4980 Sunset Drive, Port Stanley
Transportation Impact Study

Paradigm Transportation Solutions Limited

September 2022
220316

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Project Summary

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4980 Sunset Drive, Port Stanley Transportation Impact Study

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Executive Summary

Content

Paradigm Transportation Solutions Limited (Paradigm) has been retained to conduct this Transportation Impact Study (TIS) for a proposed commercial development located at 4980 Sunset Drive in Port Stanley, Elgin County.

This Transportation Impact Study (TIS) includes an analysis of existing traffic conditions; a description of the proposed development; traffic forecasts at development completion (2024), five-year horizon (2029) and ten-year horizon (2034); and assessment of traffic impacts with recommendations to accommodate the proposed development as appropriate.

Development Concept

The subject lands are located on the south side of Sunset Drive, west of the intersection at East Road. An existing Shell gas station and car wash facility are located on the adjacent property to the west, with the easterly of two access points shared with the subject property.

The proposed development includes four single-storey commercial buildings, three buildings (Building A, C and D) totalling 1,120 m^2 (12,056 ft^2) Gross Floor Area (GFA) and the fourth accommodating a 250 m^2 (2,691 ft^2) GFA restaurant with drive through facility. Vehicle access to the development is proposed via the existing shared driveway, reconfigured to accommodate current and new site traffic.

The development is anticipated to be completed by 2024.

TIS Scope

The scope of the Transportation Impact Study for the proposed development includes:

- **Study Area intersections:**
  - Sunset Drive (CR 4) and East Road (CR 23) (unsignalized);
  - Shell Gas Station driveway (Driveway A) intersection on Sunset Drive (CR 4); and
  - Shared driveway (Driveway B) intersection on Sunset Drive (CR 4).
- **Analysis Periods:** Weekday AM and PM, and Saturday peak hours.

- **Background Developments:**
  - Little Creek West Lands (302 units);
  - East Road (96 units);
  - Kokomo (510 units);
  - Lakeview (60 units and 1,800 ft^2 retail GFA); and
  - West Harbour Area (178 units and 20,274 ft^2 retail GFA).
- **Traffic Conditions:** Existing (2022), development completion (2024), five-year horizon (2029) and ten-year horizon (2034).

Conclusions

Based on the investigations carried out, it is concluded that:

- **Existing Traffic Conditions:** The study area intersections are operating at acceptable levels of service.
- **Development Trip Generation:** The development is forecast to generate 88 AM peak hour trips, 120 PM peak hour trips and 146 Saturday peak hour trips.
- **2024 Background Traffic Conditions:** The study area intersections are forecast to operate at acceptable levels of service, with the exception of the northbound shared-lane movement (East Road approach) at the intersection of East Road and Sunset Drive which is forecast to operate with LOS F during the Saturday peak hour. As the existing traffic volumes were collected over a long weekend in July, the Saturday peak hour analysis represents the worst-case scenario.
- **2024 Total Traffic Conditions:** The study area intersections are forecast to operate at similar levels of service as under 2024 background traffic conditions, with the addition of the following critical movements:
  - East Road and Sunset Drive: The northbound shared-lane movement (East Road approach) is forecast to operate with LOS F during the weekday PM peak hour.
  - Sunset Drive and Driveway B: The northbound (outbound) shared-lane movement is forecast to operate with LOS F during the long weekend Saturday peak hour.
- **2029 Background Traffic Conditions:** The study area intersections are forecast to operate at similar levels of service as under 2024 background traffic conditions.

- **2029 Total Traffic Conditions:** The study area intersections are forecast to operate at similar levels of service as under 2024 total traffic conditions.
- **2034 Background Traffic Conditions:** The study area intersections are forecast to operate at similar levels of service as under 2024 and 2029 background traffic conditions.
- **2034 Total Traffic Conditions:** The study area intersections are forecast to operate at similar levels of service as under 2024 and 2029 total traffic conditions.
- **Site Access:**
  - A westbound left-turn lane with 40 metres of storage is warranted on Sunset Drive at Driveway B under 2024, 2029 and 2034 total traffic conditions.
  - The outbound (northbound) approach at Driveway B is forecast to operate with poor levels of service only during the Saturday peak hour. The eastbound and westbound through volumes on Sunset Drive are forecast to operate with acceptable levels of service during all three peak hours. As the existing traffic volumes were collected over a long weekend in July, the analysis represents the worst-case scenario.

Recommendations

Based on the findings and conclusions of this study, it is recommended that the proposed development be considered for approval.

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Appendices

Figures

Tables

1 Introduction

1.1 Overview

Paradigm Transportation Solutions Limited (Paradigm) has been retained to conduct this Transportation Impact Study (TIS) for a proposed commercial development located at 4980 Sunset Drive in Port Stanley, Elgin County. **Figure 1.1** details the subject site location.

The subject lands are located on the south side of Sunset Drive, west of the intersection at East Road. An existing Shell gas station and car wash facility are located on the adjacent property to the west, with the easterly of two access points shared with the subject property.

The proposed development includes four single-storey commercial buildings, three buildings (Building A, C and D) totalling 1,120 m^2 (12,056 ft^2) Gross Floor Area (GFA) and the fourth accommodating a 250 m^2 (2,691 ft^2) GFA restaurant with drive through facility. Vehicle access to the development is proposed via the existing shared driveway, reconfigured to accommodate current and new site traffic.

The development is anticipated to be completed by 2024.

1.2 Purpose and Scope

The purpose of this report is to identify and assess the potential traffic impact resulting from the proposed development. The scope of the study, developed in consultation with Elgin County staff via e-mail in June 2022, includes:

- Assessment of the current traffic and site conditions within the study area;
- Estimates of background traffic growth for development completion (2024), five-year horizon (2029) and ten-year horizon (2034);
- Estimates of additional traffic generated by the subject site;
- Analyses of the impact of future traffic on the surrounding road network, including the following study area intersections:
  - Sunset Drive (CR 4) and East Road (CR 23) (unsignalized);
  - Shell Gas Station driveway (Driveway A) intersection on Sunset Drive (CR 4); and
  - Shared driveway (Driveway B) intersection on Sunset Drive (CR 4).

- Recommendations necessary to mitigate the site generated traffic in a satisfactory manner.

Appendix A contains the pre-study consultation material and responses from Elgin County staff.

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Location of Subject Site

4980 Sunset Drive, Port Stanley TIS
220316

Figure 1.1

2 Existing Conditions

2.1 Existing Roadways

The main roadways near the subject site considered in assessing the traffic impacts of the development include:

- **Sunset Drive (CR 4)** is a county road[1] with a two-lane cross section and a posted speed limit of 80 km/h. Bike lanes are provided on both sides of the roadway.
- **East Road (CR 23)** is a county road with a two-lane cross section and a posted speed limit of 50 km/h. This roadway is identified as a cycle route.

Figure 2.1 illustrates the existing lane configuration and traffic control at the study area intersections.

[1] The Official Plan of the Municipality of Central Elgin Schedule "G1", March 2013.

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Existing Lane Configuration and Traffic Control

4980 Sunset Drive, Port Stanley TIS
220316

Figure 2.1

2.2 Traffic Volumes

Turning movement counts were collected by Paradigm on Thursday 30 June 2022 and Saturday 2 July 2022 (Canada Day weekend). **Table 2.1** summarizes the peak hour start times for each intersection.

TABLE 2.1: EXISTING TURNING MOVEMENT COUNT SUMMARY

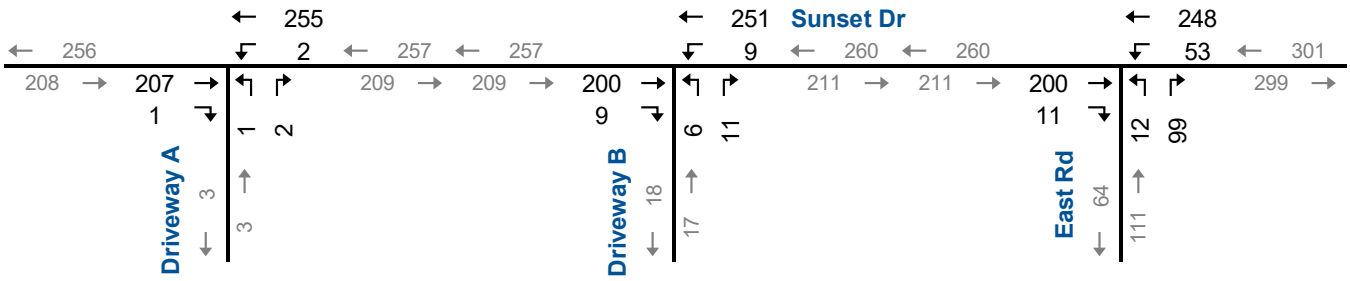
Intersection	AM Peak Hour	PM Peak Hour	SAT Peak Hour
Sunset Drive and East Road	9:00 AM	3:45 PM	12:45 PM
Sunset Drive and Driveway A	9:00 AM	3:45 PM	2:30 PM
Sunset Drive and Driveway B	9:00 AM	3:45 PM	2:30 PM

Figure 2.2 illustrates the existing weekday AM and PM, and Saturday peak hour traffic volumes.

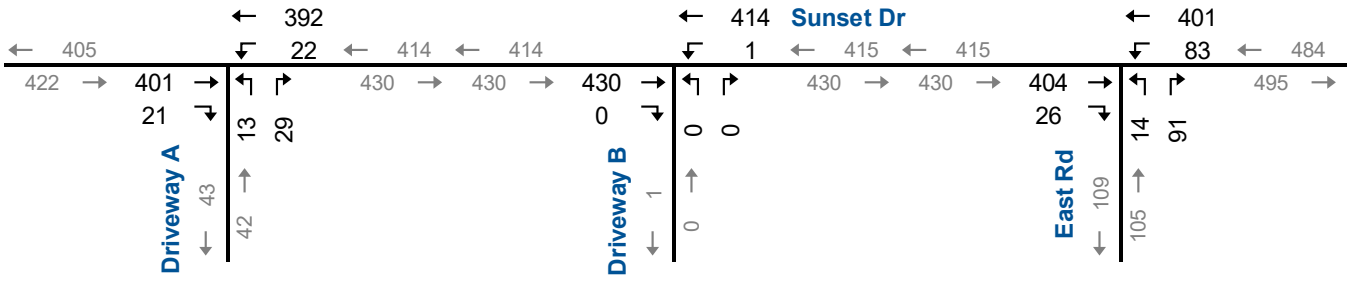
Volumes along Sunset Drive have been balanced.

Appendix B contains the detailed traffic counts for the study area intersections.

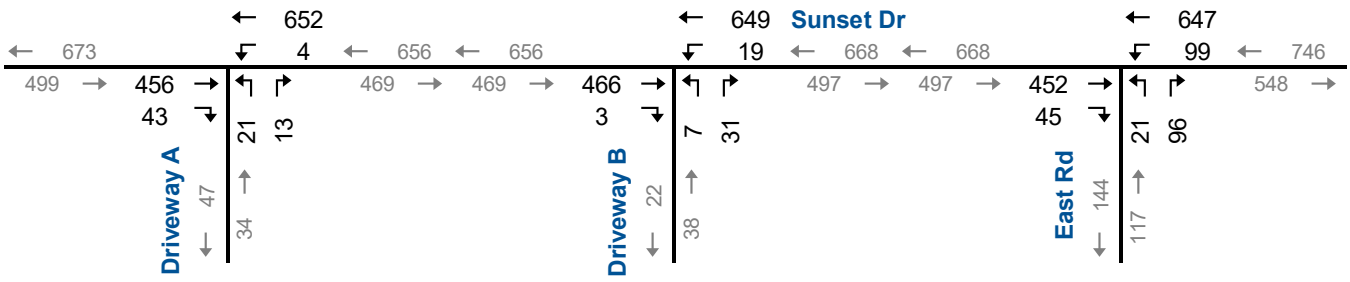
AM Peak Hour



PM Peak Hour



SAT Peak Hour



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Existing Traffic Volumes

4980 Sunset Drive, Port Stanley TIS
220316

Figure 2.2

2.3 Traffic Operations

The level of service conditions at the study area intersections have been assessed using Synchro 11. TIS guidelines are not available for both Elgin County and Port Stanley.

The TIS guidelines for the nearby City of St. Thomas[2] considers movements to be critical under the following conditions:

- Volume/capacity (V/C) ratios for overall intersection operations, through movements or shared through/turning movements increased to 0.85 or above;
- V/C ratios for dedicated turning movements of 0.95 or above;
- Level of Service (LOS) F for existing geometrics with existing and future traffic volumes; or
- 95th percentile queue lengths for individual movements exceeds available lane storage.

Intersection LOS is a recognized method of quantifying the average delay experienced by drivers at intersections. It is based on the delay experienced by individual vehicles executing various movements. The delay is related to the number of vehicles intending to make a particular movement, compared to the estimated capacity for that movement. The capacity is based on a number of criteria related to the opposing traffic flows and intersection geometry.

The highest possible rating is LOS A, under which the average total delay is equal to or less than 10.0 seconds per vehicle. When the average delay exceeds 80 seconds for signalized intersections, 50 seconds for unsignalized intersections or when the volume to capacity ratio is greater than 1.0, the movement is classed as LOS F and remedial measures are usually implemented if they are feasible. LOS E is usually used as a guideline for the determination of road improvement needs on through lanes, while LOS F may be acceptable for left-turn movements at peak times, depending on delays.

Table 2.2 summarizes the results of the intersection operational analysis under existing conditions, including the weekday AM and PM and Saturday peak hour LOS, v/c ratios, and 95th percentile queues.

The results indicate that the study area intersections are operating with acceptable levels of service, and with no problem movements.

[2] City of St. Thomas Design Guidelines Manual, 2019.

Appendix C contains the detailed Synchro 11 reports.

TABLE 2.2: EXISTING TRAFFIC OPERATIONS

Analysis Period	Intersection	Control Type	MOE	Direction/Movement/Approach																	
				Eastbound				Westbound				Northbound				Southbound				Overall
				Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	
AM Peak Hour	Driveway A & Sunset Drive	TWSC	LOS		A	>	**A**	<	A		**A**	B		>	**B**					
			Delay		0	>	**0**	<	8		**0**	11		>	**11**					
			V/C		0.00	>		<	0.00			0.01		>						
			Q		0	>		<	0			0		>						
	Driveway B & Sunset Drive	TWSC	LOS		A	>	**A**	<	A		**A**	B		>	**B**					
			Delay		0	>	**0**	<	8		**0**	10		>	**10**					
			V/C		0.00	>		<	0.01			0.03		>						
			Q		0	>		<	0			1		>						
	East Road & Sunset Drive	TWSC	LOS		A	A	**A**	A	A		**A**	B		>	**B**					
			Delay		0	0	**0**	8	0		**1**	11		>	**11**					
			V/C		0.00	0.00		0.05	0.00			0.16		>						
			Q		0	0		1	0			4		>						
			Stor.		-	35		30	-			-		>						
			Avail.		-	35		29	-			-		>						
PM Peak Hour	Driveway A & Sunset Drive	TWSC	LOS		A	>	**A**	<	A		**A**	B		>	**B**					
			Delay		0	>	**0**	<	8		**0**	14		>	**14**					
			V/C		0.00	>		<	0.02			0.10		>						
			Q		0	>		<	1			2		>						
	Driveway B & Sunset Drive	TWSC	LOS		A	>	**A**	<	A		**A**	A		>	**A**					
			Delay		0	>	**0**	<	10		**0**	0		>	**0**					
			V/C		0.00	>		<	0.00			0.00		>						
			Q		0	>		<	0			0		>						
	East Road & Sunset Drive	TWSC	LOS		A	A	**A**	A	A		**A**	B		>	**B**					
			Delay		0	0	**0**	8	0		**2**	14		>	**14**					
			V/C		0.00	0.00		0.08	0.00			0.23		>						
			Q		0	0		2	0			7		>						
			Stor.		-	35		30	-			-		>						
			Avail.		-	35		28	-			-		>						
Saturday Peak Hour	Driveway A & Sunset Drive	TWSC	LOS		A	>	**A**	<	A		**A**	C		>	**C**					
			Delay		0	>	**0**	<	8		**0**	21		>	**21**					
			V/C		0.00	>		<	0.00			0.14		>						
			Q		0	>		<	0			4		>						
	Driveway B & Sunset Drive	TWSC	LOS		A	>	**A**	<	A		**A**	B		>	**B**					
			Delay		0	>	**0**	<	8		**0**	15		>	**15**					
			V/C		0.00	>		<	0.02			0.10		>						
			Q		0	>		<	1			2		>						
	East Road & Sunset Drive	TWSC	LOS		A	A	**A**	A	A		**A**	C		>	**C**					
			Delay		0	0	**0**	9	0		**1**	20		>	**20**					
			V/C		0.00	0.00		0.10	0.00			0.34		>						
			Q		0	0		2	0			11		>						
			Stor.		-	35		30	-			-		>						
			Avail.		-	35		28	-			-		>						

MOE - Measure of Effectiveness
LOS - Level of Service
Delay - Average Delay per Vehicle in Seconds
V/C - Volume to Capacity Ratio
Q - 95th Percentile Queue Length (m)
Stor. - Existing Storage (m)
Avail. - Available Storage (m)
TWSC - Two-Way Stop Control
< / > - Shared with through movement

3 Development Concept

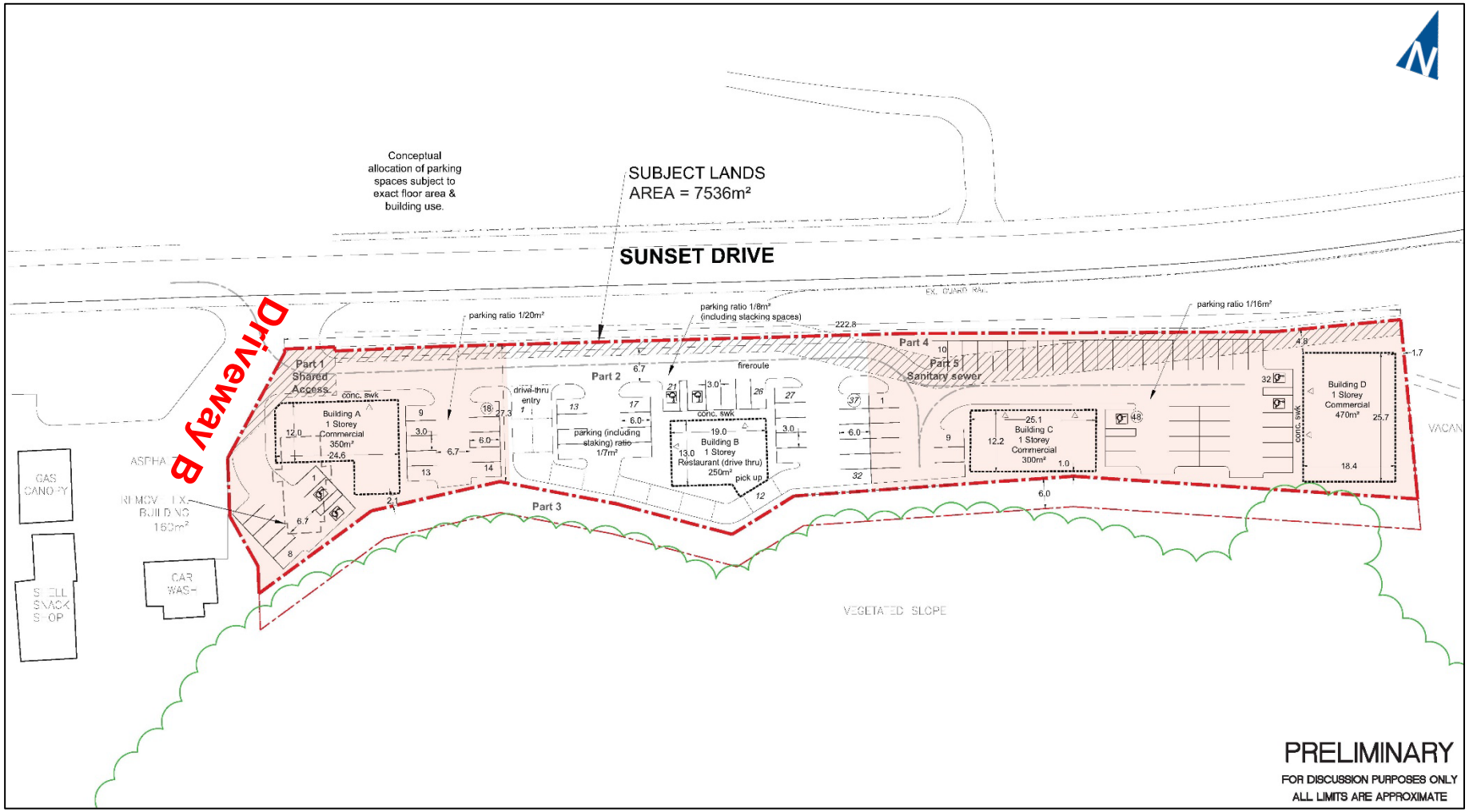
3.1 Development Description

The subject lands are located on the south side of Sunset Drive, west of the intersection at East Road. An existing Shell gas station and car wash facility are located on the adjacent property to the west, with the easterly of two access points shared with the subject property.

The proposed development includes four single-storey commercial buildings, three buildings (Building A, C and D) totalling 1,120 m^2 (12,056 ft^2) Gross Floor Area (GFA) and the fourth accommodating a 250 m^2 (2,691 ft^2) GFA restaurant with drive through facility. Vehicle access to the development is proposed via the existing shared driveway, reconfigured to accommodate current and new site traffic.

The development is anticipated to be completed by 2024.

Figure 3.1 shows the development concept plan.



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Proposed Site Plan

4980 Sunset Drive, Port Stanley TIS
220316

Figure 3.1

3.2 Development Trip Generation

The Institute of Transportation Engineers (ITE) Trip Generation Manual[3] provides rates and equations used to estimate the peak hour traffic volumes generated by the Land Use Codes (LUC) of this development:

- LUC 822 (Strip Retail Plaza); and
- LUC 934 (Fast-Food Restaurant with Drive-Through Window).

The ITE provides information on average pass-by rates for land use codes. Pass-by rates for LUC 934 were applied to the trips generated by the restaurant component of the proposed development. Pass-by trips were applied to the Driveway B connection to Sunset Drive (CR 4) and assigned to these intersections based on existing eastbound and westbound volumes along Sunset Drive (CR 4). No pass-by rates are provided for the Saturday peak hour, and the weekday PM peak hour pass-by rate was used.

Table 3.1 summarizes the forecast number of net new trips generated by the proposed development.

TABLE 3.1: TRIP GENERATION

Land Use	1,000 ft² GFA	AM Peak Hour				PM Peak Hour				SAT Peak Hour			
		Rate	In	Out	Total	Rate	In	Out	Total	Rate	In	Out	Total
LUC 822 - Strip Retail Plaza (<40k)	12.1	2.36	17	11	**28**	6.59	40	39	**79**	6.57	40	39	**79**
LUC 934 - Fast-Food Restaurant with Drive-Through Window	2.7	44.61	61	59	**120**	33.03	46	43	**89**	55.25	76	73	**149**
Total Trip Generation			**78**	**70**	**148**		**86**	**82**	**168**		**116**	**112**	**228**
LUC 934 Pass-By		*50%*	*30*	*30*	*60*	*55%*	*24*	*24*	*48*	*55%*	*41*	*41*	*82*
Net Trip Generation			**48**	**40**	**88**		**62**	**58**	**120**		**75**	**71**	**146**

3.3 Development Trip Distribution and Assignment

The trip distribution was determined based on existing travel patterns within the study area. **Table 3.2** displays the breakdown of trip distributions used in this study.

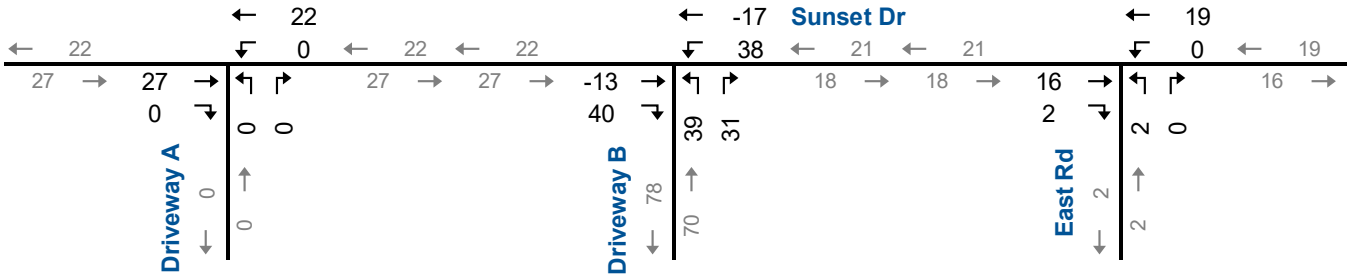
TABLE 3.2: ESTIMATED TRIP DISTRIBUTION

Origin/Destination	Percentage
South via East Rd	5%
East via Sunset	40%
West via Sunset	55%
Total	**100%**

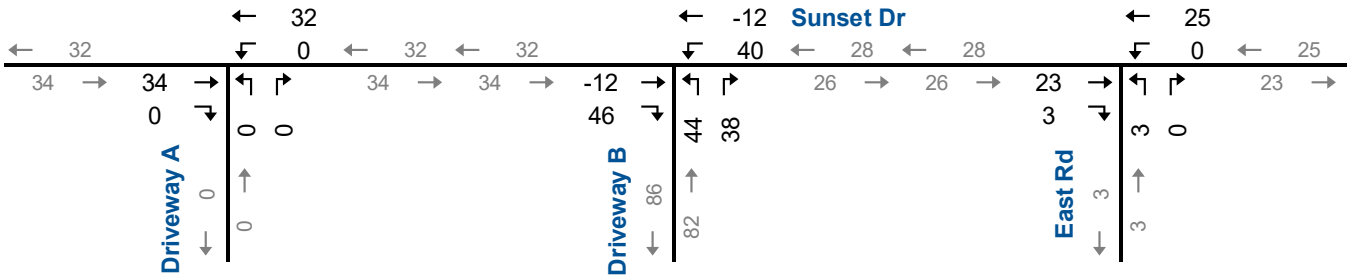
[3] Institute of Transportation Engineers Trip Generation Manual 11th Edition, 2021.

Figure 3.2 illustrates the site-generated traffic volumes for the weekday AM and PM and Saturday peak hours.

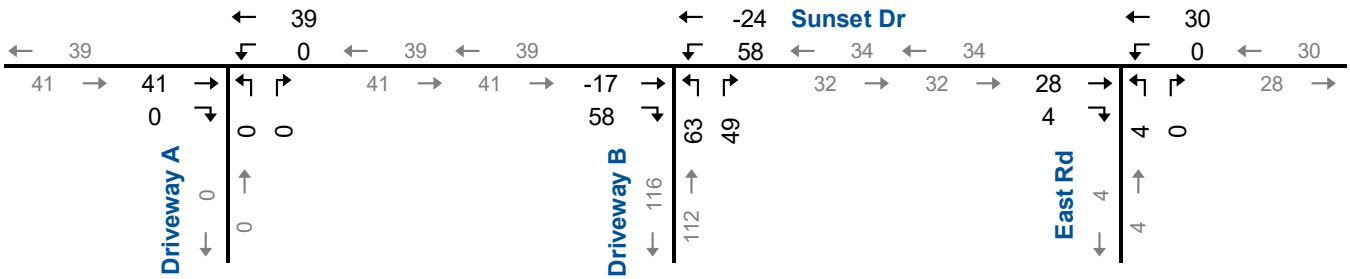
AM Peak Hour



PM Peak Hour



SAT Peak Hour



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Site Generated Traffic Volumes

4 Evaluation of Future Traffic Conditions

The assessment of future traffic conditions in this section includes estimates of future background and total traffic volumes, and the analyses for the 2024, 2029 and 2034 horizon years.

4.1 Background Traffic Forecasts

To derive the 2024, 2029 and 2034 generalized background traffic volumes, a growth rate of 0.5% was applied to the existing roadway traffic volumes, consistent with recent studies completed nearby.

4.1.1 Other Area Developments

In March 2019, a TIS[4] was prepared for the Little Creek West lands residential development. The TIS included the analysis of the following lands:

- Little Creek West Lands: The residential development is located at the southwest corner of the East Road and Hill Street intersection. The development consists of 46 single-family units, 52 semi-detached units, 124 townhouse units and 80 apartment units. The development is estimated to generate 159 AM peak hour trips, 202 PM peak hour trips, and 213 Saturday peak hour trips.
- East Road Subdivision: The residential development is located on East Road opposite Dexter Line. The development consists of 96 single-family, and estimated to generate 71 AM peak hour, 95 PM peak hour, and 89 Saturday peak hour trips.
- Additional Developments:
  - The Kokomo residential development is located between George Street to the south and Kettle Creek Golf and Country Club to the north. The development consists of 510 units comprised of 150 single-family units and 360 condominium units. The development is estimated to generate 258 AM peak hour trips, 323 PM peak hour trips, and 289 Saturday peak hour trips.
  - The Lakeview mixed-use development is located at the northwest corner of the William Street and Edith Cavell Boulevard intersection. The development consists of 60 residential condominium units and 1,800 ft^2 of retail GFA. The development is projected to generate 47 AM peak hour

[4] Dillon Consulting, Municipality of Central Elgin Port Stanley – 'Little Creek West Lands' Residential Development Transportation Impact Study, March 2019.

trips, 81 PM peak hour trips, and 92 Saturday peak hour trips.

- The West Harbour Area development is located at the south end of Port Stanley and consists of 116 single-family units, 62 condominium/townhouse units and 20,274 ft^2 of retail GFA. The development is projected to generate 185 AM peak hour trips, 366 PM peak hour trips, and 482 Saturday peak hour trips.

The trips generated by these developments have been included in the background traffic volumes.

Appendix D contains the other area development traffic volumes.

4.2 2024 Background Traffic Operations

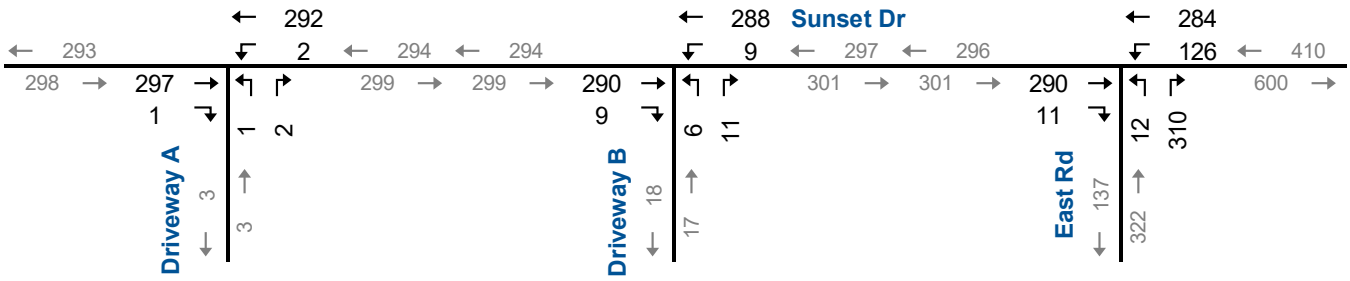
Figure 4.1 illustrates the 2024 background traffic volumes, including road traffic growth and other area development traffic.

The 2024 background traffic volumes have been analyzed using the same methodology as under existing traffic conditions.

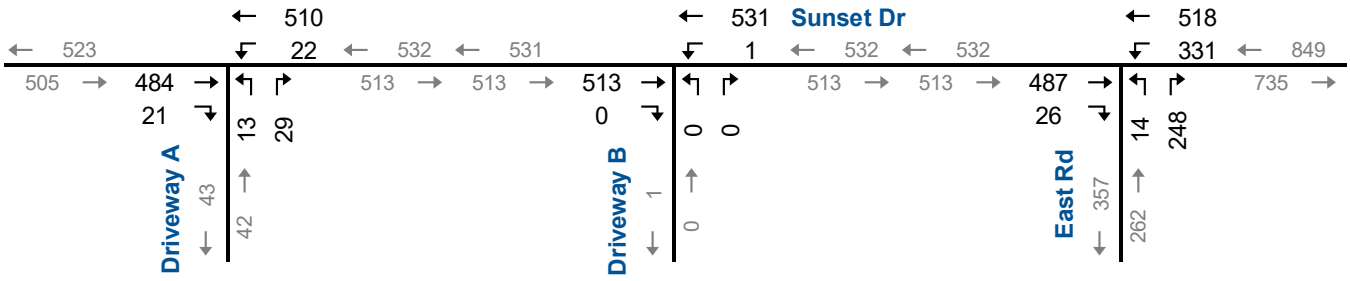
Table 4.1 summarizes the results of the 2024 background traffic operations. The results indicate that the study area intersections are forecast to operate with acceptable levels of service, except for the northbound shared-lane movement (East Road approach) at the intersection of East Road and Sunset Drive which is forecast to operate with LOS F during the Saturday peak hour. As the existing traffic volumes were collected over a long weekend in July, the Saturday peak hour analysis represents the worst-case scenario.

Appendix E contains the supporting detailed Synchro 11 reports.

