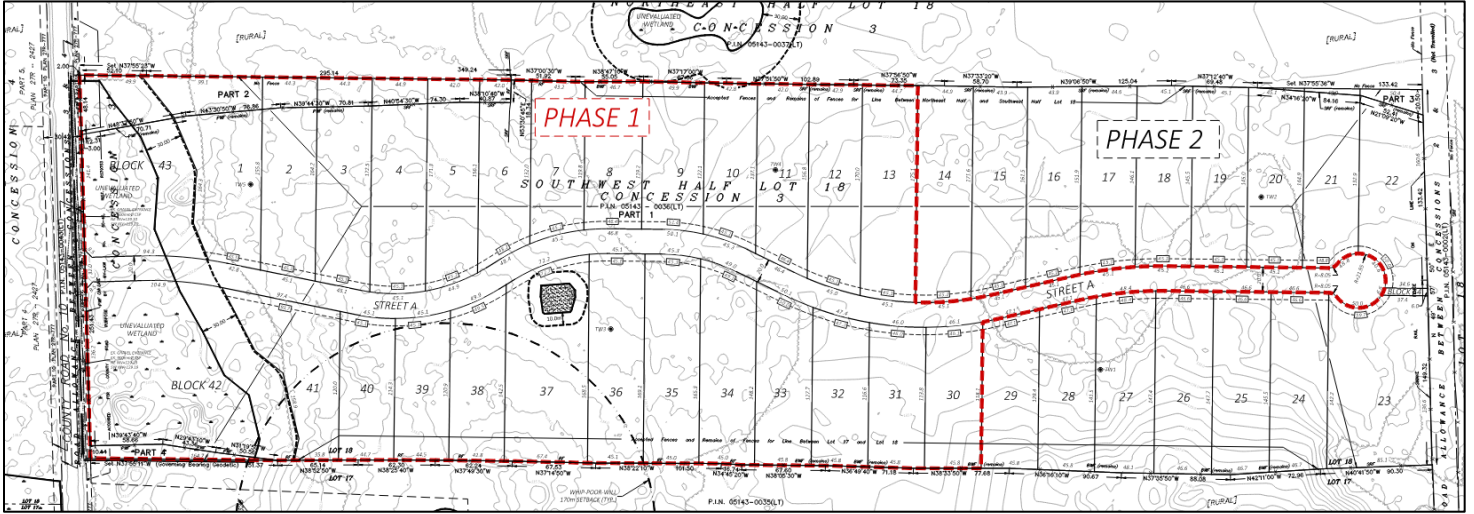




Transportation Brief

Richmond Road, Town of Beckwith, ON

Proposed Residential Development

July 2025 — Project #36503

13126102 Canada Inc

TYLin

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1 Introduction

1.1 SCOPE AND OBJECTIVE

TYLin was retained by Domenic Santaguida ("the Client") to prepare a Transportation Brief for the proposed residential subdivision in the Township of Beckwith for the lands located on the south side of Richmond Road (County Road 10) and Derry Side Road (County Road 17), hereinafter referred to as the 'Site'. The client proposes to develop the currently vacant site into a residential subdivision that consists of 40 single-detached residential dwellings.

The purpose of this report is to determine the traffic volumes anticipated to be generated by the Site during weekday AM and PM peak periods, to assess the impacts of this traffic on the existing road network, confirm if the site plan design is consistent with applicable MTO transportation guidelines, and recommend improvements to accommodate the projected traffic (if required). The study scope provides an update to the April 2023 draft Transportation Impact Study (TIS) previously submitted by Egis Canada (formerly McIntosh Perry).

The Transportation Brief will review the existing study area transportation network and planned infrastructure improvements over 5 and 10 horizon years. Traffic operations will be assessed under the following conditions:

- Existing conditions (2025)
- Build-out conditions (2026)
- Future total conditions (2031 and 2036) – The 5-year and 10-year post-build-out horizons.

2 Proposed Development

2.1 STUDY ENVIRONMENT

The proposed development is located on the south side of County Road 10, approximately 1.5 km to the west of the intersection of County Road 10 and County Road 17 in the Township of Beckwith, Ontario. The Site is bounded by Richmond Road to the north, which will connect the only site access (Street A) to the public roads. There are single family residences on either side of the Site and an unmaintained 3rd Concession to the south. The lands are approximately midway between the communities of Franktown and Prospect. It should be noted that the proposed development is anticipated to be constructed under a phased approach, however for the purpose of this report, it is assumed that the two phases will be developed concurrently to one another. The proposed concept plan is provided in **Appendix A**.

The proposed development and surrounding area are provided in **Figure 2-1**.



Figure 2-1. Richmond Road Residential Site Location

3 Existing Conditions

3.1 EXISTING ROAD NETWORK

County Road 10/ Richmond Road is classified as an arterial roadway and is under the jurisdiction of the County of Lanark. The roadway runs in the east-west direction and has a paved two-lane cross-section with one lane in each direction. Shoulders on both sides of the road are partially paved and partially gravel. There are no sidewalks or bike lanes on this road and the posted speed limit is 80 kilometers per hour.

County Road 17/Derry Side Road is classified as an arterial roadway and is under the jurisdiction of the County of Lanark. The roadway runs in the north-south direction and consists of a two-lane cross-section with one lane per direction. Shoulders on both sides of the road are partially paved and partially gravel. There are no sidewalks or bike lanes on this road. There is no posted speed limit, therefore statutory speed limit of 80 km/h applies.

Brunton Side Road is classified as an undivided local roadway. The roadway runs in the north-south direction and consists of a two-lane cross-section with one 3.4 m lane per direction with no painted centerline. The road is paved with no shoulders. There is no posted speed limit, therefore statutory speed limit of 80 km/h applies.

3.2 EXISTING INTERSECTIONS

Intersections assessed as part of this study will consist of:

- County Road 10 and Derry Side Road/Brunton Side Road
- County Road 10 and the proposed Street "A"

County Road 10 and Derry Side Road/Brunton Side Road as illustrated in **Figure 3-1**, is a four-leg unsignalized intersection, with the north and south approaches staggered. The east approach consists of shared left-through-right lane and the west approach has a dedicated right turning lane with a left-through turn lane. The north and south approaches have a single shared left-right lane. The intersection is two-way stop-controlled with stop signs on Derry Side Road and Brunton Side Road. The intersection has rural surrounding with no pedestrian crossings at this intersection.



Figure 3-1. Existing Lane Configuration for Study Intersection

3.3 EXISTING PEDESTRIAN & CYCLING NETWORK

There are no existing designated pedestrian or bicycle facilities including sidewalks or bicycle lanes near the proposed development. However there are paved shoulder of varying widths 1 m – 2.5 m along County Road 10 that can be used to accommodate pedestrians and cyclists.

3.4 EXISTING TRANSIT SYSTEM

There is no transit service within the study area.

3.5 EXISTING TRAFFIC VOLUME

It is noted that the traffic counts used in this analysis were obtained from a 2023 Turning Movement Count (TMC) report provided by a subconsultant for Egis. The traffic volumes at the intersection of County Road 17 and County Road 10 have been projected to the current year (2025) using a growth rate of 3.5% compounded annually. Traffic volumes for existing study conditions are provided in **Figure 3-2**.

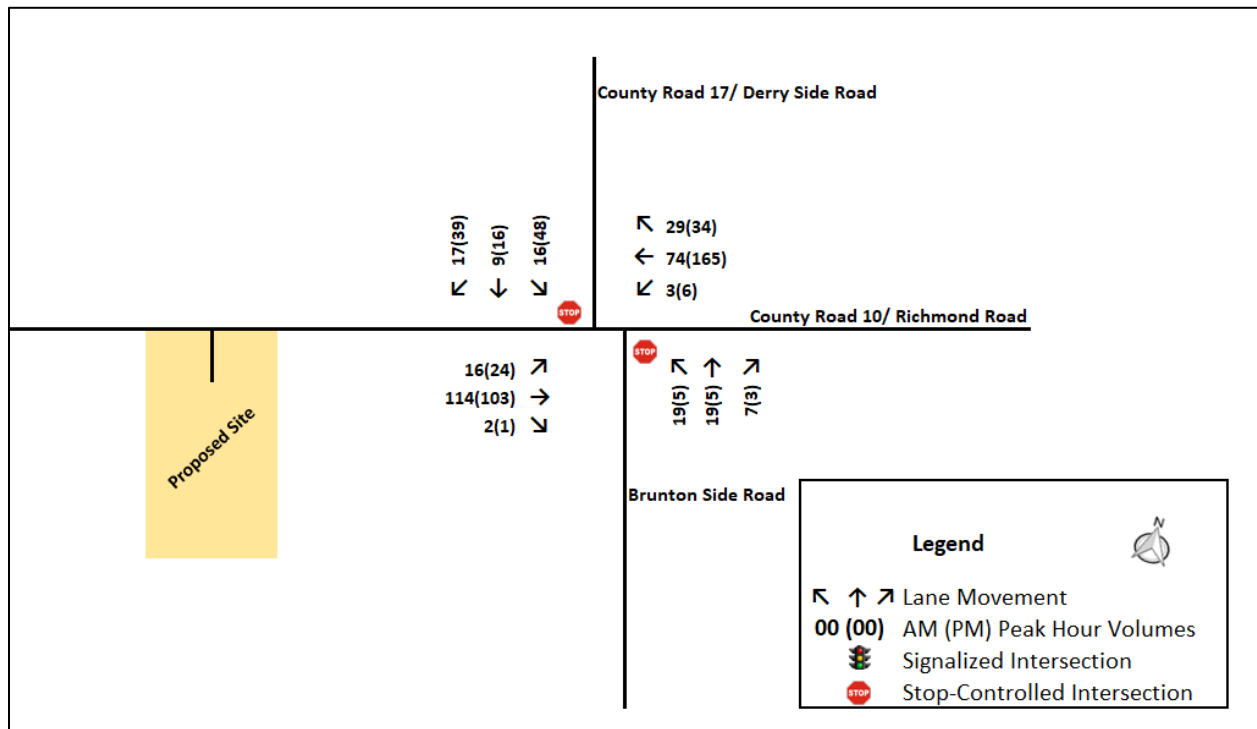


Figure 3-2. Existing 2025 Traffic Volumes

3.6 EXISTING TRAFFIC ANALYSIS

Study intersection operations were assessed using the Synchro 11 software. Intersection operations performance metrics are reported in terms of Level of Service (LOS), delays, volume-to-capacity (v/c) ratios, and 95th percentile queues. Level of service is based on the average control delay per vehicle for a given movement. Delay is an indicator of how long a vehicle must wait to complete a movement and is represented by a letter between 'A' and 'F', with 'F' being the longest delay. **Table 3-1** summarizes the LOS thresholds for two-way stop controlled (TWSC) intersections as defined by HCM 6th edition.

Table 3-1. LOS Criteria for Unsignalized Intersections

(LOS)	Control Delay (seconds/veh)
A	≤ 10
B	> 10 - 20
C	> 20 - 35
D	> 35 - 55
E	> 55 - 80
F	> 80

To calibrate the existing 2025 scenario T.Y.Lin utilized heavy vehicle percentages, pedestrian and cyclist volumes per the TMC data. Results from the traffic analysis are summarized in **Table 3-2.**

Table 3-2. 2025 Existing Conditions Traffic Analysis

Intersection	Movement	AM Peak Hour				PM Peak Hour			
		LOS	V/C	Delay (s)	Queue (m)	LOS	V/C	Delay (s)	Queue (m)
2025 Exsiting Conditions									
County Road 10/Derry Side Road/Brunton Side Road	EBLTR	A	0.01	8	0	A	0.02	8	1
	WBLT	A	0.00	7	0	A	0.03	8	1
	WBR	A	-	-	-	A	-	-	-
	NBLTR	B	0.07	11	1	B	0.03	12	1
	SBLTR	B	0.06	10	1	B	0.19	12	5
Notes: "-" indicate free flow movement ie no queue or delay									

The 2025 existing conditions illustrate that the intersection of County Road 10 and Derry Side Road/Brunton Side Road operates well with a LOS of B or better, a v/c of 0.19 or less, delays up to 12s and 95th percentile queueing up to 5 m (1 vehicle).

