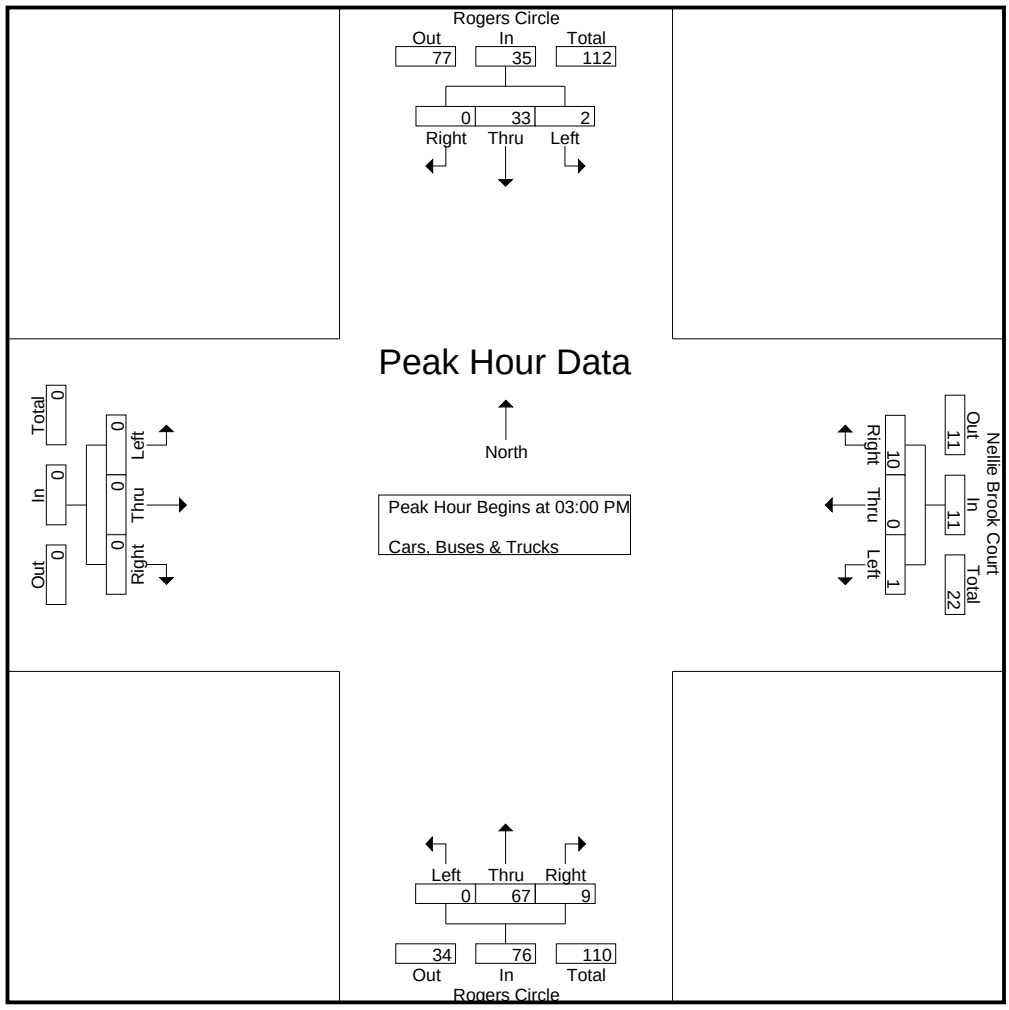
A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC Data
Rogers Circle @ Nellie Brook Court
7-9 am | 2-4 pm | 4-6 pm

File Name : 20250049
Site Code : 20250049
Start Date : 02-11-2025
Page No : 3

	Rogers Circle Northbound				Rogers Circle Southbound				Eastbound				Nellie Brook Court Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 03:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:00 PM																	
03:00 PM	0	9	1	10	0	7	0	7	0	0	0	0	0	0	2	2	19
03:15 PM	0	13	1	14	**1**	8	0	9	0	0	0	0	**1**	0	1	2	25
03:30 PM	0	20	**6**	**26**	0	**12**	0	**12**	0	0	0	0	0	0	2	2	**40**
03:45 PM	0	**25**	1	26	1	6	0	7	0	0	0	0	0	0	**5**	**5**	38
Total Volume	0	67	9	76	2	33	0	35	0	0	0	0	1	0	10	11	122
% App. Total	0	88.2	11.8		5.7	94.3	0		0	0	0		9.1	0	90.9		
PHF	.000	.670	.375	.731	.500	.688	.000	.729	.000	.000	.000	.000	.250	.000	.500	.550	.763



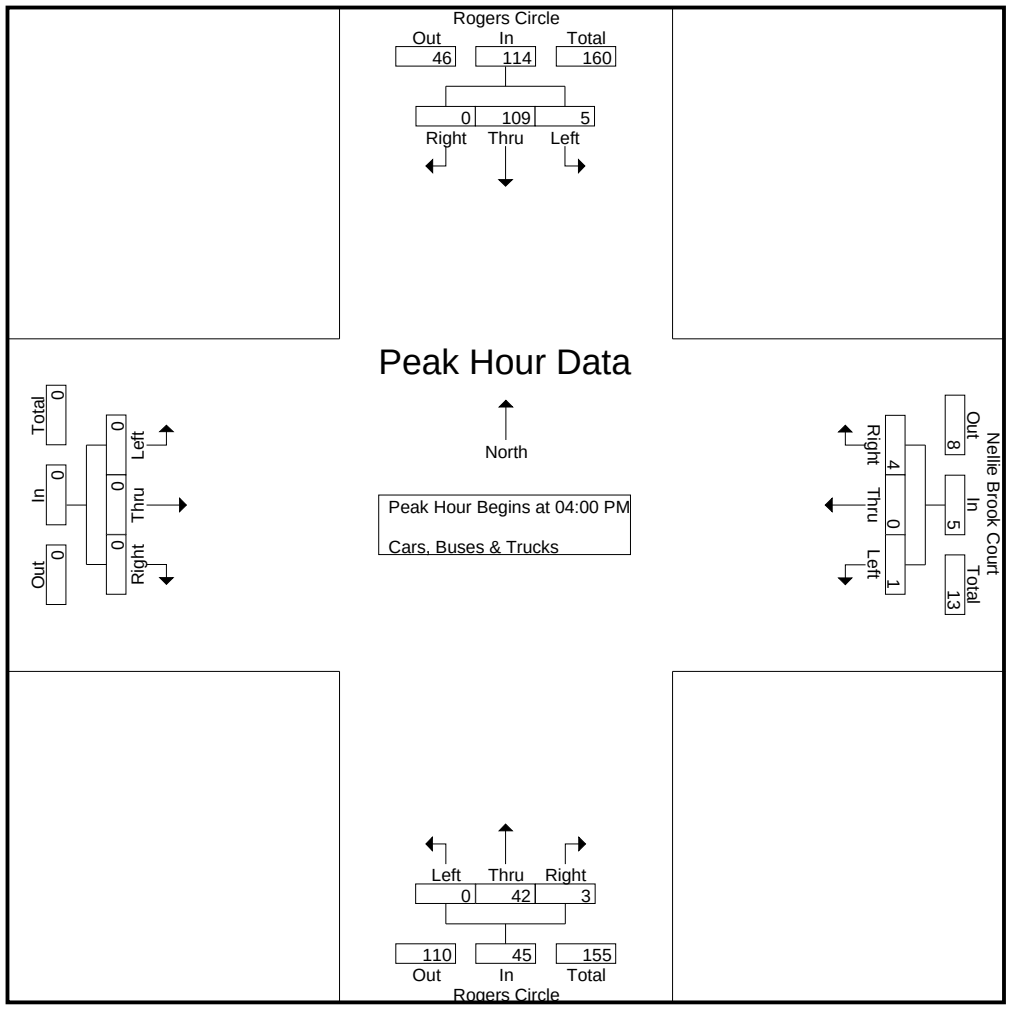
A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC Data
Rogers Circle @ Nellie Brook Court
7-9 am | 2-4 pm | 4-6 pm

File Name : 20250049
Site Code : 20250049
Start Date : 02-11-2025
Page No : 4

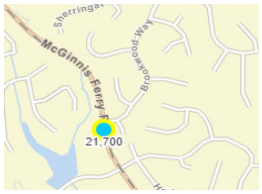
	Rogers Circle Northbound				Rogers Circle Southbound				Eastbound				Nellie Brook Court Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	15	**2**	**17**	**4**	**76**	0	**80**	0	0	0	0	**1**	0	0	1	**98**
04:15 PM	0	8	1	9	0	22	0	22	0	0	0	0	0	0	**2**	**2**	33
04:30 PM	0	2	0	2	1	6	0	7	0	0	0	0	0	0	0	0	9
04:45 PM	0	**17**	0	17	0	5	0	5	0	0	0	0	0	0	2	2	24
Total Volume	0	42	3	45	5	109	0	114	0	0	0	0	1	0	4	5	164
% App. Total	0	93.3	6.7		4.4	95.6	0		0	0	0		20	0	80		
PHF	.000	.618	.375	.662	.313	.359	.000	.356	.000	.000	.000	.000	.250	.000	.500	.625	.418