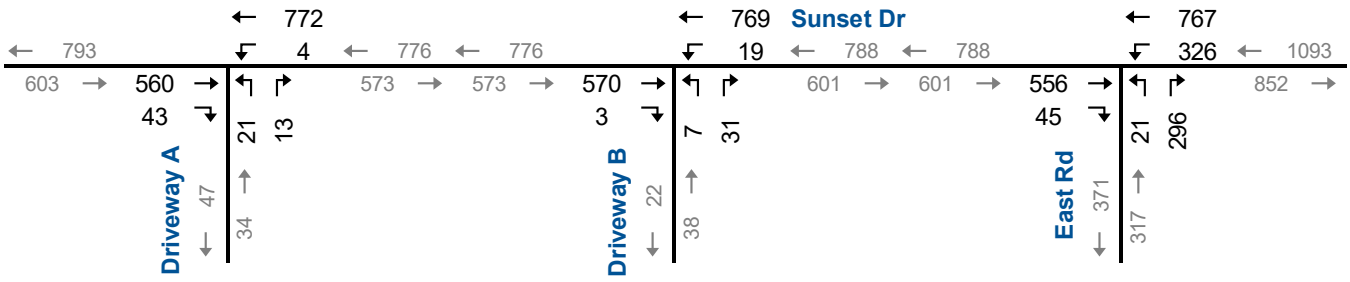
AM Peak Hour



PM Peak Hour



SAT Peak Hour



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2024 Background Traffic Volumes

4980 Sunset Drive, Port Stanley TIS
220316

Figure 4.1

TABLE 4.1: 2024 BACKGROUND TRAFFIC OPERATIONS

Analysis Period	Intersection	Control Type	MOE	Direction/Movement/Approach																
				Eastbound				Westbound				Northbound				Southbound				Overall
				Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	
AM Peak Hour	Driveway A & Sunset Drive	TWSC	LOS		A	>	**A**	<	A		**A**	B		>	**B**					
			Delay		0	>	**0**	<	8		**0**	12		>	**12**					
			V/C		0.00	>		<	0.00			0.01		>						
			Q		0	>		<	0			0		>						
	Driveway B & Sunset Drive	TWSC	LOS		A	>	**A**	<	A		**A**	B		>	**B**					
			Delay		0	>	**0**	<	8		**0**	12		>	**12**					
			V/C		0.00	>		<	0.01			0.03		>						
			Q		0	>		<	0			1		>						
	East Road & Sunset Drive	TWSC	LOS		A	A	**A**	A	A		**A**	C		>	**C**					
			Delay		0	0	**0**	8	0		**3**	16		>	**16**					
			V/C		0.00	0.00		0.12	0.00			0.52		>						
			Q		0	0		3	0			22		>						
			Stor.		-	35		30	-			-		>						
			Avail.		-	35		27	-			-		>						
PM Peak Hour	Driveway A & Sunset Drive	TWSC	LOS		A	>	**A**	<	A		**A**	C		>	**C**					
			Delay		0	>	**0**	<	9		**0**	16		>	**16**					
			V/C		0.00	>		<	0.02			0.13		>						
			Q		0	>		<	1			3		>						
	Driveway B & Sunset Drive	TWSC	LOS		A	>	**A**	<	B		**A**	A		>	**A**					
			Delay		0	>	**0**	<	10		**0**	0		>	**0**					
			V/C		0.00	>		<	0.00			0.00		>						
			Q		0	>		<	0			0		>						
	East Road & Sunset Drive	TWSC	LOS		A	A	**A**	B	A		**A**	E		>	**E**					
			Delay		0	0	**0**	10	0		**4**	39		>	**39**					
			V/C		0.00	0.00		0.35	0.00			0.76		>						
			Q		0	0		12	0			46		>						
			Stor.		-	35		30	-			-		>						
			Avail.		-	35		18	-			-		>						
Saturday Peak Hour	Driveway A & Sunset Drive	TWSC	LOS		A	>	**A**	<	A		**A**	D		>	**D**					
			Delay		0	>	**0**	<	9		**0**	28		>	**28**					
			V/C		0.00	>		<	0.01			0.19		>						
			Q		0	>		<	0			5		>						
	Driveway B & Sunset Drive	TWSC	LOS		A	>	**A**	<	A		**A**	C		>	**C**					
			Delay		0	>	**0**	<	9		**0**	18		>	**18**					
			V/C		0.00	>		<	0.02			0.13		>						
			Q		0	>		<	1			3		>						
	East Road & Sunset Drive	TWSC	LOS		A	A	**A**	B	A		**A**	F		>	**F**					
			Delay		0	0	**0**	11	0		**3**	204		>	**204**					
			V/C		0.00	0.00		0.38	0.00			1.31		>						
			Q		0	0		14	0			132		>						
			Stor.		-	35		30	-			-		>						
			Avail.		-	35		16	-			-		>						

MOE - Measure of Effectiveness
LOS - Level of Service
Delay - Average Delay per Vehicle in Seconds
V/C - Volume to Capacity Ratio
Q - 95th Percentile Queue Length (m)
Stor. - Existing Storage (m)
Avail. - Available Storage (m)
TWSC - Two-Way Stop Control
< / > - Shared with through movement

4.3 2024 Total Traffic Operations

Figure 4.2 illustrates the 2024 total traffic volumes, including trips generated by the proposed development.

The 2024 total traffic volumes have been analyzed using the same methodology as under existing and background traffic conditions.

Table 4.2 summarizes the results of the 2024 total traffic operations. The results indicate that the study area intersections are forecast to operate with similar levels of service as under 2024 background conditions, except for the following movements:

East Road and Sunset Drive

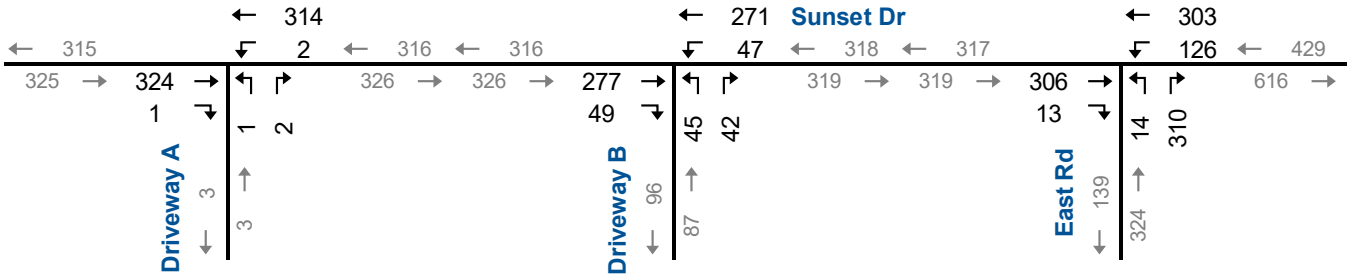
- The northbound shared-lane movement (East Road approach) is forecast to operate with LOS F during the PM peak hour.

Sunset Drive and Driveway B

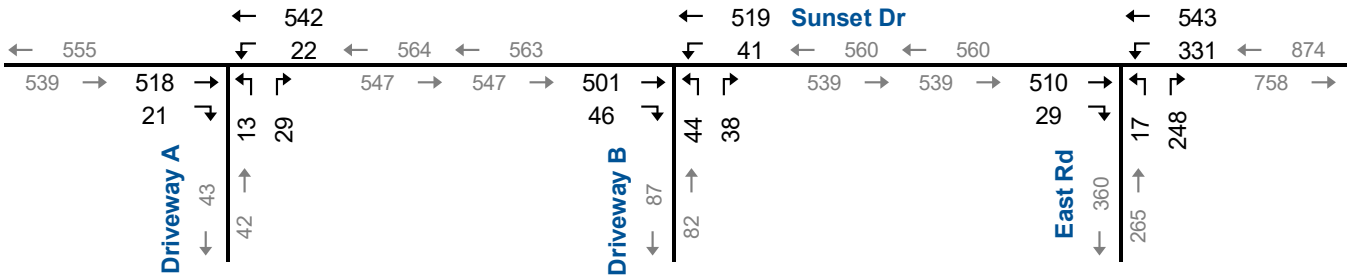
- The northbound shared-lane movement is forecast to operate with LOS F during the long weekend Saturday peak hour. As the existing traffic volumes were collected over a long weekend in July, the Saturday peak hour analysis represents the worst-case scenario.

Appendix F contains the supporting detailed Synchro 11 reports.

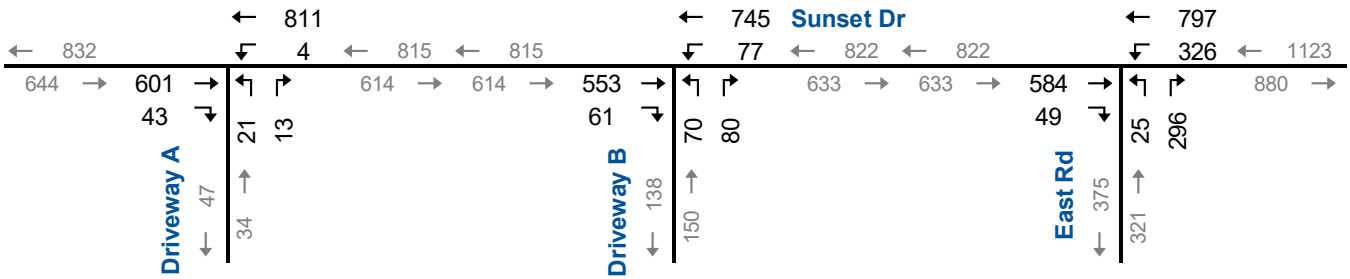
AM Peak Hour



PM Peak Hour



SAT Peak Hour



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2024 Total Traffic Volumes

4980 Sunset Drive, Port Stanley TIS
220316

Figure 4.2

TABLE 4.2: 2024 TOTAL TRAFFIC OPERATIONS

Analysis Period	Intersection	Control Type	MOE	Direction/Movement/Approach																
				Eastbound				Westbound				Northbound				Southbound				Overall
				Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	
AM Peak Hour	Driveway A & Sunset Drive	TWSC	LOS		A	>	**A**	<	A		**A**	B		>	**B**					
			Delay		0	>	**0**	<	8		**0**	13		>	**13**					
			V/C		0.00	>		<	0.00			0.01		>						
			Q		0	>		<	0			0		>						
	Driveway B & Sunset Drive	TWSC	LOS		A	>	**A**	<	A		**A**	B		>	**B**					
			Delay		0	>	**0**	<	8		**1**	14		>	**14**					
			V/C		0.00	>		<	0.04			0.20		>						
			Q		0	>		<	1			5		>						
	East Road & Sunset Drive	TWSC	LOS		A	A	**A**	A	A		**A**	C		>	**C**					
			Delay		0	0	**0**	9	0		**2**	17		>	**17**					
			V/C		0.00	0.00		0.12	0.00			0.54		>						
			Q		0	0		3	0			24		>						
			Stor.		-	35		30	-			-		>						
			Avail.		-	35		27	-			-		>						
PM Peak Hour	Driveway A & Sunset Drive	TWSC	LOS		A	>	**A**	<	A		**A**	C		>	**C**					
			Delay		0	>	**0**	<	9		**0**	17		>	**17**					
			V/C		0.00	>		<	0.03			0.14		>						
			Q		0	>		<	1			4		>						
	Driveway B & Sunset Drive	TWSC	LOS		A	>	**A**	<	B		**A**	D		>	**D**					
			Delay		0	>	**0**	<	11		**1**	26		>	**26**					
			V/C		0.00	>		<	0.07			0.35		>						
			Q		0	>		<	2			11		>						
	East Road & Sunset Drive	TWSC	LOS		A	A	**A**	B	A		**A**	F		>	**F**					
			Delay		0	0	**0**	11	0		**4**	56		>	**56**					
			V/C		0.00	0.00		0.36	0.00			0.86		>						
			Q		0	0		13	0			58		>						
			Stor.		-	35		30	-			-		>						
			Avail.		-	35		17	-			-		>						
Saturday Peak Hour	Driveway A & Sunset Drive	TWSC	LOS		A	>	**A**	<	A		**A**	D		>	**D**					
			Delay		0	>	**0**	<	9		**0**	32		>	**32**					
			V/C		0.00	>		<	0.01			0.22		>						
			Q		0	>		<	0			6		>						
	Driveway B & Sunset Drive	TWSC	LOS		A	>	**A**	<	A		**A**	F		>	**F**					
			Delay		0	>	**0**	<	9		**1**	115		>	**115**					
			V/C		0.00	>		<	0.09			0.96		>						
			Q		0	>		<	2			56		>						
	East Road & Sunset Drive	TWSC	LOS		A	A	**A**	B	A		**A**	F		>	**F**					
			Delay		0	0	**0**	12	0		**3**	317		>	**317**					
			V/C		0.00	0.00		0.39	0.00			1.57		>						
			Q		0	0		14	0			164		>						
			Stor.		-	35		30	-			-		>						
			Avail.		-	35		16	-			-		>						

MOE - Measure of Effectiveness
LOS - Level of Service
Delay - Average Delay per Vehicle in Seconds
V/C - Volume to Capacity Ratio
Q - 95th Percentile Queue Length (m)
Stor. - Existing Storage (m)
Avail. - Available Storage (m)
TWSC - Two-Way Stop Control
< / > - Shared with through movement

4.4 2029 Background Traffic Operations

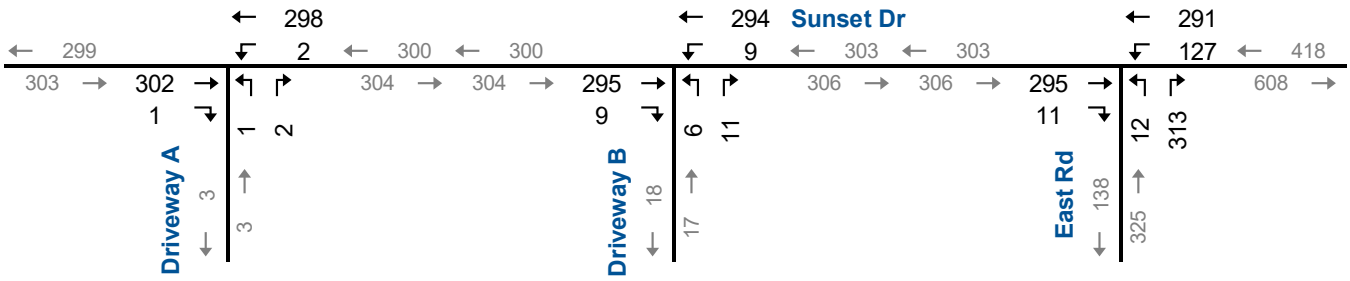
Figure 4.3 illustrates the 2029 background traffic volumes, including road traffic growth and other area development traffic.

The 2029 background traffic volumes have been analyzed using the same methodology as under existing and 2024 background traffic conditions.

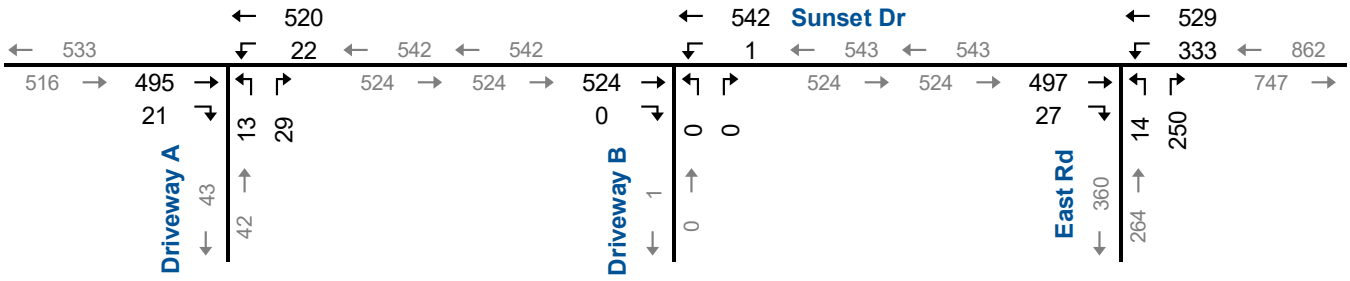
Table 4.3 summarizes the results of the 2029 background traffic operations. The results indicate that the study area intersections are forecast to operate with similar levels of service as under 2024 background traffic conditions.

Appendix G contains the supporting detailed Synchro 11 reports.

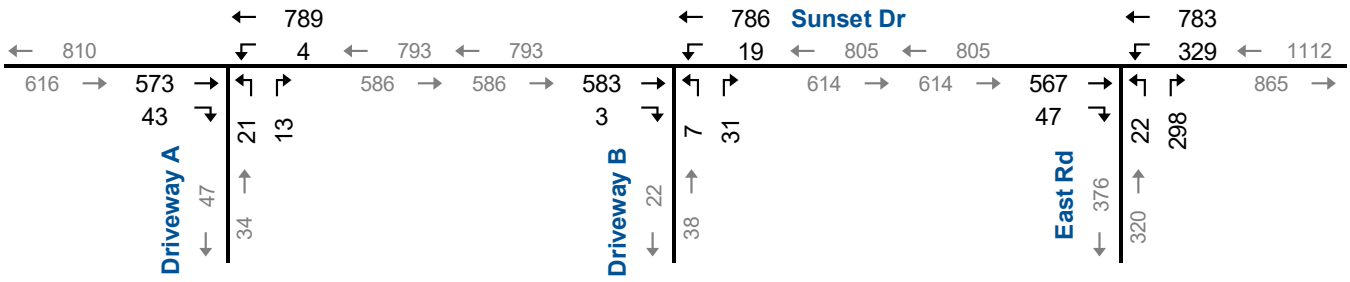
AM Peak Hour



PM Peak Hour



SAT Peak Hour



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2029 Background Traffic Volumes

4980 Sunset Drive, Port Stanley TIS
220316

Figure 4.3

TABLE 4.3: 2029 BACKGROUND TRAFFIC OPERATIONS

Analysis Period	Intersection	Control Type	MOE	Direction/Movement/Approach																	
				Eastbound				Westbound				Northbound				Southbound				Overall
				Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	
AM Peak Hour	Driveway A & Sunset Drive	TWSC	LOS		A	>	**A**	<	A		**A**	B		>	**B**					
			Delay		0	>	**0**	<	8		**0**	12		>	**12**					
			V/C		0.00	>		<	0.00			0.01		>						
			Q		0	>		<	0			0		>						
	Driveway B & Sunset Drive	TWSC	LOS		A	>	**A**	<	A		**A**	B		>	**B**					
			Delay		0	>	**0**	<	8		**0**	12		>	**12**					
			V/C		0.00	>		<	0.01			0.03		>						
			Q		0	>		<	0			1		>						
	East Road & Sunset Drive	TWSC	LOS		A	A	**A**	A	A		**A**	C		>	**C**					
			Delay		0	0	**0**	8	0		**3**	16		>	**16**					
			V/C		0.00	0.00		0.12	0.00			0.53		>						
			Q		0	0		3	0			23		>						
			Stor.		-	35		30	-			-		>						
			Avail.		-	35		27	-			-		>						
PM Peak Hour	Driveway A & Sunset Drive	TWSC	LOS		A	>	**A**	<	A		**A**	C		>	**C**					
			Delay		0	>	**0**	<	9		**0**	17		>	**17**					
			V/C		0.00	>		<	0.02			0.13		>						
			Q		0	>		<	1			3		>						
	Driveway B & Sunset Drive	TWSC	LOS		A	>	**A**	<	B		**A**	A		>	**A**					
			Delay		0	>	**0**	<	10		**0**	0		>	**0**					
			V/C		0.00	>		<	0.00			0.00		>						
			Q		0	>		<	0			0		>						
	East Road & Sunset Drive	TWSC	LOS		A	A	**A**	B	A		**A**	E		>	**E**					
			Delay		0	0	**0**	10	0		**4**	42		>	**42**					
			V/C		0.00	0.00		0.36	0.00			0.78		>						
			Q		0	0		12	0			49		>						
			Stor.		-	35		30	-			-		>						
			Avail.		-	35		18	-			-		>						
Saturday Peak Hour	Driveway A & Sunset Drive	TWSC	LOS		A	>	**A**	<	A		**A**	D		>	**D**					
			Delay		0	>	**0**	<	9		**0**	30		>	**30**					
			V/C		0.00	>		<	0.01			0.20		>						
			Q		0	>		<	0			5		>						
	Driveway B & Sunset Drive	TWSC	LOS		A	>	**A**	<	A		**A**	C		>	**C**					
			Delay		0	>	**0**	<	9		**0**	18		>	**18**					
			V/C		0.00	>		<	0.02			0.13		>						
			Q		0	>		<	1			3		>						
	East Road & Sunset Drive	TWSC	LOS		A	A	**A**	B	A		**A**	F		>	**F**					
			Delay		0	0	**0**	11	0		**3**	252		>	**252**					
			V/C		0.00	0.00		0.39	0.00			1.43		>						
			Q		0	0		14	0			147		>						
			Stor.		-	35		30	-			-		>						
			Avail.		-	35		16	-			-		>						

MOE - Measure of Effectiveness
LOS - Level of Service
Delay - Average Delay per Vehicle in Seconds
V/C - Volume to Capacity Ratio
Q - 95th Percentile Queue Length (m)
Stor. - Existing Storage (m)
Avail. - Available Storage (m)
TWSC - Two-Way Stop Control
< / > - Shared with through movement

4.5 2029 Total Traffic Operations

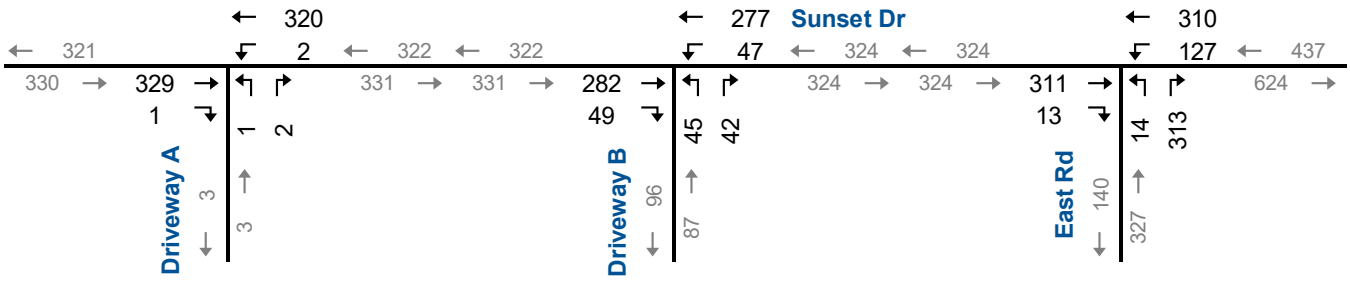
Figure 4.4 illustrates the 2029 total traffic volumes, including trips generated by the proposed development.

The 2029 total traffic volumes have been analyzed using the same methodology as under existing and background traffic conditions.

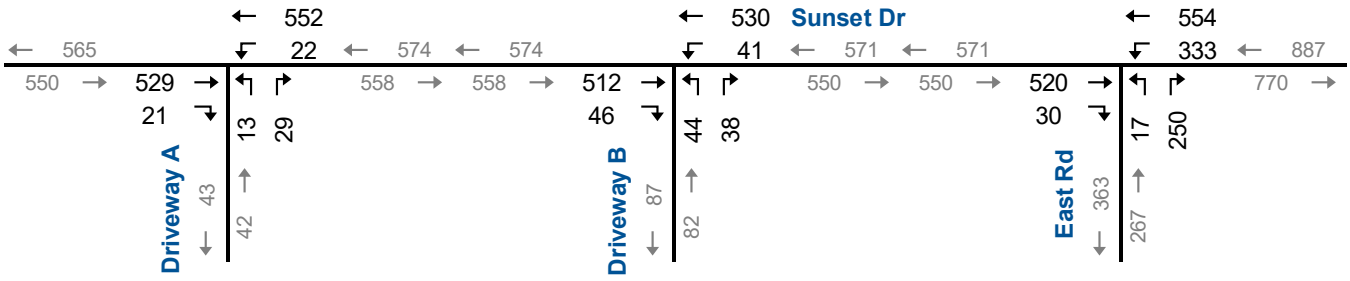
Table 4.4 summarizes the results of the 2029 total traffic operations. The results indicate that the study area intersections are forecast to operate with the same critical movements as under 2024 total traffic conditions.

Appendix H contains the supporting detailed Synchro 11 reports.

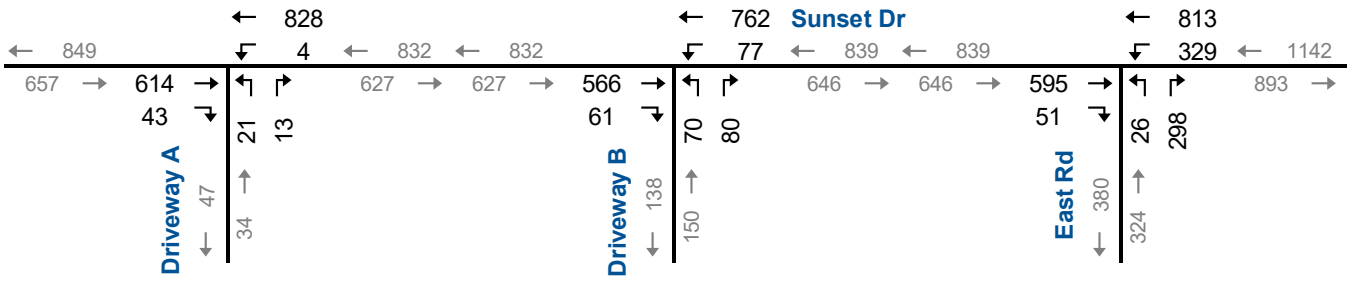
AM Peak Hour



PM Peak Hour



SAT Peak Hour



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2029 Total Traffic Volumes

4980 Sunset Drive, Port Stanley TIS
220316

Figure 4.4

TABLE 4.4: 2029 TOTAL TRAFFIC OPERATIONS

Analysis Period	Intersection	Control Type	MOE	Direction/Movement/Approach																
				Eastbound				Westbound				Northbound				Southbound				Overall
				Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	
AM Peak Hour	Driveway A & Sunset Drive	TWSC	LOS		A	>	**A**	<	A		**A**	B		>	**B**					
			Delay		0	>	**0**	<	8		**0**	13		>	**13**					
			V/C		0.00	>		<	0.00			0.01		>						
			Q		0	>		<	0			0		>						
	Driveway B & Sunset Drive	TWSC	LOS		A	>	**A**	<	A		**A**	B		>	**B**					
			Delay		0	>	**0**	<	8		**1**	14		>	**14**					
			V/C		0.00	>		<	0.04			0.20		>						
			Q		0	>		<	1			5		>						
	East Road & Sunset Drive	TWSC	LOS		A	A	**A**	A	A		**A**	C		>	**C**					
			Delay		0	0	**0**	9	0		**2**	17		>	**17**					
			V/C		0.00	0.00		0.12	0.00			0.55		>						
			Q		0	0		3	0			25		>						
			Stor.		-	35		30	-			-		>						
			Avail.		-	35		27	-			-		>						
PM Peak Hour	Driveway A & Sunset Drive	TWSC	LOS		A	>	**A**	<	A		**A**	C		>	**C**					
			Delay		0	>	**0**	<	9		**0**	18		>	**18**					
			V/C		0.00	>		<	0.03			0.14		>						
			Q		0	>		<	1			4		>						
	Driveway B & Sunset Drive	TWSC	LOS		A	>	**A**	<	B		**A**	D		>	**D**					
			Delay		0	>	**0**	<	11		**1**	27		>	**27**					
			V/C		0.00	>		<	0.07			0.36		>						
			Q		0	>		<	2			12		>						
	East Road & Sunset Drive	TWSC	LOS		A	A	**A**	B	A		**A**	F		>	**F**					
			Delay		0	0	**0**	11	0		**4**	63		>	**63**					
			V/C		0.00	0.00		0.37	0.00			0.89		>						
			Q		0	0		13	0			64		>						
			Stor.		-	35		30	-			-		>						
			Avail.		-	35		17	-			-		>						
Saturday Peak Hour	Driveway A & Sunset Drive	TWSC	LOS		A	>	**A**	<	A		**A**	D		>	**D**					
			Delay		0	>	**0**	<	9		**0**	33		>	**33**					
			V/C		0.00	>		<	0.01			0.23		>						
			Q		0	>		<	0			6		>						
	Driveway B & Sunset Drive	TWSC	LOS		A	>	**A**	<	A		**A**	F		>	**F**					
			Delay		0	>	**0**	<	9		**1**	131		>	**131**					
			V/C		0.00	>		<	0.09			1.01		>						
			Q		0	>		<	2			59		>						
	East Road & Sunset Drive	TWSC	LOS		A	A	**A**	B	A		**A**	F		>	**F**					
			Delay		0	0	**0**	12	0		**3**	372		>	**372**					
			V/C		0.00	0.00		0.40	0.00			1.69		>						
			Q		0	0		14	0			177		>						
			Stor.		-	35		30	-			-		>						
			Avail.		-	35		16	-			-		>						

MOE - Measure of Effectiveness
LOS - Level of Service
Delay - Average Delay per Vehicle in Seconds
V/C - Volume to Capacity Ratio
Q - 95th Percentile Queue Length (m)
Stor. - Existing Storage (m)
Avail. - Available Storage (m)
TWSC - Two-Way Stop Control
< / > - Shared with through movement

4.6 2034 Background Traffic Operations

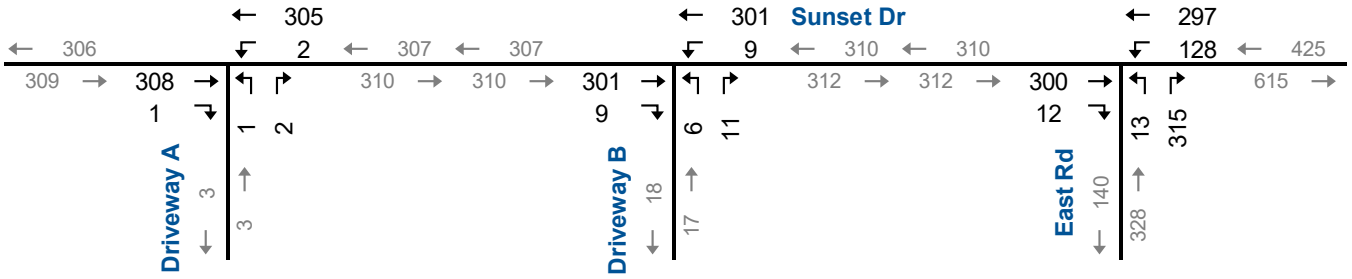
Figure 4.5 illustrates the 2034 background traffic volumes, including road traffic growth and other area development traffic.

The 2034 background traffic volumes have been analyzed using the same methodology as under existing, and 2024 and 2029 background traffic conditions.

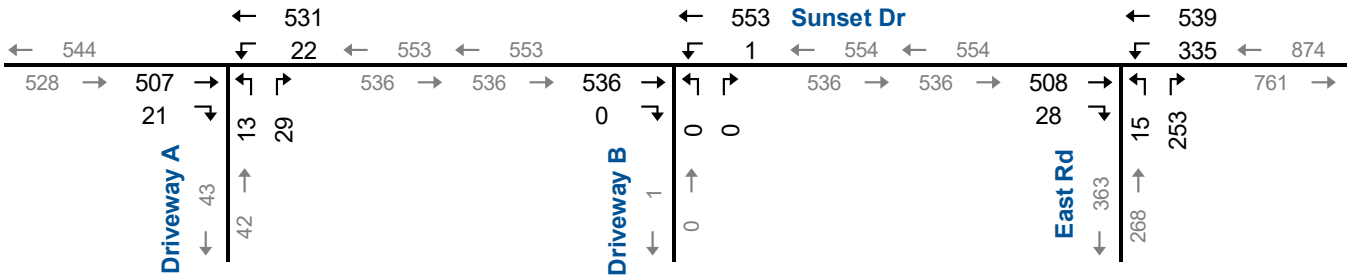
Table 4.5 summarizes the results of the 2034 background traffic operations. The results indicate that the study area intersections are forecast to operate with similar levels of service as under 2029 background traffic conditions.

Appendix I contains the supporting detailed Synchro 11 reports.

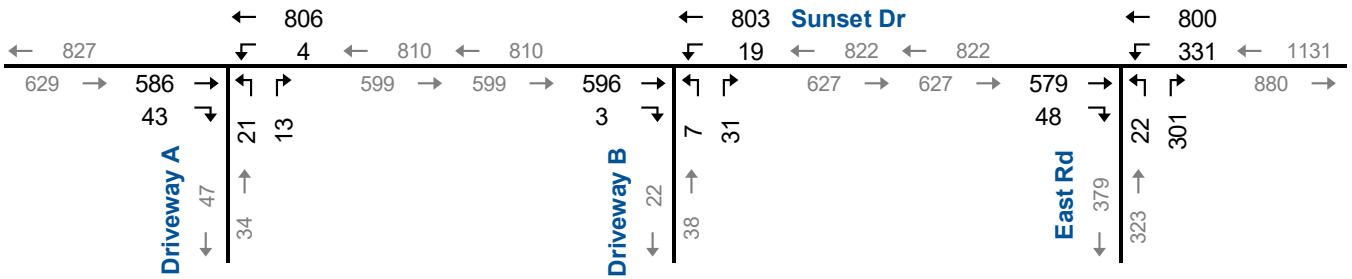
AM Peak Hour



PM Peak Hour



SAT Peak Hour



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2034 Background Traffic Volumes

4980 Sunset Drive, Port Stanley TIS
220316

Figure 4.5

TABLE 4.5: 2034 BACKGROUND TRAFFIC OPERATIONS

Analysis Period	Intersection	Control Type	MOE	Direction/Movement/Approach																	
				Eastbound				Westbound				Northbound				Southbound				Overall
				Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	
AM Peak Hour	Driveway A & Sunset Drive	TWSC	LOS Delay V/C Q		A 0 0.00 0	> > > >	**A 0**	< < < <	A 8 0.00 0		**A 0**	B 12 0.01 0		> > > >	**B 12**					
	Driveway B & Sunset Drive	TWSC	LOS Delay V/C Q		A 0 0.00 0	> > > >	**A 0**	< < < <	A 8 0.01 0		**A 0**	B 12 0.03 1		> > > >	**B 12**					
	East Road & Sunset Drive	TWSC	LOS Delay V/C Q Stor. Avail.		A 0 0.00 0 - -	A 0 0.00 0 35 35	**A 0**	A 9 0.12 3 30 27	A 0 0.00 0 - -		**A 3**	C 17 0.54 24 - -		> > > > > >	**C 17**					
PM Peak Hour	Driveway A & Sunset Drive	TWSC	LOS Delay V/C Q		A 0 0.00 0	> > > >	**A 0**	< < < <	A 9 0.02 1		**A 0**	C 17 0.13 4		> > > >	**C 17**					
	Driveway B & Sunset Drive	TWSC	LOS Delay V/C Q		A 0 0.00 0	> > > >	**A 0**	< < < <	B 11 0.00 0		**A 0**	A 0 0.00 0		> > > >	**A 0**					
	East Road & Sunset Drive	TWSC	LOS Delay V/C Q Stor. Avail.		A 0 0.00 0 - -	A 0 0.00 0 35 35	**A 0**	B 11 0.36 13 30 17	A 0 0.00 0 - -		**A 4**	E 49 0.82 55 - -		> > > > > >	**E 49**					
Saturday Peak Hour	Driveway A & Sunset Drive	TWSC	LOS Delay V/C Q		A 0 0.00 0	> > > >	**A 0**	< < < <	A 9 0.01 0		**A 0**	D 31 0.21 6		> > > >	**D 31**					
	Driveway B & Sunset Drive	TWSC	LOS Delay V/C Q		A 0 0.00 0	> > > >	**A 0**	< < < <	A 9 0.02 1		**A 0**	C 19 0.14 4		> > > >	**C 19**					
	East Road & Sunset Drive	TWSC	LOS Delay V/C Q Stor. Avail.		A 0 0.00 0 - -	A 0 0.00 0 35 35	**A 0**	B 12 0.39 14 30 16	A 0 0.00 0 - -		**A 3**	F 285 1.50 157 - -		> > > > > >	**F 285**					

MOE - Measure of Effectiveness
LOS - Level of Service
Delay - Average Delay per Vehicle in Seconds
V/C - Volume to Capacity Ratio
Q - 95th Percentile Queue Length (m)
Stor. - Existing Storage (m)
Avail. - Available Storage (m)
TWSC - Two-Way Stop Control
< / > - Shared with through movement

4.7 2034 Total Traffic Operations

Figure 4.6 illustrates the 2034 total traffic volumes, including trips generated by the proposed development.