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4 Future Background Conditions

4.1 STUDY HORIZON YEARS

A 5-year and 10-year planning horizon has been established to analyze post-build out conditions. These correspond to the horizon years 2031 and 2036, respectively, which will occur after the full build-out of the Site in 2026.

4.2 BACKGROUND DEVELOPMENTS

A single area background development has been identified for consideration. The Grizzly Holdings property is located to the south-west of the intersection of Highway 15 and Fourth-Line Road/Richmond Road. the subdivision is expected to include a total of 35 lots of which 30 will be designated for single detached residential dwellings and other lots designated for open space and future road connection. The potential trips for the development have been calculated using the ITE Trip Generation Manual 11th Edition for Land Use Code (LUC) 220, (Single-Family Detached Housing). Trip assignment for the proposed site was developed using existing traffic patterns within the study area. Background development traffic volumes are shown in **Figure 4-1**.

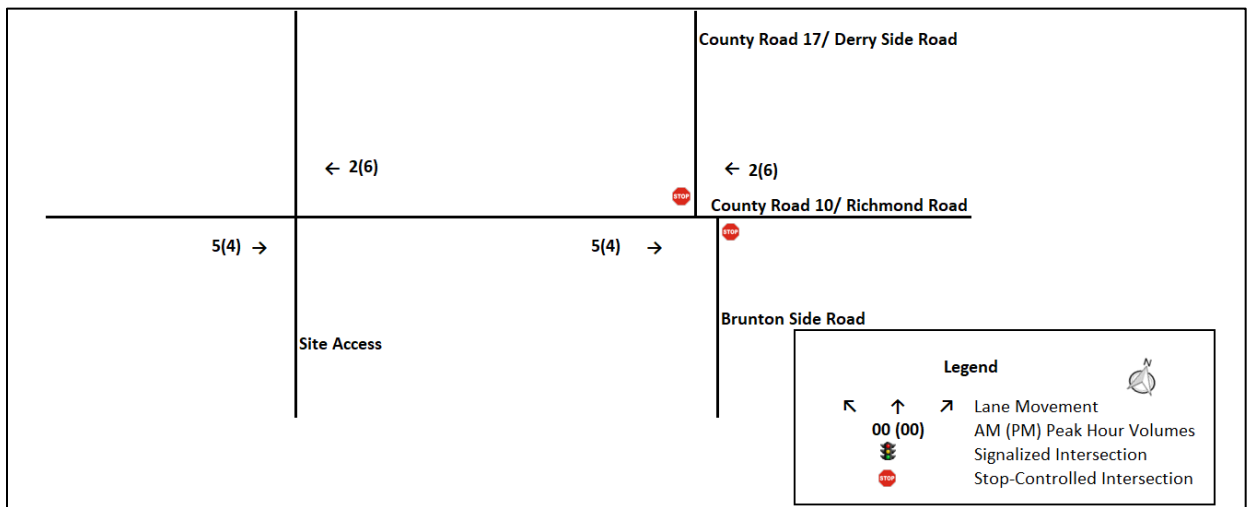


Figure 4-1. Background Development Traffic Volumes (2026)

4.3 BACKGROUND GROWTH

Background traffic growth was calculated by applying a 3.5% annual growth rate to the available TMC data from 2023 (mentioned in section 3.5) to obtain the current year’s (2025) existing traffic volumes. The same rate was then applied to the 2025 traffic counts to obtain background growth for the 2026 buildout year and 2031/2036 future study horizons. This rate is based on the Township of Beckwith’s long term historical growth trend of 3-5% per year and further data showing that the Town increased in population by approximately 3.4% annually between 2016 and 2021. Thus, a 3.5% growth rate is a reasonable estimate to use for the background growth analysis. **Figure 4-2** through **Figure 4-4** illustrate the 2026, 2031 and 2036 background traffic volumes respectively.

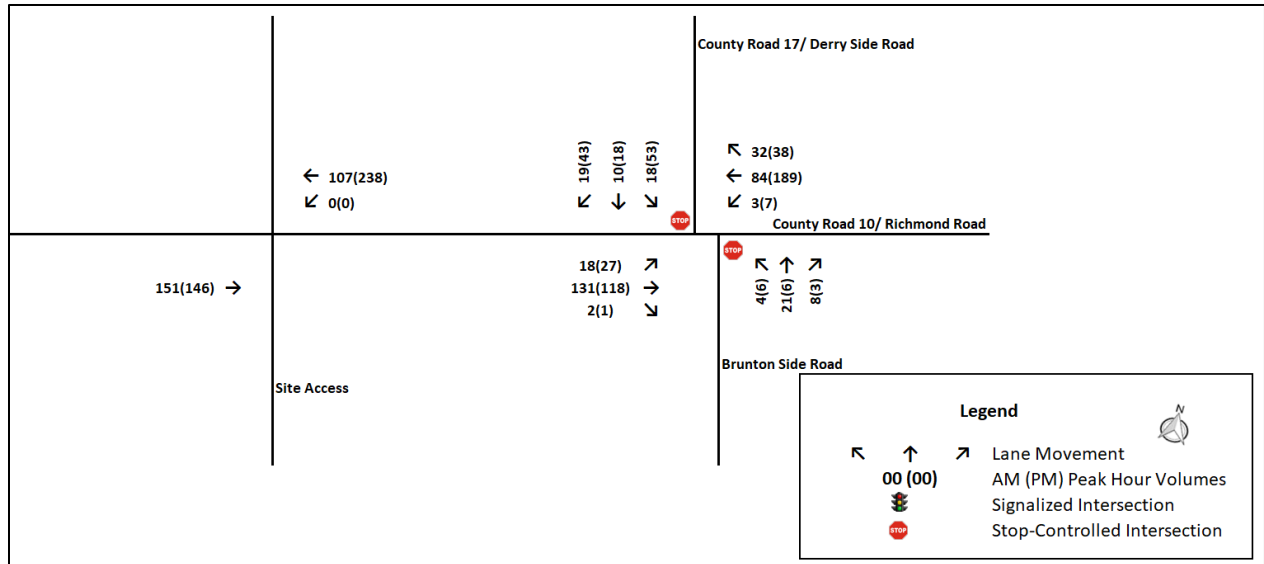


Figure 4-2. Background Traffic Volumes (2026)

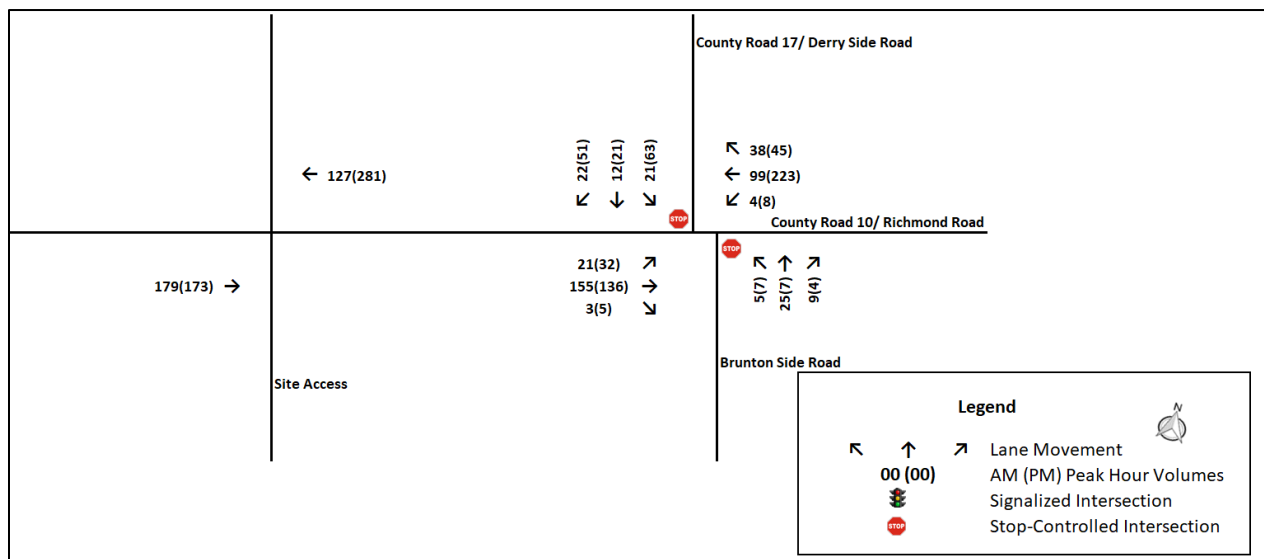


Figure 4-3. Background Traffic Volumes (2031)

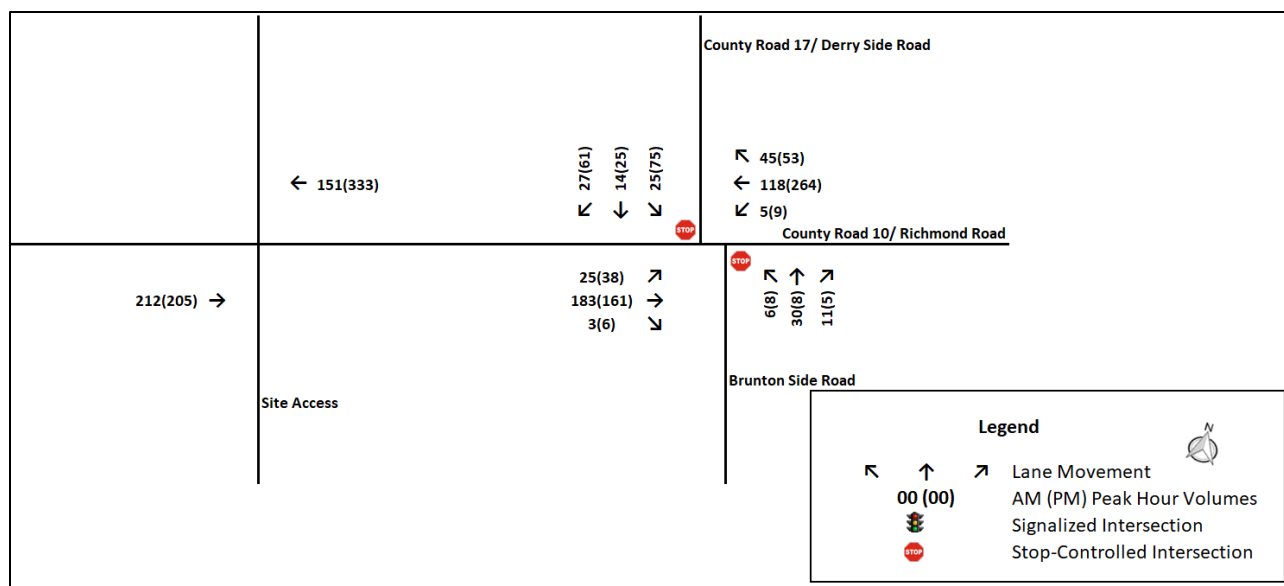


Figure 4-4. Background Traffic Volumes (2036)

4.4 BACKGROUND TRAFFIC ANALYSIS

The background traffic analysis serves as a baseline for comparison to the total traffic analysis, representing the scenario where there is no development. For this analysis the road network remained consistent to the existing scenario as there were no planned improvements along the County Road 10 corridor. These scenarios take into account additional traffic from noted background developments as well as the background growth. **Table 4-1** summarizes the 2026 buildout year, the 2031 5-year horizon and the 2036 10-year horizon scenarios.