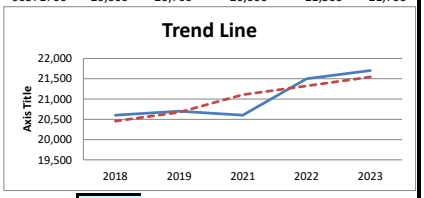


LINEAR REGRESSION OF DAILY TRAFFIC

Location	Growth Rate	R Squared	Station ID	Route	2018	2019	2021	2022	2023
McGinnis Ferry Rd (S of Brookwood Way)	1.3%	0.71	121-0965	00371700	20,600	20,700	20,600	21,500	21,700
Bells Rd (SW of Rogers Circle)	3.2%	0.67	121-0209	00007225	7,610	8,680	8,560	8,770	9,000
Peachtree Industrial Blvd (NE of Riverglen Cir)	0.0%	0.00	135-0672	-	35,700	37,900	33,600	35,000	38,000
Peachtree Industrial Blvd (W of Rogers Bridge Rd)	0.6%	0.12	135-0669	00195400	35,500	35,800	38,200	35,900	36,300
Abbotts Bridge Rd (NW of Sweet Creek Rd/ Parsons Rd)	0.3%	0.04	121-0318	00012000	20,900	20,200	20,800	21,600	20,400
Weighted Average	**0.7%**	0.54	Sum of Count Stations =		1,20,310	1,23,280	1,21,760	1,22,770	1,25,400

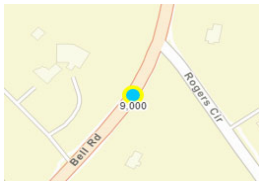
Location	Traffic Counter	RCLINK	2018	2019	2021	2022	2023
McGinnis Ferry Rd (S of Brookwood Way)	121-0965	00371700	20,600	20,700	20,600	21,500	21,700

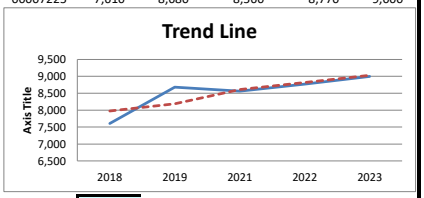




Growth Rate		1.3%	Intercept	-4,18,343	Slope	217.44
Trend Line	20,455	20,672	21,107	21,324	21,542	

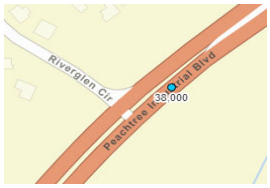
Location	Traffic Counter	RCLINK	2018	2019	2021	2022	2023
Bells Rd (SW of Rogers Circle)	121-0209	00007225	7,610	8,680	8,560	8,770	9,000

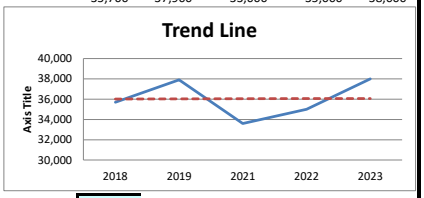




Growth Rate		3.2%	Intercept	-4,17,682	Slope	210.93
Trend Line	7,976	8,187	8,608	8,819	9,030	

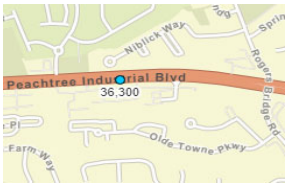
Location	Traffic Counter	RCLINK	2018	2019	2021	2022	2023
Peachtree Industrial Blvd (NE of Riverglen Cir)	135-0672	-	35,700	37,900	33,600	35,000	38,000

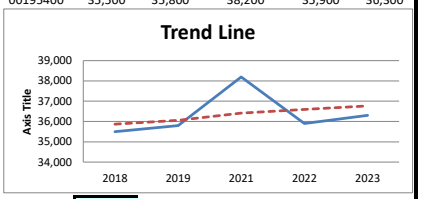




Growth Rate		0.0%	Intercept	14,894	Slope	10.47
Trend Line	36,013	36,023	36,044	36,055	36,065	

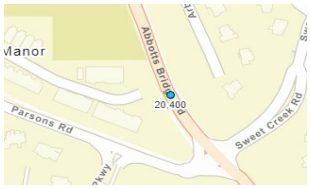
Location	Traffic Counter	RCLINK	2018	2019	2021	2022	2023
Peachtree Industrial Blvd (W of Rogers Bridge Rd)	135-0669	00195400	35,500	35,800	38,200	35,900	36,300

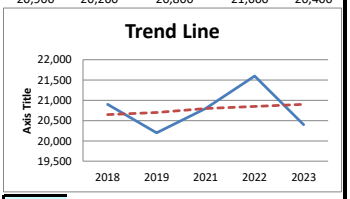




Growth Rate		0.6%	Intercept	-3,25,488	Slope	179.07
Trend Line	35,874	36,053	36,412	36,591	36,770	

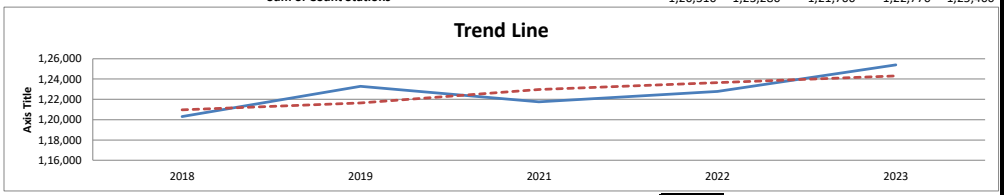
Location	Traffic Counter	RCLINK	2018	2019	2021	2022	2023
Abbotts Bridge Rd (NW of Sweet Creek Rd/ Parsons Rd)	121-0318	00012000	20,900	20,200	20,800	21,600	20,400





Growth Rate		0.3%	Intercept	-80,250	Slope	50.00
Trend Line	20,650	20,700	20,800	20,850	20,900	

Weighted Average	2018	2019	2021	2022	2023
Sum of Count Stations	1,20,310	1,23,280	1,21,760	1,22,770	1,25,400



Growth Rate		0.7%	Intercept	-12,26,869	Slope	667.91
Trend Line	1,20,967	1,21,635	1,22,971	1,23,639	1,24,307	

EXISTING INTERSECTION ANALYSIS

Intersection	
Int Delay, s/veh	0.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	8	211	4	5	164
Future Vol, veh/h	4	8	211	4	5	164
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	69	69	69	69	69	69
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	12	306	6	7	238

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	561	309	0	0	312	0
Stage 1	309	-	-	-	-	-
Stage 2	252	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	489	731	-	-	1248	-
Stage 1	745	-	-	-	-	-
Stage 2	790	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	486	731	-	-	1248	-
Mov Cap-2 Maneuver	486	-	-	-	-	-
Stage 1	745	-	-	-	-	-
Stage 2	785	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.9	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	626	1248	-
HCM Lane V/C Ratio	-	-	0.028	0.006	-
HCM Control Delay (s)	-	-	10.9	7.9	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	1	219	0	1	169
Future Vol, veh/h	1	1	219	0	1	169
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	69	69	69	69	69	69
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	1	317	0	1	245

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	564	317	0	0	317	0
Stage 1	317	-	-	-	-	-
Stage 2	247	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	487	724	-	-	1243	-
Stage 1	738	-	-	-	-	-
Stage 2	794	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	487	724	-	-	1243	-
Mov Cap-2 Maneuver	487	-	-	-	-	-
Stage 1	738	-	-	-	-	-
Stage 2	793	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.2	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	582	1243	-
HCM Lane V/C Ratio	-	-	0.005	0.001	-
HCM Control Delay (s)	-	-	11.2	7.9	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	7.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	162	74	14	205	113	9
Future Vol, veh/h	162	74	14	205	113	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Yield	-	Yield	-	None
Storage Length	0	50	-	105	130	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	66	66	66	66	66	66
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	245	112	21	311	171	14

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	377	21	0	0	21	0
Stage 1	21	-	-	-	-	-
Stage 2	356	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	625	1056	-	-	1595	-
Stage 1	1002	-	-	-	-	-
Stage 2	709	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	558	1056	-	-	1595	-
Mov Cap-2 Maneuver	558	-	-	-	-	-
Stage 1	1002	-	-	-	-	-
Stage 2	633	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14	0	7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	558	1056	1595	-
HCM Lane V/C Ratio	-	-	0.44	0.106	0.107	-
HCM Control Delay (s)	-	-	16.4	8.8	7.5	-
HCM Lane LOS	-	-	C	A	A	-
HCM 95th %tile Q(veh)	-	-	2.2	0.4	0.4	-

Intersection	
Int Delay, s/veh	4.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	0	13	116	158	42
Future Vol, veh/h	1	0	13	116	158	42
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	140	190	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	53	53	53	53	53	53
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	0	25	219	298	79

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	700	25	0	0	244	0
Stage 1	25	-	-	-	-	-
Stage 2	675	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	405	1051	-	-	1322	-
Stage 1	998	-	-	-	-	-
Stage 2	506	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	314	1051	-	-	1322	-
Mov Cap-2 Maneuver	314	-	-	-	-	-
Stage 1	998	-	-	-	-	-
Stage 2	392	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.5	0	6.7
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	314	1322	-
HCM Lane V/C Ratio	-	-	0.006	0.226	-
HCM Control Delay (s)	-	-	16.5	8.5	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0	0.9	-

Intersection	
Int Delay, s/veh	1.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	12	226	14	41	184
Future Vol, veh/h	2	12	226	14	41	184
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	65	-	55	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	53	53	53	53	53	53
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	23	426	26	77	347