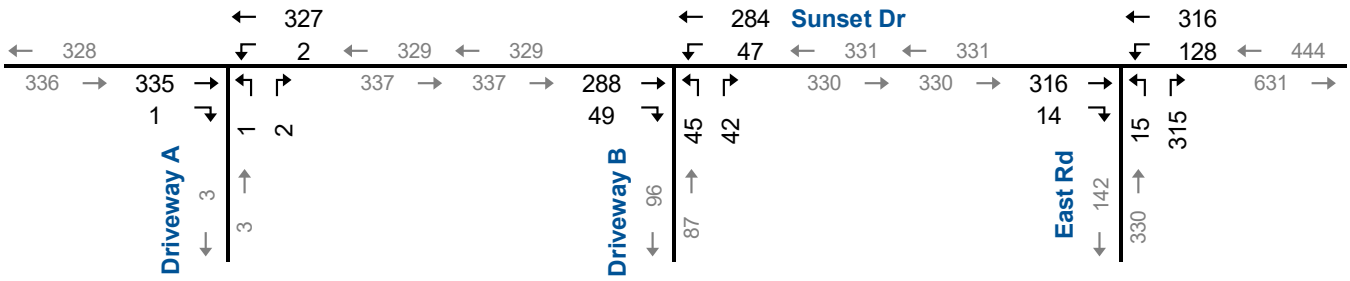
The 2034 total traffic volumes have been analyzed using the same methodology as under existing and background traffic conditions.

Table 4.6 summarizes the results of the 2034 total traffic operations. The results indicate that the study area intersections are forecast to operate with the same critical movements as under 2024 and 2029 total traffic conditions.

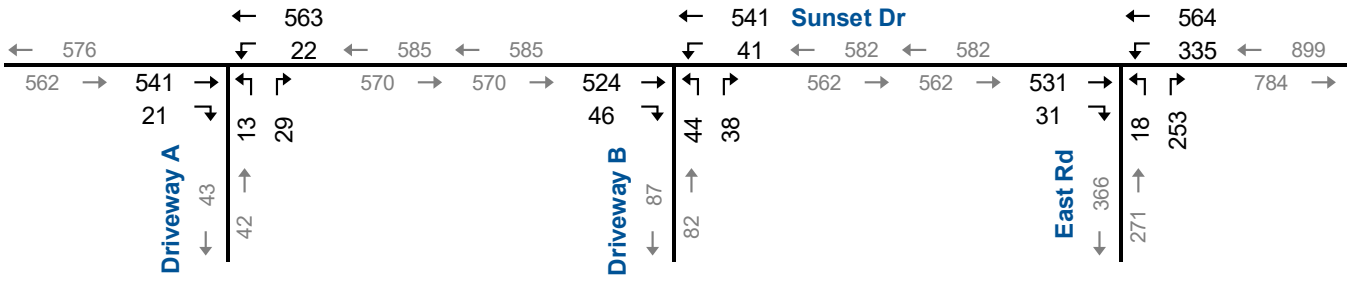
The eastbound and westbound through traffic movements on Sunset Drive are forecast to operate with acceptable levels of service under all traffic conditions. It is noted that future traffic volumes on Sunset Drive, to the east of East Road, reach close to or exceed 1,000 vehicles per hour (vph) in either direction during the Saturday peak hour. As the existing traffic volumes were collected over a long weekend in July, the Saturday peak hour analysis represents the worst-case scenario.

Appendix J contains the supporting detailed Synchro 11 reports.

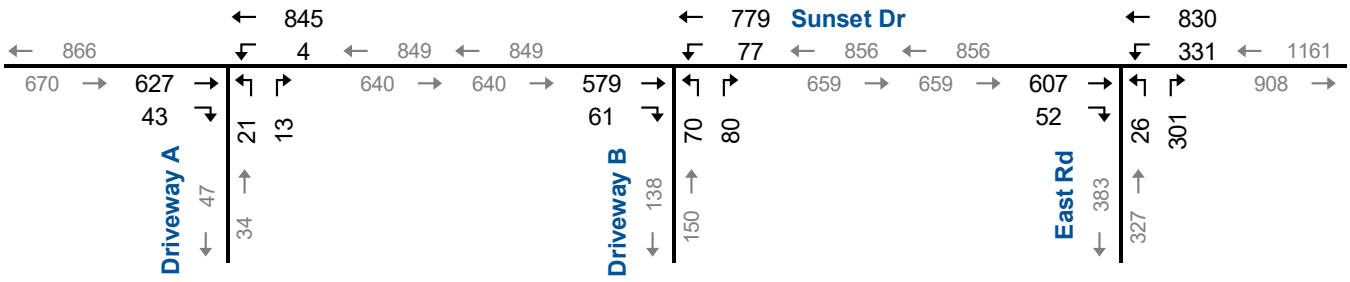
AM Peak Hour



PM Peak Hour



SAT Peak Hour



NTS

paradigm TRANSPORTATION SOLUTIONS LIMITED

2034 Total Traffic Volumes

TABLE 4.6: 2034 TOTAL TRAFFIC OPERATIONS

Analysis Period	Intersection	Control Type	MOE	Direction/Movement/Approach																
				Eastbound				Westbound				Northbound				Southbound				Overall
				Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	
AM Peak Hour	Driveway A & Sunset Drive	TWSC	LOS		A	>	**A**	<	A		**A**	B		>	**B**					
			Delay		0	>	**0**	<	8			13		>	**13**					
			V/C		0.00	>		<	0.00			0.01		>						
			Q		0	>		<	0			0		>						
	Driveway B & Sunset Drive	TWSC	LOS		A	>	**A**	<	A		**A**	B		>	**B**					
			Delay		0	>	**0**	<	8			15		>	**15**					
			V/C		0.00	>		<	0.04			0.20		>						
			Q		0	>		<	1			6		>						
	East Road & Sunset Drive	TWSC	LOS		A	A	**A**	A	A		**A**	C		>	**C**					
			Delay		0	0	**0**	9	0			18		>	**18**					
			V/C		0.00	0.00		0.12	0.00			0.56		>						
			Q		0	0		3	0			26		>						
			Stor.		-	35		30	-			-		>						
			Avail.		-	35		27	-			-		>						
PM Peak Hour	Driveway A & Sunset Drive	TWSC	LOS		A	>	**A**	<	A		**A**	C		>	**C**					
			Delay		0	>	**0**	<	9			18		>	**18**					
			V/C		0.00	>		<	0.03			0.14		>						
			Q		0	>		<	1			4		>						
	Driveway B & Sunset Drive	TWSC	LOS		A	>	**A**	<	B		**A**	D		>	**D**					
			Delay		0	>	**0**	<	11			28		>	**28**					
			V/C		0.00	>		<	0.07			0.37		>						
			Q		0	>		<	2			12		>						
	East Road & Sunset Drive	TWSC	LOS		A	A	**A**	B	A		**A**	F		>	**F**					
			Delay		0	0	**0**	11	0			75		>	**75**					
			V/C		0.00	0.00		0.37	0.00			0.94		>						
			Q		0	0		13	0			71		>						
			Stor.		-	35		30	-			-		>						
			Avail.		-	35		17	-			-		>						
Saturday Peak Hour	Driveway A & Sunset Drive	TWSC	LOS		A	>	**A**	<	A		**A**	D		>	**D**					
			Delay		0	>	**0**	<	9			35		>	**35**					
			V/C		0.00	>		<	0.01			0.23		>						
			Q		0	>		<	0			7		>						
	Driveway B & Sunset Drive	TWSC	LOS		A	>	**A**	<	A		**A**	F		>	**F**					
			Delay		0	>	**0**	<	9			145		>	**145**					
			V/C		0.00	>		<	0.09			1.05		>						
			Q		0	>		<	2			62		>						
	East Road & Sunset Drive	TWSC	LOS		A	A	**A**	B	A		**A**	F		>	**F**					
			Delay		0	0	**0**	12	0			414		>	**414**					
			V/C		0.00	0.00		0.41	0.00			1.79		>						
			Q		0	0		15	0			187		>						
			Stor.		-	35		30	-			-		>						
			Avail.		-	35		15	-			-		>						

MOE - Measure of Effectiveness
LOS - Level of Service
Delay - Average Delay per Vehicle in Seconds
V/C - Volume to Capacity Ratio
Q - 95th Percentile Queue Length (m)
Stor. - Existing Storage (m)
Avail. - Available Storage (m)
TWSC - Two-Way Stop Control
< / > - Shared with through movement

5 Remedial Measures

5.1 Left-Turn Lanes

The Ministry of Transportation Design Supplement for the Transportation Association of Canada (TAC) Geometric Design Guide for Canadian Roads[5] provides guidance on the assessment and/or need for auxiliary left-turn lanes.

Warrants have been calculated for westbound left-turns at Sunset Drive (CR 4) and Driveway B. The warrant was calculated using the nomographs for left-turn lanes on a two-lane undivided highway at an unsignalized intersection with a design speed of 100 km/h (20 km/h over the posted speed limit). Based on this criterion, a westbound left-turn lane with 40-metres of storage is warranted under 2024, 2029 and 2034 total traffic conditions.

Appendix K contains the warrant nomographs.

[5] *MTO Design Supplement for TAC Geometric Design Guide for Canadian Roads*, June 2017.

6 Conclusions and Recommendations

6.1 Conclusions

Based on the investigations carried out, it is concluded that:

- **Existing Traffic Conditions:** The study area intersections are operating at acceptable levels of service.
- **Development Trip Generation:** The development is forecast to generate 88 AM peak hour trips, 120 PM peak hour trips and 146 Saturday peak hour trips.
- **2024 Background Traffic Conditions:** The study area intersections are forecast to operate at acceptable levels of service, with the exception of the northbound shared-lane movement (East Road approach) at the intersection of East Road and Sunset Drive which is forecast to operate with LOS F during the Saturday peak hour. As the existing traffic volumes were collected over a long weekend in July, the Saturday peak hour analysis represents the worst-case scenario.
- **2024 Total Traffic Conditions:** The study area intersections are forecast to operate at similar levels of service as under 2024 background traffic conditions, with the addition of the following critical movements:
  - East Road and Sunset Drive: The northbound shared-lane movement (East Road approach) is forecast to operate with LOS F during the weekday PM peak hour.
  - Sunset Drive and Driveway B: The northbound (outbound) shared-lane movement is forecast to operate with LOS F during the long weekend Saturday peak hour.
- **2029 Background Traffic Conditions:** The study area intersections are forecast to operate at similar levels of service as under 2024 background traffic conditions.
- **2029 Total Traffic Conditions:** The study area intersections are forecast to operate at similar levels of service as under 2024 total traffic conditions.
- **2034 Background Traffic Conditions:** The study area intersections are forecast to operate at similar levels of service as under 2024 and 2029 background traffic conditions.
- **2034 Total Traffic Conditions:** The study area intersections are forecast to operate at similar levels of service as under 2024 and 2029 total traffic conditions.
- **Site Access:**

- A westbound left-turn lane with 40 metres of storage is warranted on Sunset Drive at Driveway B under 2024, 2029 and 2034 total traffic conditions.
- The outbound (northbound) approach at Driveway B is forecast to operate with poor levels of service only during the Saturday peak hour. The eastbound and westbound through volumes on Sunset Drive are forecast to operate with acceptable levels of service during all three peak hours. As the existing traffic volumes were collected over a long weekend in July, the analysis represents the worst-case scenario.

6.2 Recommendations

Based on the findings and conclusions of this study, it is recommended that the proposed development be considered for approval.

Appendix A

Pre-Study Consultation

From: Brian Lima <blima@ELGIN.ca>
Sent: June 14, 2022 11:00 AM
To: Rajan Philips <rphilips@ptsl.com>
Cc: Julian N. Novick <julian@wastell.ca>
Subject: RE: 220316 TIS Scope of Work - 4980 Sunset Dr Commercial Development, Port Stanley

Hi Rajan,

Your inquiry below appears to have slipped through the cracks during our recent corporate email cyber attach.

Upon review of your proposed TIS scope of work, the County additionally requires that Weekend summer AM/PM peak hours also be included in your analysis.

The County is happy to share with you our 2021 summer traffic count data if you desire?

If anything is required, please advise.

Brian

Brian Lima, P.Eng.
General Manager of Engineering, Planning & Enterprise / Deputy CAO
ElginCounty
Progressive by Nature

450 Sunset Drive
St. Thomas, ON. N5R 5V1
(519) 631-1460 ext. 117
blima@elgin.ca
www.elgincounty.ca

From: Rajan Philips <rphilips@ptsl.com>
Sent: May 18, 2022 11:39 AM
To: Brian Lima <blima@ELGIN.ca>
Cc: Julian N. Novick <julian@wastell.ca>
Subject: 220316 TIS Scope of Work - 4980 Sunset Dr Commercial Development, Port Stanley

Hi Brian,

Hope all is well.

We are undertaking a TIS for the above commercial development per the attached Concept Plan.
There have been aa number of studies in the area, and I would appreciate your feedback on the scope of work we are considering for the TIS, as noted below:

- Study Area Intersections:
  - Sunset Dr & East Road
  - Proposed shared driveway for the new development
  - Existing Gas Station Driveway
- Analysis Periods: Weekday AM/PM peak hours
- Existing Conditions: Will be based on new (May 2022) intersection traffic counts
- Other Area Developments: Subject to information from Port Stanley staff
- Future Conditions: Background and Total Traffic conditions – at development completion, five years after, and ten years after.

Thank you.

Rajan Philips, M.Sc. (PI), P.Eng.
Senior Transportation Consultant

Paradigm Transportation Solutions Limited
5A-150 Pinebush Road, Cambridge ON N1R 8J8
p: 519.896.3163 x207
e: rphilips@ptsl.com
w: www.ptsl.com

From: Julian N. Novick <julian@wastell.ca>
Sent: May 6, 2022 11:25 AM
To: Rajan Philips <rphilips@ptsl.com>; Jim Mallett <jmallett@ptsl.com>
Subject: TIS for New Site in Port Stanley

Greetings,

We are working on a new site in Port Stanley that requires a TIS. Could you do this for us and if so could you provide a budget and timeline to complete?

Concept plan attached. The County is OK with a scoped TIS that assessed capacity / LOS and geometric analysis.

Let me know if you have any questions,
Julian

Julian N. Novick, P.Eng. Director of Operations

T 519-850-0020 x104
E julian@wastell.ca
A 5-1895 Blue Heron Drive, London ON N6H 5L9

wastell.ca | **kokomobeachclub.com** |

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Notice: The County of Elgin experienced a technical disruption from April 1, 2022 – April 27, 2022. During this time, email and website services were unavailable. If you emailed the County of Elgin between these dates, we did not

receive your message. If you tried to reach us during this time, please reach out again by email, phone 519-631-1460 ext. 104, or in person at 450 Sunset Drive, St. Thomas.www.elgincounty.ca for daily updates.

Appendix B

Existing Traffic Data

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Sunset Drive & East Road - Weekday
Site Code: 220316
Start Date: 06/30/2022

Turning Movement Data

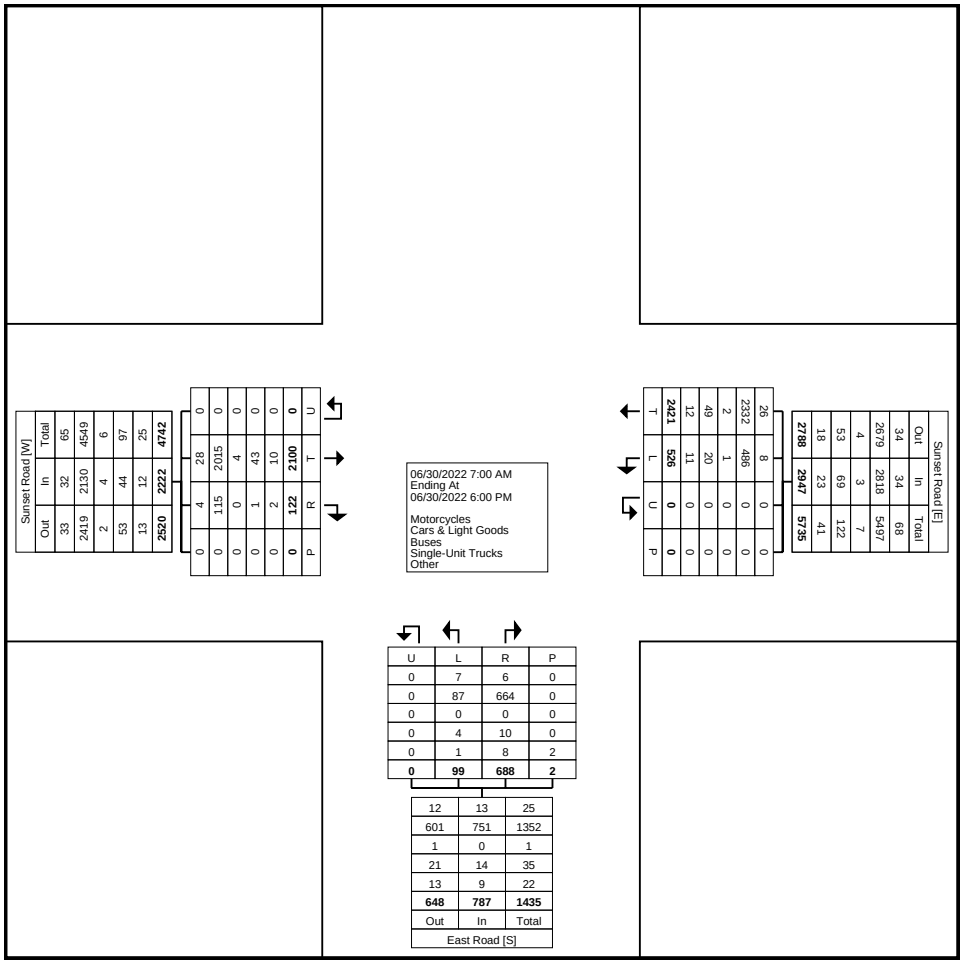
Start Time	Sunset Road Eastbound					Sunset Road Westbound					East Road Northbound					
	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	Int. Total
7:00 AM	33	0	0	0	33	5	14	0	0	19	3	17	0	0	20	72
7:15 AM	40	0	0	0	40	9	21	0	0	30	0	14	0	0	14	84
7:30 AM	44	0	0	0	44	2	25	0	0	27	1	24	0	0	25	96
7:45 AM	28	1	0	0	29	14	26	0	0	40	3	19	0	0	22	91
Hourly Total	145	1	0	0	146	30	86	0	0	116	7	74	0	0	81	343
8:00 AM	28	0	0	0	28	13	31	0	0	44	2	28	0	0	30	102
8:15 AM	39	2	0	0	41	11	38	0	0	49	1	25	0	0	26	116
8:30 AM	36	2	0	0	38	14	37	0	0	51	4	17	0	0	21	110
8:45 AM	43	5	0	0	48	12	55	0	0	67	2	20	0	0	22	137
Hourly Total	146	9	0	0	155	50	161	0	0	211	9	90	0	0	99	465
9:00 AM	50	1	0	0	51	9	60	0	0	69	3	27	0	0	30	150
9:15 AM	46	2	0	0	48	11	42	0	0	53	3	19	0	1	22	123
9:30 AM	52	5	0	0	57	20	68	0	0	88	6	26	0	0	32	177
9:45 AM	49	3	0	0	52	13	71	0	0	84	0	27	0	0	27	163
Hourly Total	197	11	0	0	208	53	241	0	0	294	12	99	0	1	111	613
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00 AM	61	9	0	0	70	15	107	0	0	122	1	23	0	0	24	216
11:15 AM	54	3	0	0	57	15	92	0	0	107	1	22	0	0	23	187
11:30 AM	60	4	0	0	64	19	118	0	0	137	2	26	0	0	28	229
11:45 AM	60	2	0	0	62	19	111	0	0	130	2	25	0	0	27	219
Hourly Total	235	18	0	0	253	68	428	0	0	496	6	96	0	0	102	851
12:00 PM	73	4	0	0	77	17	112	0	0	129	8	20	0	0	28	234
12:15 PM	70	4	0	0	74	23	115	0	0	138	4	25	0	0	29	241
12:30 PM	69	4	0	0	73	12	95	0	0	107	3	19	0	0	22	202
12:45 PM	70	3	0	0	73	22	86	0	0	108	3	14	0	0	17	198
Hourly Total	282	15	0	0	297	74	408	0	0	482	18	78	0	0	96	875
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	94	7	0	0	101	18	84	0	0	102	1	29	0	0	30	233
3:15 PM	100	4	0	0	104	16	82	0	0	98	4	20	0	0	24	226
3:30 PM	100	7	0	0	107	23	84	0	0	107	9	26	0	0	35	249
3:45 PM	90	10	0	0	100	18	113	0	0	131	4	20	0	0	24	255
Hourly Total	384	28	0	0	412	75	363	0	0	438	18	95	0	0	113	963
4:00 PM	122	6	0	0	128	19	83	0	0	102	6	25	0	0	31	261
4:15 PM	92	4	0	0	96	20	97	0	0	117	3	22	0	0	25	238
4:30 PM	98	6	0	0	104	26	104	0	0	130	1	24	0	0	25	259
4:45 PM	86	5	0	0	91	27	87	0	0	114	5	17	0	0	22	227

Hourly Total	398	21	0	0	419	92	371	0	0	463	15	88	0	0	103	985
5:00 PM	106	1	0	0	107	18	89	0	0	107	3	25	0	0	28	242
5:15 PM	68	5	0	0	73	22	101	0	0	123	5	14	0	0	19	215
5:30 PM	73	8	0	0	81	22	76	0	0	98	4	15	0	0	19	198
5:45 PM	66	5	0	0	71	22	97	0	0	119	2	14	0	1	16	206
Hourly Total	313	19	0	0	332	84	363	0	0	447	14	68	0	1	82	861
Grand Total	2100	122	0	0	2222	526	2421	0	0	2947	99	688	0	2	787	5956
Approach %	94.5	5.5	0.0	-	-	17.8	82.2	0.0	-	-	12.6	87.4	0.0	-	-	-
Total %	35.3	2.0	0.0	-	37.3	8.8	40.6	0.0	-	49.5	1.7	11.6	0.0	-	13.2	-
Motorcycles	28	4	0	-	32	8	26	0	-	34	7	6	0	-	13	79
% Motorcycles	1.3	3.3	-	-	1.4	1.5	1.1	-	-	1.2	7.1	0.9	-	-	1.7	1.3
Cars & Light Goods	2015	115	0	-	2130	486	2332	0	-	2818	87	664	0	-	751	5699
% Cars & Light Goods	96.0	94.3	-	-	95.9	92.4	96.3	-	-	95.6	87.9	96.5	-	-	95.4	95.7
Buses	4	0	0	-	4	1	2	0	-	3	0	0	0	-	0	7
% Buses	0.2	0.0	-	-	0.2	0.2	0.1	-	-	0.1	0.0	0.0	-	-	0.0	0.1
Single-Unit Trucks	43	1	0	-	44	20	49	0	-	69	4	10	0	-	14	127
% Single-Unit Trucks	2.0	0.8	-	-	2.0	3.8	2.0	-	-	2.3	4.0	1.5	-	-	1.8	2.1
Articulated Trucks	7	0	0	-	7	4	10	0	-	14	1	1	0	-	2	23
% Articulated Trucks	0.3	0.0	-	-	0.3	0.8	0.4	-	-	0.5	1.0	0.1	-	-	0.3	0.4
Bicycles on Road	3	2	0	-	5	7	2	0	-	9	0	7	0	-	7	21
% Bicycles on Road	0.1	1.6	-	-	0.2	1.3	0.1	-	-	0.3	0.0	1.0	-	-	0.9	0.4
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	2	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Sunset Drive & East Road - Weekday
Site Code: 220316
Start Date: 06/30/2022



Sunset Road [W]	U	L	R	P	
Total	0	28	4	0	32
In	0	2015	115	0	2130
Out	0	4	0	0	4
	0	43	1	0	44
	0	10	2	0	12
	0	**2100**	**122**	**0**	**2222**
	0	7	6	0	13
	0	87	664	0	751
	0	0	0	0	0
	0	4	10	0	14
	0	1	8	2	11
	0	**99**	**688**	**2**	**789**
	0	601	1	21	623
	0	1	0	0	1
	0	21	14	0	35
	0	13	9	0	22
	0	**636**	**24**	**0**	**660**
Out	U	L	R	P	Total
East Road [S]					

East Road [S]	T	L	U	P	
Total	26	8	0	0	34
In	2332	486	0	0	2818
Out	2	1	0	0	3
	49	20	0	0	69
	12	11	0	0	23
	2421	**526**	**0**	**0**	**2947**
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	**0**	**0**	**0**	**0**
	2679	2818	34	34	5497
	4	3	7	0	7
	53	69	122	0	122
	18	23	41	0	41
	2788	**2947**	**5735**	**0**	**5735**
Sunset Road [E]	Out	In	Total	P	

U	L	R	P
0	7	6	0
0	87	664	0
0	0	0	0
0	4	10	0
0	1	8	2
0	**99**	**688**	**2**

12	13	25
601	751	1352
1	0	1
21	14	35
13	9	22
648	**787**	**1435**
Out	In	Total
East Road [S]		

Turning Movement Data Plot

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Sunset Drive & East Road - Weekday
Site Code: 220316
Start Date: 06/30/2022

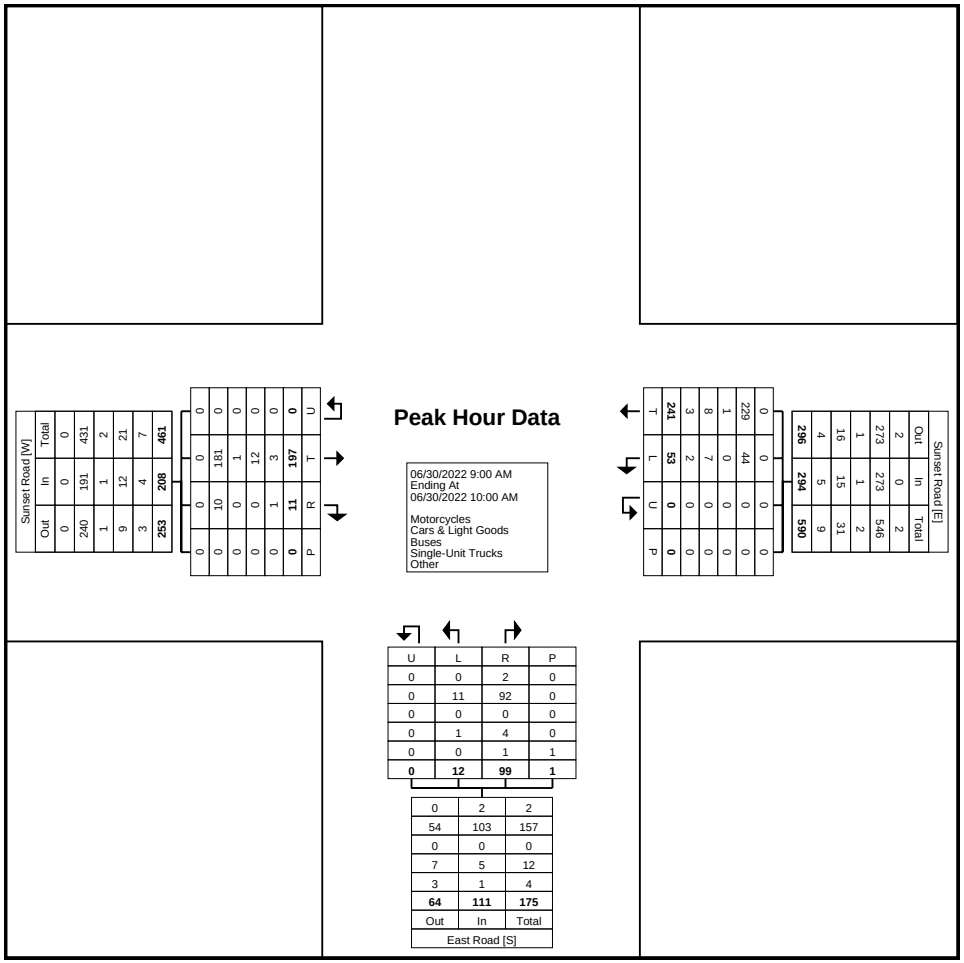
Turning Movement Peak Hour Data (9:00 AM)

Start Time	Sunset Road Eastbound					Sunset Road Westbound					East Road Northbound					
	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	Int. Total
9:00 AM	50	1	0	0	51	9	60	0	0	69	3	27	0	0	30	150
9:15 AM	46	2	0	0	48	11	42	0	0	53	3	19	0	1	22	123
9:30 AM	52	5	0	0	57	20	68	0	0	88	6	26	0	0	32	177
9:45 AM	49	3	0	0	52	13	71	0	0	84	0	27	0	0	27	163
Total	197	11	0	0	208	53	241	0	0	294	12	99	0	1	111	613
Approach %	94.7	5.3	0.0	-	-	18.0	82.0	0.0	-	-	10.8	89.2	0.0	-	-	-
Total %	32.1	1.8	0.0	-	33.9	8.6	39.3	0.0	-	48.0	2.0	16.2	0.0	-	18.1	-
PHF	0.947	0.550	0.000	-	0.912	0.663	0.849	0.000	-	0.835	0.500	0.917	0.000	-	0.867	0.866
Motorcycles	0	0	0	-	0	0	0	0	-	0	0	2	0	-	2	2
% Motorcycles	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	2.0	-	-	1.8	0.3
Cars & Light Goods	181	10	0	-	191	44	229	0	-	273	11	92	0	-	103	567
% Cars & Light Goods	91.9	90.9	-	-	91.8	83.0	95.0	-	-	92.9	91.7	92.9	-	-	92.8	92.5
Buses	1	0	0	-	1	0	1	0	-	1	0	0	0	-	0	2
% Buses	0.5	0.0	-	-	0.5	0.0	0.4	-	-	0.3	0.0	0.0	-	-	0.0	0.3
Single-Unit Trucks	12	0	0	-	12	7	8	0	-	15	1	4	0	-	5	32
% Single-Unit Trucks	6.1	0.0	-	-	5.8	13.2	3.3	-	-	5.1	8.3	4.0	-	-	4.5	5.2
Articulated Trucks	3	0	0	-	3	1	3	0	-	4	0	0	0	-	0	7
% Articulated Trucks	1.5	0.0	-	-	1.4	1.9	1.2	-	-	1.4	0.0	0.0	-	-	0.0	1.1
Bicycles on Road	0	1	0	-	1	1	0	0	-	1	0	1	0	-	1	3
% Bicycles on Road	0.0	9.1	-	-	0.5	1.9	0.0	-	-	0.3	0.0	1.0	-	-	0.9	0.5
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	1	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Sunset Drive & East Road - Weekday
Site Code: 220316
Start Date: 06/30/2022



Turning Movement Peak Hour Data Plot (9:00 AM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Sunset Drive & East Road - Weekday
Site Code: 220316
Start Date: 06/30/2022

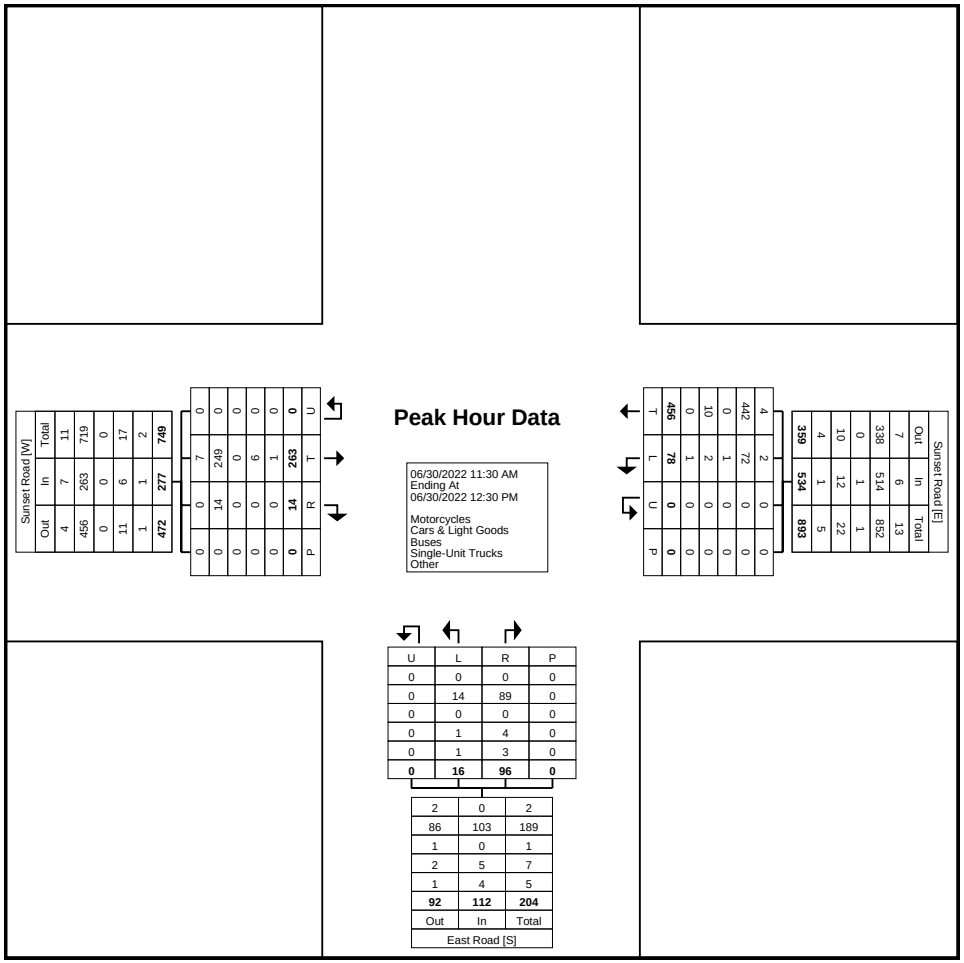
Turning Movement Peak Hour Data (11:30 AM)