Table 4-1. 2025 Existing Conditions Traffic Analysis

Intersection	Movement	AM Peak Hour				PM Peak Hour			
		LOS	V/C	Delay (s)	Queue (m)	LOS	V/C	Delay (s)	Queue (m)
2026 Background									
County Road 10/Derry Side Road/Brunton Side Road	EBLTR	A	0.01	8	0	A	0.02	8	1
	WBLT	A	0.00	8	0	A	0.01	8	0
	WBR	A	-	-	-	A	-	-	-
	NBLTR	B	0.06	11	1	B	0.03	12	1
	SBLTR	B	0.08	11	2	B	0.20	12	6
2031 Background									
County Road 10/Derry Side Road/Brunton Side Road	EBLTR	A	0.02	8	1	A	0.03	8	1
	WBLT	A	0.00	8	0	A	0.01	8	0
	WBR	A	-	-	-	A	-	-	-
	NBLTR	B	0.07	12	1	B	0.04	13	1
	SBLTR	B	0.09	11	2	B	0.27	14	8

Intersection	Movement	AM Peak Hour				PM Peak Hour			
		LOS	V/C	Delay (s)	Queue (m)	LOS	V/C	Delay (s)	Queue (m)
2036 Background									
County Road 10/Derry Side Road/Brunton Side Road	EBLTR	A	0.02	8	1	A	0.03	8	1
	WBLT	A	0.00	8	0	A	0.01	8	0
	WBR	A	-	-	-	A	-	-	-
	NBLTR	B	0.09	12	2	B	0.06	14	1
	SBLTR	B	0.12	12	3	C	0.36	16	11
Notes: "-" indicate free flow movement ie no queue or delay									

All background scenarios are shown to operate well with an LOS of C or better, v/c of 0.36 or less, average delays up to 16 seconds and a 95th percentile queue of 11 m (2 vehicles or less). This indicates that the existing road network has reserve capacity and will be able to handle an increase to the projected traffic within the area.

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5 Future Total Traffic Conditions

5.1 SITE TRIP GENERATION

Trips for the proposed development were derived from the Institute of Transportation Engineers (ITE) Trip Generation Manual 11th Edition for Land Use Code (LUC) 210, Single-Family Detached Housing. Directional splits for inbound and outbound trips during the weekday AM and weekday PM peak hours were based on ITE data. The projected trip generation for the subject site is summarized in **Table 5-1**.

Table 5-1. Site Trip Generation

Site Component	Units	ITE Code	Description	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Residential	40	Single-Family Detached Housing (210)	Directional Distribution	25%	75%	100%	63%	37%	100%
			(Fitted Curve)	$0.91 \ln(X) + 0.12$			$\ln(T) = 0.94 \ln(X) + 0.27$		
			Gross Trips	8	24	32	26	16	42

5.2 SITE TRIP DISTRIBUTION & ASSIGNMENT

Distribution and assignment of vehicular trips generated by the proposed development was based on existing turning movements at the intersection of Highway 15 and County Road 10.

Site traffic volumes assigned to study intersections during AM and PM peak hours are presented in **Figure 5-1**.

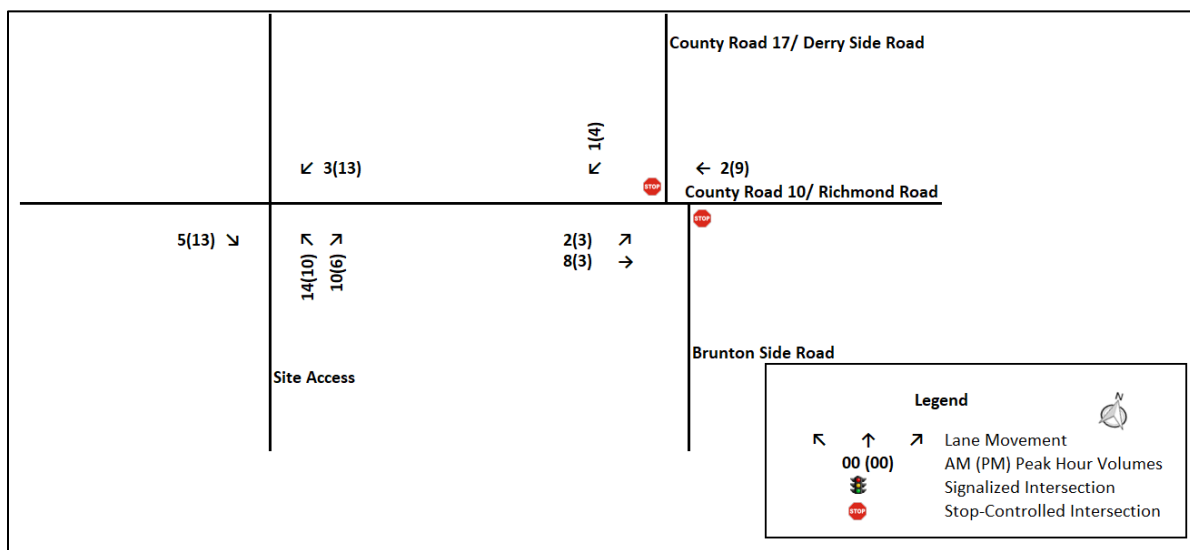


Figure 5-1. Site Generated Traffic Volumes

5.3 FUTURE TOTAL TRAFFIC VOLUMES

The Future total traffic volumes were derived by summing future background traffic volumes and forecasted site traffic volume for the AM and PM peak periods. **Figure 5-2** through **Figure 5-4** illustrate the 2026, 2031 and 2036 total traffic volumes respectively.

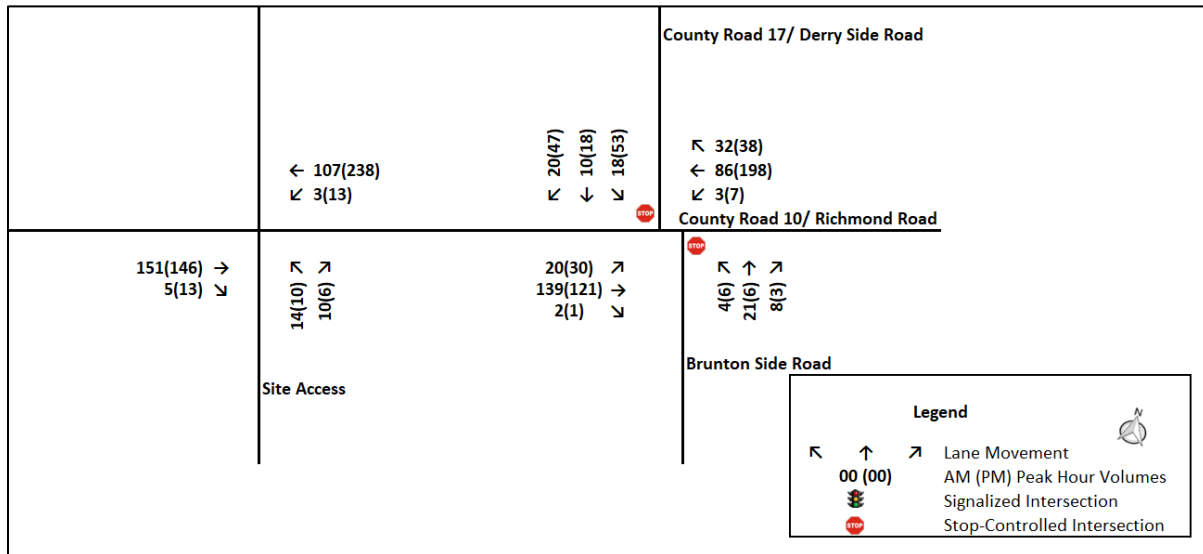


Figure 5-2. Future Total Traffic Volumes (2026)

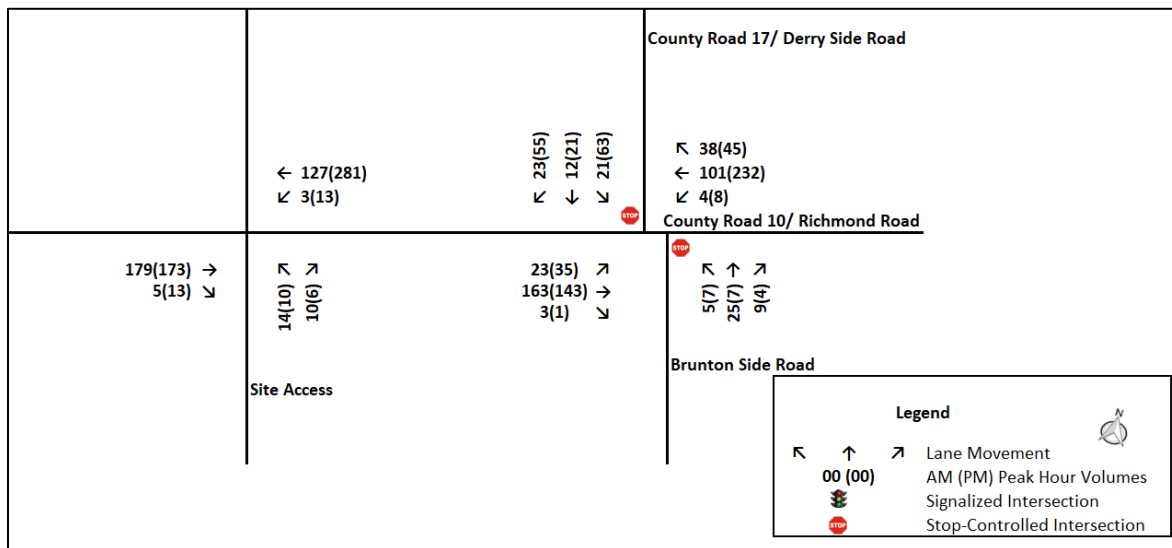


Figure 5-3. Future Total Traffic Volumes (2031)

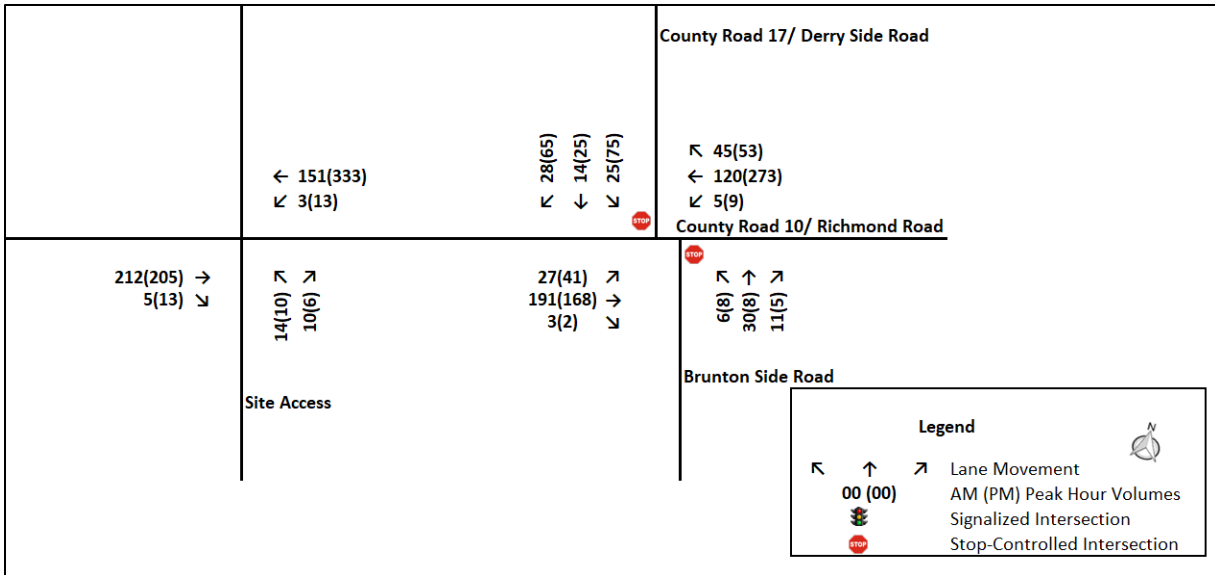


Figure 5-4. Future Total Traffic Volumes (2036)

5.4 FUTURE TOTAL TRAFFIC ANALYSIS

The future total scenarios are representative of the network after the planned construction of the development were to take place. These scenarios take into account the additional new trips from the development and changes to the road network – such as the new site access “Street A”, traffic from the background developments noted and background growth. **Table 5-2** summarizes the anticipated traffic operations for the 2026 buildout year, 2031 5-year horizon and the 2036 10-year horizon.