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	927	426	0	0	452	0
Stage 1	426	-	-	-	-	-
Stage 2	501	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	298	628	-	-	1109	-
Stage 1	659	-	-	-	-	-
Stage 2	609	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	272	628	-	-	1109	-
Mov Cap-2 Maneuver	272	-	-	-	-	-
Stage 1	659	-	-	-	-	-
Stage 2	557	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12	0	1.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	272	628	1109	-
HCM Lane V/C Ratio	-	-	0.014	0.036	0.07	-
HCM Control Delay (s)	-	-	18.4	10.9	8.5	0
HCM Lane LOS	-	-	C	B	A	A
HCM 95th %tile Q(veh)	-	-	0	0.1	0.2	-

Intersection	
Int Delay, s/veh	10.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	59	206	124	4	195	376
Future Vol, veh/h	59	206	124	4	195	376
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	78	78	78	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	76	264	159	5	250	482

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1144	162	0	0	164	0
Stage 1	162	-	-	-	-	-
Stage 2	982	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	221	883	-	-	1414	-
Stage 1	867	-	-	-	-	-
Stage 2	363	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	168	883	-	-	1414	-
Mov Cap-2 Maneuver	168	-	-	-	-	-
Stage 1	867	-	-	-	-	-
Stage 2	276	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	33.2	0	2.8
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	453	1414	-
HCM Lane V/C Ratio	-	-	0.75	0.177	-
HCM Control Delay (s)	-	-	33.2	8.1	0
HCM Lane LOS	-	-	D	A	A
HCM 95th %tile Q(veh)	-	-	6.2	0.6	-

Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	10	67	9	2	33
Future Vol, veh/h	1	10	67	9	2	33
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	76	76	76	76	76	76
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	13	88	12	3	43

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	143	94	0	0	100	0
Stage 1	94	-	-	-	-	-
Stage 2	49	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	850	963	-	-	1493	-
Stage 1	930	-	-	-	-	-
Stage 2	973	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	848	963	-	-	1493	-
Mov Cap-2 Maneuver	848	-	-	-	-	-
Stage 1	930	-	-	-	-	-
Stage 2	971	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.8	0	0.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	951	1493	-
HCM Lane V/C Ratio	-	-	0.015	0.002	-
HCM Control Delay (s)	-	-	8.8	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	2	77	0	1	35
Future Vol, veh/h	1	2	77	0	1	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	3	104	0	1	47

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	153	104	0	0	104	0
Stage 1	104	-	-	-	-	-
Stage 2	49	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	839	951	-	-	1488	-
Stage 1	920	-	-	-	-	-
Stage 2	973	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	838	951	-	-	1488	-
Mov Cap-2 Maneuver	838	-	-	-	-	-
Stage 1	920	-	-	-	-	-
Stage 2	972	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	0.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	910	1488	-
HCM Lane V/C Ratio	-	-	0.004	0.001	-
HCM Control Delay (s)	-	-	9	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	2.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	14	4	15	37	16	18
Future Vol, veh/h	14	4	15	37	16	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Yield	-	Yield	-	None
Storage Length	0	50	-	105	130	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	58	58	58	58	58	58
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	7	26	64	28	31

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	113	26	0	0	26	0
Stage 1	26	-	-	-	-	-
Stage 2	87	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	884	1050	-	-	1588	-
Stage 1	997	-	-	-	-	-
Stage 2	936	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	868	1050	-	-	1588	-
Mov Cap-2 Maneuver	868	-	-	-	-	-
Stage 1	997	-	-	-	-	-
Stage 2	919	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.1	0	3.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	868	1050	1588	-
HCM Lane V/C Ratio	-	-	0.028	0.007	0.017	-
HCM Control Delay (s)	-	-	9.3	8.5	7.3	-
HCM Lane LOS	-	-	A	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	0.1	-

Intersection	
Int Delay, s/veh	2.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	0	5	36	38	26
Future Vol, veh/h	1	0	5	36	38	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	140	190	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	62	62	62	62	62	62
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	0	8	58	61	42

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	172	8	0	0	66	0
Stage 1	8	-	-	-	-	-
Stage 2	164	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	818	1074	-	-	1536	-
Stage 1	1015	-	-	-	-	-
Stage 2	865	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	785	1074	-	-	1536	-
Mov Cap-2 Maneuver	785	-	-	-	-	-
Stage 1	1015	-	-	-	-	-
Stage 2	830	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.6	0	4.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	785	1536	-
HCM Lane V/C Ratio	-	-	0.002	0.04	-
HCM Control Delay (s)	-	-	9.6	7.4	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0.1	-

Intersection	
Int Delay, s/veh	1.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	20	64	7	13	52
Future Vol, veh/h	2	20	64	7	13	52
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	65	-	55	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	39	39	39	39	39	39
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	51	164	18	33	133

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	363	164	0	0	182	0
Stage 1	164	-	-	-	-	-
Stage 2	199	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	636	881	-	-	1393	-
Stage 1	865	-	-	-	-	-
Stage 2	835	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	619	881	-	-	1393	-
Mov Cap-2 Maneuver	619	-	-	-	-	-
Stage 1	865	-	-	-	-	-
Stage 2	813	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.4	0	1.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	619	881	1393	-
HCM Lane V/C Ratio	-	-	0.008	0.058	0.024	-
HCM Control Delay (s)	-	-	10.9	9.3	7.6	0
HCM Lane LOS	-	-	B	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0.2	0.1	-

Intersection	
Int Delay, s/veh	2.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	7	82	316	9	72	180
Future Vol, veh/h	7	82	316	9	72	180
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	104	400	11	91	228

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	816	406	0	0	411	0
Stage 1	406	-	-	-	-	-
Stage 2	410	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	347	645	-	-	1148	-
Stage 1	673	-	-	-	-	-
Stage 2	670	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	315	645	-	-	1148	-
Mov Cap-2 Maneuver	315	-	-	-	-	-
Stage 1	673	-	-	-	-	-
Stage 2	609	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.4	0	2.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	596	1148	-
HCM Lane V/C Ratio	-	-	0.189	0.079	-
HCM Control Delay (s)	-	-	12.4	8.4	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.7	0.3	-

Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	4	42	3	5	109
Future Vol, veh/h	1	4	42	3	5	109
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	42	42	42	42	42	42
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	10	100	7	12	260

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	388	104	0	0	107	0
Stage 1	104	-	-	-	-	-
Stage 2	284	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	616	951	-	-	1484	-
Stage 1	920	-	-	-	-	-
Stage 2	764	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	610	951	-	-	1484	-
Mov Cap-2 Maneuver	610	-	-	-	-	-
Stage 1	920	-	-	-	-	-
Stage 2	757	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.3	0	0.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	855	1484	-
HCM Lane V/C Ratio	-	-	0.014	0.008	-
HCM Control Delay (s)	-	-	9.3	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	1	46	0	1	114
Future Vol, veh/h	1	1	46	0	1	114
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	43	43	43	43	43	43
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	2	107	0	2	265

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	376	107	0	0	107	0
Stage 1	107	-	-	-	-	-
Stage 2	269	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	625	947	-	-	1484	-
Stage 1	917	-	-	-	-	-
Stage 2	776	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	624	947	-	-	1484	-
Mov Cap-2 Maneuver	624	-	-	-	-	-
Stage 1	917	-	-	-	-	-
Stage 2	774	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.8	0	0.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	752	1484	-
HCM Lane V/C Ratio	-	-	0.006	0.002	-
HCM Control Delay (s)	-	-	9.8	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	6.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	92	28	22	32	17	23
Future Vol, veh/h	92	28	22	32	17	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Yield	-	Yield	-	None
Storage Length	0	50	-	105	130	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	45	45	45	45	45	45
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	204	62	49	71	38	51

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	176	49	0	0	49	0
Stage 1	49	-	-	-	-	-
Stage 2	127	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	814	1020	-	-	1558	-
Stage 1	973	-	-	-	-	-
Stage 2	899	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	794	1020	-	-	1558	-
Mov Cap-2 Maneuver	794	-	-	-	-	-
Stage 1	973	-	-	-	-	-
Stage 2	877	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.6	0	3.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	794	1020	1558	-
HCM Lane V/C Ratio	-	-	0.257	0.061	0.024	-
HCM Control Delay (s)	-	-	11.1	8.8	7.4	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	1	0.2	0.1	-

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	2	46	4	4	38
Future Vol, veh/h	1	2	46	4	4	38
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	140	190	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	70	70	70	70	70	70
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	3	66	6	6	54

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	132	66	0	0	72	0
Stage 1	66	-	-	-	-	-
Stage 2	66	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	862	998	-	-	1528	-
Stage 1	957	-	-	-	-	-
Stage 2	957	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	859	998	-	-	1528	-
Mov Cap-2 Maneuver	859	-	-	-	-	-
Stage 1	957	-	-	-	-	-
Stage 2	953	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.8	0	0.7
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	947	1528	-
HCM Lane V/C Ratio	-	-	0.005	0.004	-
HCM Control Delay (s)	-	-	8.8	7.4	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	5.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	12	95	56	7	30	36
Future Vol, veh/h	12	95	56	7	30	36
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	65	-	55	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	42	42	42	42	42	42
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	29	226	133	17	71	86

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	361	133	0	0	150	0
Stage 1	133	-	-	-	-	-
Stage 2	228	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	638	916	-	-	1431	-
Stage 1	893	-	-	-	-	-
Stage 2	810	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	605	916	-	-	1431	-
Mov Cap-2 Maneuver	605	-	-	-	-	-
Stage 1	893	-	-	-	-	-
Stage 2	768	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.3	0	3.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	605	916	1431	-
HCM Lane V/C Ratio	-	-	0.047	0.247	0.05	-
HCM Control Delay (s)	-	-	11.2	10.2	7.6	0
HCM Lane LOS	-	-	B	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	1	0.2	-