Start Time	Sunset Road Eastbound					Sunset Road Westbound					East Road Northbound					
	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	Int. Total
11:30 AM	60	4	0	0	64	19	118	0	0	137	2	26	0	0	28	229
11:45 AM	60	2	0	0	62	19	111	0	0	130	2	25	0	0	27	219
12:00 PM	73	4	0	0	77	17	112	0	0	129	8	20	0	0	28	234
12:15 PM	70	4	0	0	74	23	115	0	0	138	4	25	0	0	29	241
Total	263	14	0	0	277	78	456	0	0	534	16	96	0	0	112	923
Approach %	94.9	5.1	0.0	-	-	14.6	85.4	0.0	-	-	14.3	85.7	0.0	-	-	-
Total %	28.5	1.5	0.0	-	30.0	8.5	49.4	0.0	-	57.9	1.7	10.4	0.0	-	12.1	-
PHF	0.901	0.875	0.000	-	0.899	0.848	0.966	0.000	-	0.967	0.500	0.923	0.000	-	0.966	0.957
Motorcycles	7	0	0	-	7	2	4	0	-	6	0	0	0	-	0	13
% Motorcycles	2.7	0.0	-	-	2.5	2.6	0.9	-	-	1.1	0.0	0.0	-	-	0.0	1.4
Cars & Light Goods	249	14	0	-	263	72	442	0	-	514	14	89	0	-	103	880
% Cars & Light Goods	94.7	100.0	-	-	94.9	92.3	96.9	-	-	96.3	87.5	92.7	-	-	92.0	95.3
Buses	0	0	0	-	0	1	0	0	-	1	0	0	0	-	0	1
% Buses	0.0	0.0	-	-	0.0	1.3	0.0	-	-	0.2	0.0	0.0	-	-	0.0	0.1
Single-Unit Trucks	6	0	0	-	6	2	10	0	-	12	1	4	0	-	5	23
% Single-Unit Trucks	2.3	0.0	-	-	2.2	2.6	2.2	-	-	2.2	6.3	4.2	-	-	4.5	2.5
Articulated Trucks	1	0	0	-	1	0	0	0	-	0	1	0	0	-	1	2
% Articulated Trucks	0.4	0.0	-	-	0.4	0.0	0.0	-	-	0.0	6.3	0.0	-	-	0.9	0.2
Bicycles on Road	0	0	0	-	0	1	0	0	-	1	0	3	0	-	3	4
% Bicycles on Road	0.0	0.0	-	-	0.0	1.3	0.0	-	-	0.2	0.0	3.1	-	-	2.7	0.4
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Sunset Drive & East Road - Weekday
Site Code: 220316
Start Date: 06/30/2022



Turning Movement Peak Hour Data Plot (11:30 AM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Sunset Drive & East Road - Weekday
Site Code: 220316
Start Date: 06/30/2022

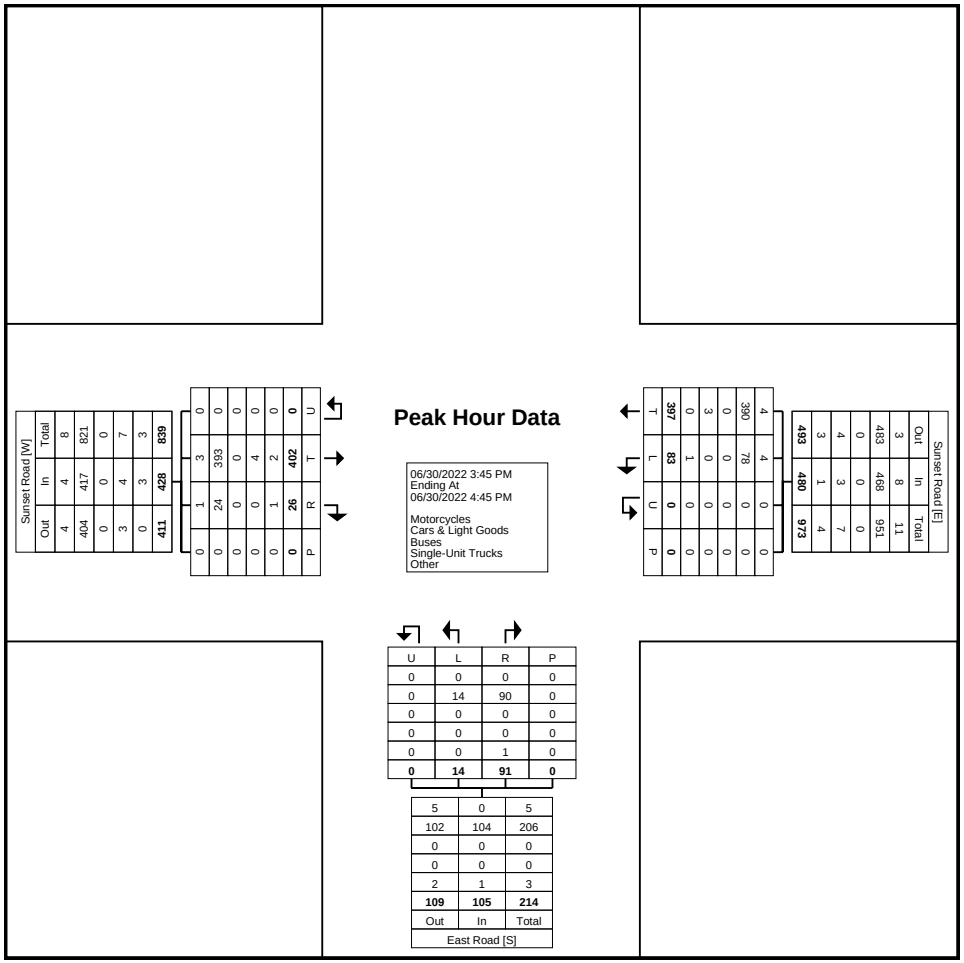
Turning Movement Peak Hour Data (3:45 PM)

Start Time	Sunset Road Eastbound					Sunset Road Westbound					East Road Northbound					
	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	Int. Total
3:45 PM	90	10	0	0	100	18	113	0	0	131	4	20	0	0	24	255
4:00 PM	122	6	0	0	128	19	83	0	0	102	6	25	0	0	31	261
4:15 PM	92	4	0	0	96	20	97	0	0	117	3	22	0	0	25	238
4:30 PM	98	6	0	0	104	26	104	0	0	130	1	24	0	0	25	259
Total	402	26	0	0	428	83	397	0	0	480	14	91	0	0	105	1013
Approach %	93.9	6.1	0.0	-	-	17.3	82.7	0.0	-	-	13.3	86.7	0.0	-	-	-
Total %	39.7	2.6	0.0	-	42.3	8.2	39.2	0.0	-	47.4	1.4	9.0	0.0	-	10.4	-
PHF	0.824	0.650	0.000	-	0.836	0.798	0.878	0.000	-	0.916	0.583	0.910	0.000	-	0.847	0.970
Motorcycles	3	1	0	-	4	4	4	0	-	8	0	0	0	-	0	12
% Motorcycles	0.7	3.8	-	-	0.9	4.8	1.0	-	-	1.7	0.0	0.0	-	-	0.0	1.2
Cars & Light Goods	393	24	0	-	417	78	390	0	-	468	14	90	0	-	104	989
% Cars & Light Goods	97.8	92.3	-	-	97.4	94.0	98.2	-	-	97.5	100.0	98.9	-	-	99.0	97.6
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Single-Unit Trucks	4	0	0	-	4	0	3	0	-	3	0	0	0	-	0	7
% Single-Unit Trucks	1.0	0.0	-	-	0.9	0.0	0.8	-	-	0.6	0.0	0.0	-	-	0.0	0.7
Articulated Trucks	2	0	0	-	2	0	0	0	-	0	0	0	0	-	0	2
% Articulated Trucks	0.5	0.0	-	-	0.5	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.2
Bicycles on Road	0	1	0	-	1	1	0	0	-	1	0	1	0	-	1	3
% Bicycles on Road	0.0	3.8	-	-	0.2	1.2	0.0	-	-	0.2	0.0	1.1	-	-	1.0	0.3
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Sunset Drive & East Road - Weekday
Site Code: 220316
Start Date: 06/30/2022



Turning Movement Peak Hour Data Plot (3:45 PM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Sunset Drive & East Road - Saturday
Site Code: 220316
Start Date: 07/02/2022

Turning Movement Data

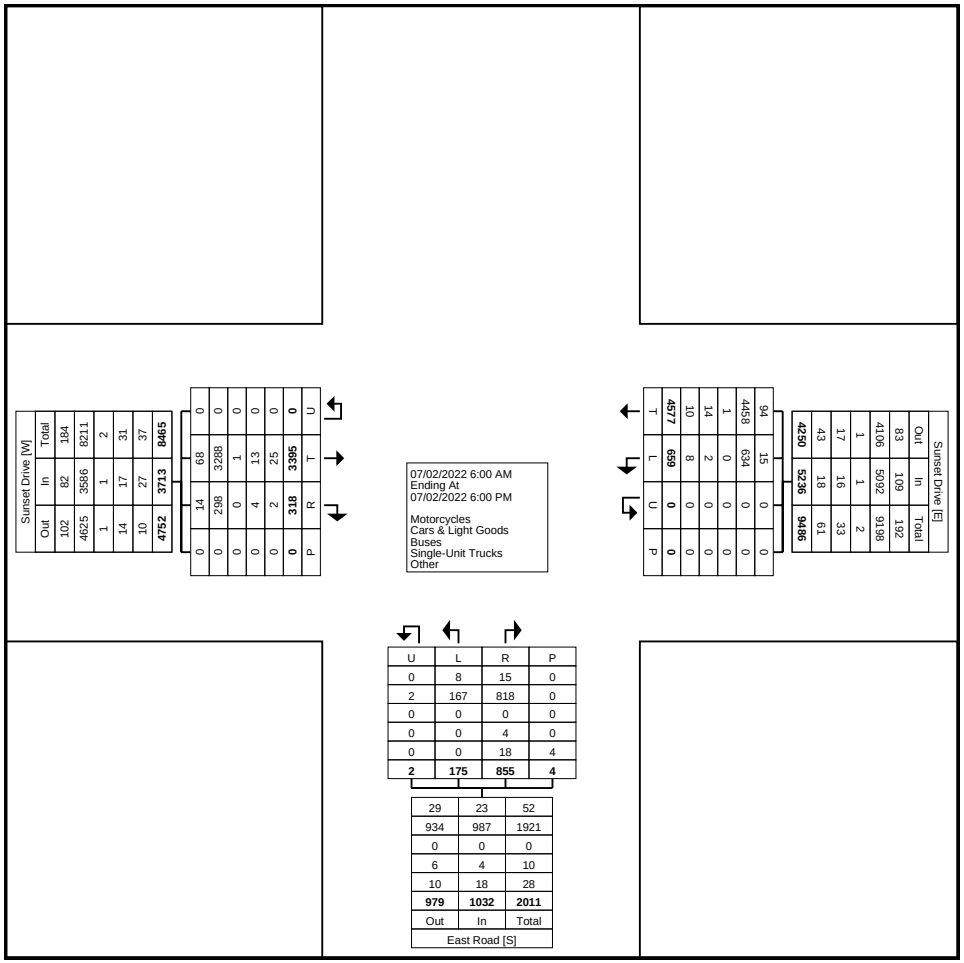
Start Time	Sunset Drive Eastbound					Sunset Drive Westbound					East Road Northbound					
	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	Int. Total
6:00 AM	2	0	0	0	2	1	4	0	0	5	0	7	0	0	7	14
6:15 AM	0	0	0	0	0	0	7	0	0	7	3	8	0	0	11	18
6:30 AM	13	0	0	0	13	2	8	0	0	10	0	4	0	0	4	27
6:45 AM	13	2	0	0	15	2	10	0	0	12	0	4	0	0	4	31
Hourly Total	28	2	0	0	30	5	29	0	0	34	3	23	0	0	26	90
7:00 AM	18	0	0	0	18	1	8	0	0	9	1	1	0	0	2	29
7:15 AM	16	0	0	0	16	2	12	0	0	14	0	9	0	0	9	39
7:30 AM	21	3	0	0	24	2	11	0	0	13	0	6	0	0	6	43
7:45 AM	14	1	0	0	15	3	24	0	0	27	2	11	0	0	13	55
Hourly Total	69	4	0	0	73	8	55	0	0	63	3	27	0	0	30	166
8:00 AM	27	3	0	0	30	2	23	0	0	25	1	9	0	0	10	65
8:15 AM	21	3	0	0	24	8	26	0	0	34	1	19	0	0	20	78
8:30 AM	26	2	0	0	28	5	31	0	0	36	0	19	0	0	19	83
8:45 AM	34	2	0	0	36	6	46	0	0	52	4	14	0	1	18	106
Hourly Total	108	10	0	0	118	21	126	0	0	147	6	61	0	1	67	332
9:00 AM	39	6	0	0	45	13	50	0	0	63	2	11	0	0	13	121
9:15 AM	55	3	0	0	58	5	65	0	0	70	3	12	0	0	15	143
9:30 AM	50	4	0	0	54	9	57	0	0	66	1	22	0	0	23	143
9:45 AM	54	2	0	0	56	9	84	0	0	93	6	12	0	0	18	167
Hourly Total	198	15	0	0	213	36	256	0	0	292	12	57	0	0	69	574
10:00 AM	39	8	0	0	47	17	95	0	0	112	3	22	0	0	25	184
10:15 AM	57	4	0	0	61	17	96	0	0	113	4	18	0	0	22	196
10:30 AM	55	7	0	0	62	18	132	0	0	150	5	20	0	0	25	237
10:45 AM	65	8	0	0	73	17	120	0	0	137	11	18	0	0	29	239
Hourly Total	216	27	0	0	243	69	443	0	0	512	23	78	0	0	101	856
11:00 AM	52	12	0	0	64	19	149	0	0	168	4	17	0	0	21	253
11:15 AM	79	6	0	0	85	16	118	0	0	134	5	15	0	0	20	239
11:30 AM	56	12	0	0	68	26	157	0	0	183	4	17	0	0	21	272
11:45 AM	52	7	0	0	59	21	169	0	0	190	11	17	0	0	28	277
Hourly Total	239	37	0	0	276	82	593	0	0	675	24	66	0	0	90	1041
12:00 PM	48	15	0	0	63	27	161	0	0	188	5	9	0	0	14	265
12:15 PM	70	11	0	0	81	20	160	0	0	180	3	19	0	0	22	283
12:30 PM	60	6	0	0	66	25	158	0	0	183	8	25	0	0	33	282
12:45 PM	80	12	0	0	92	29	183	0	0	212	7	21	0	0	28	332
Hourly Total	258	44	0	0	302	101	662	0	0	763	23	74	0	0	97	1162
1:00 PM	70	20	0	0	90	19	166	0	0	185	7	20	0	1	27	302

1:15 PM	66	6	0	0	72	29	146	0	0	175	3	21	0	0	24	271
1:30 PM	94	7	0	0	101	22	152	0	0	174	4	34	0	0	38	313
1:45 PM	90	6	0	0	96	28	134	0	0	162	4	25	0	0	29	287
Hourly Total	320	39	0	0	359	98	598	0	0	696	18	100	0	1	118	1173
2:00 PM	82	9	0	0	91	21	148	0	0	169	4	22	0	0	26	286
2:15 PM	89	7	0	0	96	18	142	0	0	160	4	27	0	2	31	287
2:30 PM	99	9	0	0	108	17	132	0	0	149	5	18	0	0	23	280
2:45 PM	118	11	0	0	129	14	139	0	0	153	7	31	0	0	38	320
Hourly Total	388	36	0	0	424	70	561	0	0	631	20	98	0	2	118	1173
3:00 PM	105	9	0	0	114	23	132	0	0	155	2	27	0	0	29	298
3:15 PM	144	5	0	0	149	11	126	0	0	137	4	23	1	0	28	314
3:30 PM	93	10	0	0	103	15	124	0	0	139	1	25	1	0	27	269
3:45 PM	130	13	0	0	143	11	106	0	0	117	6	19	0	0	25	285
Hourly Total	472	37	0	0	509	60	488	0	0	548	13	94	2	0	109	1166
4:00 PM	108	13	0	0	121	20	108	0	0	128	5	24	0	0	29	278
4:15 PM	150	9	0	0	159	17	113	0	0	130	4	29	0	0	33	322
4:30 PM	115	10	0	0	125	10	95	0	0	105	4	19	0	0	23	253
4:45 PM	175	10	0	0	185	12	99	0	0	111	3	22	0	0	25	321
Hourly Total	548	42	0	0	590	59	415	0	0	474	16	94	0	0	110	1174
5:00 PM	111	6	0	0	117	11	93	0	0	104	5	23	0	0	28	249
5:15 PM	147	2	0	0	149	9	83	0	0	92	5	25	0	0	30	271
5:30 PM	127	5	0	0	132	22	86	0	0	108	2	17	0	0	19	259
5:45 PM	166	12	0	0	178	8	89	0	0	97	2	18	0	0	20	295
Hourly Total	551	25	0	0	576	50	351	0	0	401	14	83	0	0	97	1074
Grand Total	3395	318	0	0	3713	659	4577	0	0	5236	175	855	2	4	1032	9981
Approach %	91.4	8.6	0.0	-	-	12.6	87.4	0.0	-	-	17.0	82.8	0.2	-	-	-
Total %	34.0	3.2	0.0	-	37.2	6.6	45.9	0.0	-	52.5	1.8	8.6	0.0	-	10.3	-
Motorcycles	68	14	0	-	82	15	94	0	-	109	8	15	0	-	23	214
% Motorcycles	2.0	4.4	-	-	2.2	2.3	2.1	-	-	2.1	4.6	1.8	0.0	-	2.2	2.1
Cars & Light Goods	3288	298	0	-	3586	634	4458	0	-	5092	167	818	2	-	987	9665
% Cars & Light Goods	96.8	93.7	-	-	96.6	96.2	97.4	-	-	97.2	95.4	95.7	100.0	-	95.6	96.8
Buses	1	0	0	-	1	0	1	0	-	1	0	0	0	-	0	2
% Buses	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	13	4	0	-	17	2	14	0	-	16	0	4	0	-	4	37
% Single-Unit Trucks	0.4	1.3	-	-	0.5	0.3	0.3	-	-	0.3	0.0	0.5	0.0	-	0.4	0.4
Articulated Trucks	2	0	0	-	2	0	3	0	-	3	0	0	0	-	0	5
% Articulated Trucks	0.1	0.0	-	-	0.1	0.0	0.1	-	-	0.1	0.0	0.0	0.0	-	0.0	0.1
Bicycles on Road	23	2	0	-	25	8	7	0	-	15	0	18	0	-	18	58
% Bicycles on Road	0.7	0.6	-	-	0.7	1.2	0.2	-	-	0.3	0.0	2.1	0.0	-	1.7	0.6
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	1	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	25.0	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	3	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	75.0	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Sunset Drive & East Road - Saturday
Site Code: 220316
Start Date: 07/02/2022



Turning Movement Data Plot

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Sunset Drive & East Road - Saturday
Site Code: 220316
Start Date: 07/02/2022

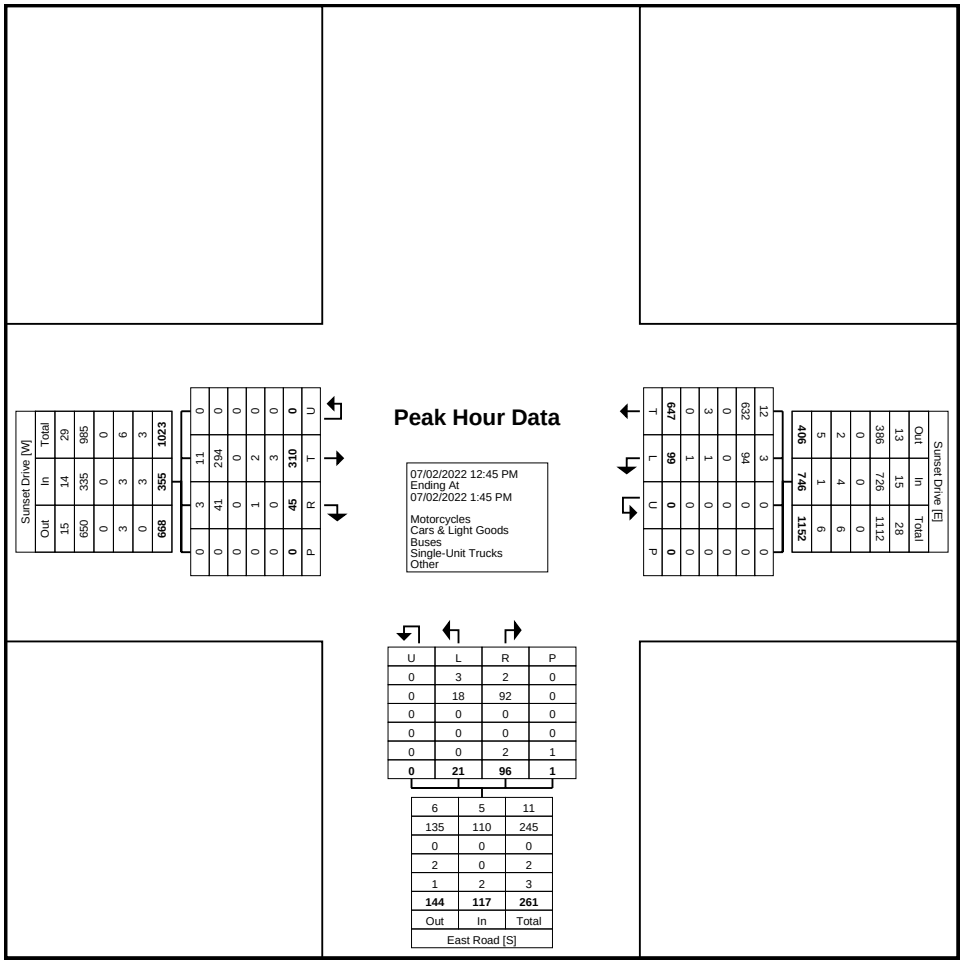
Turning Movement Peak Hour Data (12:45 PM)

Start Time	Sunset Drive Eastbound					Sunset Drive Westbound					East Road Northbound					
	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	Int. Total
12:45 PM	80	12	0	0	92	29	183	0	0	212	7	21	0	0	28	332
1:00 PM	70	20	0	0	90	19	166	0	0	185	7	20	0	1	27	302
1:15 PM	66	6	0	0	72	29	146	0	0	175	3	21	0	0	24	271
1:30 PM	94	7	0	0	101	22	152	0	0	174	4	34	0	0	38	313
Total	310	45	0	0	355	99	647	0	0	746	21	96	0	1	117	1218
Approach %	87.3	12.7	0.0	-	-	13.3	86.7	0.0	-	-	17.9	82.1	0.0	-	-	-
Total %	25.5	3.7	0.0	-	29.1	8.1	53.1	0.0	-	61.2	1.7	7.9	0.0	-	9.6	-
PHF	0.824	0.563	0.000	-	0.879	0.853	0.884	0.000	-	0.880	0.750	0.706	0.000	-	0.770	0.917
Motorcycles	11	3	0	-	14	3	12	0	-	15	3	2	0	-	5	34
% Motorcycles	3.5	6.7	-	-	3.9	3.0	1.9	-	-	2.0	14.3	2.1	-	-	4.3	2.8
Cars & Light Goods	294	41	0	-	335	94	632	0	-	726	18	92	0	-	110	1171
% Cars & Light Goods	94.8	91.1	-	-	94.4	94.9	97.7	-	-	97.3	85.7	95.8	-	-	94.0	96.1
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Single-Unit Trucks	2	1	0	-	3	1	3	0	-	4	0	0	0	-	0	7
% Single-Unit Trucks	0.6	2.2	-	-	0.8	1.0	0.5	-	-	0.5	0.0	0.0	-	-	0.0	0.6
Articulated Trucks	1	0	0	-	1	0	0	0	-	0	0	0	0	-	0	1
% Articulated Trucks	0.3	0.0	-	-	0.3	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.1
Bicycles on Road	2	0	0	-	2	1	0	0	-	1	0	2	0	-	2	5
% Bicycles on Road	0.6	0.0	-	-	0.6	1.0	0.0	-	-	0.1	0.0	2.1	-	-	1.7	0.4
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	1	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Sunset Drive & East Road - Saturday
Site Code: 220316
Start Date: 07/02/2022



Turning Movement Peak Hour Data Plot (12:45 PM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Shell Driveway East - Weekday
Site Code: 220316
Start Date: 06/30/2022

Turning Movement Data

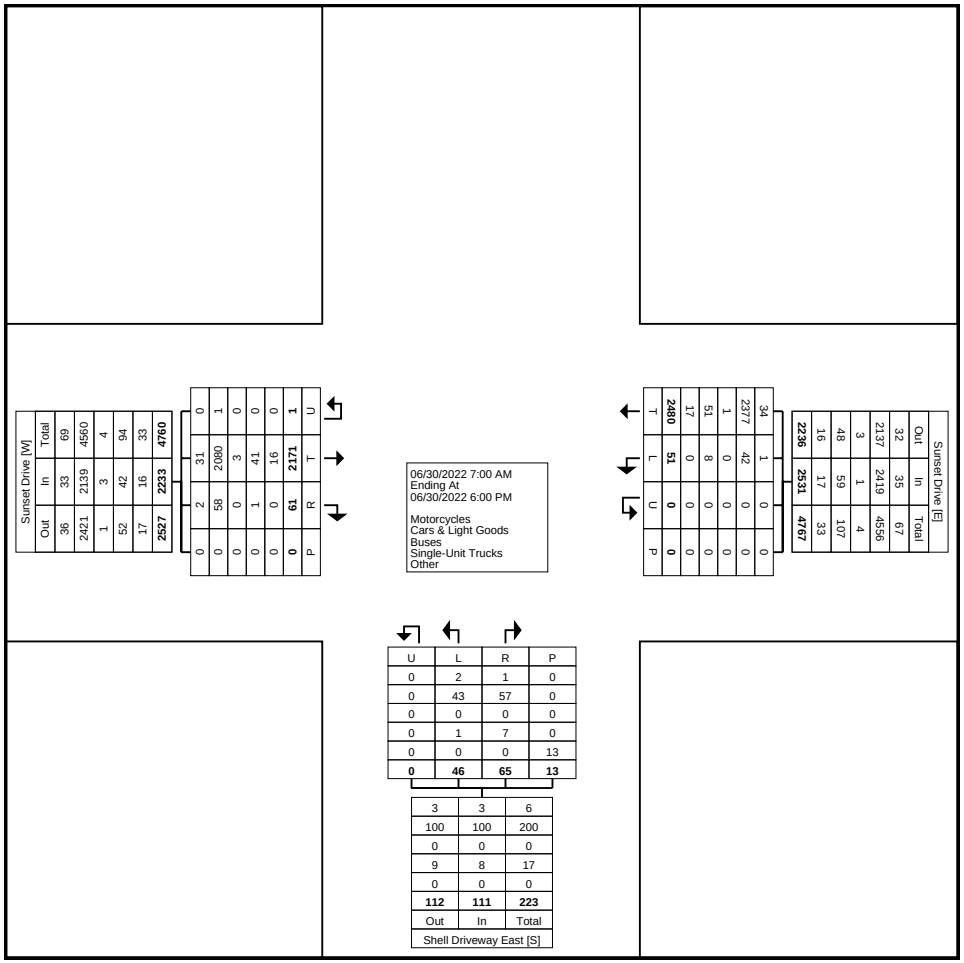
Start Time	Sunset Drive Eastbound					Sunset Drive Westbound					Shell Driveway East Northbound					Int. Total
	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	
7:00 AM	30	0	0	0	30	2	15	0	0	17	0	2	0	0	2	49
7:15 AM	37	0	0	0	37	0	21	0	0	21	0	3	0	0	3	61
7:30 AM	42	1	0	0	43	4	23	0	0	27	0	2	0	0	2	72
7:45 AM	29	4	0	0	33	2	24	0	0	26	5	1	0	1	6	65
Hourly Total	138	5	0	0	143	8	83	0	0	91	5	8	0	1	13	247
8:00 AM	24	5	0	0	29	1	32	0	0	33	2	4	0	0	6	68
8:15 AM	41	2	0	0	43	1	42	0	0	43	0	1	0	2	1	87
8:30 AM	39	1	0	0	40	2	40	0	0	42	4	0	0	2	4	86
8:45 AM	44	3	0	0	47	4	58	0	0	62	3	3	0	0	6	115
Hourly Total	148	11	0	0	159	8	172	0	0	180	9	8	0	4	17	356
9:00 AM	48	3	0	0	51	3	60	0	0	63	1	5	0	0	6	120
9:15 AM	47	0	0	0	47	1	43	0	0	44	1	1	0	0	2	93
9:30 AM	54	4	0	0	58	2	72	0	0	74	3	4	0	0	7	139
9:45 AM	51	2	0	0	53	3	70	0	0	73	1	1	0	0	2	128
Hourly Total	200	9	0	0	209	9	245	0	0	254	6	11	0	0	17	480
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00 AM	64	5	0	0	69	4	104	0	0	108	2	8	0	0	10	187
11:15 AM	52	3	0	0	55	1	93	0	0	94	3	2	0	0	5	154
11:30 AM	61	5	0	0	66	1	122	0	0	123	2	5	0	0	7	196
11:45 AM	60	4	0	0	64	1	113	0	0	114	4	3	0	0	7	185
Hourly Total	237	17	0	0	254	7	432	0	0	439	11	18	0	0	29	722
12:00 PM	71	10	0	0	81	5	113	0	0	118	2	5	0	0	7	206
12:15 PM	67	4	0	0	71	6	114	0	0	120	6	10	0	0	16	207
12:30 PM	69	2	0	0	71	2	87	0	0	89	3	3	0	0	6	166
12:45 PM	71	1	0	0	72	4	89	0	0	93	3	0	0	0	3	168
Hourly Total	278	17	0	0	295	17	403	0	0	420	14	18	0	0	32	747
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	104	1	0	0	105	0	89	0	0	89	1	1	0	4	2	196
3:15 PM	101	0	0	0	101	1	83	0	0	84	0	0	0	1	0	185
3:30 PM	104	1	1	0	106	0	93	0	0	93	0	0	0	0	0	199
3:45 PM	103	0	0	0	103	0	118	0	0	118	0	0	0	0	0	221
Hourly Total	412	2	1	0	415	1	383	0	0	384	1	1	0	5	2	801
4:00 PM	129	0	0	0	129	0	88	0	0	88	0	0	0	0	0	217
4:15 PM	95	0	0	0	95	1	101	0	0	102	0	0	0	2	0	197
4:30 PM	103	0	0	0	103	0	102	0	0	102	0	0	0	0	0	205
4:45 PM	92	0	0	0	92	0	94	0	0	94	0	1	0	1	1	187

Hourly Total	419	0	0	0	419	1	385	0	0	386	0	1	0	3	1	806
5:00 PM	106	0	0	0	106	0	93	0	0	93	0	0	0	0	0	199
5:15 PM	74	0	0	0	74	0	103	0	0	103	0	0	0	0	0	177
5:30 PM	89	0	0	0	89	0	82	0	0	82	0	0	0	0	0	171
5:45 PM	70	0	0	0	70	0	99	0	0	99	0	0	0	0	0	169
Hourly Total	339	0	0	0	339	0	377	0	0	377	0	0	0	0	0	716
Grand Total	2171	61	1	0	2233	51	2480	0	0	2531	46	65	0	13	111	4875
Approach %	97.2	2.7	0.0	-	-	2.0	98.0	0.0	-	-	41.4	58.6	0.0	-	-	-
Total %	44.5	1.3	0.0	-	45.8	1.0	50.9	0.0	-	51.9	0.9	1.3	0.0	-	2.3	-
Motorcycles	31	2	0	-	33	1	34	0	-	35	2	1	0	-	3	71
% Motorcycles	1.4	3.3	0.0	-	1.5	2.0	1.4	-	-	1.4	4.3	1.5	-	-	2.7	1.5
Cars & Light Goods	2080	58	1	-	2139	42	2377	0	-	2419	43	57	0	-	100	4658
% Cars & Light Goods	95.8	95.1	100.0	-	95.8	82.4	95.8	-	-	95.6	93.5	87.7	-	-	90.1	95.5
Buses	3	0	0	-	3	0	1	0	-	1	0	0	0	-	0	4
% Buses	0.1	0.0	0.0	-	0.1	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.1
Single-Unit Trucks	41	1	0	-	42	8	51	0	-	59	1	7	0	-	8	109
% Single-Unit Trucks	1.9	1.6	0.0	-	1.9	15.7	2.1	-	-	2.3	2.2	10.8	-	-	7.2	2.2
Articulated Trucks	7	0	0	-	7	0	10	0	-	10	0	0	0	-	0	17
% Articulated Trucks	0.3	0.0	0.0	-	0.3	0.0	0.4	-	-	0.4	0.0	0.0	-	-	0.0	0.3
Bicycles on Road	9	0	0	-	9	0	7	0	-	7	0	0	0	-	0	16
% Bicycles on Road	0.4	0.0	0.0	-	0.4	0.0	0.3	-	-	0.3	0.0	0.0	-	-	0.0	0.3
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	13	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Shell Driveway East - Weekday
Site Code: 220316
Start Date: 06/30/2022