Table 5-2. Total Traffic Analysis

Intersection	Movement	AM Peak Hour				PM Peak Hour			
		LOS	V/C	Delay (s)	Queue (m)	LOS	V/C	Delay (s)	Queue (m)
2026 Total									
County Road 10/Derry Side Road/Brunton Side Road	EBLTR	A	0.01	7	0	A	0.03	8	1
	WBLT	A	0.00	8	0	A	0.01	8	0
	WBR	A	-	-	-	A	-	-	-
	NBLTR	B	0.05	11	1	B	0.03	12	1
	SBLTR	B	0.07	10	1	B	0.21	13	6
County Road 10 and Site Access	EBTR	A	-	-	-	A	-	-	-
	WBTL	A	0.00	8	0	A	0.01	8	0
	NBLR	A	0.03	10	1	B	0.03	11	1
2031 Total									
County Road 10/Derry Side	EBLTR	A	0.02	7	1	A	0.03	8	1
	WBLT	A	0.00	8	0	A	0.01	8	0
	WBR	A	-	-	-	A	-	-	-

Intersection	Movement	AM Peak Hour				PM Peak Hour			
		LOS	V/C	Delay (s)	Queue (m)	LOS	V/C	Delay (s)	Queue (m)
Road/Brunton Side Road	NBLTR	B	0.07	11	1	B	0.04	13	1
	SBLTR	B	0.08	10	2	B	0.28	14	8
County Road 10 and Site Access	EBTR	A	-	-	-	A	-	-	-
	WBTL	A	0.00	8	0	A	0.01	8	0
	NBLR	B	0.04	10	1	B	0.03	11	0
2036 Total									
County Road 10/Derry Side Road/Brunton Side Road	EBLTR	A	0.02	8	1	A	0.04	8	1
	WBLT	A	0.00	8	0	A	0.01	8	0
	WBR	A	-	-	-	A	-	-	-
	NBLTR	B	0.10	13	2	B	0.06	15	1
	SBLTR	B	0.12	12	3	C	0.37	17	12
County Road 10 and Site Access	EBTR	A	-	-	-	A	-	-	-
	WBTL	A	0.00	8	0	A	0.01	8	0
	NBLR	B	0.04	11	1	B	0.03	12	1
Notes: "-" indicate free flow movement ie no queue or delay									

All total traffic scenarios are shown to operate similarly to the background scenarios, with an LOS of C or better, v/c of 0.37 or less, average delays up to 17 seconds and a 95th percentile queue of 12 m (2 vehicles or less). This indicates that the existing road network is anticipated to be able to accommodate the proposed development and all associated trips without need for any roadway improvements.

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6 Site Review

6.1 ACCESS LOCATION AND SPACING

The proposed site access currently is anticipated to be from a new roadway off of County Road 10. As the proposed site is fronting onto County Road 10 it falls under the access management classification system category 4 - Local (Kings Highway) due to the low volume and rural nature of the roadway. As such, the site is anticipated to be in accordance with the Highway Corridor Management Manual – April 2025 (HCMM). **Table 6-1** summarizes the requirements and if the requirement is met.

Table 6-1 HCMM Criteria

Criteria	Requirement	Adheres (Y/N)	Proposed
Access density	8/km/side	Y	8 accesses over a 3 km span (Combined both sides of roadway), Access density of 3.33/km including the proposed development access
Required Highway Frontage	250 m	Y	310 m proposed
Desirable Offset Criteria Upstream and Downstream	400 m	Y	Approximately 1.5km to both Derry Side Road Intersection and to Daves Side Road Intersection
Available Sightline	Refer to section 6.2	Y	Refer to section 6.2 of this Brief

It is anticipated that with the planned improvements to the existing site access, it will be in accordance with the requirements from the Highway Corridor Management Manual – April 2025.

6.2 SIGHT DISTANCE REVIEW

A desktop sightline review of the site access has been completed by T.Y.Lin. Sight distance requirements are noted for the access using methodology outlined in the Transportation Association of Canada (TAC) Geometric Design Guide for Canadian Roads. County Road 10 has a posted 80km/h speed limit, as such, sight distance reviews were assessed based on a design speed of 100km/h. The access was assessed based on TAC Table 9.9.4 and 9.9.6 which provides minimum intersection sight distance requirements for left and right turn maneuvers from stop, respectively. **Table 6-2** outlines the requirements, and available sight distances for the site access.

The sight distance review confirms all sight distance requirements have been met.

Table 6-2 Intersection Sight Distance Requirements

Maneuver	Stopping Sight Distance (m)	Intersection Sight distance for passenger cars (m)	Available Site Distances (m)
Left Turn from Stop	185	210	450+ m
Right Turn from Stop	185	185	300+ m

7 Findings & Recommendations

7.1 FINDINGS

The following findings have been made from the study:

1. The proposed residential development is expected to consist of a 40 single family residential lots.
2. The proposed development is expected to generate a total of 32 trips during the AM peak hour (8 inbound and 24 outbound) and 42 trips during the PM peak hour (26 inbound and 16 outbound).
3. The AM and PM peak hour volumes generated by the proposed development can be accommodated on the boundary road network.
4. The site access and available sight lines are expected to be adequate and meet all required standards.

Prepared by:



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Appendix A:

Site Plan

**DRAFT PLAN
OF SUBDIVISION
OF
PART OF THE SOUTHWEST
HALF LOT 18
CONCESSION 3
TOWNSHIP OF BECKWITH
COUNTY OF LANARK**

TO BE SUBDIVIDED INTO:
LOTS 1-41 FOR SINGLE DETACHED RESIDENTIAL DWELLINGS
BLOCKS 42 & 43 FOR STORMWATER & CONSERVATION
BLOCKS 44 FOR RECREATIONAL TRAIL
STREET A FOR 20 METRE WIDE MUNICIPAL ROAD ALLOWANCE

SURVEYOR'S CERTIFICATE I HEREBY CERTIFY THAT THE BOUNDARIES OF THE LANDS TO BE SUBDIVIDED AS SHOWN ON THIS PLAN AND THEIR RELATIONSHIP TO THE ADJOINING LANDS ARE ACCURATELY AND CORRECTLY SHOWN. JULY 21, 2025 _____ DATE  _____ JOHN GAUTHIER, O.L.S.	
APPLICANT AND PROPERTY OWNER DOMENIC SANTAGUIDA 3625 RIVERGATE WAY OTTAWA, ON, K0A 1B0	
OWNER'S CERTIFICATE I HEREBY AUTHORIZE THE PREPARATION AND SUBMISSION OF THIS PLAN TO THE COUNCIL OF THE COUNTY OF LANARK. DATED ON THIS <u>21st</u> DAY OF <u>JULY</u>, 2025.  DOMENIC SANTAGUIDA I HAVE THE AUTHORITY TO BIND THE CORPORATION	
DRAFT PLAN OF SUBDIVISION all dimensions g with the work	Date: <u>JULY 21, 2025</u> Project Number: OPP-20-9510 Drawing Number: 1
Do not scale drawings	

Appendix B:

TMC Data

Horizon Data Services Ltd

Email: nhyree@gmail.com
Phone: (416) 840-6619 Fax: (416) 840-5297
"Your Traffic Count Specialist"

File Name : County Road 10 at Derry Side Road
Site Code : 00000000
Start Date : 03/21/2023
Page No : 1

Groups Printed- Cars - Trucks - Heavys - Cyclists

	Derry Sd Rd From North					CR 10 From East					Burton Sd Rd From South					CR 10 From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
06:00 AM	2	0	2	0	4	0	2	0	0	2	0	0	1	0	1	0	28	1	0	29	36
06:15 AM	1	0	3	0	4	0	6	1	0	7	1	0	0	0	1	0	30	3	0	33	45
06:30 AM	0	0	0	0	0	2	16	0	0	18	1	2	0	0	3	0	32	4	0	36	57
06:45 AM	1	0	1	0	2	1	12	0	0	13	3	2	0	0	5	0	25	4	0	29	49
Total	4	0	6	0	10	3	36	1	0	40	5	4	1	0	10	0	115	12	0	127	187
07:00 AM	3	0	1	0	4	3	10	0	0	13	3	3	1	0	7	0	28	7	0	35	59
07:15 AM	1	0	0	0	1	7	14	0	0	21	0	5	0	0	5	1	29	6	0	36	63
07:30 AM	5	2	4	0	11	10	15	0	0	25	1	5	0	0	6	1	29	4	0	34	76
07:45 AM	2	1	5	0	8	6	12	2	0	20	2	11	1	0	14	0	29	5	0	34	76
Total	11	3	10	0	24	26	51	2	0	79	6	24	2	0	32	2	115	22	0	139	274
08:00 AM	3	4	3	0	10	4	18	1	0	23	1	0	2	0	3	0	20	5	0	25	61
08:15 AM	6	1	3	0	10	7	24	0	0	31	3	2	1	0	6	1	28	1	0	30	77
08:30 AM	6	2	2	0	10	6	18	1	0	25	1	3	0	0	4	0	29	8	0	37	76
08:45 AM	2	3	10	0	15	4	13	1	0	18	1	1	0	0	2	1	29	5	0	35	70
Total	17	10	18	0	45	21	73	3	0	97	6	6	3	0	15	2	106	19	0	127	284
09:00 AM	2	0	3	0	5	6	25	0	0	31	1	0	2	0	3	0	21	0	0	21	60
09:15 AM	2	1	2	0	5	5	15	1	0	21	0	1	0	0	1	1	22	2	0	25	52
09:30 AM	2	0	3	0	5	6	15	0	0	21	0	4	0	0	4	0	19	0	0	19	49
09:45 AM	1	4	5	0	10	4	13	0	0	17	0	1	0	0	1	0	19	2	0	21	49
Total	7	5	13	0	25	21	68	1	0	90	1	6	2	0	9	1	81	4	0	86	210
02:00 PM	4	2	4	0	10	7	19	0	0	26	1	1	2	0	4	1	23	2	0	26	66
02:15 PM	2	2	3	0	7	6	29	2	0	37	0	1	1	0	2	1	14	3	0	18	64
02:30 PM	5	3	5	0	13	8	21	1	0	30	0	1	1	0	2	0	10	3	0	13	58
02:45 PM	4	2	5	0	11	7	23	3	0	33	2	1	1	0	4	0	14	0	0	14	62
Total	15	9	17	0	41	28	92	6	0	126	3	4	5	0	12	2	61	8	0	71	250
03:00 PM	7	3	6	0	16	7	35	1	0	43	0	4	0	0	4	0	16	2	0	18	81
03:15 PM	6	2	8	0	16	3	31	2	0	36	0	1	0	0	1	2	14	1	0	17	70
03:30 PM	7	1	11	0	19	6	46	0	0	52	1	3	0	0	4	1	18	2	0	21	96
03:45 PM	6	1	4	0	11	2	33	1	0	36	0	1	0	0	1	2	25	5	0	32	80
Total	26	7	29	0	62	18	145	4	0	167	1	9	0	0	10	5	73	10	0	88	327