Intersection	
Int Delay, s/veh	1.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	70	485	9	57	240
Future Vol, veh/h	5	70	485	9	57	240
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	74	516	10	61	255

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	898	521	0	0	526	0
Stage 1	521	-	-	-	-	-
Stage 2	377	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	310	555	-	-	1041	-
Stage 1	596	-	-	-	-	-
Stage 2	694	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	289	555	-	-	1041	-
Mov Cap-2 Maneuver	289	-	-	-	-	-
Stage 1	596	-	-	-	-	-
Stage 2	647	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.1	0	1.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	523	1041	-
HCM Lane V/C Ratio	-	-	0.153	0.058	-
HCM Control Delay (s)	-	-	13.1	8.7	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0.2	-

FUTURE "NO-BUILD" INTERSECTION ANALYSIS

Intersection	
Int Delay, s/veh	0.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	8	215	4	5	167
Future Vol, veh/h	4	8	215	4	5	167
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	69	69	69	69	69	69
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	12	312	6	7	242

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	571	315	0	0	318	0
Stage 1	315	-	-	-	-	-
Stage 2	256	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	482	725	-	-	1242	-
Stage 1	740	-	-	-	-	-
Stage 2	787	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	479	725	-	-	1242	-
Mov Cap-2 Maneuver	479	-	-	-	-	-
Stage 1	740	-	-	-	-	-
Stage 2	781	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	619	1242	-
HCM Lane V/C Ratio	-	-	0.028	0.006	-
HCM Control Delay (s)	-	-	11	7.9	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	1	223	0	1	172
Future Vol, veh/h	1	1	223	0	1	172
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	69	69	69	69	69	69
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	1	323	0	1	249

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	574	323	0	0	323	0
Stage 1	323	-	-	-	-	-
Stage 2	251	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	480	718	-	-	1237	-
Stage 1	734	-	-	-	-	-
Stage 2	791	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	480	718	-	-	1237	-
Mov Cap-2 Maneuver	480	-	-	-	-	-
Stage 1	734	-	-	-	-	-
Stage 2	790	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.3	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	575	1237	-
HCM Lane V/C Ratio	-	-	0.005	0.001	-
HCM Control Delay (s)	-	-	11.3	7.9	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	7.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	165	75	14	209	115	9
Future Vol, veh/h	165	75	14	209	115	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Yield	-	Yield	-	None
Storage Length	0	50	-	105	130	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	66	66	66	66	66	66
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	250	114	21	317	174	14

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	383	21	0	0	21	0
Stage 1	21	-	-	-	-	-
Stage 2	362	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	620	1056	-	-	1595	-
Stage 1	1002	-	-	-	-	-
Stage 2	704	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	552	1056	-	-	1595	-
Mov Cap-2 Maneuver	552	-	-	-	-	-
Stage 1	1002	-	-	-	-	-
Stage 2	627	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.3	0	7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	552	1056	1595	-
HCM Lane V/C Ratio	-	-	0.453	0.108	0.109	-
HCM Control Delay (s)	-	-	16.8	8.8	7.5	-
HCM Lane LOS	-	-	C	A	A	-
HCM 95th %tile Q(veh)	-	-	2.3	0.4	0.4	-

Intersection	
Int Delay, s/veh	4.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	0	13	118	161	43
Future Vol, veh/h	1	0	13	118	161	43
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	140	190	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	53	53	53	53	53	53
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	0	25	223	304	81

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	714	25	0	0	248	0
Stage 1	25	-	-	-	-	-
Stage 2	689	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	398	1051	-	-	1318	-
Stage 1	998	-	-	-	-	-
Stage 2	498	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	306	1051	-	-	1318	-
Mov Cap-2 Maneuver	306	-	-	-	-	-
Stage 1	998	-	-	-	-	-
Stage 2	383	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.8	0	6.7
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	306	1318	-
HCM Lane V/C Ratio	-	-	0.006	0.23	-
HCM Control Delay (s)	-	-	16.8	8.5	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0	0.9	-

Intersection	
Int Delay, s/veh	1.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	12	231	14	42	188
Future Vol, veh/h	2	12	231	14	42	188
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	65	-	55	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	53	53	53	53	53	53
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	23	436	26	79	355

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	949	436	0	0	462	0
Stage 1	436	-	-	-	-	-
Stage 2	513	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	289	620	-	-	1099	-
Stage 1	652	-	-	-	-	-
Stage 2	601	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	263	620	-	-	1099	-
Mov Cap-2 Maneuver	263	-	-	-	-	-
Stage 1	652	-	-	-	-	-
Stage 2	547	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.1	0	1.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	263	620	1099	-
HCM Lane V/C Ratio	-	-	0.014	0.037	0.072	-
HCM Control Delay (s)	-	-	18.9	11	8.5	0
HCM Lane LOS	-	-	C	B	A	A
HCM 95th %tile Q(veh)	-	-	0	0.1	0.2	-

Intersection	
Int Delay, s/veh	11.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	60	210	126	4	199	384
Future Vol, veh/h	60	210	126	4	199	384
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	78	78	78	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	77	269	162	5	255	492

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1167	165	0	0	167	0
Stage 1	165	-	-	-	-	-
Stage 2	1002	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	214	879	-	-	1411	-
Stage 1	864	-	-	-	-	-
Stage 2	355	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	161	879	-	-	1411	-
Mov Cap-2 Maneuver	161	-	-	-	-	-
Stage 1	864	-	-	-	-	-
Stage 2	267	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	37.1	0	2.8
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	441	1411	-
HCM Lane V/C Ratio	-	-	0.785	0.181	-
HCM Control Delay (s)	-	-	37.1	8.1	0
HCM Lane LOS	-	-	E	A	A
HCM 95th %tile Q(veh)	-	-	6.9	0.7	-

Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	10	68	9	2	34
Future Vol, veh/h	1	10	68	9	2	34
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	76	76	76	76	76	76
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	13	89	12	3	45

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	146	95	0	0	101	0
Stage 1	95	-	-	-	-	-
Stage 2	51	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	846	962	-	-	1491	-
Stage 1	929	-	-	-	-	-
Stage 2	971	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	844	962	-	-	1491	-
Mov Cap-2 Maneuver	844	-	-	-	-	-
Stage 1	929	-	-	-	-	-
Stage 2	969	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.8	0	0.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	950	1491	-
HCM Lane V/C Ratio	-	-	0.015	0.002	-
HCM Control Delay (s)	-	-	8.8	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	2	79	0	1	36
Future Vol, veh/h	1	2	79	0	1	36
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	3	107	0	1	49

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	158	107	0	0	107	0
Stage 1	107	-	-	-	-	-
Stage 2	51	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	833	947	-	-	1484	-
Stage 1	917	-	-	-	-	-
Stage 2	971	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	832	947	-	-	1484	-
Mov Cap-2 Maneuver	832	-	-	-	-	-
Stage 1	917	-	-	-	-	-
Stage 2	970	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	0.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	905	1484	-
HCM Lane V/C Ratio	-	-	0.004	0.001	-
HCM Control Delay (s)	-	-	9	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	2.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	14	4	15	38	16	18
Future Vol, veh/h	14	4	15	38	16	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Yield	-	Yield	-	None
Storage Length	0	50	-	105	130	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	58	58	58	58	58	58
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	7	26	66	28	31

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	113	26	0	0	26	0
Stage 1	26	-	-	-	-	-
Stage 2	87	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	884	1050	-	-	1588	-
Stage 1	997	-	-	-	-	-
Stage 2	936	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	868	1050	-	-	1588	-
Mov Cap-2 Maneuver	868	-	-	-	-	-
Stage 1	997	-	-	-	-	-
Stage 2	919	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.1	0	3.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	868	1050	1588	-
HCM Lane V/C Ratio	-	-	0.028	0.007	0.017	-
HCM Control Delay (s)	-	-	9.3	8.5	7.3	-
HCM Lane LOS	-	-	A	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	0.1	-

Intersection	
Int Delay, s/veh	2.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	0	5	37	39	27
Future Vol, veh/h	1	0	5	37	39	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	140	190	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	62	62	62	62	62	62
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	0	8	60	63	44

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	178	8	0	0	68	0
Stage 1	8	-	-	-	-	-
Stage 2	170	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	812	1074	-	-	1533	-
Stage 1	1015	-	-	-	-	-
Stage 2	860	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	779	1074	-	-	1533	-
Mov Cap-2 Maneuver	779	-	-	-	-	-
Stage 1	1015	-	-	-	-	-
Stage 2	825	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.6	0	4.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	779	1533	-
HCM Lane V/C Ratio	-	-	0.002	0.041	-
HCM Control Delay (s)	-	-	9.6	7.4	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0.1	-

Intersection	
Int Delay, s/veh	1.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	20	65	7	13	53
Future Vol, veh/h	2	20	65	7	13	53
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	65	-	55	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	39	39	39	39	39	39
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	51	167	18	33	136

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	369	167	0	0	185	0
Stage 1	167	-	-	-	-	-
Stage 2	202	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	631	877	-	-	1390	-
Stage 1	863	-	-	-	-	-
Stage 2	832	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	615	877	-	-	1390	-
Mov Cap-2 Maneuver	615	-	-	-	-	-
Stage 1	863	-	-	-	-	-
Stage 2	810	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.5	0	1.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	615	877	1390	-
HCM Lane V/C Ratio	-	-	0.008	0.058	0.024	-
HCM Control Delay (s)	-	-	10.9	9.4	7.7	0
HCM Lane LOS	-	-	B	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0.2	0.1	-