Turning Movement Data Plot

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Shell Driveway East - Weekday
Site Code: 220316
Start Date: 06/30/2022

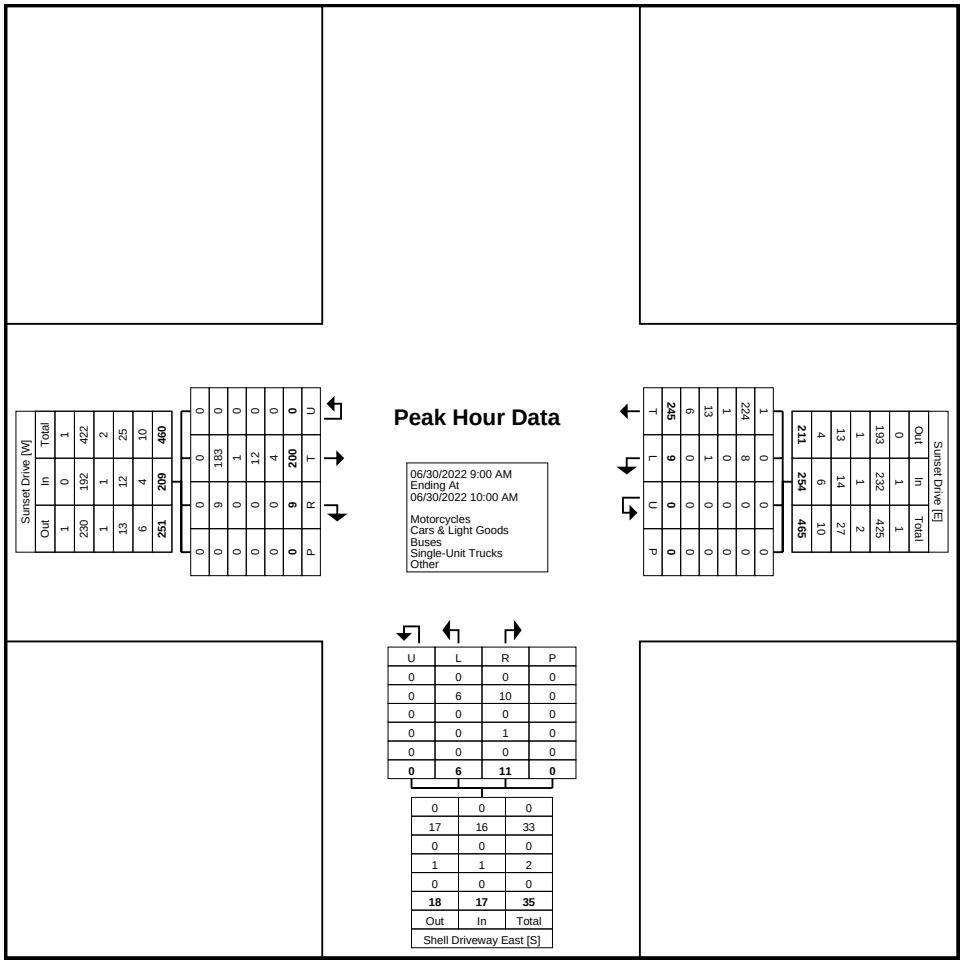
Turning Movement Peak Hour Data (9:00 AM)

Start Time	Sunset Drive Eastbound					Sunset Drive Westbound					Shell Driveway East Northbound					
	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	Int. Total
9:00 AM	48	3	0	0	51	3	60	0	0	63	1	5	0	0	6	120
9:15 AM	47	0	0	0	47	1	43	0	0	44	1	1	0	0	2	93
9:30 AM	54	4	0	0	58	2	72	0	0	74	3	4	0	0	7	139
9:45 AM	51	2	0	0	53	3	70	0	0	73	1	1	0	0	2	128
Total	200	9	0	0	209	9	245	0	0	254	6	11	0	0	17	480
Approach %	95.7	4.3	0.0	-	-	3.5	96.5	0.0	-	-	35.3	64.7	0.0	-	-	-
Total %	41.7	1.9	0.0	-	43.5	1.9	51.0	0.0	-	52.9	1.3	2.3	0.0	-	3.5	-
PHF	0.926	0.563	0.000	-	0.901	0.750	0.851	0.000	-	0.858	0.500	0.550	0.000	-	0.607	0.863
Motorcycles	0	0	0	-	0	0	1	0	-	1	0	0	0	-	0	1
% Motorcycles	0.0	0.0	-	-	0.0	0.0	0.4	-	-	0.4	0.0	0.0	-	-	0.0	0.2
Cars & Light Goods	183	9	0	-	192	8	224	0	-	232	6	10	0	-	16	440
% Cars & Light Goods	91.5	100.0	-	-	91.9	88.9	91.4	-	-	91.3	100.0	90.9	-	-	94.1	91.7
Buses	1	0	0	-	1	0	1	0	-	1	0	0	0	-	0	2
% Buses	0.5	0.0	-	-	0.5	0.0	0.4	-	-	0.4	0.0	0.0	-	-	0.0	0.4
Single-Unit Trucks	12	0	0	-	12	1	13	0	-	14	0	1	0	-	1	27
% Single-Unit Trucks	6.0	0.0	-	-	5.7	11.1	5.3	-	-	5.5	0.0	9.1	-	-	5.9	5.6
Articulated Trucks	3	0	0	-	3	0	2	0	-	2	0	0	0	-	0	5
% Articulated Trucks	1.5	0.0	-	-	1.4	0.0	0.8	-	-	0.8	0.0	0.0	-	-	0.0	1.0
Bicycles on Road	1	0	0	-	1	0	4	0	-	4	0	0	0	-	0	5
% Bicycles on Road	0.5	0.0	-	-	0.5	0.0	1.6	-	-	1.6	0.0	0.0	-	-	0.0	1.0
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Shell Driveway East - Weekday
Site Code: 220316
Start Date: 06/30/2022



Turning Movement Peak Hour Data Plot (9:00 AM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Shell Driveway East - Weekday
Site Code: 220316
Start Date: 06/30/2022

Turning Movement Peak Hour Data (11:30 AM)

Start Time	Sunset Drive Eastbound					Sunset Drive Westbound					Shell Driveway East Northbound					
	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	Int. Total
11:30 AM	61	5	0	0	66	1	122	0	0	123	2	5	0	0	7	196
11:45 AM	60	4	0	0	64	1	113	0	0	114	4	3	0	0	7	185
12:00 PM	71	10	0	0	81	5	113	0	0	118	2	5	0	0	7	206
12:15 PM	67	4	0	0	71	6	114	0	0	120	6	10	0	0	16	207
Total	259	23	0	0	282	13	462	0	0	475	14	23	0	0	37	794
Approach %	91.8	8.2	0.0	-	-	2.7	97.3	0.0	-	-	37.8	62.2	0.0	-	-	-
Total %	32.6	2.9	0.0	-	35.5	1.6	58.2	0.0	-	59.8	1.8	2.9	0.0	-	4.7	-
PHF	0.912	0.575	0.000	-	0.870	0.542	0.947	0.000	-	0.965	0.583	0.575	0.000	-	0.578	0.959
Motorcycles	6	0	0	-	6	0	4	0	-	4	0	1	0	-	1	11
% Motorcycles	2.3	0.0	-	-	2.1	0.0	0.9	-	-	0.8	0.0	4.3	-	-	2.7	1.4
Cars & Light Goods	248	23	0	-	271	10	450	0	-	460	14	19	0	-	33	764
% Cars & Light Goods	95.8	100.0	-	-	96.1	76.9	97.4	-	-	96.8	100.0	82.6	-	-	89.2	96.2
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Single-Unit Trucks	4	0	0	-	4	3	7	0	-	10	0	3	0	-	3	17
% Single-Unit Trucks	1.5	0.0	-	-	1.4	23.1	1.5	-	-	2.1	0.0	13.0	-	-	8.1	2.1
Articulated Trucks	1	0	0	-	1	0	1	0	-	1	0	0	0	-	0	2
% Articulated Trucks	0.4	0.0	-	-	0.4	0.0	0.2	-	-	0.2	0.0	0.0	-	-	0.0	0.3
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
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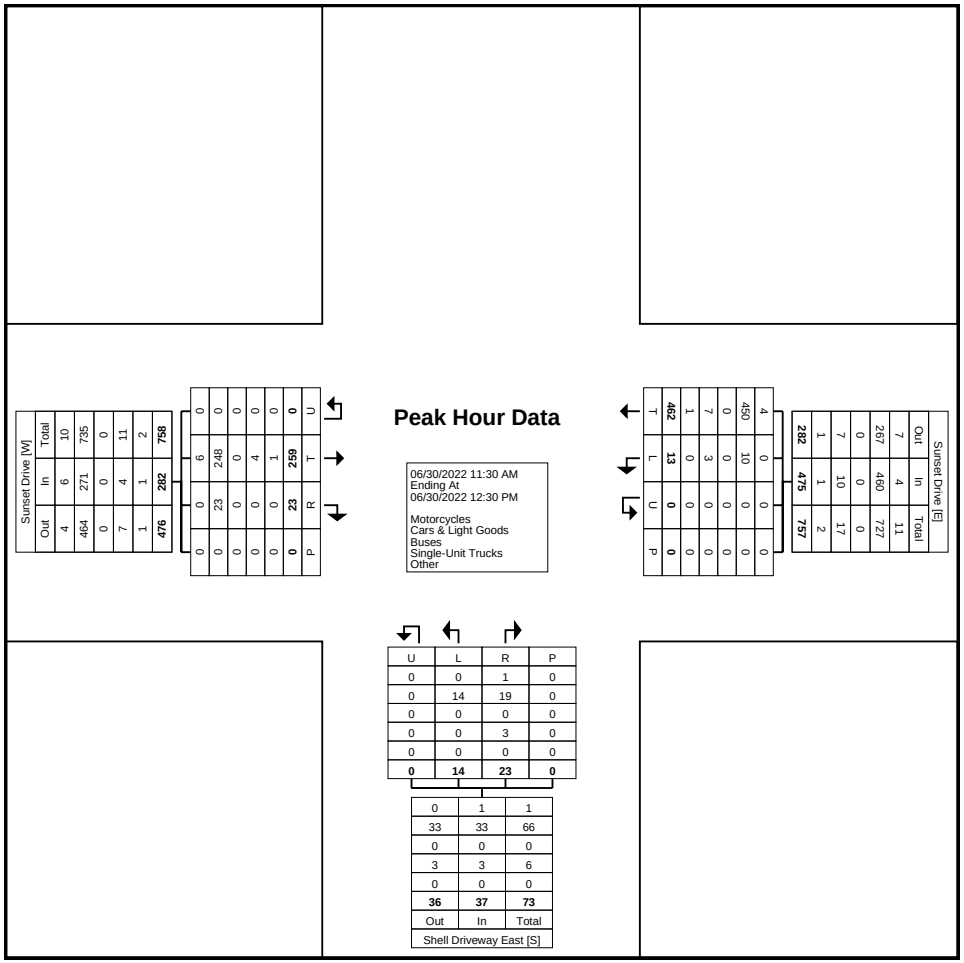
Count Name: Shell Driveway East - Weekday
Site Code: 220316
Start Date: 06/30/2022



U	L	R	P
0	0	1	0
0	14	19	0
0	0	0	0
0	0	3	0
0	0	0	0
0	**14**	**23**	**0**

0	1	1
33	33	66
0	0	0
3	3	6
0	0	0
36	**37**	**73**
Out	In	Total

Turning Movement Peak Hour Data Plot (11:30 AM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Shell Driveway East - Weekday
Site Code: 220316
Start Date: 06/30/2022

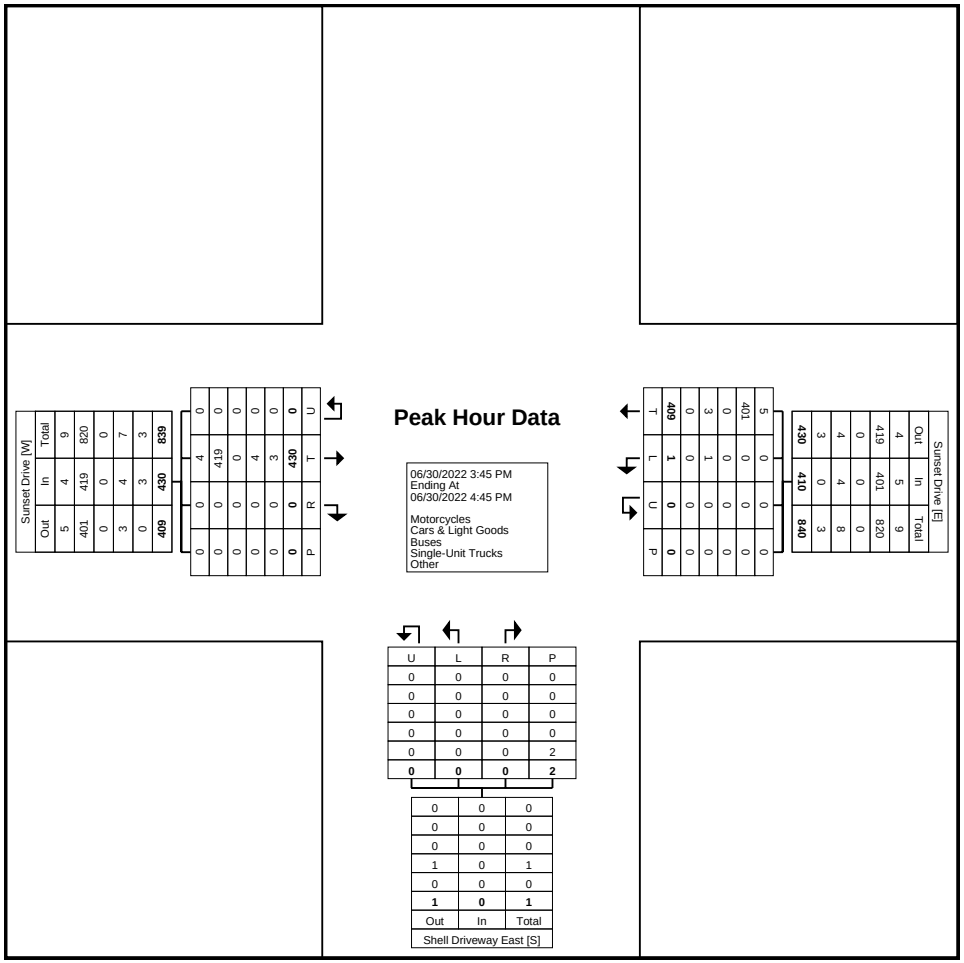
Turning Movement Peak Hour Data (3:45 PM)

Start Time	Sunset Drive Eastbound					Sunset Drive Westbound					Shell Driveway East Northbound					
	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	Int. Total
3:45 PM	103	0	0	0	103	0	118	0	0	118	0	0	0	0	0	221
4:00 PM	129	0	0	0	129	0	88	0	0	88	0	0	0	0	0	217
4:15 PM	95	0	0	0	95	1	101	0	0	102	0	0	0	2	0	197
4:30 PM	103	0	0	0	103	0	102	0	0	102	0	0	0	0	0	205
Total	430	0	0	0	430	1	409	0	0	410	0	0	0	2	0	840
Approach %	100.0	0.0	0.0	-	-	0.2	99.8	0.0	-	-	0.0	0.0	0.0	-	-	-
Total %	51.2	0.0	0.0	-	51.2	0.1	48.7	0.0	-	48.8	0.0	0.0	0.0	-	0.0	-
PHF	0.833	0.000	0.000	-	0.833	0.250	0.867	0.000	-	0.869	0.000	0.000	0.000	-	0.000	0.950
Motorcycles	4	0	0	-	4	0	5	0	-	5	0	0	0	-	0	9
% Motorcycles	0.9	-	-	-	0.9	0.0	1.2	-	-	1.2	-	-	-	-	-	1.1
Cars & Light Goods	419	0	0	-	419	0	401	0	-	401	0	0	0	-	0	820
% Cars & Light Goods	97.4	-	-	-	97.4	0.0	98.0	-	-	97.8	-	-	-	-	-	97.6
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	0.0	-	-	-	0.0	0.0	0.0	-	-	0.0	-	-	-	-	-	0.0
Single-Unit Trucks	4	0	0	-	4	1	3	0	-	4	0	0	0	-	0	8
% Single-Unit Trucks	0.9	-	-	-	0.9	100.0	0.7	-	-	1.0	-	-	-	-	-	1.0
Articulated Trucks	2	0	0	-	2	0	0	0	-	0	0	0	0	-	0	2
% Articulated Trucks	0.5	-	-	-	0.5	0.0	0.0	-	-	0.0	-	-	-	-	-	0.2
Bicycles on Road	1	0	0	-	1	0	0	0	-	0	0	0	0	-	0	1
% Bicycles on Road	0.2	-	-	-	0.2	0.0	0.0	-	-	0.0	-	-	-	-	-	0.1
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Shell Driveway East - Weekday
Site Code: 220316
Start Date: 06/30/2022



Turning Movement Peak Hour Data Plot (3:45 PM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Shell Driveway East - Saturday
Site Code: 220316
Start Date: 07/02/2022

Turning Movement Data

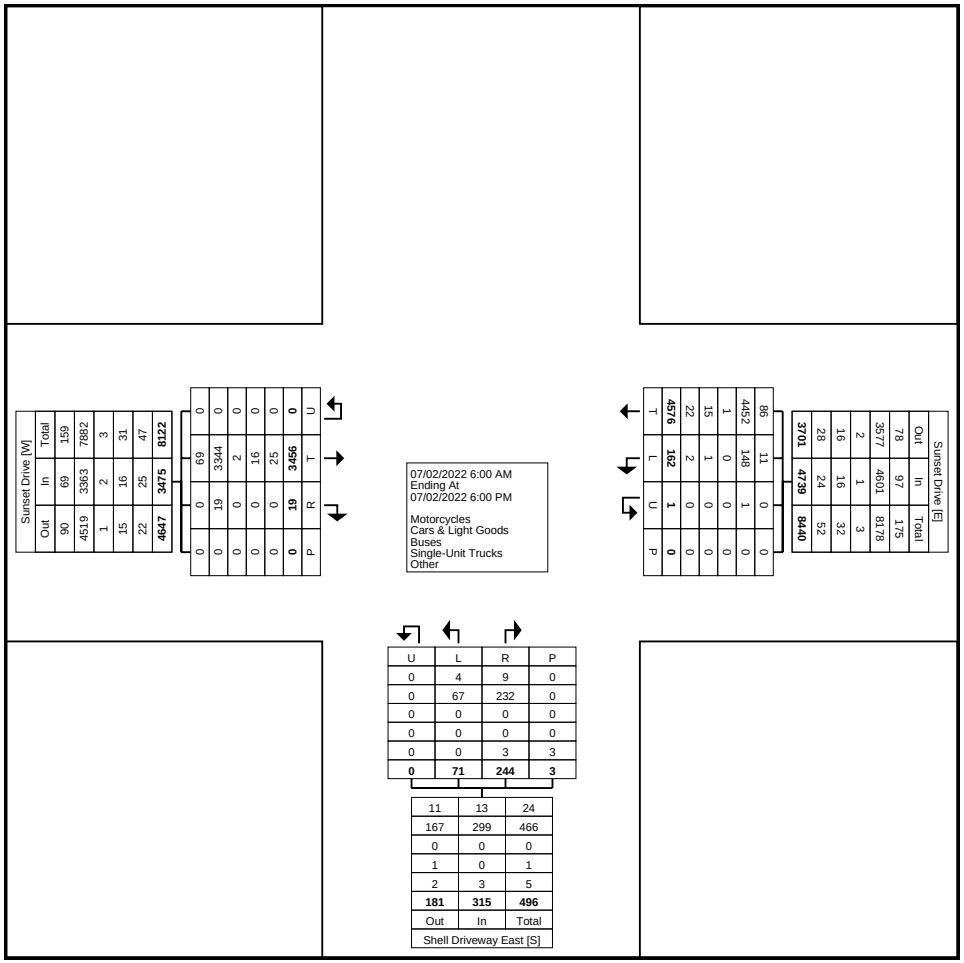
Start Time	Sunset Drive Eastbound					Sunset Drive Westbound					Shell Driveway East Northbound					Int. Total
	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	
6:00 AM	2	0	0	0	2	0	5	0	0	5	1	0	0	0	1	8
6:15 AM	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	10
6:30 AM	14	0	0	0	14	1	7	0	0	8	0	0	0	0	0	22
6:45 AM	15	0	0	0	15	0	12	0	0	12	0	0	0	0	0	27
Hourly Total	31	0	0	0	31	1	34	0	0	35	1	0	0	0	1	67
7:00 AM	16	0	0	0	16	0	9	0	0	9	0	2	0	0	2	27
7:15 AM	15	0	0	0	15	0	12	0	0	12	0	0	0	0	0	27
7:30 AM	22	0	0	0	22	1	10	0	0	11	0	2	0	0	2	35
7:45 AM	15	0	0	0	15	2	23	0	0	25	0	0	0	0	0	40
Hourly Total	68	0	0	0	68	3	54	0	0	57	0	4	0	0	4	129
8:00 AM	28	0	0	0	28	2	21	0	0	23	0	3	0	0	3	54
8:15 AM	22	1	0	0	23	2	22	0	0	24	1	1	0	1	2	49
8:30 AM	26	0	0	0	26	0	32	0	0	32	0	2	0	0	2	60
8:45 AM	33	0	0	0	33	2	42	0	0	44	0	4	0	0	4	81
Hourly Total	109	1	0	0	110	6	117	0	0	123	1	10	0	1	11	244
9:00 AM	44	0	0	0	44	2	50	0	0	52	1	1	0	0	2	98
9:15 AM	53	0	0	0	53	2	66	0	0	68	1	4	0	0	5	126
9:30 AM	45	0	0	0	45	2	55	0	0	57	1	7	0	0	8	110
9:45 AM	53	0	0	0	53	4	90	0	0	94	0	6	0	0	6	153
Hourly Total	195	0	0	0	195	10	261	0	0	271	3	18	0	0	21	487
10:00 AM	39	0	0	0	39	7	90	0	0	97	2	6	0	1	8	144
10:15 AM	51	0	0	0	51	10	91	0	0	101	0	5	0	0	5	157
10:30 AM	55	0	0	0	55	3	126	0	0	129	0	5	0	0	5	189
10:45 AM	63	0	0	0	63	2	132	0	0	134	5	5	0	0	10	207
Hourly Total	208	0	0	0	208	22	439	0	0	461	7	21	0	1	28	697
11:00 AM	57	0	0	0	57	3	144	0	0	147	4	7	0	0	11	215
11:15 AM	77	0	0	0	77	4	117	0	0	121	1	8	0	0	9	207
11:30 AM	65	0	0	0	65	2	160	0	0	162	0	5	0	0	5	232
11:45 AM	53	0	0	0	53	7	173	0	0	180	5	5	0	0	10	243
Hourly Total	252	0	0	0	252	16	594	0	0	610	10	25	0	0	35	897
12:00 PM	55	0	0	0	55	7	165	1	0	173	2	7	0	0	9	237
12:15 PM	82	0	0	0	82	2	162	0	0	164	1	1	0	1	2	248
12:30 PM	67	1	0	0	68	7	164	0	0	171	1	2	0	0	3	242
12:45 PM	84	1	0	0	85	7	184	0	0	191	4	6	0	0	10	286
Hourly Total	288	2	0	0	290	23	675	1	0	699	8	16	0	1	24	1013
1:00 PM	88	0	0	0	88	6	170	0	0	176	3	4	0	0	7	271

1:15 PM	65	0	0	0	65	8	139	0	0	147	4	8	0	0	12	224
1:30 PM	85	0	0	0	85	7	152	0	0	159	1	9	0	0	10	254
1:45 PM	96	1	0	0	97	4	136	0	0	140	5	4	0	0	9	246
Hourly Total	334	1	0	0	335	25	597	0	0	622	13	25	0	0	38	995
2:00 PM	88	1	0	0	89	8	139	0	0	147	3	6	0	0	9	245
2:15 PM	92	0	0	0	92	1	140	0	0	141	2	5	0	0	7	240
2:30 PM	93	2	0	0	95	2	139	0	0	141	0	11	0	0	11	247
2:45 PM	121	1	0	0	122	5	132	0	0	137	2	9	0	0	11	270
Hourly Total	394	4	0	0	398	16	550	0	0	566	7	31	0	0	38	1002
3:00 PM	104	0	0	0	104	6	136	0	0	142	2	4	0	0	6	252
3:15 PM	145	0	0	0	145	6	123	0	0	129	3	7	0	0	10	284
3:30 PM	96	1	0	0	97	1	120	0	0	121	2	6	0	0	8	226
3:45 PM	136	2	0	0	138	3	112	0	0	115	1	9	0	0	10	263
Hourly Total	481	3	0	0	484	16	491	0	0	507	8	26	0	0	34	1025
4:00 PM	115	0	0	0	115	5	103	0	0	108	1	8	0	0	9	232
4:15 PM	153	0	0	0	153	3	114	0	0	117	0	7	0	0	7	277
4:30 PM	110	0	0	0	110	3	100	0	0	103	3	10	0	0	13	226
4:45 PM	176	0	0	0	176	8	91	0	0	99	0	7	0	0	7	282
Hourly Total	554	0	0	0	554	19	408	0	0	427	4	32	0	0	36	1017
5:00 PM	108	2	0	0	110	1	95	0	0	96	3	8	0	0	11	217
5:15 PM	141	2	0	0	143	2	93	0	0	95	1	10	0	0	11	249
5:30 PM	124	1	0	0	125	0	85	0	0	85	2	6	0	0	8	218
5:45 PM	169	3	0	0	172	2	83	0	0	85	3	12	0	0	15	272
Hourly Total	542	8	0	0	550	5	356	0	0	361	9	36	0	0	45	956
Grand Total	3456	19	0	0	3475	162	4576	1	0	4739	71	244	0	3	315	8529
Approach %	99.5	0.5	0.0	-	-	3.4	96.6	0.0	-	-	22.5	77.5	0.0	-	-	-
Total %	40.5	0.2	0.0	-	40.7	1.9	53.7	0.0	-	55.6	0.8	2.9	0.0	-	3.7	-
Motorcycles	69	0	0	-	69	11	86	0	-	97	4	9	0	-	13	179
% Motorcycles	2.0	0.0	-	-	2.0	6.8	1.9	0.0	-	2.0	5.6	3.7	-	-	4.1	2.1
Cars & Light Goods	3344	19	0	-	3363	148	4452	1	-	4601	67	232	0	-	299	8263
% Cars & Light Goods	96.8	100.0	-	-	96.8	91.4	97.3	100.0	-	97.1	94.4	95.1	-	-	94.9	96.9
Buses	2	0	0	-	2	0	1	0	-	1	0	0	0	-	0	3
% Buses	0.1	0.0	-	-	0.1	0.0	0.0	0.0	-	0.0	0.0	0.0	-	-	0.0	0.0
Single-Unit Trucks	16	0	0	-	16	1	15	0	-	16	0	0	0	-	0	32
% Single-Unit Trucks	0.5	0.0	-	-	0.5	0.6	0.3	0.0	-	0.3	0.0	0.0	-	-	0.0	0.4
Articulated Trucks	1	0	0	-	1	0	1	0	-	1	0	0	0	-	0	2
% Articulated Trucks	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Road	24	0	0	-	24	2	21	0	-	23	0	3	0	-	3	50
% Bicycles on Road	0.7	0.0	-	-	0.7	1.2	0.5	0.0	-	0.5	0.0	1.2	-	-	1.0	0.6
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	3	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Shell Driveway East - Saturday
Site Code: 220316
Start Date: 07/02/2022



Sunset Drive [W]	U	T	R	P
Total	0	69	19	0
In	0	3344	0	0
Out	0	2	0	0
159	0	16	0	0
7882	0	25	0	0
3	**0**	**3456**	0	**0**
31	0	16	0	0
47	0	25	0	0
8122	**0**	**3475**	**19**	**0**

T	L	U	P
4576	**162**	**1**	**0**
22	2	0	0
15	1	0	0
1	0	0	0
4452	148	1	0
86	11	0	0

Sunset Drive [E]	Out	In	Total
3701	78	97	175
28	16	16	32
16	2	1	3
24	3577	4601	8178
4739	**3677**	**4714**	**8391**

U	L	R	P
0	4	9	0
0	67	232	0
0	0	0	0
0	0	0	0
0	0	3	3
0	**71**	**244**	**3**

11	13	24
167	299	466
0	0	0
1	0	1
2	3	5
181	**315**	**496**
Out	In	Total
Shell Driveway East [S]		

Turning Movement Data Plot

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Shell Driveway East - Saturday
Site Code: 220316
Start Date: 07/02/2022

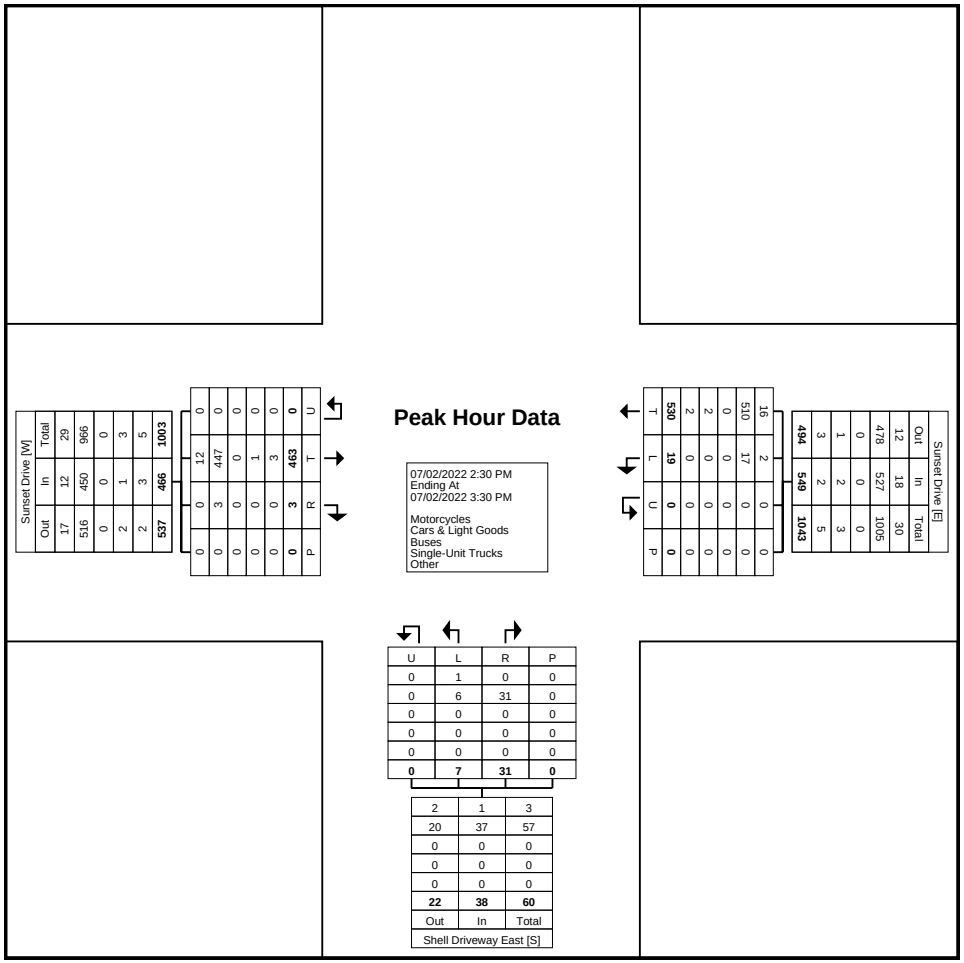
Turning Movement Peak Hour Data (2:30 PM)

Start Time	Sunset Drive Eastbound					Sunset Drive Westbound					Shell Driveway East Northbound					
	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	Int. Total
2:30 PM	93	2	0	0	95	2	139	0	0	141	0	11	0	0	11	247
2:45 PM	121	1	0	0	122	5	132	0	0	137	2	9	0	0	11	270
3:00 PM	104	0	0	0	104	6	136	0	0	142	2	4	0	0	6	252
3:15 PM	145	0	0	0	145	6	123	0	0	129	3	7	0	0	10	284
Total	463	3	0	0	466	19	530	0	0	549	7	31	0	0	38	1053
Approach %	99.4	0.6	0.0	-	-	3.5	96.5	0.0	-	-	18.4	81.6	0.0	-	-	-
Total %	44.0	0.3	0.0	-	44.3	1.8	50.3	0.0	-	52.1	0.7	2.9	0.0	-	3.6	-
PHF	0.798	0.375	0.000	-	0.803	0.792	0.953	0.000	-	0.967	0.583	0.705	0.000	-	0.864	0.927
Motorcycles	12	0	0	-	12	2	16	0	-	18	1	0	0	-	1	31
% Motorcycles	2.6	0.0	-	-	2.6	10.5	3.0	-	-	3.3	14.3	0.0	-	-	2.6	2.9
Cars & Light Goods	447	3	0	-	450	17	510	0	-	527	6	31	0	-	37	1014
% Cars & Light Goods	96.5	100.0	-	-	96.6	89.5	96.2	-	-	96.0	85.7	100.0	-	-	97.4	96.3
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Single-Unit Trucks	1	0	0	-	1	0	2	0	-	2	0	0	0	-	0	3
% Single-Unit Trucks	0.2	0.0	-	-	0.2	0.0	0.4	-	-	0.4	0.0	0.0	-	-	0.0	0.3
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Articulated Trucks	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Road	3	0	0	-	3	0	2	0	-	2	0	0	0	-	0	5
% Bicycles on Road	0.6	0.0	-	-	0.6	0.0	0.4	-	-	0.4	0.0	0.0	-	-	0.0	0.5
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Shell Driveway East - Saturday
Site Code: 220316
Start Date: 07/02/2022