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"Your Traffic Count Specialist"

File Name : County Road 10 at Derry Side Road

Site Code : 00000000

Start Date : 03/21/2023

Page No : 2

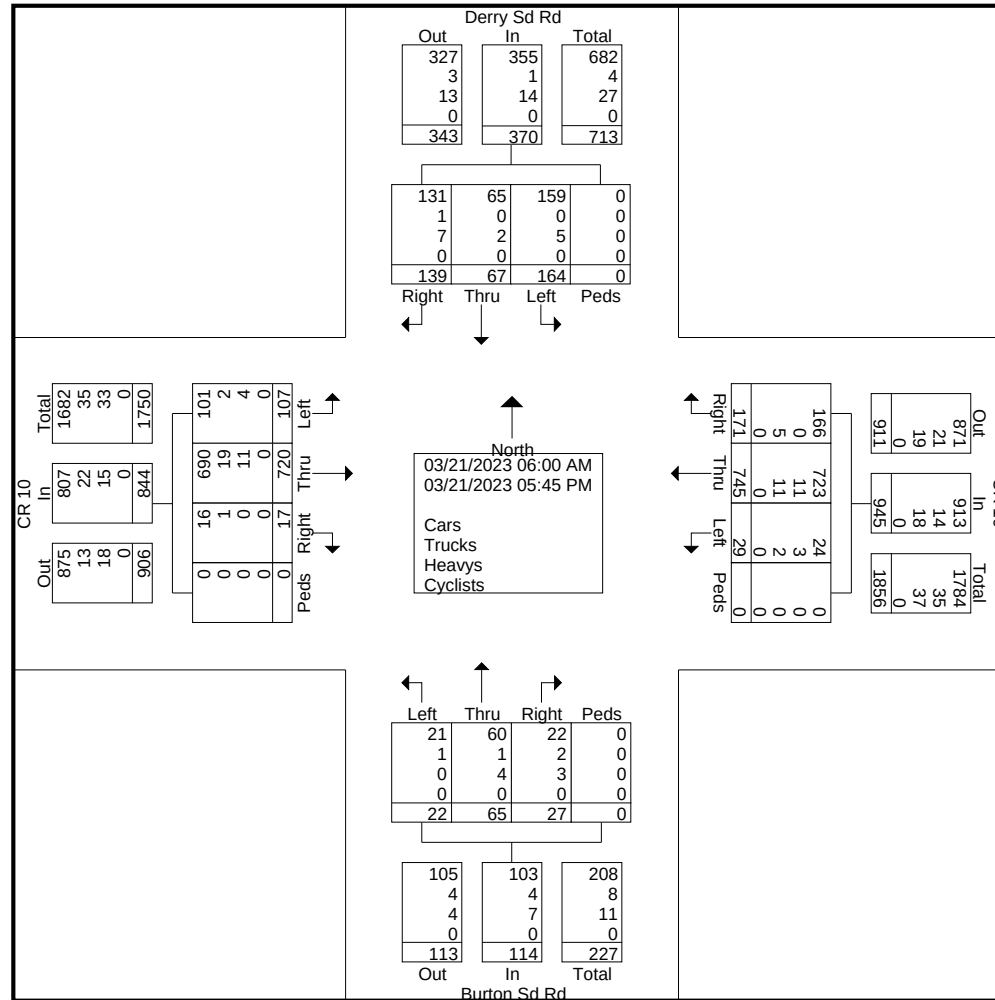
Groups Printed- Cars - Trucks - Heavys - Cyclists

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File Name : County Road 10 at Derry Side Road
Site Code : 00000000
Start Date : 03/21/2023
Page No : 3



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File Name : County Road 10 at Derry Side Road