Intersection	
Int Delay, s/veh	2.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	7	84	322	9	73	184
Future Vol, veh/h	7	84	322	9	73	184
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	106	408	11	92	233

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	831	414	0	0	419	0
Stage 1	414	-	-	-	-	-
Stage 2	417	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	340	638	-	-	1140	-
Stage 1	667	-	-	-	-	-
Stage 2	665	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	308	638	-	-	1140	-
Mov Cap-2 Maneuver	308	-	-	-	-	-
Stage 1	667	-	-	-	-	-
Stage 2	603	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.6	0	2.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	589	1140	-
HCM Lane V/C Ratio	-	-	0.196	0.081	-
HCM Control Delay (s)	-	-	12.6	8.4	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.7	0.3	-

Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	4	43	3	5	111
Future Vol, veh/h	1	4	43	3	5	111
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	42	42	42	42	42	42
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	10	102	7	12	264

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	394	106	0	0	109	0
Stage 1	106	-	-	-	-	-
Stage 2	288	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	611	948	-	-	1481	-
Stage 1	918	-	-	-	-	-
Stage 2	761	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	606	948	-	-	1481	-
Mov Cap-2 Maneuver	606	-	-	-	-	-
Stage 1	918	-	-	-	-	-
Stage 2	754	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.3	0	0.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	852	1481	-
HCM Lane V/C Ratio	-	-	0.014	0.008	-
HCM Control Delay (s)	-	-	9.3	7.5	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	1	47	0	1	116
Future Vol, veh/h	1	1	47	0	1	116
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	43	43	43	43	43	43
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	2	109	0	2	270

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	383	109	0	0	109	0
Stage 1	109	-	-	-	-	-
Stage 2	274	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	620	945	-	-	1481	-
Stage 1	916	-	-	-	-	-
Stage 2	772	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	619	945	-	-	1481	-
Mov Cap-2 Maneuver	619	-	-	-	-	-
Stage 1	916	-	-	-	-	-
Stage 2	770	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.8	0	0.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	748	1481	-
HCM Lane V/C Ratio	-	-	0.006	0.002	-
HCM Control Delay (s)	-	-	9.8	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	6.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	94	29	22	33	17	23
Future Vol, veh/h	94	29	22	33	17	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Yield	-	Yield	-	None
Storage Length	0	50	-	105	130	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	45	45	45	45	45	45
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	209	64	49	73	38	51

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	176	49	0	0	49	0
Stage 1	49	-	-	-	-	-
Stage 2	127	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	814	1020	-	-	1558	-
Stage 1	973	-	-	-	-	-
Stage 2	899	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	794	1020	-	-	1558	-
Mov Cap-2 Maneuver	794	-	-	-	-	-
Stage 1	973	-	-	-	-	-
Stage 2	877	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.6	0	3.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	794	1020	1558	-
HCM Lane V/C Ratio	-	-	0.263	0.063	0.024	-
HCM Control Delay (s)	-	-	11.1	8.8	7.4	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	1.1	0.2	0.1	-

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	2	47	4	4	39
Future Vol, veh/h	1	2	47	4	4	39
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	140	190	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	70	70	70	70	70	70
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	3	67	6	6	56

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	135	67	0	0	73	0
Stage 1	67	-	-	-	-	-
Stage 2	68	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	859	997	-	-	1527	-
Stage 1	956	-	-	-	-	-
Stage 2	955	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	856	997	-	-	1527	-
Mov Cap-2 Maneuver	856	-	-	-	-	-
Stage 1	956	-	-	-	-	-
Stage 2	951	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.8	0	0.7
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	945	1527	-
HCM Lane V/C Ratio	-	-	0.005	0.004	-
HCM Control Delay (s)	-	-	8.8	7.4	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	5.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	12	95	57	7	31	37
Future Vol, veh/h	12	95	57	7	31	37
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	65	-	55	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	42	42	42	42	42	42
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	29	226	136	17	74	88

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	372	136	0	0	153	0
Stage 1	136	-	-	-	-	-
Stage 2	236	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	629	913	-	-	1428	-
Stage 1	890	-	-	-	-	-
Stage 2	803	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	595	913	-	-	1428	-
Mov Cap-2 Maneuver	595	-	-	-	-	-
Stage 1	890	-	-	-	-	-
Stage 2	760	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.3	0	3.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	595	913	1428	-
HCM Lane V/C Ratio	-	-	0.048	0.248	0.052	-
HCM Control Delay (s)	-	-	11.4	10.2	7.7	0
HCM Lane LOS	-	-	B	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	1	0.2	-

Intersection	
Int Delay, s/veh	1.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	71	495	9	58	245
Future Vol, veh/h	5	71	495	9	58	245
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	76	527	10	62	261

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	917	532	0	0	537	0
Stage 1	532	-	-	-	-	-
Stage 2	385	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	302	547	-	-	1031	-
Stage 1	589	-	-	-	-	-
Stage 2	688	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	281	547	-	-	1031	-
Mov Cap-2 Maneuver	281	-	-	-	-	-
Stage 1	589	-	-	-	-	-
Stage 2	640	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.3	0	1.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	515	1031	-
HCM Lane V/C Ratio	-	-	0.157	0.06	-
HCM Control Delay (s)	-	-	13.3	8.7	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.6	0.2	-

Intersection	
Int Delay, s/veh	6.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	60	210	126	4	199	384
Future Vol, veh/h	60	210	126	4	199	384
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	150	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	78	78	78	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	77	269	162	5	255	492

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1167	165	0	0	167	0
Stage 1	165	-	-	-	-	-
Stage 2	1002	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	214	879	-	-	1411	-
Stage 1	864	-	-	-	-	-
Stage 2	355	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	161	879	-	-	1411	-
Mov Cap-2 Maneuver	161	-	-	-	-	-
Stage 1	864	-	-	-	-	-
Stage 2	267	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	18.8	0	2.8
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	161	879	1411	-
HCM Lane V/C Ratio	-	-	0.478	0.306	0.181	-
HCM Control Delay (s)	-	-	46.3	10.9	8.1	0
HCM Lane LOS	-	-	E	B	A	A
HCM 95th %tile Q(veh)	-	-	2.3	1.3	0.7	-

Intersection	
Int Delay, s/veh	2.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	7	84	322	9	73	184
Future Vol, veh/h	7	84	322	9	73	184
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	150	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	106	408	11	92	233

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	831	414	0	0	419	0
Stage 1	414	-	-	-	-	-
Stage 2	417	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	340	638	-	-	1140	-
Stage 1	667	-	-	-	-	-
Stage 2	665	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	308	638	-	-	1140	-
Mov Cap-2 Maneuver	308	-	-	-	-	-
Stage 1	667	-	-	-	-	-
Stage 2	603	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.2	0	2.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	308	638	1140	-
HCM Lane V/C Ratio	-	-	0.029	0.167	0.081	-
HCM Control Delay (s)	-	-	17	11.8	8.4	0
HCM Lane LOS	-	-	C	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.6	0.3	-

Intersection	
Int Delay, s/veh	1.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	71	495	9	58	245
Future Vol, veh/h	5	71	495	9	58	245
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	150	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	76	527	10	62	261

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	917	532	0	0	537	0
Stage 1	532	-	-	-	-	-
Stage 2	385	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	302	547	-	-	1031	-
Stage 1	589	-	-	-	-	-
Stage 2	688	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	281	547	-	-	1031	-
Mov Cap-2 Maneuver	281	-	-	-	-	-
Stage 1	589	-	-	-	-	-
Stage 2	640	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13	0	1.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	281	547	1031	-
HCM Lane V/C Ratio	-	-	0.019	0.138	0.06	-
HCM Control Delay (s)	-	-	18.1	12.6	8.7	0
HCM Lane LOS	-	-	C	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.5	0.2	-

FUTURE "BUILD" INTERSECTION ANALYSIS

Intersection	
Int Delay, s/veh	0.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	8	233	4	5	222
Future Vol, veh/h	4	8	233	4	5	222
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	69	69	69	69	69	69
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	12	338	6	7	322

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	677	341	0	0	344	0
Stage 1	341	-	-	-	-	-
Stage 2	336	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	418	701	-	-	1215	-
Stage 1	720	-	-	-	-	-
Stage 2	724	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	415	701	-	-	1215	-
Mov Cap-2 Maneuver	415	-	-	-	-	-
Stage 1	720	-	-	-	-	-
Stage 2	719	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.5	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	570	1215	-
HCM Lane V/C Ratio	-	-	0.031	0.006	-
HCM Control Delay (s)	-	-	11.5	8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Intersection Delay, s/veh	5.8
Intersection LOS	A

Approach	WB	NB	SB	NW
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	364	357	162	103
Demand Flow Rate, veh/h	371	363	165	105
Vehicles Circulating, veh/h	126	150	313	471
Vehicles Exiting, veh/h	450	327	184	42
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	5.9	6.0	5.2	5.5
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LR	TR	LT	LR
Assumed Moves	LR	TR	LT	LR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	371	363	165	105
Cap Entry Lane, veh/h	1213	1184	1003	854
Entry HV Adj Factor	0.981	0.982	0.983	0.981
Flow Entry, veh/h	364	357	162	103
Cap Entry, veh/h	1191	1163	986	837
V/C Ratio	0.306	0.307	0.165	0.123
Control Delay, s/veh	5.9	6.0	5.2	5.5
LOS	A	A	A	A
95th %tile Queue, veh	1	1	1	0