Turning Movement Peak Hour Data Plot (2:30 PM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Shell Driveway West - Weekday
Site Code: 220316
Start Date: 06/30/2022

Turning Movement Data

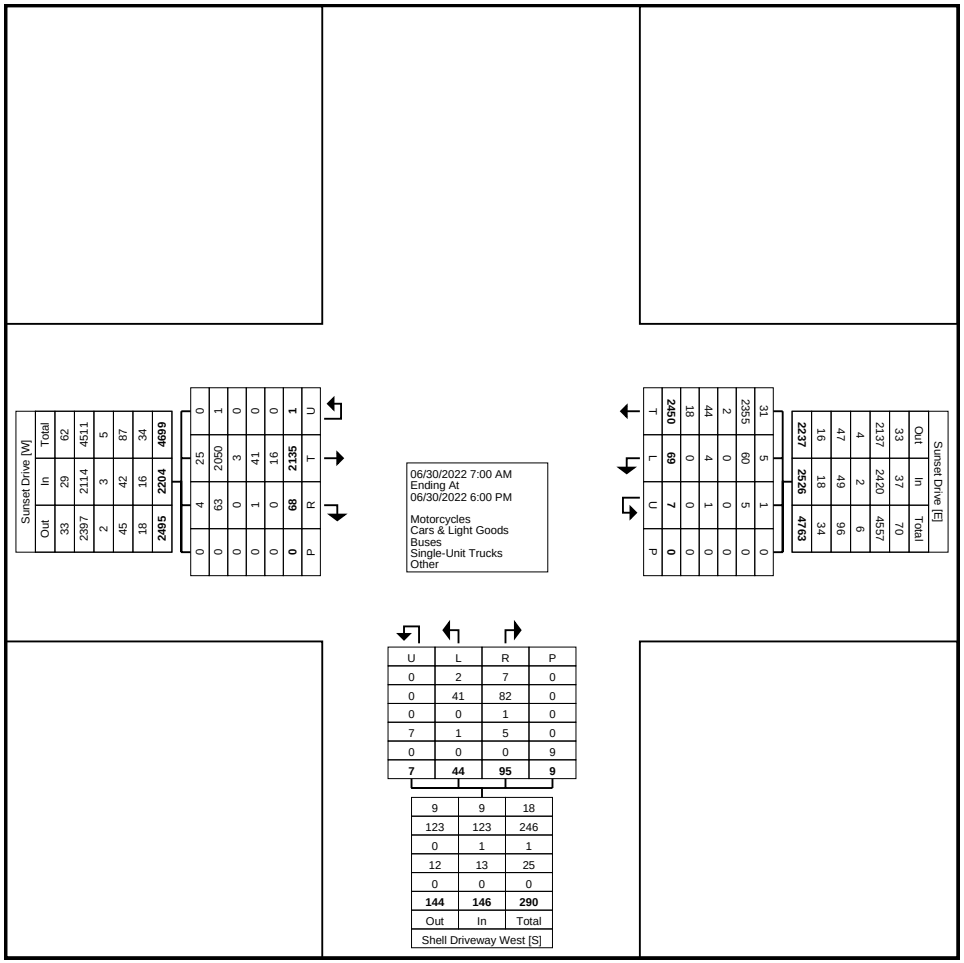
Start Time	Sunset Drive Eastbound					Sunset Drive Westbound					Shell Driveway West Northbound					
	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	Int. Total
7:00 AM	29	3	0	0	32	0	15	0	0	15	0	1	0	0	1	48
7:15 AM	37	2	0	0	39	0	21	0	0	21	2	0	0	0	2	62
7:30 AM	45	2	0	0	47	0	20	0	0	20	0	0	0	0	0	67
7:45 AM	32	1	0	0	33	1	26	0	0	27	0	0	0	0	0	60
Hourly Total	143	8	0	0	151	1	82	0	0	83	2	1	0	0	3	237
8:00 AM	26	1	0	0	27	0	33	0	0	33	0	3	0	0	3	63
8:15 AM	41	0	0	0	41	1	36	1	0	38	0	1	1	0	2	81
8:30 AM	41	0	0	0	41	0	39	0	0	39	0	0	5	4	5	85
8:45 AM	47	0	0	0	47	1	58	0	0	59	0	2	1	1	3	109
Hourly Total	155	1	0	0	156	2	166	1	0	169	0	6	7	5	13	338
9:00 AM	47	0	0	0	47	0	64	0	0	64	1	1	0	0	2	113
9:15 AM	48	1	0	0	49	1	45	0	0	46	0	0	0	0	0	95
9:30 AM	55	0	0	0	55	0	77	1	0	78	0	1	0	0	1	134
9:45 AM	53	0	0	0	53	1	69	0	0	70	0	0	0	2	0	123
Hourly Total	203	1	0	0	204	2	255	1	0	258	1	2	0	2	3	465
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00 AM	69	1	0	0	70	0	103	1	0	104	2	0	0	0	2	176
11:15 AM	55	0	0	0	55	0	96	1	0	97	1	0	0	0	1	153
11:30 AM	65	1	0	0	66	0	121	0	0	121	0	1	0	0	1	188
11:45 AM	61	0	0	0	61	2	116	1	0	119	0	2	0	0	2	182
Hourly Total	250	2	0	0	252	2	436	3	0	441	3	3	0	0	6	699
12:00 PM	81	0	0	0	81	0	112	1	0	113	0	0	0	2	0	194
12:15 PM	69	0	0	0	69	1	118	1	0	120	0	1	0	0	1	190
12:30 PM	71	0	1	0	72	0	91	0	0	91	0	1	0	0	1	164
12:45 PM	72	0	0	0	72	0	92	0	0	92	0	0	0	0	0	164
Hourly Total	293	0	1	0	294	1	413	2	0	416	0	2	0	2	2	712
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	100	5	0	0	105	6	84	0	0	90	3	6	0	0	9	204
3:15 PM	94	5	0	0	99	7	77	0	0	84	3	7	0	0	10	193
3:30 PM	97	1	0	0	98	8	85	0	0	93	3	8	0	0	11	202
3:45 PM	95	5	0	0	100	7	110	0	0	117	4	7	0	0	11	228
Hourly Total	386	16	0	0	402	28	356	0	0	384	13	28	0	0	41	827
4:00 PM	120	3	0	0	123	6	85	0	0	91	3	8	0	0	11	225
4:15 PM	89	10	0	0	99	3	98	0	0	101	3	6	0	0	9	209
4:30 PM	95	3	0	0	98	6	99	0	0	105	3	8	0	0	11	214
4:45 PM	88	2	0	0	90	2	95	0	0	97	1	4	0	0	5	192

Hourly Total	392	18	0	0	410	17	377	0	0	394	10	26	0	0	36	840
5:00 PM	103	5	0	0	108	7	86	0	0	93	7	4	0	0	11	212
5:15 PM	67	5	0	0	72	4	102	0	0	106	3	8	0	0	11	189
5:30 PM	80	3	0	0	83	4	78	0	0	82	1	8	0	0	9	174
5:45 PM	63	9	0	0	72	1	99	0	0	100	4	7	0	0	11	183
Hourly Total	313	22	0	0	335	16	365	0	0	381	15	27	0	0	42	758
Grand Total	2135	68	1	0	2204	69	2450	7	0	2526	44	95	7	9	146	4876
Approach %	96.9	3.1	0.0	-	-	2.7	97.0	0.3	-	-	30.1	65.1	4.8	-	-	-
Total %	43.8	1.4	0.0	-	45.2	1.4	50.2	0.1	-	51.8	0.9	1.9	0.1	-	3.0	-
Motorcycles	25	4	0	-	29	5	31	1	-	37	2	7	0	-	9	75
% Motorcycles	1.2	5.9	0.0	-	1.3	7.2	1.3	14.3	-	1.5	4.5	7.4	0.0	-	6.2	1.5
Cars & Light Goods	2050	63	1	-	2114	60	2355	5	-	2420	41	82	0	-	123	4657
% Cars & Light Goods	96.0	92.6	100.0	-	95.9	87.0	96.1	71.4	-	95.8	93.2	86.3	0.0	-	84.2	95.5
Buses	3	0	0	-	3	0	2	0	-	2	0	1	0	-	1	6
% Buses	0.1	0.0	0.0	-	0.1	0.0	0.1	0.0	-	0.1	0.0	1.1	0.0	-	0.7	0.1
Single-Unit Trucks	41	1	0	-	42	4	44	1	-	49	1	5	7	-	13	104
% Single-Unit Trucks	1.9	1.5	0.0	-	1.9	5.8	1.8	14.3	-	1.9	2.3	5.3	100.0	-	8.9	2.1
Articulated Trucks	7	0	0	-	7	0	12	0	-	12	0	0	0	-	0	19
% Articulated Trucks	0.3	0.0	0.0	-	0.3	0.0	0.5	0.0	-	0.5	0.0	0.0	0.0	-	0.0	0.4
Bicycles on Road	9	0	0	-	9	0	6	0	-	6	0	0	0	-	0	15
% Bicycles on Road	0.4	0.0	0.0	-	0.4	0.0	0.2	0.0	-	0.2	0.0	0.0	0.0	-	0.0	0.3
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	9	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Shell Driveway West - Weekday
Site Code: 220316
Start Date: 06/30/2022



Turning Movement Data Plot

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Shell Driveway West - Weekday
Site Code: 220316
Start Date: 06/30/2022

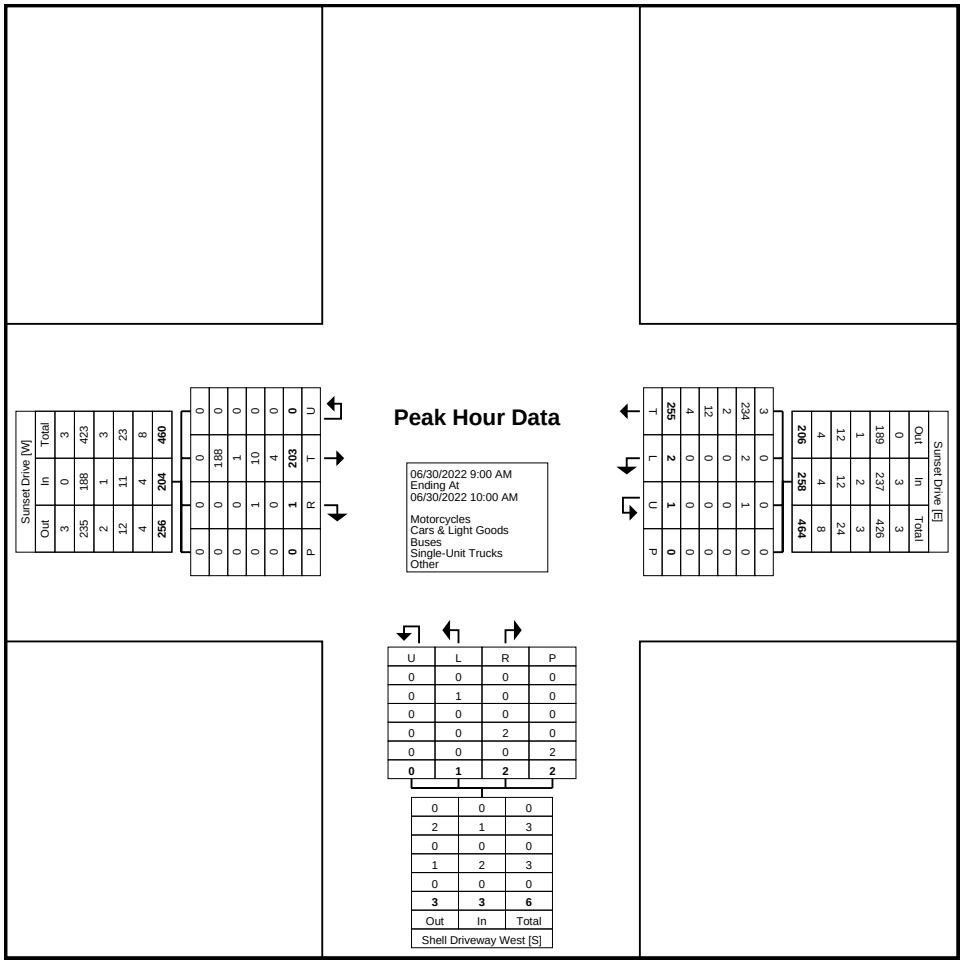
Turning Movement Peak Hour Data (9:00 AM)

Start Time	Sunset Drive Eastbound					Sunset Drive Westbound					Shell Driveway West Northbound					
	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	Int. Total
9:00 AM	47	0	0	0	47	0	64	0	0	64	1	1	0	0	2	113
9:15 AM	48	1	0	0	49	1	45	0	0	46	0	0	0	0	0	95
9:30 AM	55	0	0	0	55	0	77	1	0	78	0	1	0	0	1	134
9:45 AM	53	0	0	0	53	1	69	0	0	70	0	0	0	2	0	123
Total	203	1	0	0	204	2	255	1	0	258	1	2	0	2	3	465
Approach %	99.5	0.5	0.0	-	-	0.8	98.8	0.4	-	-	33.3	66.7	0.0	-	-	-
Total %	43.7	0.2	0.0	-	43.9	0.4	54.8	0.2	-	55.5	0.2	0.4	0.0	-	0.6	-
PHF	0.923	0.250	0.000	-	0.927	0.500	0.828	0.250	-	0.827	0.250	0.500	0.000	-	0.375	0.868
Motorcycles	0	0	0	-	0	0	3	0	-	3	0	0	0	-	0	3
% Motorcycles	0.0	0.0	-	-	0.0	0.0	1.2	0.0	-	1.2	0.0	0.0	-	-	0.0	0.6
Cars & Light Goods	188	0	0	-	188	2	234	1	-	237	1	0	0	-	1	426
% Cars & Light Goods	92.6	0.0	-	-	92.2	100.0	91.8	100.0	-	91.9	100.0	0.0	-	-	33.3	91.6
Buses	1	0	0	-	1	0	2	0	-	2	0	0	0	-	0	3
% Buses	0.5	0.0	-	-	0.5	0.0	0.8	0.0	-	0.8	0.0	0.0	-	-	0.0	0.6
Single-Unit Trucks	10	1	0	-	11	0	12	0	-	12	0	2	0	-	2	25
% Single-Unit Trucks	4.9	100.0	-	-	5.4	0.0	4.7	0.0	-	4.7	0.0	100.0	-	-	66.7	5.4
Articulated Trucks	3	0	0	-	3	0	3	0	-	3	0	0	0	-	0	6
% Articulated Trucks	1.5	0.0	-	-	1.5	0.0	1.2	0.0	-	1.2	0.0	0.0	-	-	0.0	1.3
Bicycles on Road	1	0	0	-	1	0	1	0	-	1	0	0	0	-	0	2
% Bicycles on Road	0.5	0.0	-	-	0.5	0.0	0.4	0.0	-	0.4	0.0	0.0	-	-	0.0	0.4
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Shell Driveway West - Weekday
Site Code: 220316
Start Date: 06/30/2022



Turning Movement Peak Hour Data Plot (9:00 AM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Shell Driveway West - Weekday
Site Code: 220316
Start Date: 06/30/2022

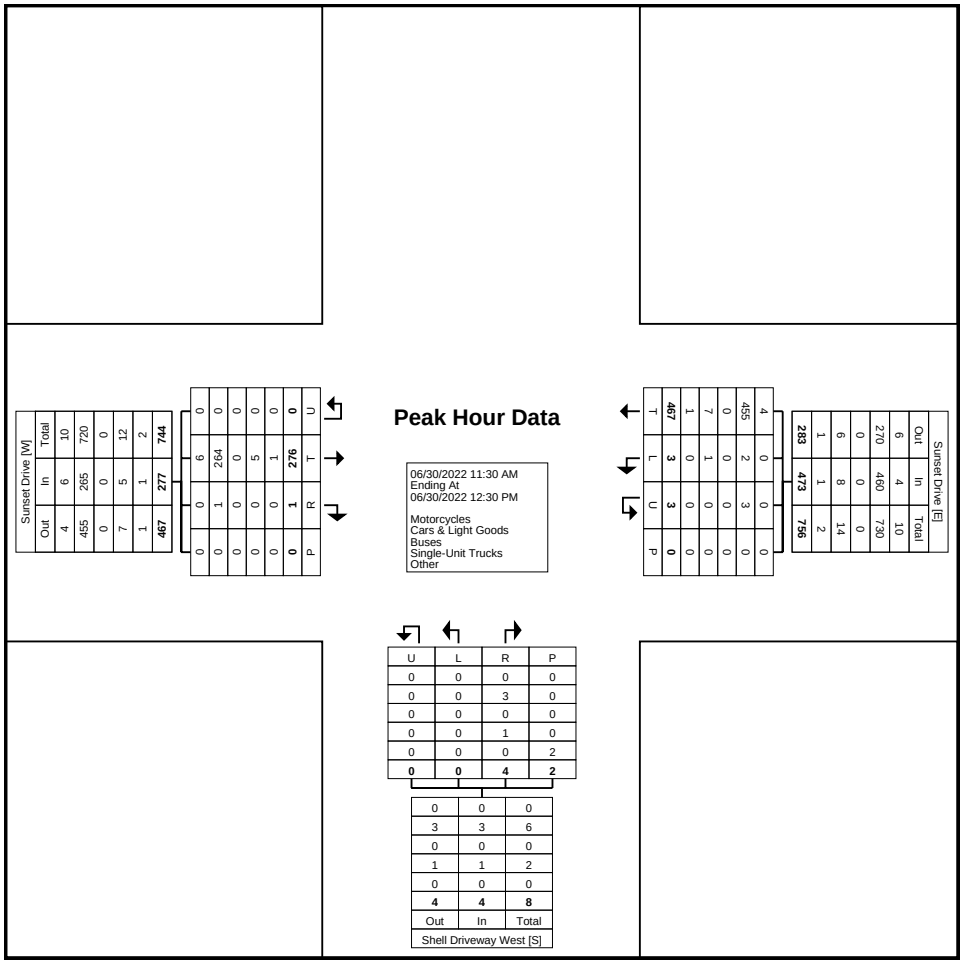
Turning Movement Peak Hour Data (11:30 AM)

Start Time	Sunset Drive Eastbound					Sunset Drive Westbound					Shell Driveway West Northbound					
	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	Int. Total
11:30 AM	65	1	0	0	66	0	121	0	0	121	0	1	0	0	1	188
11:45 AM	61	0	0	0	61	2	116	1	0	119	0	2	0	0	2	182
12:00 PM	81	0	0	0	81	0	112	1	0	113	0	0	0	2	0	194
12:15 PM	69	0	0	0	69	1	118	1	0	120	0	1	0	0	1	190
Total	276	1	0	0	277	3	467	3	0	473	0	4	0	2	4	754
Approach %	99.6	0.4	0.0	-	-	0.6	98.7	0.6	-	-	0.0	100.0	0.0	-	-	-
Total %	36.6	0.1	0.0	-	36.7	0.4	61.9	0.4	-	62.7	0.0	0.5	0.0	-	0.5	-
PHF	0.852	0.250	0.000	-	0.855	0.375	0.965	0.750	-	0.977	0.000	0.500	0.000	-	0.500	0.972
Motorcycles	6	0	0	-	6	0	4	0	-	4	0	0	0	-	0	10
% Motorcycles	2.2	0.0	-	-	2.2	0.0	0.9	0.0	-	0.8	-	0.0	-	-	0.0	1.3
Cars & Light Goods	264	1	0	-	265	2	455	3	-	460	0	3	0	-	3	728
% Cars & Light Goods	95.7	100.0	-	-	95.7	66.7	97.4	100.0	-	97.3	-	75.0	-	-	75.0	96.6
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	0.0	-	0.0	-	-	0.0	0.0
Single-Unit Trucks	5	0	0	-	5	1	7	0	-	8	0	1	0	-	1	14
% Single-Unit Trucks	1.8	0.0	-	-	1.8	33.3	1.5	0.0	-	1.7	-	25.0	-	-	25.0	1.9
Articulated Trucks	1	0	0	-	1	0	1	0	-	1	0	0	0	-	0	2
% Articulated Trucks	0.4	0.0	-	-	0.4	0.0	0.2	0.0	-	0.2	-	0.0	-	-	0.0	0.3
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	0.0	-	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Shell Driveway West - Weekday
Site Code: 220316
Start Date: 06/30/2022



Turning Movement Peak Hour Data Plot (11:30 AM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Shell Driveway West - Weekday
Site Code: 220316
Start Date: 06/30/2022

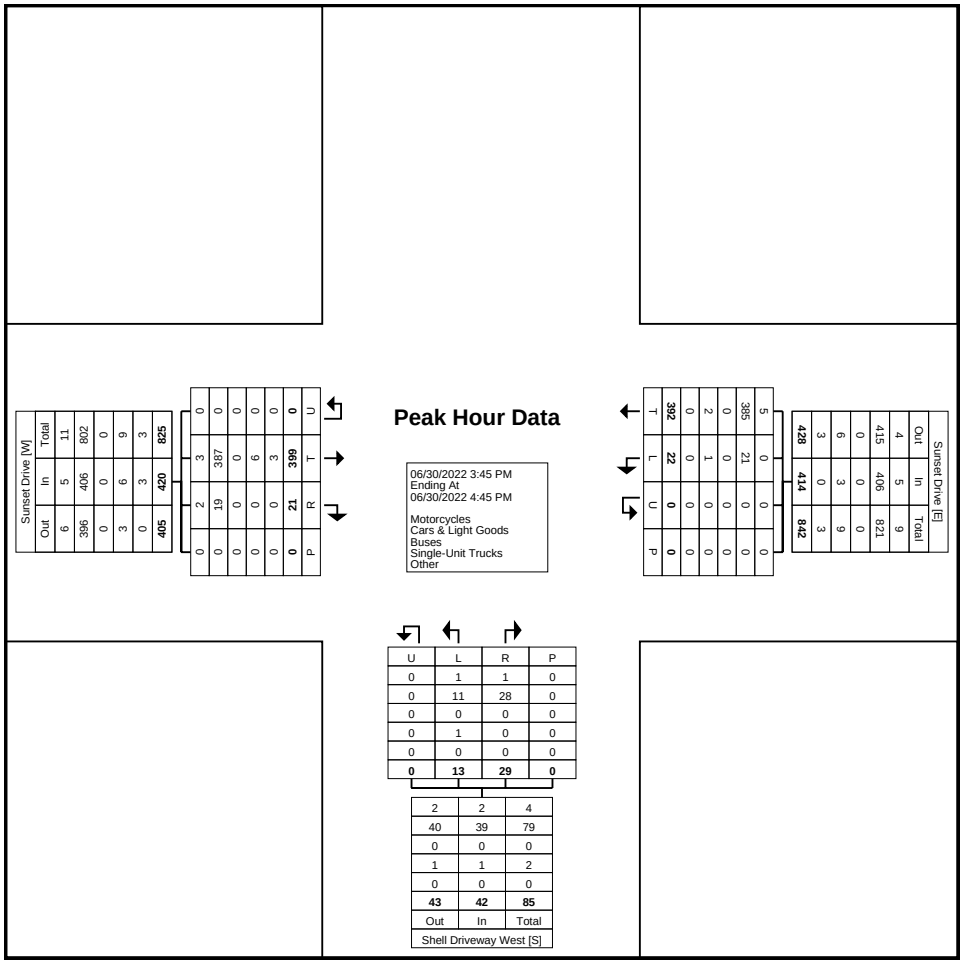
Turning Movement Peak Hour Data (3:45 PM)

Start Time	Sunset Drive Eastbound					Sunset Drive Westbound					Shell Driveway West Northbound					
	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	Int. Total
3:45 PM	95	5	0	0	100	7	110	0	0	117	4	7	0	0	11	228
4:00 PM	120	3	0	0	123	6	85	0	0	91	3	8	0	0	11	225
4:15 PM	89	10	0	0	99	3	98	0	0	101	3	6	0	0	9	209
4:30 PM	95	3	0	0	98	6	99	0	0	105	3	8	0	0	11	214
Total	399	21	0	0	420	22	392	0	0	414	13	29	0	0	42	876
Approach %	95.0	5.0	0.0	-	-	5.3	94.7	0.0	-	-	31.0	69.0	0.0	-	-	-
Total %	45.5	2.4	0.0	-	47.9	2.5	44.7	0.0	-	47.3	1.5	3.3	0.0	-	4.8	-
PHF	0.831	0.525	0.000	-	0.854	0.786	0.891	0.000	-	0.885	0.813	0.906	0.000	-	0.955	0.961
Motorcycles	3	2	0	-	5	0	5	0	-	5	1	1	0	-	2	12
% Motorcycles	0.8	9.5	-	-	1.2	0.0	1.3	-	-	1.2	7.7	3.4	-	-	4.8	1.4
Cars & Light Goods	387	19	0	-	406	21	385	0	-	406	11	28	0	-	39	851
% Cars & Light Goods	97.0	90.5	-	-	96.7	95.5	98.2	-	-	98.1	84.6	96.6	-	-	92.9	97.1
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Single-Unit Trucks	6	0	0	-	6	1	2	0	-	3	1	0	0	-	1	10
% Single-Unit Trucks	1.5	0.0	-	-	1.4	4.5	0.5	-	-	0.7	7.7	0.0	-	-	2.4	1.1
Articulated Trucks	2	0	0	-	2	0	0	0	-	0	0	0	0	-	0	2
% Articulated Trucks	0.5	0.0	-	-	0.5	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.2
Bicycles on Road	1	0	0	-	1	0	0	0	-	0	0	0	0	-	0	1
% Bicycles on Road	0.3	0.0	-	-	0.2	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.1
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Shell Driveway West - Weekday
Site Code: 220316
Start Date: 06/30/2022



Turning Movement Peak Hour Data Plot (3:45 PM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Shell Driveway West - Saturday
Site Code: 220316
Start Date: 07/02/2022

Turning Movement Data

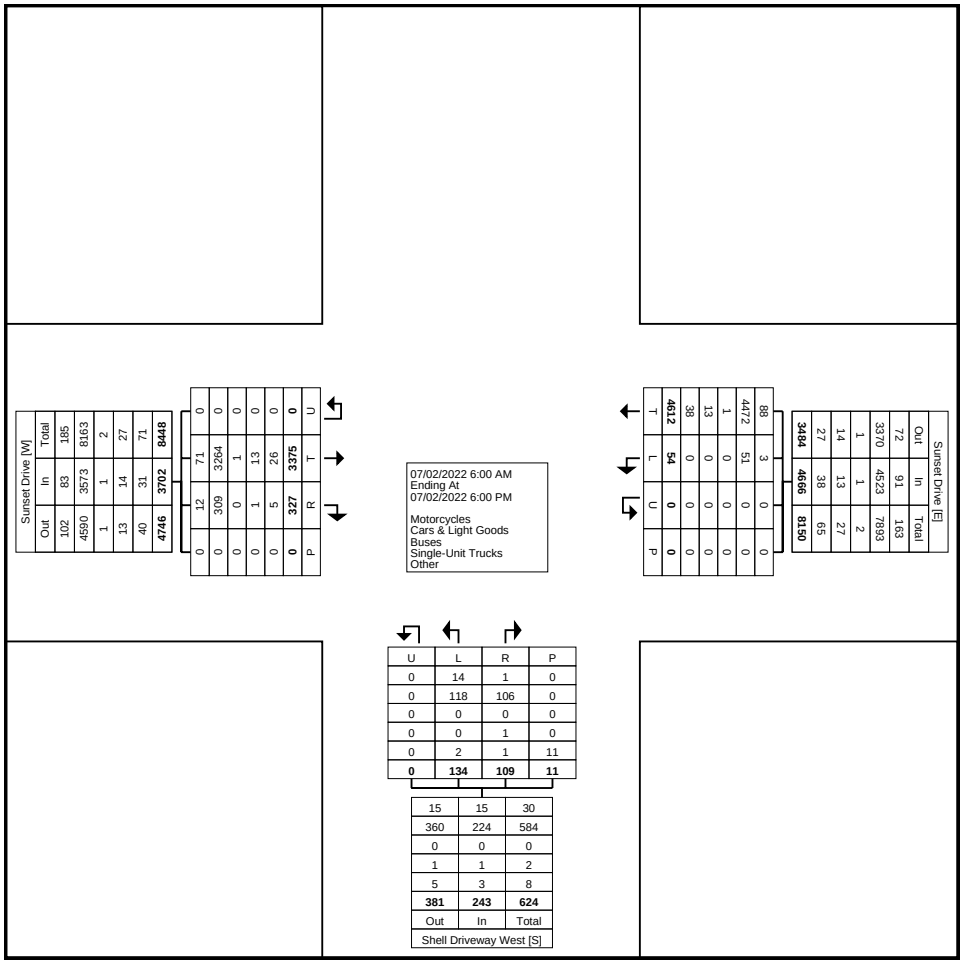
Start Time	Sunset Drive Eastbound					Sunset Drive Westbound					Shell Driveway West Northbound					
	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	Int. Total
6:00 AM	2	0	0	0	2	0	6	0	0	6	0	0	0	0	0	8
6:15 AM	1	0	0	0	1	0	11	0	0	11	0	0	0	0	0	12
6:30 AM	13	2	0	0	15	0	8	0	0	8	3	0	0	0	3	26
6:45 AM	15	1	0	0	16	0	12	0	0	12	0	0	0	0	0	28
Hourly Total	31	3	0	0	34	0	37	0	0	37	3	0	0	0	3	74
7:00 AM	16	1	0	0	17	0	9	0	0	9	0	0	0	0	0	26
7:15 AM	15	1	0	0	16	0	13	0	0	13	0	0	0	0	0	29
7:30 AM	22	1	0	0	23	0	10	0	0	10	1	0	0	0	1	34
7:45 AM	15	2	0	0	17	0	24	0	0	24	1	0	0	0	1	42
Hourly Total	68	5	0	0	73	0	56	0	0	56	2	0	0	0	2	131
8:00 AM	25	3	0	0	28	0	21	0	0	21	2	3	0	0	5	54
8:15 AM	23	2	0	0	25	0	23	0	0	23	1	0	0	1	1	49
8:30 AM	25	3	0	0	28	0	32	0	0	32	1	1	0	0	2	62
8:45 AM	31	3	0	0	34	1	41	0	0	42	1	0	0	4	1	77
Hourly Total	104	11	0	0	115	1	117	0	0	118	5	4	0	5	9	242
9:00 AM	44	2	0	0	46	0	51	0	0	51	2	0	0	0	2	99
9:15 AM	50	10	0	0	60	2	65	0	0	67	4	4	0	1	8	135
9:30 AM	42	9	0	0	51	1	55	0	0	56	4	2	0	0	6	113
9:45 AM	54	5	0	0	59	2	87	0	0	89	2	0	0	1	2	150
Hourly Total	190	26	0	0	216	5	258	0	0	263	12	6	0	2	18	497
10:00 AM	39	5	0	0	44	0	92	0	0	92	4	0	0	1	4	140
10:15 AM	49	7	0	0	56	1	91	0	0	92	9	3	0	0	12	160
10:30 AM	53	7	0	0	60	1	127	0	0	128	3	2	0	0	5	193
10:45 AM	63	6	0	0	69	6	131	0	0	137	2	1	0	0	3	209
Hourly Total	204	25	0	0	229	8	441	0	0	449	18	6	0	1	24	702
11:00 AM	59	5	0	0	64	1	151	0	0	152	0	0	0	0	0	216
11:15 AM	75	3	0	0	78	1	115	0	0	116	0	1	0	2	1	195
11:30 AM	64	7	0	0	71	3	159	0	0	162	0	2	0	0	2	235
11:45 AM	53	6	0	0	59	0	180	0	0	180	3	1	0	0	4	243
Hourly Total	251	21	0	0	272	5	605	0	0	610	3	4	0	2	7	889
12:00 PM	56	6	0	0	62	3	164	0	0	167	2	1	0	0	3	232
12:15 PM	79	3	0	0	82	1	163	0	0	164	5	3	0	1	8	254
12:30 PM	65	5	0	0	70	0	168	0	0	168	2	3	0	0	5	243
12:45 PM	81	11	0	0	92	1	187	0	0	188	8	4	0	0	12	292
Hourly Total	281	25	0	0	306	5	682	0	0	687	17	11	0	1	28	1021
1:00 PM	87	10	0	0	97	1	169	0	0	170	3	2	0	0	5	272