Site Code : 00000000

Start Date : 03/21/2023

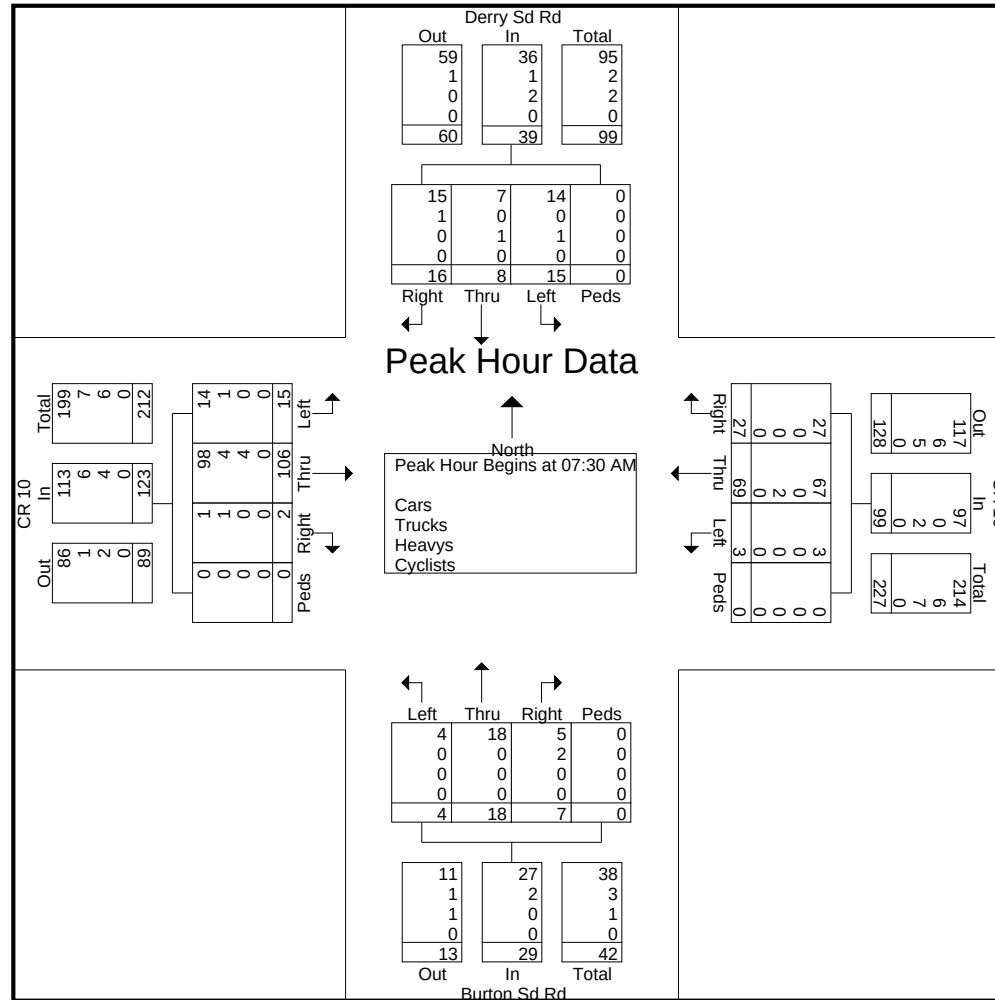
Page No : 4

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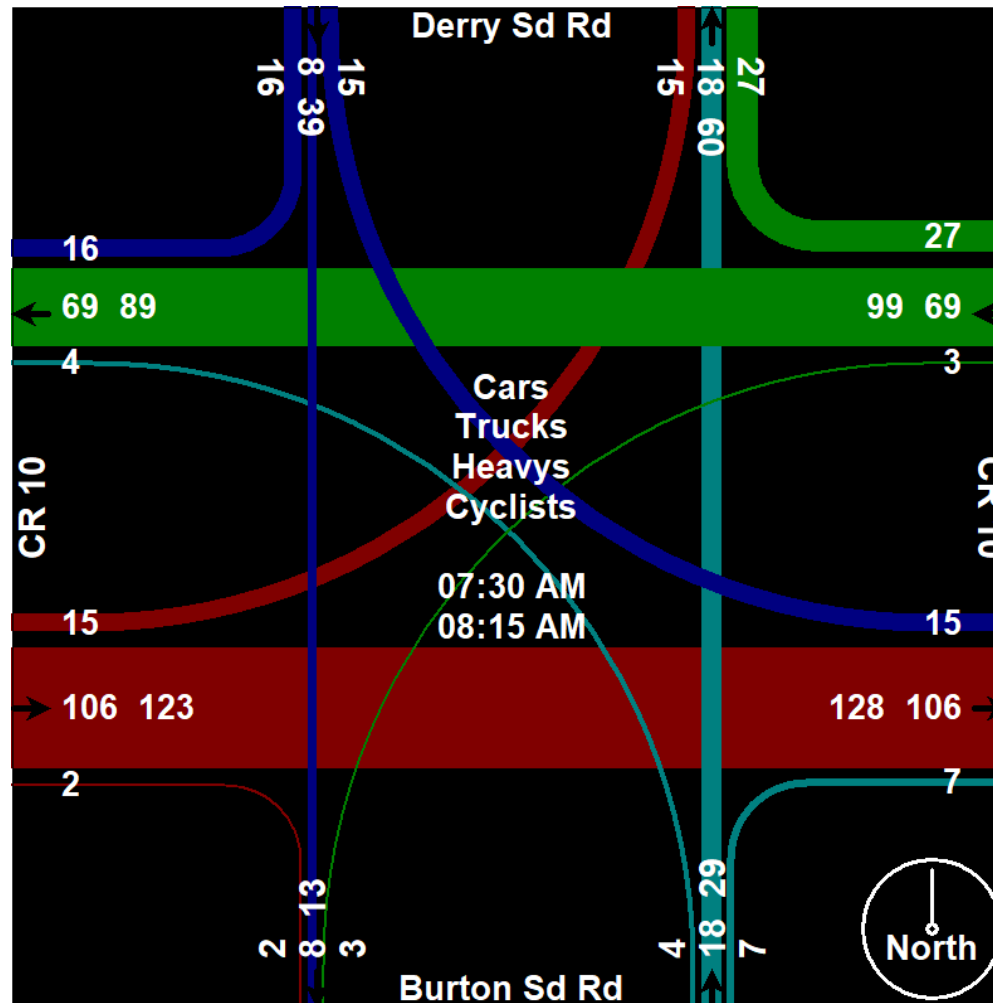
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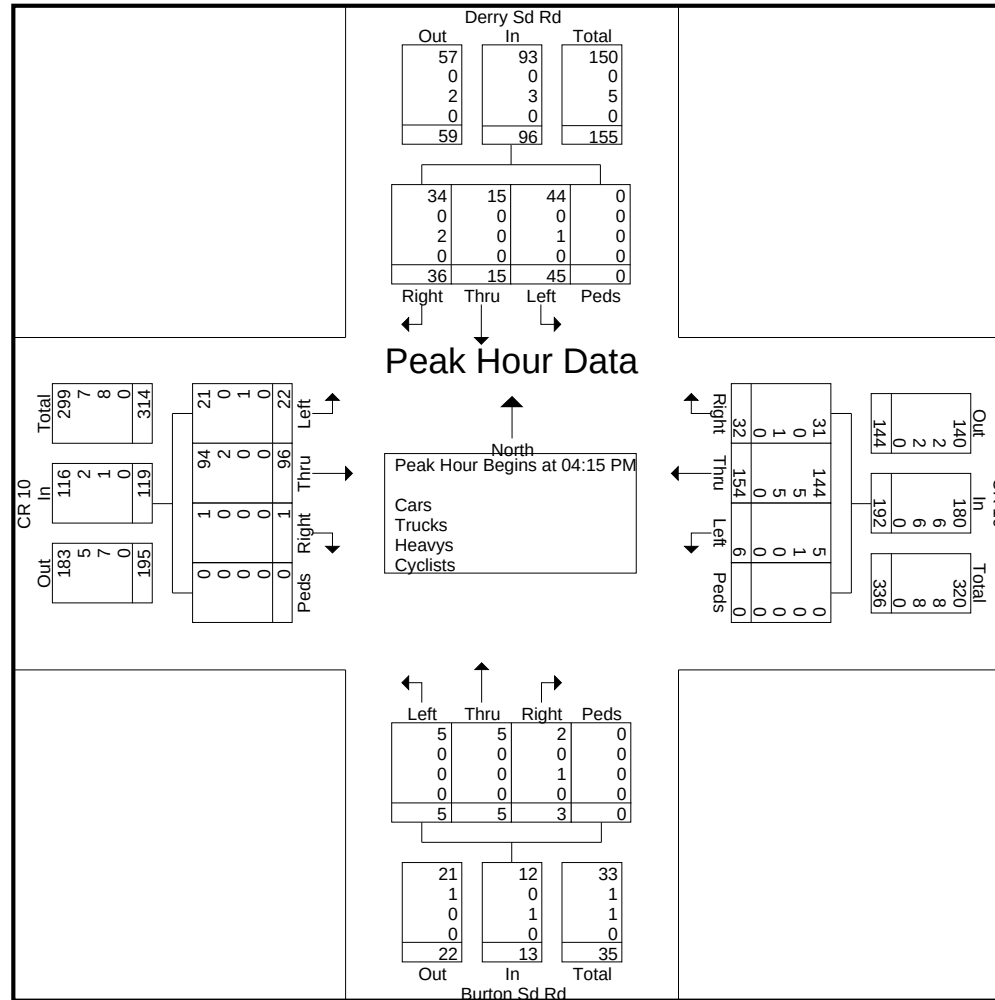
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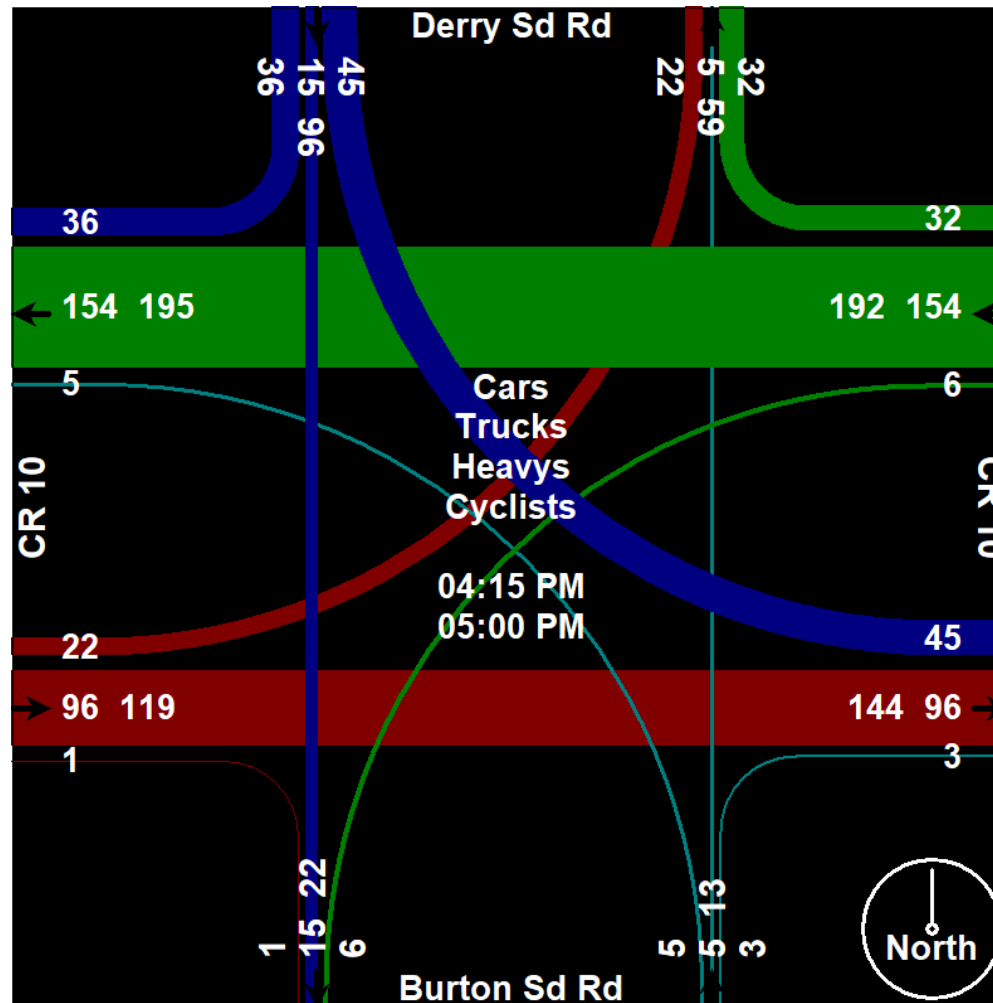
File Name : County Road 10 at Derry Side Road
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Appendix C:

Synchro Output Reports

Intersection												
Int Delay, s/veh	3.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↗		↕			↕	
Traffic Vol, veh/h	16	114	2	3	74	29	19	19	7	16	9	17
Future Vol, veh/h	16	114	2	3	74	29	19	19	7	16	9	17
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	37	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	7	8	50	0	3	0	0	0	29	7	13	6
Mvmt Flow	17	124	2	3	80	32	21	21	8	17	10	18
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	112	0	0	126	0	0	275	277	125	260	246	80
Stage 1	-	-	-	-	-	-	159	159	-	86	86	-
Stage 2	-	-	-	-	-	-	116	118	-	174	160	-
Critical Hdwy	4.17	-	-	4.1	-	-	7.1	6.5	6.49	7.17	6.63	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.17	5.63	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.17	5.63	-
Follow-up Hdwy	2.263	-	-	2.2	-	-	3.5	4	3.561	3.563	4.117	3.354
Pot Cap-1 Maneuver	1447	-	-	1473	-	-	681	634	858	683	638	969
Stage 1	-	-	-	-	-	-	848	770	-	910	803	-
Stage 2	-	-	-	-	-	-	894	802	-	816	745	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1447	-	-	1473	-	-	652	624	858	652	628	969
Mov Cap-2 Maneuver	-	-	-	-	-	-	652	624	-	652	628	-
Stage 1	-	-	-	-	-	-	837	760	-	898	801	-
Stage 2	-	-	-	-	-	-	865	800	-	777	735	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.9			0.2			10.9			10.2		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	664	1447	-	-	1473	-	-	744				
HCM Lane V/C Ratio	0.074	0.012	-	-	0.002	-	-	0.061				
HCM Control Delay (s)	10.9	7.5	0	-	7.4	0	-	10.2				
HCM Lane LOS	B	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.2				

Intersection												
Int Delay, s/veh	4.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕		↕			↕	
Traffic Vol, veh/h	24	103	1	34	165	6	5	5	3	48	16	39
Future Vol, veh/h	24	103	1	34	165	6	5	5	3	48	16	39
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	37	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	2	0	17	6	3	0	0	33	2	0	6
Mvmt Flow	26	112	1	37	179	7	5	5	3	52	17	42

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	186	0	0	113	0	0	451	425	113	422	418	179
Stage 1	-	-	-	-	-	-	165	165	-	253	253	-
Stage 2	-	-	-	-	-	-	286	260	-	169	165	-
Critical Hdwy	4.1	-	-	4.27	-	-	7.1	6.5	6.53	7.12	6.5	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.12	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.12	5.5	-
Follow-up Hdwy	2.2	-	-	2.353	-	-	3.5	4	3.597	3.518	4	3.354
Pot Cap-1 Maneuver	1401	-	-	1388	-	-	522	524	862	542	529	854
Stage 1	-	-	-	-	-	-	842	766	-	751	701	-
Stage 2	-	-	-	-	-	-	726	697	-	833	766	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1401	-	-	1388	-	-	465	498	862	515	503	854
Mov Cap-2 Maneuver	-	-	-	-	-	-	465	498	-	515	503	-
Stage 1	-	-	-	-	-	-	825	751	-	736	680	-
Stage 2	-	-	-	-	-	-	652	676	-	807	751	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.4			1.3			11.9			12.3		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	536	1401	-	-	1388	-	-	603
HCM Lane V/C Ratio	0.026	0.019	-	-	0.027	-	-	0.186
HCM Control Delay (s)	11.9	7.6	0	-	7.7	0	-	12.3
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0.1	-	-	0.7

Intersection												
Int Delay, s/veh	2.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↗		↕			↕	
Traffic Vol, veh/h	18	131	2	3	84	32	4	21	8	18	10	19
Future Vol, veh/h	18	131	2	3	84	32	4	21	8	18	10	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	37	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	7	8	50	0	3	0	0	0	29	7	13	6
Mvmt Flow	20	142	2	3	91	35	4	23	9	20	11	21
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	126	0	0	144	0	0	314	315	143	296	281	91
Stage 1	-	-	-	-	-	-	183	183	-	97	97	-
Stage 2	-	-	-	-	-	-	131	132	-	199	184	-
Critical Hdwy	4.17	-	-	4.1	-	-	7.1	6.5	6.49	7.17	6.63	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.17	5.63	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.17	5.63	-
Follow-up Hdwy	2.263	-	-	2.2	-	-	3.5	4	3.561	3.563	4.117	3.354
Pot Cap-1 Maneuver	1430	-	-	1451	-	-	643	604	838	646	609	956
Stage 1	-	-	-	-	-	-	823	752	-	897	794	-
Stage 2	-	-	-	-	-	-	877	791	-	791	727	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1430	-	-	1451	-	-	612	594	838	612	599	956
Mov Cap-2 Maneuver	-	-	-	-	-	-	612	594	-	612	599	-
Stage 1	-	-	-	-	-	-	811	741	-	884	792	-
Stage 2	-	-	-	-	-	-	845	789	-	747	716	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.9			0.2			10.9			10.4		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	642	1430	-	-	1451	-	-	712				
HCM Lane V/C Ratio	0.056	0.014	-	-	0.002	-	-	0.072				
HCM Control Delay (s)	10.9	7.6	0	-	7.5	0	-	10.4				
HCM Lane LOS	B	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.2				