Intersection	
Int Delay, s/veh	3.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	0	58	118	161	58
Future Vol, veh/h	1	0	58	118	161	58
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	350	190	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	53	53	53	53	53	53
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	0	109	223	304	109

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	826	109	0	0	332	0
Stage 1	109	-	-	-	-	-
Stage 2	717	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	342	945	-	-	1227	-
Stage 1	916	-	-	-	-	-
Stage 2	484	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	257	945	-	-	1227	-
Mov Cap-2 Maneuver	257	-	-	-	-	-
Stage 1	916	-	-	-	-	-
Stage 2	364	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	19.1	0	6.5
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	257	1227	-
HCM Lane V/C Ratio	-	-	0.007	0.248	-
HCM Control Delay (s)	-	-	19.1	8.9	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0	1	-

Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	12	276	14	42	203
Future Vol, veh/h	2	12	276	14	42	203
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	65	-	55	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	53	53	53	53	53	53
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	23	521	26	79	383

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1062	521	0	0	547	0
Stage 1	521	-	-	-	-	-
Stage 2	541	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	247	555	-	-	1022	-
Stage 1	596	-	-	-	-	-
Stage 2	583	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	223	555	-	-	1022	-
Mov Cap-2 Maneuver	223	-	-	-	-	-
Stage 1	596	-	-	-	-	-
Stage 2	526	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.2	0	1.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	223	555	1022	-
HCM Lane V/C Ratio	-	-	0.017	0.041	0.078	-
HCM Control Delay (s)	-	-	21.4	11.8	8.8	0
HCM Lane LOS	-	-	C	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1	0.3	-

Intersection	
Int Delay, s/veh	16.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	60	255	126	4	214	384
Future Vol, veh/h	60	255	126	4	214	384
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	78	78	78	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	77	327	162	5	274	492

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1205	165	0	0	167	0
Stage 1	165	-	-	-	-	-
Stage 2	1040	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	203	879	-	-	1411	-
Stage 1	864	-	-	-	-	-
Stage 2	341	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	149	879	-	-	1411	-
Mov Cap-2 Maneuver	149	-	-	-	-	-
Stage 1	864	-	-	-	-	-
Stage 2	250	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	49.3	0	2.9
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	455	1411	-
HCM Lane V/C Ratio	-	-	0.888	0.194	-
HCM Control Delay (s)	-	-	49.3	8.2	0
HCM Lane LOS	-	-	E	A	A
HCM 95th %tile Q(veh)	-	-	9.5	0.7	-

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	10	111	9	2	65
Future Vol, veh/h	1	10	111	9	2	65
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	76	76	76	76	76	76
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	13	146	12	3	86

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	244	152	0	0	158	0
Stage 1	152	-	-	-	-	-
Stage 2	92	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	744	894	-	-	1422	-
Stage 1	876	-	-	-	-	-
Stage 2	932	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	743	894	-	-	1422	-
Mov Cap-2 Maneuver	743	-	-	-	-	-
Stage 1	876	-	-	-	-	-
Stage 2	930	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.2	0	0.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	878	1422	-
HCM Lane V/C Ratio	-	-	0.016	0.002	-
HCM Control Delay (s)	-	-	9.2	7.5	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Intersection Delay, s/veh	3.6
Intersection LOS	A

Approach	WB	NB	SB	NW
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	31	146	110	71
Demand Flow Rate, veh/h	31	149	112	73
Vehicles Circulating, veh/h	100	80	64	111
Vehicles Exiting, veh/h	84	96	67	118
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	3.1	3.8	3.5	3.5
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LR	TR	LT	LR
Assumed Moves	LR	TR	LT	LR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	31	149	112	73
Cap Entry Lane, veh/h	1246	1272	1293	1232
Entry HV Adj Factor	1.000	0.983	0.982	0.973
Flow Entry, veh/h	31	146	110	71
Cap Entry, veh/h	1246	1250	1270	1198
V/C Ratio	0.025	0.117	0.087	0.059
Control Delay, s/veh	3.1	3.8	3.5	3.5
LOS	A	A	A	A
95th %tile Queue, veh	0	0	0	0

Intersection	
Int Delay, s/veh	1.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	0	30	37	39	63
Future Vol, veh/h	1	0	30	37	39	63
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	350	190	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	62	62	62	62	62	62
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	0	48	60	63	102

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	276	48	0	0	108	0
Stage 1	48	-	-	-	-	-
Stage 2	228	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	714	1021	-	-	1483	-
Stage 1	974	-	-	-	-	-
Stage 2	810	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	684	1021	-	-	1483	-
Mov Cap-2 Maneuver	684	-	-	-	-	-
Stage 1	974	-	-	-	-	-
Stage 2	776	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.3	0	2.9
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	684	1483	-
HCM Lane V/C Ratio	-	-	0.002	0.042	-
HCM Control Delay (s)	-	-	10.3	7.5	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0	0.1	-

Intersection	
Int Delay, s/veh	1.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	20	90	7	13	89
Future Vol, veh/h	2	20	90	7	13	89
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	65	-	55	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	39	39	39	39	39	39
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	51	231	18	33	228

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	525	231	0	0	249	0
Stage 1	231	-	-	-	-	-
Stage 2	294	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	513	808	-	-	1317	-
Stage 1	807	-	-	-	-	-
Stage 2	756	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	498	808	-	-	1317	-
Mov Cap-2 Maneuver	498	-	-	-	-	-
Stage 1	807	-	-	-	-	-
Stage 2	734	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10	0	1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	498	808	1317	-
HCM Lane V/C Ratio	-	-	0.01	0.063	0.025	-
HCM Control Delay (s)	-	-	12.3	9.8	7.8	0
HCM Lane LOS	-	-	B	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0.2	0.1	-

Intersection	
Int Delay, s/veh	3.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	7	109	322	9	109	184
Future Vol, veh/h	7	109	322	9	109	184
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	138	408	11	138	233

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	923	414	0	0	419	0
Stage 1	414	-	-	-	-	-
Stage 2	509	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	299	638	-	-	1140	-
Stage 1	667	-	-	-	-	-
Stage 2	604	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	257	638	-	-	1140	-
Mov Cap-2 Maneuver	257	-	-	-	-	-
Stage 1	667	-	-	-	-	-
Stage 2	520	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.2	0	3.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	586	1140	-
HCM Lane V/C Ratio	-	-	0.251	0.121	-
HCM Control Delay (s)	-	-	13.2	8.6	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	1	0.4	-

Intersection	
Int Delay, s/veh	0.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	4	106	3	5	148
Future Vol, veh/h	1	4	106	3	5	148
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	42	42	42	42	42	42
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	10	252	7	12	352

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	632	256	0	0	259	0
Stage 1	256	-	-	-	-	-
Stage 2	376	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	444	783	-	-	1306	-
Stage 1	787	-	-	-	-	-
Stage 2	694	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	439	783	-	-	1306	-
Mov Cap-2 Maneuver	439	-	-	-	-	-
Stage 1	787	-	-	-	-	-
Stage 2	686	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.4	0	0.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	677	1306	-
HCM Lane V/C Ratio	-	-	0.018	0.009	-
HCM Control Delay (s)	-	-	10.4	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Intersection Delay, s/veh	6.1
Intersection LOS	A

Approach	WB	NB	SB	NW
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	273	202	182	85
Demand Flow Rate, veh/h	278	206	185	87
Vehicles Circulating, veh/h	137	133	261	142
Vehicles Exiting, veh/h	92	313	154	197
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	6.6	5.7	6.4	4.6
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LR	TR	LT	LR
Assumed Moves	LR	TR	LT	LR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	278	206	185	87
Cap Entry Lane, veh/h	985	989	870	980
Entry HV Adj Factor	0.982	0.981	0.982	0.977
Flow Entry, veh/h	273	202	182	85
Cap Entry, veh/h	968	970	855	958
V/C Ratio	0.282	0.208	0.213	0.089
Control Delay, s/veh	6.6	5.7	6.4	4.6
LOS	A	A	A	A
95th %tile Queue, veh	1	1	1	0

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	2	77	4	4	90
Future Vol, veh/h	1	2	77	4	4	90
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	350	190	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	70	70	70	70	70	70
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	3	110	6	6	129

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	251	110	0	0	116	0
Stage 1	110	-	-	-	-	-
Stage 2	141	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	738	943	-	-	1473	-
Stage 1	915	-	-	-	-	-
Stage 2	886	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	735	943	-	-	1473	-
Mov Cap-2 Maneuver	735	-	-	-	-	-
Stage 1	915	-	-	-	-	-
Stage 2	882	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.2	0	0.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	862	1473	-
HCM Lane V/C Ratio	-	-	0.005	0.004	-
HCM Control Delay (s)	-	-	9.2	7.5	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	4.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	12	97	87	7	31	88
Future Vol, veh/h	12	97	87	7	31	88
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	65	-	55	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	42	42	42	42	42	42
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	29	231	207	17	74	210

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	565	207	0	0	224	0
Stage 1	207	-	-	-	-	-
Stage 2	358	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	486	833	-	-	1345	-
Stage 1	828	-	-	-	-	-
Stage 2	707	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	456	833	-	-	1345	-
Mov Cap-2 Maneuver	456	-	-	-	-	-
Stage 1	828	-	-	-	-	-
Stage 2	663	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.3	0	2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	456	833	1345	-
HCM Lane V/C Ratio	-	-	0.063	0.277	0.055	-
HCM Control Delay (s)	-	-	13.4	11	7.8	0
HCM Lane LOS	-	-	B	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	1.1	0.2	-

Intersection	
Int Delay, s/veh	2.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	101	495	9	109	245
Future Vol, veh/h	5	101	495	9	109	245
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	107	527	10	116	261