1:15 PM	63	9	0	0	72	0	147	0	0	147	7	1	0	0	8	227
1:30 PM	87	11	0	0	98	1	150	0	0	151	10	1	0	0	11	260
1:45 PM	93	9	0	0	102	5	138	0	0	143	5	3	0	0	8	253
Hourly Total	330	39	0	0	369	7	604	0	0	611	25	7	0	0	32	1012
2:00 PM	84	6	0	0	90	2	141	0	0	143	5	6	0	0	11	244
2:15 PM	87	12	0	0	99	3	140	0	0	143	1	2	0	0	3	245
2:30 PM	93	8	0	0	101	0	138	0	0	138	6	2	0	0	8	247
2:45 PM	123	12	0	0	135	2	133	0	0	135	3	2	0	0	5	275
Hourly Total	387	38	0	0	425	7	552	0	0	559	15	12	0	0	27	1011
3:00 PM	98	7	0	0	105	1	137	0	0	138	5	6	0	0	11	254
3:15 PM	142	16	0	0	158	1	125	0	0	126	7	3	0	0	10	294
3:30 PM	95	6	0	0	101	3	119	0	0	122	2	4	0	0	6	229
3:45 PM	129	15	0	0	144	0	113	0	0	113	5	7	0	0	12	269
Hourly Total	464	44	0	0	508	5	494	0	0	499	19	20	0	0	39	1046
4:00 PM	110	10	0	0	120	1	101	0	0	102	1	6	0	0	7	229
4:15 PM	148	13	0	0	161	3	113	0	0	116	2	4	0	0	6	283
4:30 PM	111	5	0	0	116	3	99	0	0	102	2	2	0	0	4	222
4:45 PM	164	10	0	0	174	0	92	0	0	92	2	7	0	0	9	275
Hourly Total	533	38	0	0	571	7	405	0	0	412	7	19	0	0	26	1009
5:00 PM	108	15	0	0	123	1	97	0	0	98	2	4	0	0	6	227
5:15 PM	138	10	0	0	148	1	93	0	0	94	1	6	0	0	7	249
5:30 PM	123	16	0	0	139	2	85	0	0	87	4	3	0	0	7	233
5:45 PM	163	11	0	0	174	0	86	0	0	86	1	7	0	0	8	268
Hourly Total	532	52	0	0	584	4	361	0	0	365	8	20	0	0	28	977
Grand Total	3375	327	0	0	3702	54	4612	0	0	4666	134	109	0	11	243	8611
Approach %	91.2	8.8	0.0	-	-	1.2	98.8	0.0	-	-	55.1	44.9	0.0	-	-	-
Total %	39.2	3.8	0.0	-	43.0	0.6	53.6	0.0	-	54.2	1.6	1.3	0.0	-	2.8	-
Motorcycles	71	12	0	-	83	3	88	0	-	91	14	1	0	-	15	189
% Motorcycles	2.1	3.7	-	-	2.2	5.6	1.9	-	-	2.0	10.4	0.9	-	-	6.2	2.2
Cars & Light Goods	3264	309	0	-	3573	51	4472	0	-	4523	118	106	0	-	224	8320
% Cars & Light Goods	96.7	94.5	-	-	96.5	94.4	97.0	-	-	96.9	88.1	97.2	-	-	92.2	96.6
Buses	1	0	0	-	1	0	1	0	-	1	0	0	0	-	0	2
% Buses	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Single-Unit Trucks	13	1	0	-	14	0	13	0	-	13	0	1	0	-	1	28
% Single-Unit Trucks	0.4	0.3	-	-	0.4	0.0	0.3	-	-	0.3	0.0	0.9	-	-	0.4	0.3
Articulated Trucks	2	0	0	-	2	0	4	0	-	4	0	0	0	-	0	6
% Articulated Trucks	0.1	0.0	-	-	0.1	0.0	0.1	-	-	0.1	0.0	0.0	-	-	0.0	0.1
Bicycles on Road	24	5	0	-	29	0	34	0	-	34	2	1	0	-	3	66
% Bicycles on Road	0.7	1.5	-	-	0.8	0.0	0.7	-	-	0.7	1.5	0.9	-	-	1.2	0.8
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	2	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	18.2	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	9	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	81.8	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Shell Driveway West - Saturday
Site Code: 220316
Start Date: 07/02/2022



Turning Movement Data Plot

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Shell Driveway West - Saturday
Site Code: 220316
Start Date: 07/02/2022

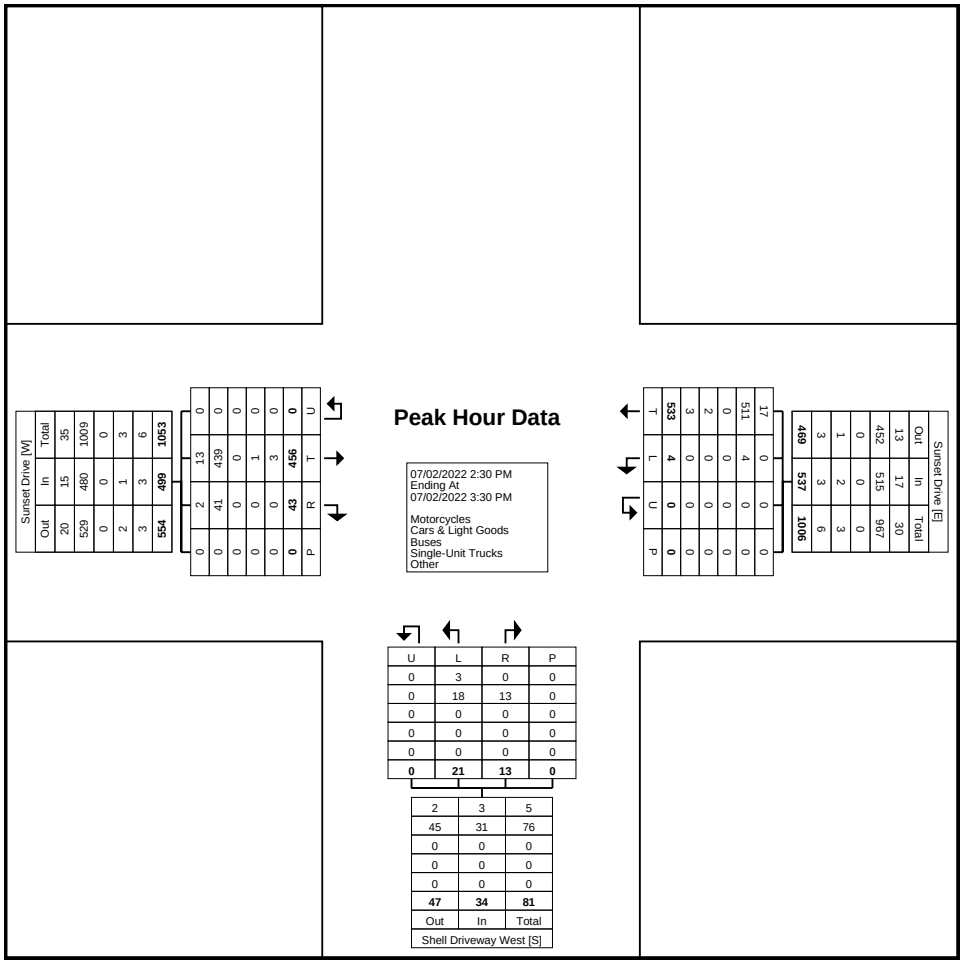
Turning Movement Peak Hour Data (2:30 PM)

Start Time	Sunset Drive Eastbound					Sunset Drive Westbound					Shell Driveway West Northbound					
	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	Int. Total
2:30 PM	93	8	0	0	101	0	138	0	0	138	6	2	0	0	8	247
2:45 PM	123	12	0	0	135	2	133	0	0	135	3	2	0	0	5	275
3:00 PM	98	7	0	0	105	1	137	0	0	138	5	6	0	0	11	254
3:15 PM	142	16	0	0	158	1	125	0	0	126	7	3	0	0	10	294
Total	456	43	0	0	499	4	533	0	0	537	21	13	0	0	34	1070
Approach %	91.4	8.6	0.0	-	-	0.7	99.3	0.0	-	-	61.8	38.2	0.0	-	-	-
Total %	42.6	4.0	0.0	-	46.6	0.4	49.8	0.0	-	50.2	2.0	1.2	0.0	-	3.2	-
PHF	0.803	0.672	0.000	-	0.790	0.500	0.966	0.000	-	0.973	0.750	0.542	0.000	-	0.773	0.910
Motorcycles	13	2	0	-	15	0	17	0	-	17	3	0	0	-	3	35
% Motorcycles	2.9	4.7	-	-	3.0	0.0	3.2	-	-	3.2	14.3	0.0	-	-	8.8	3.3
Cars & Light Goods	439	41	0	-	480	4	511	0	-	515	18	13	0	-	31	1026
% Cars & Light Goods	96.3	95.3	-	-	96.2	100.0	95.9	-	-	95.9	85.7	100.0	-	-	91.2	95.9
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Single-Unit Trucks	1	0	0	-	1	0	2	0	-	2	0	0	0	-	0	3
% Single-Unit Trucks	0.2	0.0	-	-	0.2	0.0	0.4	-	-	0.4	0.0	0.0	-	-	0.0	0.3
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Articulated Trucks	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Road	3	0	0	-	3	0	3	0	-	3	0	0	0	-	0	6
% Bicycles on Road	0.7	0.0	-	-	0.6	0.0	0.6	-	-	0.6	0.0	0.0	-	-	0.0	0.6
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Shell Driveway West - Saturday
Site Code: 220316
Start Date: 07/02/2022



Turning Movement Peak Hour Data Plot (2:30 PM)

Appendix C

Existing Traffic Operations Reports

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	207	1	2	255	1	2
Future Volume (vph)	207	1	2	255	1	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.999				0.910	
Flt Protected					0.984	
Satd. Flow (prot)	1767	0	0	1777	1021	0
Flt Permitted					0.984	
Satd. Flow (perm)	1767	0	0	1777	1021	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	146.8			78.8	99.5	
Travel Time (s)	6.6			3.5	7.2	
Confl. Peds. (#/hr)		2	2			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	7%	100%	0%	7%	0%	100%
Adj. Flow (vph)	225	1	2	277	1	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	226	0	0	279	3	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	25.0%	ICU Level of Service A	
Analysis Period (min)	15		

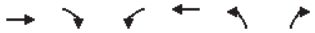
Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	207	1	2	255	1	2
Future Vol, veh/h	207	1	2	255	1	2
Conflicting Peds, #/hr	0	2	2	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, %	7	100	0	7	0	100
Mvmt Flow	225	1	2	277	1	2

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	228	0	509	228
Stage 1	-	-	-	-	228	-
Stage 2	-	-	-	-	281	-
Critical Hdwy	-	-	4.1	-	6.4	7.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	4.2
Pot Cap-1 Maneuver	-	-	1352	-	528	619
Stage 1	-	-	-	-	815	-
Stage 2	-	-	-	-	771	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1350	-	526	618
Mov Cap-2 Maneuver	-	-	-	-	526	-
Stage 1	-	-	-	-	813	-
Stage 2	-	-	-	-	769	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	11.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	584	-	-	1350	-
HCM Lane V/C Ratio	0.006	-	-	0.002	-
HCM Control Delay (s)	11.2	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	200	9	9	251	6	11
Future Volume (vph)	200	9	9	251	6	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.994				0.915	
Flt Protected				0.998	0.982	
Satd. Flow (prot)	1754	0	0	1770	1615	0
Flt Permitted				0.998	0.982	
Satd. Flow (perm)	1754	0	0	1770	1615	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	78.8			455.2	101.7	
Travel Time (s)	3.5			20.5	7.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	8%	0%	11%	7%	0%	9%
Adj. Flow (vph)	217	10	10	273	7	12
Shared Lane Traffic (%)						
Lane Group Flow (vph)	227	0	0	283	19	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	30.5%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	200	9	9	251	6	11
Future Vol, veh/h	200	9	9	251	6	11
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, %	8	0	11	7	0	9
Mvmt Flow	217	10	10	273	7	12

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	227	0	515	222
Stage 1	-	-	-	-	222	-
Stage 2	-	-	-	-	293	-
Critical Hdwy	-	-	4.21	-	6.4	6.29
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.299	-	3.5	3.381
Pot Cap-1 Maneuver	-	-	1290	-	523	800
Stage 1	-	-	-	-	820	-
Stage 2	-	-	-	-	762	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1290	-	518	800
Mov Cap-2 Maneuver	-	-	-	-	518	-
Stage 1	-	-	-	-	820	-
Stage 2	-	-	-	-	755	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	10.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	671	-	-	1290	-
HCM Lane V/C Ratio	0.028	-	-	0.008	-
HCM Control Delay (s)	10.5	-	-	7.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	200	11	53	248	12	99
Future Volume (vph)	200	11	53	248	12	99
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)		35.0	30.0		0.0	0.0
Storage Lanes		1	1		1	0
Taper Length (m)			40.0		7.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850			0.880	
Flt Protected			0.950		0.995	
Satd. Flow (prot)	1759	1615	1570	1810	1593	0
Flt Permitted			0.950		0.995	
Satd. Flow (perm)	1759	1615	1570	1810	1593	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	455.2			209.2	221.5	
Travel Time (s)	20.5			9.4	15.9	
Confl. Peds. (#/hr)		1	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	8%	0%	15%	5%	8%	4%
Adj. Flow (vph)	217	12	58	270	13	108
Shared Lane Traffic (%)						
Lane Group Flow (vph)	217	12	58	270	121	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.6			3.6	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type:	Unsignalized		
Intersection Capacity Utilization	30.7%	ICU Level of Service	A
Analysis Period (min)	15		

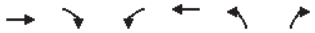
Intersection	
Int Delay, s/veh	2.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	200	11	53	248	12	99
Future Vol, veh/h	200	11	53	248	12	99
Conflicting Peds, #/hr	0	1	1	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	35	30	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	8	0	15	5	8	4
Mvmt Flow	217	12	58	270	13	108

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	230	0	604	218
Stage 1	-	-	-	-	218	-
Stage 2	-	-	-	-	386	-
Critical Hdwy	-	-	4.25	-	6.48	6.24
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	-	-	2.335	-	3.572	3.336
Pot Cap-1 Maneuver	-	-	1265	-	452	817
Stage 1	-	-	-	-	804	-
Stage 2	-	-	-	-	674	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1264	-	431	816
Mov Cap-2 Maneuver	-	-	-	-	431	-
Stage 1	-	-	-	-	803	-
Stage 2	-	-	-	-	643	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.4	10.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	744	-	-	1264	-
HCM Lane V/C Ratio	0.162	-	-	0.046	-
HCM Control Delay (s)	10.8	-	-	8	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.6	-	-	0.1	-



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	401	21	22	392	13	29
Future Volume (vph)	401	21	22	392	13	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.993				0.906	
Flt Protected				0.997	0.985	
Satd. Flow (prot)	1852	0	0	1872	1655	0
Flt Permitted				0.997	0.985	
Satd. Flow (perm)	1852	0	0	1872	1655	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	146.8			78.8	99.5	
Travel Time (s)	6.6			3.5	7.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	0%	5%	1%	8%	0%
Adj. Flow (vph)	436	23	24	426	14	32
Shared Lane Traffic (%)						
Lane Group Flow (vph)	459	0	0	450	46	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	48.6%	ICU Level of Service	A
Analysis Period (min)	15		

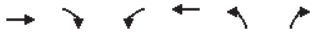
Intersection	
Int Delay, s/veh	0.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	401	21	22	392	13	29
Future Vol, veh/h	401	21	22	392	13	29
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	0	5	1	8	0
Mvmt Flow	436	23	24	426	14	32

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	459	0	922	448
Stage 1	-	-	-	-	448	-
Stage 2	-	-	-	-	474	-
Critical Hdwy	-	-	4.15	-	6.48	6.2
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	-	-	2.245	-	3.572	3.3
Pot Cap-1 Maneuver	-	-	1086	-	293	615
Stage 1	-	-	-	-	631	-
Stage 2	-	-	-	-	614	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1086	-	285	615
Mov Cap-2 Maneuver	-	-	-	-	285	-
Stage 1	-	-	-	-	631	-
Stage 2	-	-	-	-	596	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	13.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	453	-	-	1086	-
HCM Lane V/C Ratio	0.101	-	-	0.022	-
HCM Control Delay (s)	13.8	-	-	8.4	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	430	0	1	414	0	0
Future Volume (vph)	430	0	1	414	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt						
Flt Protected						
Satd. Flow (prot)	1881	0	0	1877	1900	0
Flt Permitted						
Satd. Flow (perm)	1881	0	0	1877	1900	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	78.8			455.2	101.7	
Travel Time (s)	3.5			20.5	7.3	
Confl. Peds. (#/hr)		2	2			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	0%	100%	1%	0%	0%
Adj. Flow (vph)	467	0	1	450	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	467	0	0	451	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	26.0%	ICU Level of Service A	
Analysis Period (min)	15		

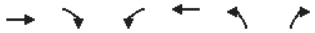
Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	430	0	1	414	0	0
Future Vol, veh/h	430	0	1	414	0	0
Conflicting Peds, #/hr	0	2	2	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, %	1	0	100	1	0	0
Mvmt Flow	467	0	1	450	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	469	0	921	469
Stage 1	-	-	-	-	469	-
Stage 2	-	-	-	-	452	-
Critical Hdwy	-	-	5.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	3.1	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	726	-	303	598
Stage 1	-	-	-	-	634	-
Stage 2	-	-	-	-	645	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	725	-	302	597
Mov Cap-2 Maneuver	-	-	-	-	302	-
Stage 1	-	-	-	-	633	-
Stage 2	-	-	-	-	644	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	725	-
HCM Lane V/C Ratio	-	-	-	0.001	-
HCM Control Delay (s)	0	-	-	10	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	0	-



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	404	26	83	401	14	91
Future Volume (vph)	404	26	83	401	14	91
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)		35.0	30.0		0.0	0.0
Storage Lanes		1	1		1	0
Taper Length (m)			40.0		7.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.883	
Flt Protected			0.950		0.993	
Satd. Flow (prot)	1863	1615	1805	1881	1666	0
Flt Permitted			0.950		0.993	
Satd. Flow (perm)	1863	1615	1805	1881	1666	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	455.2			209.2	221.5	
Travel Time (s)	20.5			9.4	15.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	0%	0%	1%	0%	0%
Adj. Flow (vph)	439	28	90	436	15	99
Shared Lane Traffic (%)						
Lane Group Flow (vph)	439	28	90	436	114	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.6			3.6	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	42.3%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	2.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	404	26	83	401	14	91
Future Vol, veh/h	404	26	83	401	14	91
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	35	30	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	0	0	1	0	0
Mvmt Flow	439	28	90	436	15	99

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	467	0	1055	439
Stage 1	-	-	-	-	439	-
Stage 2	-	-	-	-	616	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1105	-	252	622
Stage 1	-	-	-	-	654	-
Stage 2	-	-	-	-	543	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1105	-	232	622
Mov Cap-2 Maneuver	-	-	-	-	232	-
Stage 1	-	-	-	-	654	-
Stage 2	-	-	-	-	499	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.5	14.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	508	-	-	1105	-
HCM Lane V/C Ratio	0.225	-	-	0.082	-
HCM Control Delay (s)	14.1	-	-	8.5	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.9	-	-	0.3	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	456	43	4	652	21	13
Future Volume (vph)	456	43	4	652	21	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.988				0.949	
Flt Protected					0.970	
Satd. Flow (prot)	1877	0	0	1900	1749	0
Flt Permitted					0.970	
Satd. Flow (perm)	1877	0	0	1900	1749	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	146.8			78.8	99.5	
Travel Time (s)	6.6			3.5	7.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	496	47	4	709	23	14
Shared Lane Traffic (%)						
Lane Group Flow (vph)	543	0	0	713	37	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	47.5%	ICU Level of Service	A
Analysis Period (min)	15		

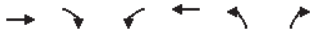
Intersection	
Int Delay, s/veh	0.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	456	43	4	652	21	13
Future Vol, veh/h	456	43	4	652	21	13
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, %	0	0	0	0	0	0
Mvmt Flow	496	47	4	709	23	14

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	543	0	1237	520
Stage 1	-	-	-	-	520	-
Stage 2	-	-	-	-	717	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1036	-	196	560
Stage 1	-	-	-	-	601	-
Stage 2	-	-	-	-	487	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1036	-	195	560
Mov Cap-2 Maneuver	-	-	-	-	195	-
Stage 1	-	-	-	-	601	-
Stage 2	-	-	-	-	484	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	21.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	260	-	-	1036	-
HCM Lane V/C Ratio	0.142	-	-	0.004	-
HCM Control Delay (s)	21.1	-	-	8.5	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.5	-	-	0	-



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	466	3	19	649	7	31
Future Volume (vph)	466	3	19	649	7	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.999				0.891	
Flt Protected				0.999	0.991	
Satd. Flow (prot)	1898	0	0	1898	1678	0
Flt Permitted				0.999	0.991	
Satd. Flow (perm)	1898	0	0	1898	1678	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	78.8			455.2	101.7	
Travel Time (s)	3.5			20.5	7.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	507	3	21	705	8	34
Shared Lane Traffic (%)						
Lane Group Flow (vph)	510	0	0	726	42	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	59.5%	ICU Level of Service	B
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	466	3	19	649	7	31
Future Vol, veh/h	466	3	19	649	7	31
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, %	0	0	0	0	0	0
Mvmt Flow	507	3	21	705	8	34

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	510	0	1256	509
Stage 1	-	-	-	-	509	-
Stage 2	-	-	-	-	747	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1065	-	191	568
Stage 1	-	-	-	-	608	-
Stage 2	-	-	-	-	472	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1065	-	185	568
Mov Cap-2 Maneuver	-	-	-	-	185	-
Stage 1	-	-	-	-	608	-
Stage 2	-	-	-	-	457	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	14.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	411	-	-	1065	-
HCM Lane V/C Ratio	0.1	-	-	0.019	-
HCM Control Delay (s)	14.7	-	-	8.4	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	452	45	99	647	21	96
Future Volume (vph)	452	45	99	647	21	96
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)		35.0	30.0		0.0	0.0
Storage Lanes		1	1		1	0
Taper Length (m)			40.0		7.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.889	
Flt Protected			0.950		0.991	
Satd. Flow (prot)	1881	1583	1787	1881	1674	0
Flt Permitted			0.950		0.991	
Satd. Flow (perm)	1881	1583	1787	1881	1674	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	455.2			209.2	221.5	
Travel Time (s)	20.5			9.4	15.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	2%	1%	1%	0%	0%
Adj. Flow (vph)	491	49	108	703	23	104
Shared Lane Traffic (%)						
Lane Group Flow (vph)	491	49	108	703	127	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.6			3.6	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	47.8%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	2.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	452	45	99	647	21	96
Future Vol, veh/h	452	45	99	647	21	96
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	35	30	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	2	1	1	0	0
Mvmt Flow	491	49	108	703	23	104

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	540	0	1410	491
Stage 1	-	-	-	-	491	-
Stage 2	-	-	-	-	919	-
Critical Hdwy	-	-	4.11	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.209	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1034	-	154	582
Stage 1	-	-	-	-	619	-
Stage 2	-	-	-	-	392	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1034	-	138	582
Mov Cap-2 Maneuver	-	-	-	-	138	-
Stage 1	-	-	-	-	619	-
Stage 2	-	-	-	-	351	-

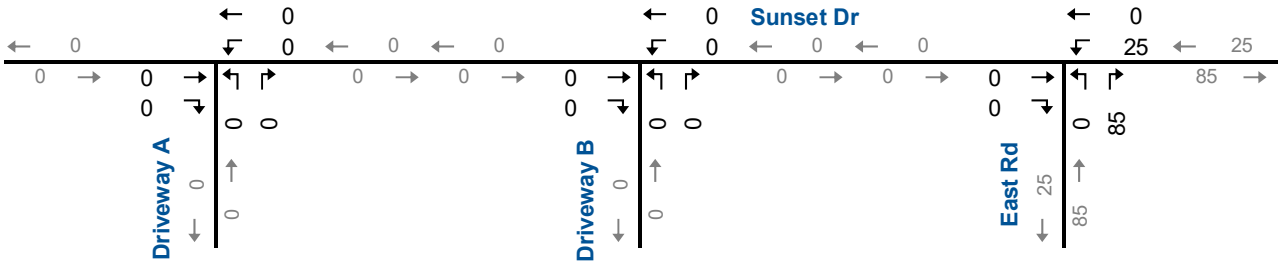
Approach	EB	WB	NB
HCM Control Delay, s	0	1.2	19.8
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	369	-	-	1034	-
HCM Lane V/C Ratio	0.345	-	-	0.104	-
HCM Control Delay (s)	19.8	-	-	8.9	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	1.5	-	-	0.3	-

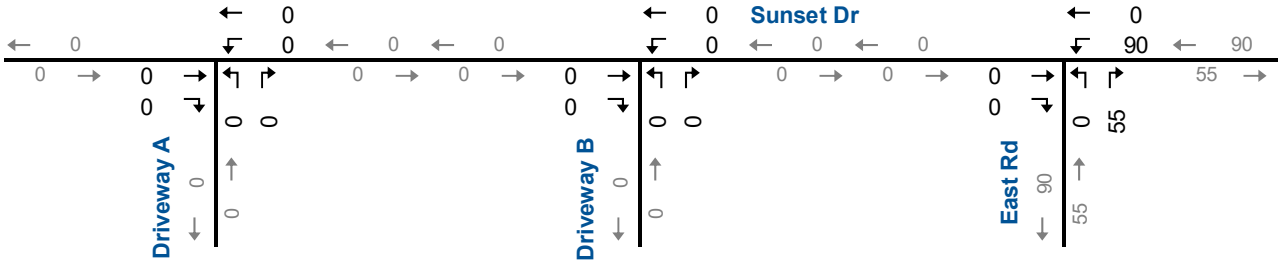
Appendix D

Other Area Development Traffic Volumes

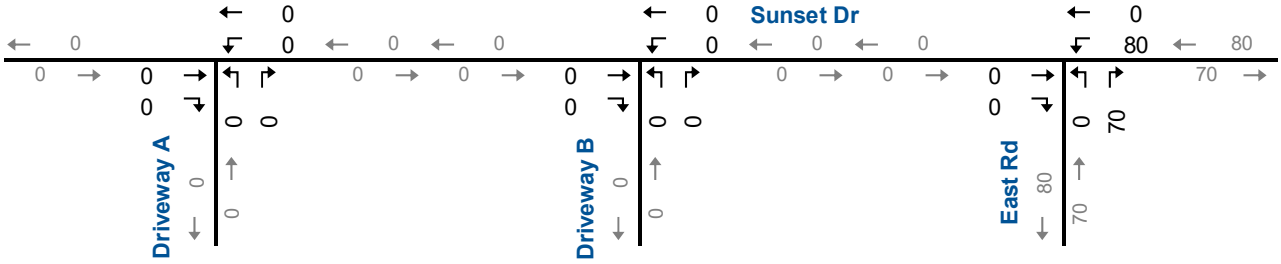
AM Peak Hour



PM Peak Hour



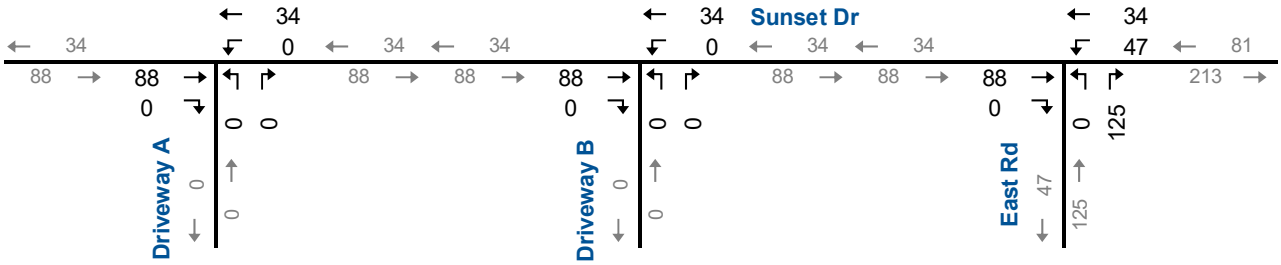
SAT Peak Hour



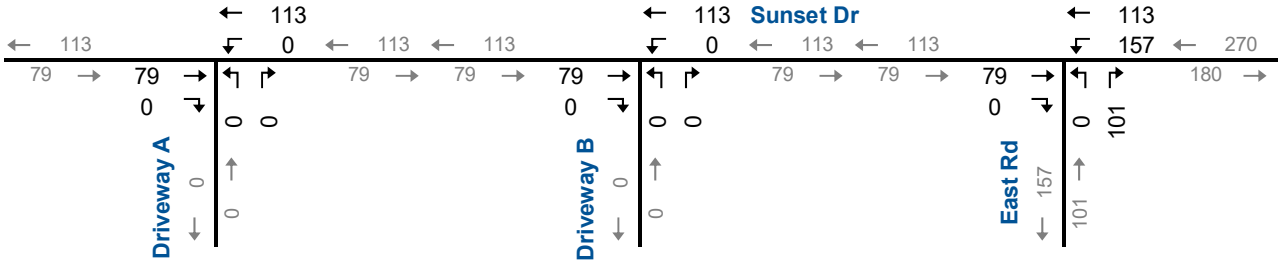
NTS

Other Area Development Traffic Volumes Little Creek Lands

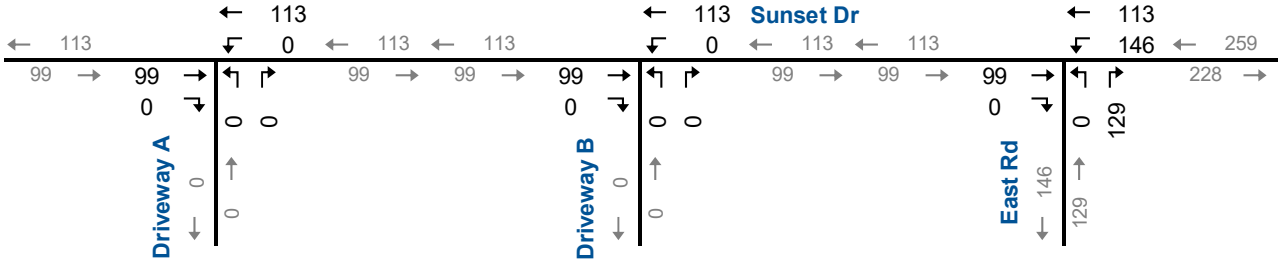
AM Peak Hour



PM Peak Hour



SAT Peak Hour



NTS

Other Area Development Traffic Volumes
Dillon TIS Background Developments

Appendix E

2024 Background Traffic Operations Reports

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	297	1	2	292	1	2
Future Volume (vph)	297	1	2	292	1	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.910	
Flt Protected					0.984	
Satd. Flow (prot)	1771	0	0	1776	1021	0
Flt Permitted					0.984	
Satd. Flow (perm)	1771	0	0	1776	1021	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	146.8			78.8	99.5	
Travel Time (s)	6.6			3.5	7.2	
Confl. Peds. (#/hr)		2	2			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	7%	100%	0%	7%	0%	100%
Adj. Flow (vph)	323	1	2	317	1	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	324	0	0	319	3	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	27.0%	ICU Level of Service	A
Analysis Period (min)	15		

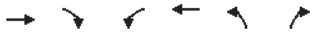
Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	297	1	2	292	1	2
Future Vol, veh/h	297	1	2	292	1	2
Conflicting Peds, #/hr	0	2	2	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, %	7	100	0	7	0	100
Mvmt Flow	323	1	2	317	1	2

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	326	0	647	326
Stage 1	-	-	-	-	326	-
Stage 2	-	-	-	-	321	-
Critical Hdwy	-	-	4.1	-	6.4	7.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	4.2
Pot Cap-1 Maneuver	-	-	1245	-	439	537
Stage 1	-	-	-	-	736	-
Stage 2	-	-	-	-	740	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1243	-	437	536
Mov Cap-2 Maneuver	-	-	-	-	437	-
Stage 1	-	-	-	-	735	-
Stage 2	-	-	-	-	739	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	12.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	498	-	-	1243	-
HCM Lane V/C Ratio	0.007	-	-	0.002	-
HCM Control Delay (s)	12.3	-	-	7.9	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	290	9	9	288	6	11
Future Volume (vph)	290	9	9	288	6	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.996				0.915	
Flt Protected				0.998	0.982	
Satd. Flow (prot)	1756	0	0	1770	1615	0
Flt Permitted				0.998	0.982	
Satd. Flow (perm)	1756	0	0	1770	1615	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	78.8			455.2	101.7	
Travel Time (s)	3.5			20.5	7.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	8%	0%	11%	7%	0%	9%
Adj. Flow (vph)	315	10	10	313	7	12
Shared Lane Traffic (%)						
Lane Group Flow (vph)	325	0	0	323	19	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	32.4%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	290	9	9	288	6	11
Future Vol, veh/h	290	9	9	288	6	11
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, %	8	0	11	7	0	9
Mvmt Flow	315	10	10	313	7	12

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	325	0	653	320
Stage 1	-	-	-	-	320	-
Stage 2	-	-	-	-	333	-
Critical Hdwy	-	-	4.21	-	6.4	6.29
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.299	-	3.5	3.381
Pot Cap-1 Maneuver	-	-	1186	-	435	705
Stage 1	-	-	-	-	741	-
Stage 2	-	-	-	-	731	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1186	-	431	705
Mov Cap-2 Maneuver	-	-	-	-	431	-
Stage 1	-	-	-	-	741	-
Stage 2	-	-	-	-	724	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	576	-	-	1186	-
HCM Lane V/C Ratio	0.032	-	-	0.008	-
HCM Control Delay (s)	11.5	-	-	8.1	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	290	11	126	284	12	310
Future Volume (vph)	290	11	126	284	12	310
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)		35.0	30.0		0.0	0.0
Storage Lanes		1	1		1	0
Taper Length (m)			40.0		7.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850			0.870	
Flt Protected			0.950		0.998	
Satd. Flow (prot)	1759	1615	1570	1810	1584	0
Flt Permitted			0.950		0.998	
Satd. Flow (perm)	1759	1615	1570	1810	1584	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	455.2			209.2	221.5	
Travel Time (s)	20.5			9.4	15.9	
Confl. Peds. (#/hr)		1	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	8%	0%	15%	5%	8%	4%
Adj. Flow (vph)	315	12	137	309	13	337
Shared Lane Traffic (%)						
Lane Group Flow (vph)	315	12	137	309	350	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.6			3.6	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	52.1%	ICU Level of Service	A
Analysis Period (min)	15		

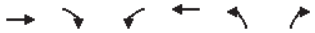
Intersection	
Int Delay, s/veh	6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	290	11	126	284	12	310
Future Vol, veh/h	290	11	126	284	12	310
Conflicting Peds, #/hr	0	1	1	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	35	30	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	8	0	15	5	8	4
Mvmt Flow	315	12	137	309	13	337

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	328	0	899	316
Stage 1	-	-	-	-	316	-
Stage 2	-	-	-	-	583	-
Critical Hdwy	-	-	4.25	-	6.48	6.24
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	-	-	2.335	-	3.572	3.336
Pot Cap-1 Maneuver	-	-	1162	-	302	720
Stage 1	-	-	-	-	726	-
Stage 2	-	-	-	-	546	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1161	-	266	719
Mov Cap-2 Maneuver	-	-	-	-	266	-
Stage 1	-	-	-	-	725	-
Stage 2	-	-	-	-	482	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.6	15.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	676	-	-	1161	-
HCM Lane V/C Ratio	0.518	-	-	0.118	-
HCM Control Delay (s)	15.9	-	-	8.5	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	3	-	-	0.4	-