Intersection												
Int Delay, s/veh	3.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↗		↕			↕	
Traffic Vol, veh/h	27	118	1	7	189	38	6	6	3	53	18	43
Future Vol, veh/h	27	118	1	7	189	38	6	6	3	53	18	43
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	37	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	2	0	17	6	3	0	0	33	2	0	6
Mvmt Flow	29	128	1	8	205	41	7	7	3	58	20	47
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	246	0	0	129	0	0	462	449	129	413	408	205
Stage 1	-	-	-	-	-	-	187	187	-	221	221	-
Stage 2	-	-	-	-	-	-	275	262	-	192	187	-
Critical Hdwy	4.1	-	-	4.27	-	-	7.1	6.5	6.53	7.12	6.5	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.12	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.12	5.5	-
Follow-up Hdwy	2.2	-	-	2.353	-	-	3.5	4	3.597	3.518	4	3.354
Pot Cap-1 Maneuver	1332	-	-	1369	-	-	513	508	844	549	536	826
Stage 1	-	-	-	-	-	-	819	749	-	781	724	-
Stage 2	-	-	-	-	-	-	736	695	-	810	749	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1332	-	-	1369	-	-	460	493	844	529	520	826
Mov Cap-2 Maneuver	-	-	-	-	-	-	460	493	-	529	520	-
Stage 1	-	-	-	-	-	-	800	732	-	763	719	-
Stage 2	-	-	-	-	-	-	671	690	-	781	732	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.4			0.2			12.1			12.4		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	521	1332	-	-	1369	-	-	610				
HCM Lane V/C Ratio	0.031	0.022	-	-	0.006	-	-	0.203				
HCM Control Delay (s)	12.1	7.8	0	-	7.6	0	-	12.4				
HCM Lane LOS	B	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.8				

Intersection												
Int Delay, s/veh	3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕		↕			↕	
Traffic Vol, veh/h	21	155	3	4	99	38	5	25	9	21	12	22
Future Vol, veh/h	21	155	3	4	99	38	5	25	9	21	12	22
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	37	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	7	8	50	0	3	0	0	0	29	7	13	6
Mvmt Flow	23	168	3	4	108	41	5	27	10	23	13	24

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	149	0	0	171	0	0	371	373	170	350	333	108
Stage 1	-	-	-	-	-	-	216	216	-	116	116	-
Stage 2	-	-	-	-	-	-	155	157	-	234	217	-
Critical Hdwy	4.17	-	-	4.1	-	-	7.1	6.5	6.49	7.17	6.63	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.17	5.63	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.17	5.63	-
Follow-up Hdwy	2.263	-	-	2.2	-	-	3.5	4	3.561	3.563	4.117	3.354
Pot Cap-1 Maneuver	1402	-	-	1418	-	-	589	561	808	595	569	935
Stage 1	-	-	-	-	-	-	791	728	-	877	779	-
Stage 2	-	-	-	-	-	-	852	772	-	758	703	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1402	-	-	1418	-	-	555	549	808	556	557	935
Mov Cap-2 Maneuver	-	-	-	-	-	-	555	549	-	556	557	-
Stage 1	-	-	-	-	-	-	777	715	-	861	777	-
Stage 2	-	-	-	-	-	-	814	770	-	707	690	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.9			0.2			11.5			11		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	594	1402	-	-	1418	-	-	664
HCM Lane V/C Ratio	0.071	0.016	-	-	0.003	-	-	0.09
HCM Control Delay (s)	11.5	7.6	0	-	7.5	0	-	11
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0	-	-	0.3

Intersection

Int Delay, s/veh 4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕		↕			↕	
Traffic Vol, veh/h	32	136	5	8	223	45	7	7	4	63	21	51
Future Vol, veh/h	32	136	5	8	223	45	7	7	4	63	21	51
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	37	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	2	0	17	6	3	0	0	33	2	0	6
Mvmt Flow	35	148	5	9	242	49	8	8	4	68	23	55

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	291	0	0	153	0	0	545	530	151	487	483	242
Stage 1	-	-	-	-	-	-	221	221	-	260	260	-
Stage 2	-	-	-	-	-	-	324	309	-	227	223	-
Critical Hdwy	4.1	-	-	4.27	-	-	7.1	6.5	6.53	7.12	6.5	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.12	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.12	5.5	-
Follow-up Hdwy	2.2	-	-	2.353	-	-	3.5	4	3.597	3.518	4	3.354
Pot Cap-1 Maneuver	1282	-	-	1341	-	-	452	457	820	491	486	787
Stage 1	-	-	-	-	-	-	786	724	-	745	697	-
Stage 2	-	-	-	-	-	-	692	663	-	776	723	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1282	-	-	1341	-	-	393	440	820	468	468	787
Mov Cap-2 Maneuver	-	-	-	-	-	-	393	440	-	468	468	-
Stage 1	-	-	-	-	-	-	762	702	-	723	691	-
Stage 2	-	-	-	-	-	-	617	658	-	741	701	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.5			0.2			13.1			13.8		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	466	1282	-	-	1341	-	-	553
HCM Lane V/C Ratio	0.042	0.027	-	-	0.006	-	-	0.265
HCM Control Delay (s)	13.1	7.9	0	-	7.7	0	-	13.8
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	1.1

Intersection												
Int Delay, s/veh	3.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	183	3	5	118	45	6	30	11	25	14	27
Future Vol, veh/h	25	183	3	5	118	45	6	30	11	25	14	27
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	37	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	7	8	50	0	3	0	0	0	29	7	13	6
Mvmt Flow	27	199	3	5	128	49	7	33	12	27	15	29
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	177	0	0	202	0	0	440	442	201	415	394	128
Stage 1	-	-	-	-	-	-	255	255	-	138	138	-
Stage 2	-	-	-	-	-	-	185	187	-	277	256	-
Critical Hdwy	4.17	-	-	4.1	-	-	7.1	6.5	6.49	7.17	6.63	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.17	5.63	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.17	5.63	-
Follow-up Hdwy	2.263	-	-	2.2	-	-	3.5	4	3.561	3.563	4.117	3.354
Pot Cap-1 Maneuver	1369	-	-	1382	-	-	531	513	776	539	526	911
Stage 1	-	-	-	-	-	-	754	700	-	853	762	-
Stage 2	-	-	-	-	-	-	821	749	-	719	676	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1369	-	-	1382	-	-	492	500	776	494	512	911
Mov Cap-2 Maneuver	-	-	-	-	-	-	492	500	-	494	512	-
Stage 1	-	-	-	-	-	-	737	685	-	834	759	-
Stage 2	-	-	-	-	-	-	776	746	-	659	661	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.9			0.2			12.3			11.7		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	544	1369	-	-	1382	-	-	613				
HCM Lane V/C Ratio	0.094	0.02	-	-	0.004	-	-	0.117				
HCM Control Delay (s)	12.3	7.7	0	-	7.6	0	-	11.7				
HCM Lane LOS	B	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0	-	-	0.4				

Intersection												
Int Delay, s/veh	4.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕		↕			↕	
Traffic Vol, veh/h	38	161	6	9	264	53	8	8	5	75	25	61
Future Vol, veh/h	38	161	6	9	264	53	8	8	5	75	25	61
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	37	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	2	0	17	6	3	0	0	33	2	0	6
Mvmt Flow	41	175	7	10	287	58	9	9	5	82	27	66

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	345	0	0	182	0	0	644	626	179	575	571	287
Stage 1	-	-	-	-	-	-	261	261	-	307	307	-
Stage 2	-	-	-	-	-	-	383	365	-	268	264	-
Critical Hdwy	4.1	-	-	4.27	-	-	7.1	6.5	6.53	7.12	6.5	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.12	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.12	5.5	-
Follow-up Hdwy	2.2	-	-	2.353	-	-	3.5	4	3.597	3.518	4	3.354
Pot Cap-1 Maneuver	1225	-	-	1308	-	-	389	403	790	429	434	743
Stage 1	-	-	-	-	-	-	748	696	-	703	665	-
Stage 2	-	-	-	-	-	-	644	627	-	738	694	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1225	-	-	1308	-	-	325	384	790	404	414	743
Mov Cap-2 Maneuver	-	-	-	-	-	-	325	384	-	404	414	-
Stage 1	-	-	-	-	-	-	720	670	-	677	658	-
Stage 2	-	-	-	-	-	-	557	621	-	697	668	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.5			0.2			14.4			16.3		
HCM LOS							B			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	406	1225	-	-	1308	-	-	491
HCM Lane V/C Ratio	0.056	0.034	-	-	0.007	-	-	0.356
HCM Control Delay (s)	14.4	8	0	-	7.8	0	-	16.3
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0	-	-	1.6

Intersection												
Int Delay, s/veh	3.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕		↕			↕	
Traffic Vol, veh/h	20	139	2	3	8	32	4	21	8	18	10	20
Future Vol, veh/h	20	139	2	3	8	32	4	21	8	18	10	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	37	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	7	8	50	0	3	0	0	0	29	7	13	6
Mvmt Flow	22	151	2	3	9	35	4	23	9	20	11	22

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	44	0	0	153	0	0	245	246	152	227	212	9
Stage 1	-	-	-	-	-	-	196	196	-	15	15	-
Stage 2	-	-	-	-	-	-	49	50	-	212	197	-
Critical Hdwy	4.17	-	-	4.1	-	-	7.1	6.5	6.49	7.17	6.63	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.17	5.63	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.17	5.63	-
Follow-up Hdwy	2.263	-	-	2.2	-	-	3.5	4	3.561	3.563	4.117	3.354
Pot Cap-1 Maneuver	1533	-	-	1440	-	-	713	660	828	718	666	1061
Stage 1	-	-	-	-	-	-	810	742	-	992	861	-
Stage 2	-	-	-	-	-	-	969	857	-	779	718	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1533	-	-	1440	-	-	680	648	828	682	654	1061
Mov Cap-2 Maneuver	-	-	-	-	-	-	680	648	-	682	654	-
Stage 1	-	-	-	-	-	-	797	730	-	976	859	-
Stage 2	-	-	-	-	-	-	935	855	-	735	707	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.9			0.5			10.5			9.9		
HCM LOS							B			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	688	1533	-	-	1440	-	-	793
HCM Lane V/C Ratio	0.052	0.014	-	-	0.002	-	-	0.066
HCM Control Delay (s)	10.5	7.4	0	-	7.5	0	-	9.9
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.2

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Intersection						
Int Delay, s/veh	0.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	151	5	3	107	14	10
Future Vol, veh/h	151	5	3	107	14	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	164	5	3	116	15	11
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	169	0	289	167
Stage 1	-	-	-	-	167	-
Stage 2	-	-	-	-	122	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1409	-	702	877
Stage 1	-	-	-	-	863	-
Stage 2	-	-	-	-	903	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1409	-	701	877
Mov Cap-2 Maneuver	-	-	-	-	701	-
Stage 1	-	-	-	-	863	-
Stage 2	-	-	-	-	901	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.2		9.9	
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	765	-	-	1409	-	
HCM Lane V/C Ratio	0.034	-	-	0.002	-	
HCM Control Delay (s)	9.9	-	-	7.6	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

Intersection

Int Delay, s/veh 3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕		↕			↕	
Traffic Vol, veh/h	30	121	1	7	198	38	6	6	3	53	18	47
Future Vol, veh/h	30	121	1	7	198	38	6	6	3	53	18	47
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	37	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	2	0	17	6	3	0	0	33	2	0	6
Mvmt Flow	33	132	1	8	215	41	7	7	3	58	20	51