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1025	532	0	0	537	0
Stage 1	532	-	-	-	-	-
Stage 2	493	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	260	547	-	-	1031	-
Stage 1	589	-	-	-	-	-
Stage 2	614	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	226	547	-	-	1031	-
Mov Cap-2 Maneuver	226	-	-	-	-	-
Stage 1	589	-	-	-	-	-
Stage 2	533	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14	0	2.8
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	513	1031	-
HCM Lane V/C Ratio	-	-	0.22	0.112	-
HCM Control Delay (s)	-	-	14	8.9	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.8	0.4	-

Intersection	
Int Delay, s/veh	7.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	60	255	126	4	214	384
Future Vol, veh/h	60	255	126	4	214	384
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	150	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	78	78	78	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	77	327	162	5	274	492

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1205	165	0	0	167	0
Stage 1	165	-	-	-	-	-
Stage 2	1040	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	203	879	-	-	1411	-
Stage 1	864	-	-	-	-	-
Stage 2	341	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	149	879	-	-	1411	-
Mov Cap-2 Maneuver	149	-	-	-	-	-
Stage 1	864	-	-	-	-	-
Stage 2	250	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	19.3	0	2.9
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	149	879	1411	-
HCM Lane V/C Ratio	-	-	0.516	0.372	0.194	-
HCM Control Delay (s)	-	-	52.5	11.5	8.2	0
HCM Lane LOS	-	-	F	B	A	A
HCM 95th %tile Q(veh)	-	-	2.5	1.7	0.7	-

Intersection	
Int Delay, s/veh	3.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	7	109	322	9	109	184
Future Vol, veh/h	7	109	322	9	109	184
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	150	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	138	408	11	138	233

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	923	414	0	0	419	0
Stage 1	414	-	-	-	-	-
Stage 2	509	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	299	638	-	-	1140	-
Stage 1	667	-	-	-	-	-
Stage 2	604	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	257	638	-	-	1140	-
Mov Cap-2 Maneuver	257	-	-	-	-	-
Stage 1	667	-	-	-	-	-
Stage 2	520	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.6	0	3.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	257	638	1140	-
HCM Lane V/C Ratio	-	-	0.034	0.216	0.121	-
HCM Control Delay (s)	-	-	19.5	12.2	8.6	0
HCM Lane LOS	-	-	C	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.8	0.4	-

Intersection	
Int Delay, s/veh	2.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	101	495	9	109	245
Future Vol, veh/h	5	101	495	9	109	245
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	150	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	107	527	10	116	261

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1025	532	0	0	537	0
Stage 1	532	-	-	-	-	-
Stage 2	493	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	260	547	-	-	1031	-
Stage 1	589	-	-	-	-	-
Stage 2	614	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	226	547	-	-	1031	-
Mov Cap-2 Maneuver	226	-	-	-	-	-
Stage 1	589	-	-	-	-	-
Stage 2	533	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.6	0	2.8
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	226	547	1031	-
HCM Lane V/C Ratio	-	-	0.024	0.196	0.112	-
HCM Control Delay (s)	-	-	21.3	13.2	8.9	0
HCM Lane LOS	-	-	C	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.7	0.4	-

TRAFFIC VOLUME WORKSHEETS

24-118 - Embry Tract Residential Development, Johns Creek - TIS

Traffic Volumes

A&R Engineering
July 2025

1. Rogers Cir @ Nellie Brook Ct

A.M. Peak Hour

	Rogers Circle **Northbound**				Rogers Circle **Southbound**				- **Eastbound**				Nellie Brook Court **Westbound**			
Condition	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2025 Traffic Counts:	0	211	4	215	5	164	0	169	0	0	0	0	4	0	8	12
Growth Factor (%):	1	1	1		1	1	1		1	1	1		1	1	1	
No-Build 2027 Volumes:	0	215	4	219	5	167	0	172	0	0	0	0	4	0	8	12
Total New Trips:	0	18	0	18	0	55	0	55	0	0	0	0	0	0	0	0
Future 2027 Traffic Volumes:	0	233	4	237	5	222	0	227	0	0	0	0	4	0	8	12

Dismissal Peak Hour

	Rogers Circle **Northbound**				Rogers Circle **Southbound**				- **Eastbound**				Nellie Brook Court **Westbound**			
Condition	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2025 Traffic Counts:	0	67	9	76	2	33	0	35	0	0	0	0	1	0	10	11
Growth Factor (%):	1	1	1		1	1	1		1	1	1		1	1	1	
No-Build 2027 Volumes:	0	68	9	77	2	34	0	36	0	0	0	0	1	0	10	11
Total New Trips:	0	43	0	43	0	31	0	31	0	0	0	0	0	0	0	0
Future 2027 Traffic Volumes:	0	111	9	120	2	65	0	67	0	0	0	0	1	0	10	11

P.M. Peak Hour

	Rogers Circle **Northbound**				Rogers Circle **Southbound**				- **Eastbound**				Nellie Brook Court **Westbound**			
Condition	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2025 Traffic Counts:	0	42	3	45	5	109	0	114	0	0	0	0	1	0	4	5
Growth Factor (%):	1	1	1		1	1	1		1	1	1		1	1	1	
No-Build 2027 Volumes:	0	43	3	46	5	111	0	116	0	0	0	0	1	0	4	5
Total New Trips:	0	63	0	63	0	37	0	37	0	0	0	0	0	0	0	0
Future 2027 Traffic Volumes:	0	106	3	109	5	148	0	153	0	0	0	0	1	0	4	5

24-118 - Embry Tract Residential Development, Johns Creek - TIS

Traffic Volumes

A&R Engineering
July 2025

2. RogersCir @ Embry Farm Rd

A.M. Peak Hour

	Rogers Circle Northbound				Rogers Circle Southbound				- Eastbound				Embry Farm Road Westbound			
Condition	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2025 Traffic Counts:	0	219	0	219	0	169	0	169	0	0	0	0	1	0	1	2
Growth Factor (%):	1	1	1		1	1	1		1	1	1		1	1	1	
No-Build 2027 Volumes:	0	223	0	223	0	172	0	172	0	0	0	0	1	0	1	2
Total New Trips:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Future 2027 Traffic Volumes:	0	223	0	223	0	172	0	172	0	0	0	0	1	0	1	2

Dismissal Peak Hour

	Rogers Circle Northbound				Rogers Circle Southbound				- Eastbound				Embry Farm Road Westbound			
Condition	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2025 Traffic Counts:	0	77	0	77	0	35	0	35	0	0	0	0	1	0	2	3
Growth Factor (%):	1	1	1		1	1	1		1	1	1		1	1	1	
No-Build 2027 Volumes:	0	79	0	79	0	36	0	36	0	0	0	0	1	0	2	3
Total New Trips:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Future 2027 Traffic Volumes:	0	79	0	79	0	36	0	36	0	0	0	0	1	0	2	3

P.M. Peak Hour

	Rogers Circle Northbound				Rogers Circle Southbound				- Eastbound				Embry Farm Road Westbound			
Condition	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2025 Traffic Counts:	0	46	0	46	0	114	0	114	0	0	0	0	1	0	1	2
Growth Factor (%):	1	1	1		1	1	1		1	1	1		1	1	1	
No-Build 2027 Volumes:	0	47	0	47	0	116	0	116	0	0	0	0	1	0	1	2
Total New Trips:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Future 2027 Traffic Volumes:	0	47	0	47	0	116	0	116	0	0	0	0	1	0	1	2

24-118 - Embry Tract Residential Development, Johns Creek - TIS
Traffic Volumes

A&R Engineering
July 2025

3. RogersCir @ Middle School(S)

A.M. Peak Hour

	Rogers Circle Northbound				Rogers Circle Southbound				- Eastbound				River Trail Middle School Southern Driveway Westbound			
Condition	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2025 Traffic Counts:	0	14	205	219	113	9	0	122	0	0	0	0	162	0	74	236
Growth Factor (%):	1	1	1		1	1	1		1	1	1		1	1	1	
No-Build 2027 Volumes:	0	14	209	223	115	9	0	124	0	0	0	0	165	0	75	240
Total New Trips:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Future 2027 Traffic Volumes:	0	14	209	223	115	9	0	124	0	0	0	0	165	0	75	240

Dismissal Peak Hour

	Rogers Circle Northbound				Rogers Circle Southbound				- Eastbound				River Trail Middle School Southern Driveway Westbound			
Condition	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2025 Traffic Counts:	0	15	37	52	16	18	0	34	0	0	0	0	14	0	4	18
Growth Factor (%):	1	1	1		1	1	1		1	1	1		1	1	1	
No-Build 2027 Volumes:	0	15	38	53	16	18	0	34	0	0	0	0	14	0	4	18
Total New Trips:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Future 2027 Traffic Volumes:	0	15	38	53	16	18	0	34	0	0	0	0	14	0	4	18

P.M. Peak Hour

	Rogers Circle Northbound				Rogers Circle Southbound				- Eastbound				River Trail Middle School Southern Driveway Westbound			
Condition	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2025 Traffic Counts:	0	22	32	54	17	23	0	40	0	0	0	0	92	0	28	120
Growth Factor (%):	1	1	1		1	1	1		1	1	1		1	1	1	
No-Build 2027 Volumes:	0	22	33	55	17	23	0	40	0	0	0	0	94	0	29	123
Total New Trips:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Future 2027 Traffic Volumes:	0	22	33	55	17	23	0	40	0	0	0	0	94	0	29	123

24-118 - Embry Tract Residential Development, Johns Creek - TIS

Traffic Volumes

A&R Engineering
July 2025

Future Int. 3 (Roundabout)

A.M. Peak Hour

	Rogers Circle Northbound				Rogers Circle Southbound				Embry Farm Road (Site Driveway) Northwestbound				River Trail Middle School Southern Driveway Westbound			
Condition	T	R	Hard R	Tot	L	Bare L	T	Tot	Hard L	Bare R	Hard R	Tot	Hard L	L	R	Tot
Existing 2025 Traffic Counts:	14	205	0	219	113	0	9	122	0	0	0	0	0	162	74	236
Growth Factor (%):	1	1	1		1	1	1		1	1	1		1	1	1	
No-Build 2027 Volumes:	14	209	0	223	115	0	9	124	0	0	0	0	0	165	75	240
Total New Trips:	0	0	18	18	0	15	0	15	55	45	0	100	0	0	0	0
Future 2027 Traffic Volumes:	14	209	18	241	115	15	9	139	55	45	0	100	0	165	75	240

Dismissal Peak Hour

	Rogers Circle Northbound				Rogers Circle Southbound				Embry Farm Road (Site Driveway) Northwestbound				River Trail Middle School Southern Driveway Westbound			
Condition	T	R	Hard R	Tot	L	Bare L	T	Tot	Hard L	Bare R	Hard R	Tot	Hard L	L	R	Tot
Existing 2025 Traffic Counts:	15	37	0	52	16	0	18	34	0	0	0	0	0	14	4	18
Growth Factor (%):	1	1	1		1	1	1		1	1	1		1	1	1	
No-Build 2027 Volumes:	15	38	0	53	16	0	18	34	0	0	0	0	0	14	4	18
Total New Trips:	0	0	43	43	0	36	0	36	31	25	0	56	0	0	0	0
Future 2027 Traffic Volumes:	15	38	43	96	16	36	18	70	31	25	0	56	0	14	4	18

P.M. Peak Hour

	Rogers Circle Northbound				Rogers Circle Southbound				Embry Farm Road (Site Driveway) Northwestbound				River Trail Middle School Southern Driveway Westbound			
Condition	T	R	Hard R	Tot	L	Bare L	T	Tot	Hard L	Bare R	Hard R	Tot	Hard L	L	R	Tot
Existing 2025 Traffic Counts:	22	32	0	54	17	0	23	40	0	0	0	0	0	92	28	120
Growth Factor (%):	1	1	1		1	1	1		1	1	1		1	1	1	
No-Build 2027 Volumes:	22	33	0	55	17	0	23	40	0	0	0	0	0	94	29	123
Total New Trips:	0	0	63	63	0	51	0	51	37	30	0	67	0	0	0	0
Future 2027 Traffic Volumes:	22	33	63	118	17	51	23	91	37	30	0	67	0	94	29	123

24-118 - Embry Tract Residential Development, Johns Creek - TIS
Traffic Volumes

A&R Engineering
July 2025

4.RogersCir @ Elementary S.Drwy

A.M. Peak Hour

	Rogers Circle Northbound				Rogers Circle Southbound				- Eastbound				Shakerag Elementary School Southern Driveway Westbound			
Condition	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2025 Traffic Counts:	0	13	116	129	158	42	0	200	0	0	0	0	1	0	0	1
Growth Factor (%):	1	1	1		1	1	1		1	1	1		1	1	1	
No-Build 2027 Volumes:	0	13	118	131	161	43	0	204	0	0	0	0	1	0	0	1
Total New Trips:	0	45	0	45	0	15	0	15	0	0	0	0	0	0	0	0
Future 2027 Traffic Volumes:	0	58	118	176	161	58	0	219	0	0	0	0	1	0	0	1

Dismissal Peak Hour

	Rogers Circle Northbound				Rogers Circle Southbound				- Eastbound				Shakerag Elementary School Southern Driveway Westbound			
Condition	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2025 Traffic Counts:	0	5	36	41	38	26	0	64	0	0	0	0	1	0	0	1
Growth Factor (%):	1	1	1		1	1	1		1	1	1		1	1	1	
No-Build 2027 Volumes:	0	5	37	42	39	27	0	66	0	0	0	0	1	0	0	1
Total New Trips:	0	25	0	25	0	36	0	36	0	0	0	0	0	0	0	0
Future 2027 Traffic Volumes:	0	30	37	67	39	63	0	102	0	0	0	0	1	0	0	1

P.M. Peak Hour

	Rogers Circle Northbound				Rogers Circle Southbound				- Eastbound				Shakerag Elementary School Southern Driveway Westbound			
Condition	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2025 Traffic Counts:	0	46	4	50	4	38	0	42	0	0	0	0	1	0	2	3
Growth Factor (%):	1	1	1		1	1	1		1	1	1		1	1	1	
No-Build 2027 Volumes:	0	47	4	51	4	39	0	43	0	0	0	0	1	0	2	3
Total New Trips:	0	30	0	30	0	51	0	51	0	0	0	0	0	0	0	0
Future 2027 Traffic Volumes:	0	77	4	81	4	90	0	94	0	0	0	0	1	0	2	3

24-118 - Embry Tract Residential Development, Johns Creek - TIS
Traffic Volumes

A&R Engineering
July 2025

5.Rogers Cir @ Middle S.Drwy(N)

A.M. Peak Hour

	Rogers Circle Northbound				Rogers Circle Southbound				- Eastbound				River Trail Middle School Northern Driveway Westbound			
Condition	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2025 Traffic Counts:	0	226	14	240	41	184	0	225	0	0	0	0	2	0	12	14
Growth Factor (%):	1	1	1		1	1	1		1	1	1		1	1	1	
No-Build 2027 Volumes:	0	231	14	245	42	188	0	230	0	0	0	0	2	0	12	14
Total New Trips:	0	45	0	45	0	15	0	15	0	0	0	0	0	0	0	0
Future 2027 Traffic Volumes:	0	276	14	290	42	203	0	245	0	0	0	0	2	0	12	14

Dismissal Peak Hour

	Rogers Circle Northbound				Rogers Circle Southbound				- Eastbound				River Trail Middle School Northern Driveway Westbound			
Condition	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2025 Traffic Counts:	0	64	7	71	13	52	0	65	0	0	0	0	2	0	20	22
Growth Factor (%):	1	1	1		1	1	1		1	1	1		1	1	1	
No-Build 2027 Volumes:	0	65	7	72	13	53	0	66	0	0	0	0	2	0	20	22
Total New Trips:	0	25	0	25	0	36	0	36	0	0	0	0	0	0	0	0
Future 2027 Traffic Volumes:	0	90	7	97	13	89	0	102	0	0	0	0	2	0	20	22

P.M. Peak Hour

	Rogers Circle Northbound				Rogers Circle Southbound				- Eastbound				River Trail Middle School Northern Driveway Westbound			
Condition	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2025 Traffic Counts:	0	56	7	63	30	36	0	66	0	0	0	0	12	0	95	107
Growth Factor (%):	1	1	1		1	1	1		1	1	1		1	1	1	
No-Build 2027 Volumes:	0	57	7	64	31	37	0	68	0	0	0	0	12	0	97	109
Total New Trips:	0	30	0	30	0	51	0	51	0	0	0	0	0	0	0	0
Future 2027 Traffic Volumes:	0	87	7	94	31	88	0	119	0	0	0	0	12	0	97	109

24-118 - Embry Tract Residential Development, Johns Creek - TIS

Traffic Volumes

A&R Engineering
July 2025

6. Bell Rd @ Rogers Cir

A.M. Peak Hour

	Bell Road Northbound				Bell Road Southbound				- Eastbound				Rogers Circle Westbound			
Condition	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2025 Traffic Counts:	0	124	4	128	195	376	0	571	0	0	0	0	59	0	206	265
Growth Factor (%):	1	1	1		1	1	1		1	1	1		1	1	1	
No-Build 2027 Volumes:	0	126	4	130	199	384	0	583	0	0	0	0	60	0	210	270
Total New Trips:	0	0	0	0	15	0	0	15	0	0	0	0	0	0	45	45
Future 2027 Traffic Volumes:	0	126	4	130	214	384	0	598	0	0	0	0	60	0	255	315

Dismissal Peak Hour

	Bell Road Northbound				Bell Road Southbound				- Eastbound				Rogers Circle Westbound			
Condition	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2025 Traffic Counts:	0	316	9	325	72	180	0	252	0	0	0	0	7	0	82	89
Growth Factor (%):	1	1	1		1	1	1		1	1	1		1	1	1	
No-Build 2027 Volumes:	0	322	9	331	73	184	0	257	0	0	0	0	7	0	84	91
Total New Trips:	0	0	0	0	36	0	0	36	0	0	0	0	0	0	25	25
Future 2027 Traffic Volumes:	0	322	9	331	109	184	0	293	0	0	0	0	7	0	109	116

P.M. Peak Hour

	Bell Road Northbound				Bell Road Southbound				- Eastbound				Rogers Circle Westbound			
Condition	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2025 Traffic Counts:	0	485	9	494	57	240	0	297	0	0	0	0	5	0	70	75
Growth Factor (%):	1	1	1		1	1	1		1	1	1		1	1	1	
No-Build 2027 Volumes:	0	495	9	504	58	245	0	303	0	0	0	0	5	0	71	76
Total New Trips:	0	0	0	0	51	0	0	51	0	0	0	0	0	0	30	30
Future 2027 Traffic Volumes:	0	495	9	504	109	245	0	354	0	0	0	0	5	0	101	106