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	256	0	0	133	0	0	486	471	133	435	430	215
Stage 1	-	-	-	-	-	-	199	199	-	231	231	-
Stage 2	-	-	-	-	-	-	287	272	-	204	199	-
Critical Hdwy	4.1	-	-	4.27	-	-	7.1	6.5	6.53	7.12	6.5	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.12	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.12	5.5	-
Follow-up Hdwy	2.2	-	-	2.353	-	-	3.5	4	3.597	3.518	4	3.354
Pot Cap-1 Maneuver	1321	-	-	1364	-	-	495	494	840	531	521	815
Stage 1	-	-	-	-	-	-	807	740	-	772	717	-
Stage 2	-	-	-	-	-	-	725	688	-	798	740	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1321	-	-	1364	-	-	439	477	840	510	503	815
Mov Cap-2 Maneuver	-	-	-	-	-	-	439	477	-	510	503	-
Stage 1	-	-	-	-	-	-	785	720	-	751	712	-
Stage 2	-	-	-	-	-	-	656	683	-	766	720	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.5			0.2			12.4			12.7		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	503	1321	-	-	1364	-	-	598
HCM Lane V/C Ratio	0.032	0.025	-	-	0.006	-	-	0.214
HCM Control Delay (s)	12.4	7.8	0	-	7.7	0	-	12.7
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.8

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Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	146	13	13	238	10	6
Future Vol, veh/h	146	13	13	238	10	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	159	14	14	259	11	7
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	173	0	453	166
Stage 1	-	-	-	-	166	-
Stage 2	-	-	-	-	287	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1404	-	565	878
Stage 1	-	-	-	-	863	-
Stage 2	-	-	-	-	762	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1404	-	558	878
Mov Cap-2 Maneuver	-	-	-	-	558	-
Stage 1	-	-	-	-	863	-
Stage 2	-	-	-	-	753	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.4		10.7	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	646	-	-	1404	-	
HCM Lane V/C Ratio	0.027	-	-	0.01	-	
HCM Control Delay (s)	10.7	-	-	7.6	0	
HCM Lane LOS	B	-	-	A	A	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

Intersection												
Int Delay, s/veh	3.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕		↕			↕	
Traffic Vol, veh/h	23	163	3	4	10	38	5	25	9	21	12	23
Future Vol, veh/h	23	163	3	4	10	38	5	25	9	21	12	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	37	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	7	8	50	0	3	0	0	0	29	7	13	6
Mvmt Flow	25	177	3	4	11	41	5	27	10	23	13	25

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	52	0	0	180	0	0	288	289	179	266	249	11
Stage 1	-	-	-	-	-	-	229	229	-	19	19	-
Stage 2	-	-	-	-	-	-	59	60	-	247	230	-
Critical Hdwy	4.17	-	-	4.1	-	-	7.1	6.5	6.49	7.17	6.63	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.17	5.63	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.17	5.63	-
Follow-up Hdwy	2.263	-	-	2.2	-	-	3.5	4	3.561	3.563	4.117	3.354
Pot Cap-1 Maneuver	1522	-	-	1408	-	-	668	624	799	677	635	1058
Stage 1	-	-	-	-	-	-	778	718	-	987	858	-
Stage 2	-	-	-	-	-	-	958	849	-	746	694	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1522	-	-	1408	-	-	631	611	799	636	622	1058
Mov Cap-2 Maneuver	-	-	-	-	-	-	631	611	-	636	622	-
Stage 1	-	-	-	-	-	-	764	705	-	969	855	-
Stage 2	-	-	-	-	-	-	918	846	-	696	682	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.9			0.6			10.9			10.2		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	649	1522	-	-	1408	-	-	756
HCM Lane V/C Ratio	0.065	0.016	-	-	0.003	-	-	0.081
HCM Control Delay (s)	10.9	7.4	0	-	7.6	0	-	10.2
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0	-	-	0.3

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Intersection						
Int Delay, s/veh	0.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	179	5	3	127	14	10
Future Vol, veh/h	179	5	3	127	14	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	195	5	3	138	15	11
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	200	0	342	198
Stage 1	-	-	-	-	198	-
Stage 2	-	-	-	-	144	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1372	-	654	843
Stage 1	-	-	-	-	835	-
Stage 2	-	-	-	-	883	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1372	-	653	843
Mov Cap-2 Maneuver	-	-	-	-	653	-
Stage 1	-	-	-	-	835	-
Stage 2	-	-	-	-	881	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.2		10.2	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	721	-	-	1372	-	
HCM Lane V/C Ratio	0.036	-	-	0.002	-	
HCM Control Delay (s)	10.2	-	-	7.6	0	
HCM Lane LOS	B	-	-	A	A	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

Intersection

Int Delay, s/veh 4.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕		↕			↕	
Traffic Vol, veh/h	35	143	1	8	232	45	7	7	4	63	21	55
Future Vol, veh/h	35	143	1	8	232	45	7	7	4	63	21	55
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	37	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	2	0	17	6	3	0	0	33	2	0	6
Mvmt Flow	38	155	1	9	252	49	8	8	4	68	23	60

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	301	0	0	156	0	0	568	551	156	508	502	252
Stage 1	-	-	-	-	-	-	232	232	-	270	270	-
Stage 2	-	-	-	-	-	-	336	319	-	238	232	-
Critical Hdwy	4.1	-	-	4.27	-	-	7.1	6.5	6.53	7.12	6.5	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.12	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.12	5.5	-
Follow-up Hdwy	2.2	-	-	2.353	-	-	3.5	4	3.597	3.518	4	3.354
Pot Cap-1 Maneuver	1272	-	-	1337	-	-	437	445	814	475	474	777
Stage 1	-	-	-	-	-	-	775	716	-	736	690	-
Stage 2	-	-	-	-	-	-	682	657	-	765	716	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1272	-	-	1337	-	-	376	427	814	452	455	777
Mov Cap-2 Maneuver	-	-	-	-	-	-	376	427	-	452	455	-
Stage 1	-	-	-	-	-	-	749	692	-	712	684	-
Stage 2	-	-	-	-	-	-	604	652	-	728	692	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.5			0.2			13.3			14.2		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	451	1272	-	-	1337	-	-	542
HCM Lane V/C Ratio	0.043	0.03	-	-	0.007	-	-	0.279
HCM Control Delay (s)	13.3	7.9	0	-	7.7	0	-	14.2
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	1.1

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Intersection						
Int Delay, s/veh	0.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	173	13	13	281	10	6
Future Vol, veh/h	173	13	13	281	10	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	188	14	14	305	11	7

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	202	0	528	195
Stage 1	-	-	-	-	195	-
Stage 2	-	-	-	-	333	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1370	-	511	846
Stage 1	-	-	-	-	838	-
Stage 2	-	-	-	-	726	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1370	-	505	846
Mov Cap-2 Maneuver	-	-	-	-	505	-
Stage 1	-	-	-	-	838	-
Stage 2	-	-	-	-	717	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	11.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	595	-	-	1370	-
HCM Lane V/C Ratio	0.029	-	-	0.01	-
HCM Control Delay (s)	11.2	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection												
Int Delay, s/veh	3.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	27	191	3	5	120	45	6	30	11	25	14	28
Future Vol, veh/h	27	191	3	5	120	45	6	30	11	25	14	28
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	37	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	7	8	50	0	3	0	0	0	29	7	13	6
Mvmt Flow	29	208	3	5	130	49	7	33	12	27	15	30

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	179	0	0	211	0	0	455	457	210	430	409	130
Stage 1	-	-	-	-	-	-	268	268	-	140	140	-
Stage 2	-	-	-	-	-	-	187	189	-	290	269	-
Critical Hdwy	4.17	-	-	4.1	-	-	7.1	6.5	6.49	7.17	6.63	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.17	5.63	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.17	5.63	-
Follow-up Hdwy	2.263	-	-	2.2	-	-	3.5	4	3.561	3.563	4.117	3.354
Pot Cap-1 Maneuver	1367	-	-	1372	-	-	519	503	767	527	515	909
Stage 1	-	-	-	-	-	-	742	691	-	851	760	-
Stage 2	-	-	-	-	-	-	819	748	-	707	667	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1367	-	-	1372	-	-	480	489	767	482	501	909
Mov Cap-2 Maneuver	-	-	-	-	-	-	480	489	-	482	501	-
Stage 1	-	-	-	-	-	-	724	674	-	831	757	-
Stage 2	-	-	-	-	-	-	773	745	-	646	651	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.9			0.2			12.5			11.8		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	533	1367	-	-	1372	-	-	606
HCM Lane V/C Ratio	0.096	0.021	-	-	0.004	-	-	0.12
HCM Control Delay (s)	12.5	7.7	0	-	7.6	0	-	11.8
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0	-	-	0.4

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Intersection						
Int Delay, s/veh	0.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	212	5	3	151	14	10
Future Vol, veh/h	212	5	3	151	14	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	230	5	3	164	15	11
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	235	0	403	233
Stage 1	-	-	-	-	233	-
Stage 2	-	-	-	-	170	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1332	-	603	806
Stage 1	-	-	-	-	806	-
Stage 2	-	-	-	-	860	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1332	-	602	806
Mov Cap-2 Maneuver	-	-	-	-	602	-
Stage 1	-	-	-	-	806	-
Stage 2	-	-	-	-	858	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.2		10.6	
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	673	-	-	1332	-	
HCM Lane V/C Ratio	0.039	-	-	0.002	-	
HCM Control Delay (s)	10.6	-	-	7.7	0	
HCM Lane LOS	B	-	-	A	A	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

Intersection												
Int Delay, s/veh	4.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕		↕			↕	
Traffic Vol, veh/h	41	168	2	9	273	53	8	8	5	75	25	65
Future Vol, veh/h	41	168	2	9	273	53	8	8	5	75	25	65
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	37	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	2	0	17	6	3	0	0	33	2	0	6
Mvmt Flow	45	183	2	10	297	58	9	9	5	82	27	71
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	355	0	0	185	0	0	669	649	184	598	592	297
Stage 1	-	-	-	-	-	-	274	274	-	317	317	-
Stage 2	-	-	-	-	-	-	395	375	-	281	275	-
Critical Hdwy	4.1	-	-	4.27	-	-	7.1	6.5	6.53	7.12	6.5	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.12	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.12	5.5	-
Follow-up Hdwy	2.2	-	-	2.353	-	-	3.5	4	3.597	3.518	4	3.354
Pot Cap-1 Maneuver	1215	-	-	1304	-	-	374	391	785	414	422	733
Stage 1	-	-	-	-	-	-	736	687	-	694	658	-
Stage 2	-	-	-	-	-	-	634	621	-	726	686	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1215	-	-	1304	-	-	308	371	785	388	400	733
Mov Cap-2 Maneuver	-	-	-	-	-	-	308	371	-	388	400	-
Stage 1	-	-	-	-	-	-	706	659	-	666	651	-
Stage 2	-	-	-	-	-	-	543	615	-	682	658	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.6			0.2			14.8			16.9		
HCM LOS							B			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	390	1215	-	-	1304	-	-	479				
HCM Lane V/C Ratio	0.059	0.037	-	-	0.008	-	-	0.374				
HCM Control Delay (s)	14.8	8.1	0	-	7.8	0	-	16.9				
HCM Lane LOS	B	A	A	-	A	A	-	C				
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0	-	-	1.7				

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Intersection						
Int Delay, s/veh	0.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	205	13	13	333	10	6
Future Vol, veh/h	205	13	13	333	10	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	223	14	14	362	11	7
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	237	0	620	230
Stage 1	-	-	-	-	230	-
Stage 2	-	-	-	-	390	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1330	-	452	809
Stage 1	-	-	-	-	808	-
Stage 2	-	-	-	-	684	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1330	-	446	809
Mov Cap-2 Maneuver	-	-	-	-	446	-
Stage 1	-	-	-	-	808	-
Stage 2	-	-	-	-	675	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.3		11.9	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	536	-	-	1330	-	
HCM Lane V/C Ratio	0.032	-	-	0.011	-	
HCM Control Delay (s)	11.9	-	-	7.7	0	
HCM Lane LOS	B	-	-	A	A	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	