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	484	21	22	510	13	29
Future Volume (vph)	484	21	22	510	13	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.994				0.906	
Flt Protected				0.998	0.985	
Satd. Flow (prot)	1853	0	0	1874	1655	0
Flt Permitted				0.998	0.985	
Satd. Flow (perm)	1853	0	0	1874	1655	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	146.8			78.8	99.5	
Travel Time (s)	6.6			3.5	7.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	0%	5%	1%	8%	0%
Adj. Flow (vph)	526	23	24	554	14	32
Shared Lane Traffic (%)						
Lane Group Flow (vph)	549	0	0	578	46	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	54.7%	ICU Level of Service	A
Analysis Period (min)	15		

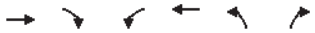
Intersection	
Int Delay, s/veh	0.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	484	21	22	510	13	29
Future Vol, veh/h	484	21	22	510	13	29
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	0	5	1	8	0
Mvmt Flow	526	23	24	554	14	32

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	549	0	1140	538
Stage 1	-	-	-	-	538	-
Stage 2	-	-	-	-	602	-
Critical Hdwy	-	-	4.15	-	6.48	6.2
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	-	-	2.245	-	3.572	3.3
Pot Cap-1 Maneuver	-	-	1006	-	216	547
Stage 1	-	-	-	-	573	-
Stage 2	-	-	-	-	535	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1006	-	209	547
Mov Cap-2 Maneuver	-	-	-	-	209	-
Stage 1	-	-	-	-	573	-
Stage 2	-	-	-	-	517	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	16.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	365	-	-	1006	-
HCM Lane V/C Ratio	0.125	-	-	0.024	-
HCM Control Delay (s)	16.3	-	-	8.7	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0.1	-



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	513	0	1	531	0	0
Future Volume (vph)	513	0	1	531	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt						
Flt Protected						
Satd. Flow (prot)	1881	0	0	1878	1900	0
Flt Permitted						
Satd. Flow (perm)	1881	0	0	1878	1900	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	78.8			455.2	101.7	
Travel Time (s)	3.5			20.5	7.3	
Confl. Peds. (#/hr)		2	2			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	0%	100%	1%	0%	0%
Adj. Flow (vph)	558	0	1	577	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	558	0	0	578	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	32.1%	ICU Level of Service A	
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	513	0	1	531	0	0
Future Vol, veh/h	513	0	1	531	0	0
Conflicting Peds, #/hr	0	2	2	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, %	1	0	100	1	0	0
Mvmt Flow	558	0	1	577	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	560	0	1139	560
Stage 1	-	-	-	-	560	-
Stage 2	-	-	-	-	579	-
Critical Hdwy	-	-	5.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	3.1	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	662	-	225	532
Stage 1	-	-	-	-	576	-
Stage 2	-	-	-	-	564	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	661	-	224	531
Mov Cap-2 Maneuver	-	-	-	-	224	-
Stage 1	-	-	-	-	575	-
Stage 2	-	-	-	-	563	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	661	-
HCM Lane V/C Ratio	-	-	-	0.002	-
HCM Control Delay (s)	0	-	-	10.5	0
HCM Lane LOS	A	-	-	B	A
HCM 95th %tile Q(veh)	-	-	-	0	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	487	26	331	518	14	248
Future Volume (vph)	487	26	331	518	14	248
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)		35.0	30.0		0.0	0.0
Storage Lanes		1	1		1	0
Taper Length (m)			40.0		7.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.872	
Flt Protected			0.950		0.997	
Satd. Flow (prot)	1863	1615	1805	1881	1652	0
Flt Permitted			0.950		0.997	
Satd. Flow (perm)	1863	1615	1805	1881	1652	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	455.2			209.2	221.5	
Travel Time (s)	20.5			9.4	15.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	0%	0%	1%	0%	0%
Adj. Flow (vph)	529	28	360	563	15	270
Shared Lane Traffic (%)						
Lane Group Flow (vph)	529	28	360	563	285	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.6			3.6	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	70.1%	ICU Level of Service	C
Analysis Period (min)	15		

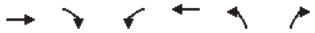
Intersection	
Int Delay, s/veh	8.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	487	26	331	518	14	248
Future Vol, veh/h	487	26	331	518	14	248
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	35	30	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	0	0	1	0	0
Mvmt Flow	529	28	360	563	15	270

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	557	0	1812	529
Stage 1	-	-	-	-	529	-
Stage 2	-	-	-	-	1283	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1024	-	87	554
Stage 1	-	-	-	-	595	-
Stage 2	-	-	-	-	263	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1024	-	56	554
Mov Cap-2 Maneuver	-	-	-	-	56	-
Stage 1	-	-	-	-	595	-
Stage 2	-	-	-	-	170	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.1	39
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	376	-	-	1024	-
HCM Lane V/C Ratio	0.757	-	-	0.351	-
HCM Control Delay (s)	39	-	-	10.4	-
HCM Lane LOS	E	-	-	B	-
HCM 95th %tile Q(veh)	6.1	-	-	1.6	-



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	560	43	4	772	21	13
Future Volume (vph)	560	43	4	772	21	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.990				0.949	
Flt Protected					0.970	
Satd. Flow (prot)	1881	0	0	1900	1749	0
Flt Permitted					0.970	
Satd. Flow (perm)	1881	0	0	1900	1749	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	146.8			78.8	99.5	
Travel Time (s)	6.6			3.5	7.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	609	47	4	839	23	14
Shared Lane Traffic (%)						
Lane Group Flow (vph)	656	0	0	843	37	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	53.8%	ICU Level of Service	A
Analysis Period (min)	15		

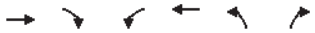
Intersection	
Int Delay, s/veh	0.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	560	43	4	772	21	13
Future Vol, veh/h	560	43	4	772	21	13
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, %	0	0	0	0	0	0
Mvmt Flow	609	47	4	839	23	14

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	656	0	1480	633
Stage 1	-	-	-	-	633	-
Stage 2	-	-	-	-	847	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	941	-	140	483
Stage 1	-	-	-	-	533	-
Stage 2	-	-	-	-	424	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	941	-	139	483
Mov Cap-2 Maneuver	-	-	-	-	139	-
Stage 1	-	-	-	-	533	-
Stage 2	-	-	-	-	421	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	28.3
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	191	-	-	941	-
HCM Lane V/C Ratio	0.193	-	-	0.005	-
HCM Control Delay (s)	28.3	-	-	8.8	0
HCM Lane LOS	D	-	-	A	A
HCM 95th %tile Q(veh)	0.7	-	-	0	-



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	570	3	19	769	7	31
Future Volume (vph)	570	3	19	769	7	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.999				0.891	
Flt Protected				0.999	0.991	
Satd. Flow (prot)	1898	0	0	1898	1678	0
Flt Permitted				0.999	0.991	
Satd. Flow (perm)	1898	0	0	1898	1678	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	78.8			455.2	101.7	
Travel Time (s)	3.5			20.5	7.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	620	3	21	836	8	34
Shared Lane Traffic (%)						
Lane Group Flow (vph)	623	0	0	857	42	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	65.7%	ICU Level of Service	C
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	570	3	19	769	7	31
Future Vol, veh/h	570	3	19	769	7	31
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, %	0	0	0	0	0	0
Mvmt Flow	620	3	21	836	8	34

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	623	0	1500	622
Stage 1	-	-	-	-	622	-
Stage 2	-	-	-	-	878	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	968	-	136	490
Stage 1	-	-	-	-	539	-
Stage 2	-	-	-	-	410	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	968	-	130	490
Mov Cap-2 Maneuver	-	-	-	-	130	-
Stage 1	-	-	-	-	539	-
Stage 2	-	-	-	-	393	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	17.7
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	324	-	-	968	-
HCM Lane V/C Ratio	0.127	-	-	0.021	-
HCM Control Delay (s)	17.7	-	-	8.8	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0.1	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	556	45	326	767	21	296
Future Volume (vph)	556	45	326	767	21	296
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)		35.0	30.0		0.0	0.0
Storage Lanes		1	1		1	0
Taper Length (m)			40.0		7.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850			0.874	
Flt Protected			0.950		0.997	
Satd. Flow (prot)	1881	1583	1787	1881	1656	0
Flt Permitted			0.950		0.997	
Satd. Flow (perm)	1881	1583	1787	1881	1656	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	455.2			209.2	221.5	
Travel Time (s)	20.5			9.4	15.9	
Confl. Peds. (#/hr)		1	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	2%	1%	1%	0%	0%
Adj. Flow (vph)	604	49	354	834	23	322
Shared Lane Traffic (%)						
Lane Group Flow (vph)	604	49	354	834	345	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.6			3.6	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type:	Unsignalized		
Intersection Capacity Utilization	76.8%	ICU Level of Service	D
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	34

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	556	45	326	767	21	296
Future Vol, veh/h	556	45	326	767	21	296
Conflicting Peds, #/hr	0	1	1	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	35	30	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	2	1	1	0	0
Mvmt Flow	604	49	354	834	23	322

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	654	0	2147	605
Stage 1	-	-	-	-	605	-
Stage 2	-	-	-	-	1542	-
Critical Hdwy	-	-	4.11	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.209	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	938	-	54	501
Stage 1	-	-	-	-	549	-
Stage 2	-	-	-	-	196	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	937	-	34	501
Mov Cap-2 Maneuver	-	-	-	-	34	-
Stage 1	-	-	-	-	548	-
Stage 2	-	-	-	-	122	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.3	204.4
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	262	-	-	937	-
HCM Lane V/C Ratio	1.315	-	-	0.378	-
HCM Control Delay (s)	204.4	-	-	11.2	-
HCM Lane LOS	F	-	-	B	-
HCM 95th %tile Q(veh)	17.6	-	-	1.8	-

Appendix F

2024 Total Traffic Operations Reports

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	324	1	2	314	1	2
Future Volume (vph)	324	1	2	314	1	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.910	
Flt Protected					0.984	
Satd. Flow (prot)	1771	0	0	1776	1021	0
Flt Permitted					0.984	
Satd. Flow (perm)	1771	0	0	1776	1021	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	146.8			78.8	99.5	
Travel Time (s)	6.6			3.5	7.2	
Confl. Peds. (#/hr)		2	2			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	7%	100%	0%	7%	0%	100%
Adj. Flow (vph)	352	1	2	341	1	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	353	0	0	343	3	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	28.1%	ICU Level of Service A	
Analysis Period (min)	15		

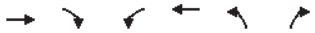
Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	324	1	2	314	1	2
Future Vol, veh/h	324	1	2	314	1	2
Conflicting Peds, #/hr	0	2	2	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, %	7	100	0	7	0	100
Mvmt Flow	352	1	2	341	1	2

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	355	0	700	355
Stage 1	-	-	-	-	355	-
Stage 2	-	-	-	-	345	-
Critical Hdwy	-	-	4.1	-	6.4	7.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	4.2
Pot Cap-1 Maneuver	-	-	1215	-	409	515
Stage 1	-	-	-	-	714	-
Stage 2	-	-	-	-	722	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1213	-	407	514
Mov Cap-2 Maneuver	-	-	-	-	407	-
Stage 1	-	-	-	-	713	-
Stage 2	-	-	-	-	721	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	12.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	473	-	-	1213	-
HCM Lane V/C Ratio	0.007	-	-	0.002	-
HCM Control Delay (s)	12.7	-	-	8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	277	49	47	271	45	42
Future Volume (vph)	277	49	47	271	45	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.980				0.935	
Flt Protected				0.993	0.975	
Satd. Flow (prot)	1743	0	0	1754	1660	0
Flt Permitted				0.993	0.975	
Satd. Flow (perm)	1743	0	0	1754	1660	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	78.8			455.2	101.7	
Travel Time (s)	3.5			20.5	7.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	8%	0%	11%	7%	0%	9%
Adj. Flow (vph)	301	53	51	295	49	46
Shared Lane Traffic (%)						
Lane Group Flow (vph)	354	0	0	346	95	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	49.5%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	2.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	277	49	47	271	45	42
Future Vol, veh/h	277	49	47	271	45	42
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, %	8	0	11	7	0	9
Mvmt Flow	301	53	51	295	49	46

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	354	0	725	328
Stage 1	-	-	-	-	328	-
Stage 2	-	-	-	-	397	-
Critical Hdwy	-	-	4.21	-	6.4	6.29
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.299	-	3.5	3.381
Pot Cap-1 Maneuver	-	-	1156	-	395	697
Stage 1	-	-	-	-	734	-
Stage 2	-	-	-	-	683	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1156	-	374	697
Mov Cap-2 Maneuver	-	-	-	-	374	-
Stage 1	-	-	-	-	734	-
Stage 2	-	-	-	-	647	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.2	14.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	482	-	-	1156	-
HCM Lane V/C Ratio	0.196	-	-	0.044	-
HCM Control Delay (s)	14.3	-	-	8.3	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.7	-	-	0.1	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	306	13	126	303	14	310
Future Volume (vph)	306	13	126	303	14	310
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)		35.0	30.0		0.0	0.0
Storage Lanes		1	1		1	0
Taper Length (m)			40.0		7.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850			0.871	
Flt Protected			0.950		0.998	
Satd. Flow (prot)	1759	1615	1570	1810	1585	0
Flt Permitted			0.950		0.998	
Satd. Flow (perm)	1759	1615	1570	1810	1585	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	455.2			209.2	221.5	
Travel Time (s)	20.5			9.4	15.9	
Confl. Peds. (#/hr)		1	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	8%	0%	15%	5%	8%	4%
Adj. Flow (vph)	333	14	137	329	15	337
Shared Lane Traffic (%)						
Lane Group Flow (vph)	333	14	137	329	352	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.6			3.6	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	53.0%	ICU Level of Service A	
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	6.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	306	13	126	303	14	310
Future Vol, veh/h	306	13	126	303	14	310
Conflicting Peds, #/hr	0	1	1	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	35	30	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	8	0	15	5	8	4
Mvmt Flow	333	14	137	329	15	337

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	348	0	937	334
Stage 1	-	-	-	-	334	-
Stage 2	-	-	-	-	603	-
Critical Hdwy	-	-	4.25	-	6.48	6.24
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	-	-	2.335	-	3.572	3.336
Pot Cap-1 Maneuver	-	-	1142	-	287	703
Stage 1	-	-	-	-	712	-
Stage 2	-	-	-	-	535	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1141	-	252	702
Mov Cap-2 Maneuver	-	-	-	-	252	-
Stage 1	-	-	-	-	711	-
Stage 2	-	-	-	-	471	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.5	16.8
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	652	-	-	1141	-
HCM Lane V/C Ratio	0.54	-	-	0.12	-
HCM Control Delay (s)	16.8	-	-	8.6	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	3.2	-	-	0.4	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	518	21	22	542	13	29
Future Volume (vph)	518	21	22	542	13	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.995				0.906	
Flt Protected				0.998	0.985	
Satd. Flow (prot)	1855	0	0	1875	1655	0
Flt Permitted				0.998	0.985	
Satd. Flow (perm)	1855	0	0	1875	1655	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	146.8			78.8	99.5	
Travel Time (s)	6.6			3.5	7.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	0%	5%	1%	8%	0%
Adj. Flow (vph)	563	23	24	589	14	32
Shared Lane Traffic (%)						
Lane Group Flow (vph)	586	0	0	613	46	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	56.4%	ICU Level of Service	B
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	518	21	22	542	13	29
Future Vol, veh/h	518	21	22	542	13	29
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	0	5	1	8	0
Mvmt Flow	563	23	24	589	14	32

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	586	0	1212	575
Stage 1	-	-	-	-	575	-
Stage 2	-	-	-	-	637	-
Critical Hdwy	-	-	4.15	-	6.48	6.2
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	-	-	2.245	-	3.572	3.3
Pot Cap-1 Maneuver	-	-	974	-	196	521
Stage 1	-	-	-	-	551	-
Stage 2	-	-	-	-	516	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	974	-	189	521
Mov Cap-2 Maneuver	-	-	-	-	189	-
Stage 1	-	-	-	-	551	-
Stage 2	-	-	-	-	497	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	17.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	337	-	-	974	-
HCM Lane V/C Ratio	0.135	-	-	0.025	-
HCM Control Delay (s)	17.3	-	-	8.8	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.5	-	-	0.1	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	501	46	41	519	44	38
Future Volume (vph)	501	46	41	519	44	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.989				0.938	
Flt Protected				0.996	0.974	
Satd. Flow (prot)	1862	0	0	1747	1736	0
Flt Permitted				0.996	0.974	
Satd. Flow (perm)	1862	0	0	1747	1736	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	78.8			455.2	101.7	
Travel Time (s)	3.5			20.5	7.3	
Confl. Peds. (#/hr)		2	2			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	0%	100%	1%	0%	0%
Adj. Flow (vph)	545	50	45	564	48	41
Shared Lane Traffic (%)						
Lane Group Flow (vph)	595	0	0	609	89	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	72.6%	ICU Level of Service	C
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	2.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	501	46	41	519	44	38
Future Vol, veh/h	501	46	41	519	44	38
Conflicting Peds, #/hr	0	2	2	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, %	1	0	100	1	0	0
Mvmt Flow	545	50	45	564	48	41

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	597	0	1226	572
Stage 1	-	-	-	-	572	-
Stage 2	-	-	-	-	654	-
Critical Hdwy	-	-	5.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	3.1	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	638	-	199	523
Stage 1	-	-	-	-	569	-
Stage 2	-	-	-	-	521	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	637	-	178	522
Mov Cap-2 Maneuver	-	-	-	-	178	-
Stage 1	-	-	-	-	568	-
Stage 2	-	-	-	-	467	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.8	26.4
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	256	-	-	637	-
HCM Lane V/C Ratio	0.348	-	-	0.07	-
HCM Control Delay (s)	26.4	-	-	11.1	0
HCM Lane LOS	D	-	-	B	A
HCM 95th %tile Q(veh)	1.5	-	-	0.2	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	510	29	331	543	17	248
Future Volume (vph)	510	29	331	543	17	248
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)		35.0	30.0		0.0	0.0
Storage Lanes		1	1		1	0
Taper Length (m)			40.0		7.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.873	
Flt Protected			0.950		0.997	
Satd. Flow (prot)	1863	1615	1805	1881	1654	0
Flt Permitted			0.950		0.997	
Satd. Flow (perm)	1863	1615	1805	1881	1654	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	455.2			209.2	221.5	
Travel Time (s)	20.5			9.4	15.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	0%	0%	1%	0%	0%
Adj. Flow (vph)	554	32	360	590	18	270
Shared Lane Traffic (%)						
Lane Group Flow (vph)	554	32	360	590	288	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.6			3.6	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	71.5%	ICU Level of Service	C
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	10.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	510	29	331	543	17	248
Future Vol, veh/h	510	29	331	543	17	248
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	35	30	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	0	0	1	0	0
Mvmt Flow	554	32	360	590	18	270

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	586	0	1864	554
Stage 1	-	-	-	-	554	-
Stage 2	-	-	-	-	1310	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	999	-	81	536
Stage 1	-	-	-	-	580	-
Stage 2	-	-	-	-	255	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	999	-	52	536
Mov Cap-2 Maneuver	-	-	-	-	52	-
Stage 1	-	-	-	-	580	-
Stage 2	-	-	-	-	163	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4	55.5
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	336	-	-	999	-
HCM Lane V/C Ratio	0.857	-	-	0.36	-
HCM Control Delay (s)	55.5	-	-	10.6	-
HCM Lane LOS	F	-	-	B	-
HCM 95th %tile Q(veh)	7.8	-	-	1.7	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	601	43	4	811	21	13
Future Volume (vph)	601	43	4	811	21	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.991				0.949	
Flt Protected					0.970	
Satd. Flow (prot)	1883	0	0	1900	1749	0
Flt Permitted					0.970	
Satd. Flow (perm)	1883	0	0	1900	1749	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	146.8			78.8	99.5	
Travel Time (s)	6.6			3.5	7.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	653	47	4	882	23	14
Shared Lane Traffic (%)						
Lane Group Flow (vph)	700	0	0	886	37	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	55.9%	ICU Level of Service	B
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	601	43	4	811	21	13
Future Vol, veh/h	601	43	4	811	21	13
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, %	0	0	0	0	0	0
Mvmt Flow	653	47	4	882	23	14

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	700	0	1567	677
Stage 1	-	-	-	-	677	-
Stage 2	-	-	-	-	890	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	906	-	124	456
Stage 1	-	-	-	-	509	-
Stage 2	-	-	-	-	404	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	906	-	123	456
Mov Cap-2 Maneuver	-	-	-	-	123	-
Stage 1	-	-	-	-	509	-
Stage 2	-	-	-	-	400	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	31.8
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	171	-	-	906	-
HCM Lane V/C Ratio	0.216	-	-	0.005	-
HCM Control Delay (s)	31.8	-	-	9	0
HCM Lane LOS	D	-	-	A	A
HCM 95th %tile Q(veh)	0.8	-	-	0	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	553	61	77	745	70	80
Future Volume (vph)	553	61	77	745	70	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.987				0.928	
Flt Protected				0.995	0.977	
Satd. Flow (prot)	1875	0	0	1890	1723	0
Flt Permitted				0.995	0.977	
Satd. Flow (perm)	1875	0	0	1890	1723	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	78.8			455.2	101.7	
Travel Time (s)	3.5			20.5	7.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	601	66	84	810	76	87
Shared Lane Traffic (%)						
Lane Group Flow (vph)	667	0	0	894	163	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	95.1%	ICU Level of Service	F
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	11.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	553	61	77	745	70	80
Future Vol, veh/h	553	61	77	745	70	80
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, %	0	0	0	0	0	0
Mvmt Flow	601	66	84	810	76	87

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	667	0	1612	634
Stage 1	-	-	-	-	634	-
Stage 2	-	-	-	-	978	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	932	-	116	483
Stage 1	-	-	-	-	532	-
Stage 2	-	-	-	-	368	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	932	-	97	483
Mov Cap-2 Maneuver	-	-	-	-	97	-
Stage 1	-	-	-	-	532	-
Stage 2	-	-	-	-	308	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.9	114.9
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	169	-	-	932	-
HCM Lane V/C Ratio	0.965	-	-	0.09	-
HCM Control Delay (s)	114.9	-	-	9.2	0
HCM Lane LOS	F	-	-	A	A
HCM 95th %tile Q(veh)	7.5	-	-	0.3	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	584	49	326	797	25	296
Future Volume (vph)	584	49	326	797	25	296
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)		35.0	30.0		0.0	0.0
Storage Lanes		1	1		1	0
Taper Length (m)			40.0		7.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850			0.875	
Flt Protected			0.950		0.996	
Satd. Flow (prot)	1881	1583	1787	1881	1656	0
Flt Permitted			0.950		0.996	
Satd. Flow (perm)	1881	1583	1787	1881	1656	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	455.2			209.2	221.5	
Travel Time (s)	20.5			9.4	15.9	
Confl. Peds. (#/hr)		1	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	2%	1%	1%	0%	0%
Adj. Flow (vph)	635	53	354	866	27	322
Shared Lane Traffic (%)						
Lane Group Flow (vph)	635	53	354	866	349	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.6			3.6	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	78.5%	ICU Level of Service	D
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	50.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	584	49	326	797	25	296
Future Vol, veh/h	584	49	326	797	25	296
Conflicting Peds, #/hr	0	1	1	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	35	30	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	2	1	1	0	0
Mvmt Flow	635	53	354	866	27	322

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	689	0	2210	636
Stage 1	-	-	-	-	636	-
Stage 2	-	-	-	-	1574	-
Critical Hdwy	-	-	4.11	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.209	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	910	-	49	481
Stage 1	-	-	-	-	531	-
Stage 2	-	-	-	-	189	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	909	-	30	481
Mov Cap-2 Maneuver	-	-	-	-	30	-
Stage 1	-	-	-	-	530	-
Stage 2	-	-	-	-	115	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.3	$ 317.2
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	222	-	-	909	-
HCM Lane V/C Ratio	1.572	-	-	0.39	-
HCM Control Delay (s)	$ 317.2	-	-	11.5	-
HCM Lane LOS	F	-	-	B	-
HCM 95th %tile Q(veh)	21.9	-	-	1.9	-

Notes				
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon	

Appendix G

2029 Background Traffic Operations Reports

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	302	1	2	298	1	2
Future Volume (vph)	302	1	2	298	1	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.910	
Flt Protected					0.984	
Satd. Flow (prot)	1771	0	0	1776	1021	0
Flt Permitted					0.984	
Satd. Flow (perm)	1771	0	0	1776	1021	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	146.8			78.8	99.5	
Travel Time (s)	6.6			3.5	7.2	
Confl. Peds. (#/hr)		2	2			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	7%	100%	0%	7%	0%	100%
Adj. Flow (vph)	328	1	2	324	1	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	329	0	0	326	3	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	27.3%	ICU Level of Service	A
Analysis Period (min)	15		

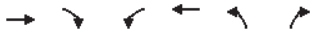
Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	302	1	2	298	1	2
Future Vol, veh/h	302	1	2	298	1	2
Conflicting Peds, #/hr	0	2	2	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, %	7	100	0	7	0	100
Mvmt Flow	328	1	2	324	1	2

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	331	0	659	331
Stage 1	-	-	-	-	331	-
Stage 2	-	-	-	-	328	-
Critical Hdwy	-	-	4.1	-	6.4	7.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	4.2
Pot Cap-1 Maneuver	-	-	1240	-	432	533
Stage 1	-	-	-	-	732	-
Stage 2	-	-	-	-	734	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1238	-	430	532
Mov Cap-2 Maneuver	-	-	-	-	430	-
Stage 1	-	-	-	-	731	-
Stage 2	-	-	-	-	733	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	12.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	493	-	-	1238	-
HCM Lane V/C Ratio	0.007	-	-	0.002	-
HCM Control Delay (s)	12.4	-	-	7.9	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	295	9	9	294	6	11
Future Volume (vph)	295	9	9	294	6	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.996				0.915	
Flt Protected				0.998	0.982	
Satd. Flow (prot)	1756	0	0	1770	1615	0
Flt Permitted				0.998	0.982	
Satd. Flow (perm)	1756	0	0	1770	1615	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	78.8			455.2	101.7	
Travel Time (s)	3.5			20.5	7.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	8%	0%	11%	7%	0%	9%
Adj. Flow (vph)	321	10	10	320	7	12
Shared Lane Traffic (%)						
Lane Group Flow (vph)	331	0	0	330	19	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	32.7%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	295	9	9	294	6	11
Future Vol, veh/h	295	9	9	294	6	11
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, %	8	0	11	7	0	9
Mvmt Flow	321	10	10	320	7	12

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	331	0	666	326
Stage 1	-	-	-	-	326	-
Stage 2	-	-	-	-	340	-
Critical Hdwy	-	-	4.21	-	6.4	6.29
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.299	-	3.5	3.381
Pot Cap-1 Maneuver	-	-	1180	-	428	699
Stage 1	-	-	-	-	736	-
Stage 2	-	-	-	-	725	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1180	-	424	699
Mov Cap-2 Maneuver	-	-	-	-	424	-
Stage 1	-	-	-	-	736	-
Stage 2	-	-	-	-	718	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	569	-	-	1180	-
HCM Lane V/C Ratio	0.032	-	-	0.008	-
HCM Control Delay (s)	11.5	-	-	8.1	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	295	11	127	291	12	313
Future Volume (vph)	295	11	127	291	12	313
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)		35.0	30.0		0.0	0.0
Storage Lanes		1	1		1	0
Taper Length (m)			40.0		7.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850			0.870	
Flt Protected			0.950		0.998	
Satd. Flow (prot)	1759	1615	1570	1810	1584	0
Flt Permitted			0.950		0.998	
Satd. Flow (perm)	1759	1615	1570	1810	1584	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	455.2			209.2	221.5	
Travel Time (s)	20.5			9.4	15.9	
Confl. Peds. (#/hr)		1	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	8%	0%	15%	5%	8%	4%
Adj. Flow (vph)	321	12	138	316	13	340
Shared Lane Traffic (%)						
Lane Group Flow (vph)	321	12	138	316	353	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.6			3.6	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	52.6%	ICU Level of Service A	
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	6.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	295	11	127	291	12	313
Future Vol, veh/h	295	11	127	291	12	313
Conflicting Peds, #/hr	0	1	1	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	35	30	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	8	0	15	5	8	4
Mvmt Flow	321	12	138	316	13	340

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	334	0	914	322
Stage 1	-	-	-	-	322	-
Stage 2	-	-	-	-	592	-
Critical Hdwy	-	-	4.25	-	6.48	6.24
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	-	-	2.335	-	3.572	3.336
Pot Cap-1 Maneuver	-	-	1156	-	296	714
Stage 1	-	-	-	-	721	-
Stage 2	-	-	-	-	541	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1155	-	260	713
Mov Cap-2 Maneuver	-	-	-	-	260	-
Stage 1	-	-	-	-	720	-
Stage 2	-	-	-	-	477	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.6	16.2
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	670	-	-	1155	-
HCM Lane V/C Ratio	0.527	-	-	0.12	-
HCM Control Delay (s)	16.2	-	-	8.5	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	3.1	-	-	0.4	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	495	21	22	520	13	29
Future Volume (vph)	495	21	22	520	13	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.994				0.906	
Flt Protected				0.998	0.985	
Satd. Flow (prot)	1853	0	0	1874	1655	0
Flt Permitted				0.998	0.985	
Satd. Flow (perm)	1853	0	0	1874	1655	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	146.8			78.8	99.5	
Travel Time (s)	6.6			3.5	7.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	0%	5%	1%	8%	0%
Adj. Flow (vph)	538	23	24	565	14	32
Shared Lane Traffic (%)						
Lane Group Flow (vph)	561	0	0	589	46	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	55.2%	ICU Level of Service	B
Analysis Period (min)	15		

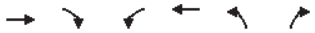
Intersection	
Int Delay, s/veh	0.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	495	21	22	520	13	29
Future Vol, veh/h	495	21	22	520	13	29
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	0	5	1	8	0
Mvmt Flow	538	23	24	565	14	32

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	561	0	1163	550
Stage 1	-	-	-	-	550	-
Stage 2	-	-	-	-	613	-
Critical Hdwy	-	-	4.15	-	6.48	6.2
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	-	-	2.245	-	3.572	3.3
Pot Cap-1 Maneuver	-	-	995	-	209	539
Stage 1	-	-	-	-	566	-
Stage 2	-	-	-	-	529	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	995	-	202	539
Mov Cap-2 Maneuver	-	-	-	-	202	-
Stage 1	-	-	-	-	566	-
Stage 2	-	-	-	-	510	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	16.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	355	-	-	995	-
HCM Lane V/C Ratio	0.129	-	-	0.024	-
HCM Control Delay (s)	16.6	-	-	8.7	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0.1	-



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	524	0	1	542	0	0
Future Volume (vph)	524	0	1	542	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt						
Flt Protected						
Satd. Flow (prot)	1881	0	0	1878	1900	0
Flt Permitted						
Satd. Flow (perm)	1881	0	0	1878	1900	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	78.8			455.2	101.7	
Travel Time (s)	3.5			20.5	7.3	
Confl. Peds. (#/hr)		2	2			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	0%	100%	1%	0%	0%
Adj. Flow (vph)	570	0	1	589	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	570	0	0	590	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	32.7%	ICU Level of Service A	
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	524	0	1	542	0	0
Future Vol, veh/h	524	0	1	542	0	0
Conflicting Peds, #/hr	0	2	2	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, %	1	0	100	1	0	0
Mvmt Flow	570	0	1	589	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	572	0	1163	572
Stage 1	-	-	-	-	572	-
Stage 2	-	-	-	-	591	-
Critical Hdwy	-	-	5.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	3.1	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	654	-	217	523
Stage 1	-	-	-	-	569	-
Stage 2	-	-	-	-	557	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	653	-	216	522
Mov Cap-2 Maneuver	-	-	-	-	216	-
Stage 1	-	-	-	-	568	-
Stage 2	-	-	-	-	556	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	653	-
HCM Lane V/C Ratio	-	-	-	0.002	-
HCM Control Delay (s)	0	-	-	10.5	0
HCM Lane LOS	A	-	-	B	A
HCM 95th %tile Q(veh)	-	-	-	0	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	497	27	333	529	14	250
Future Volume (vph)	497	27	333	529	14	250
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)		35.0	30.0		0.0	0.0
Storage Lanes		1	1		1	0
Taper Length (m)			40.0		7.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.872	
Flt Protected			0.950		0.997	
Satd. Flow (prot)	1863	1615	1805	1881	1652	0
Flt Permitted			0.950		0.997	
Satd. Flow (perm)	1863	1615	1805	1881	1652	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	455.2			209.2	221.5	
Travel Time (s)	20.5			9.4	15.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	0%	0%	1%	0%	0%
Adj. Flow (vph)	540	29	362	575	15	272
Shared Lane Traffic (%)						
Lane Group Flow (vph)	540	29	362	575	287	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.6			3.6	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	70.8%	ICU Level of Service	C
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	8.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	497	27	333	529	14	250
Future Vol, veh/h	497	27	333	529	14	250
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	35	30	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	0	0	1	0	0
Mvmt Flow	540	29	362	575	15	272

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	569	0	1839	540
Stage 1	-	-	-	-	540	-
Stage 2	-	-	-	-	1299	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1013	-	84	546
Stage 1	-	-	-	-	588	-
Stage 2	-	-	-	-	258	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1013	-	54	546
Mov Cap-2 Maneuver	-	-	-	-	54	-
Stage 1	-	-	-	-	588	-
Stage 2	-	-	-	-	166	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.1	42
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	368	-	-	1013	-
HCM Lane V/C Ratio	0.78	-	-	0.357	-
HCM Control Delay (s)	42	-	-	10.5	-
HCM Lane LOS	E	-	-	B	-
HCM 95th %tile Q(veh)	6.5	-	-	1.6	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	573	43	4	789	21	13
Future Volume (vph)	573	43	4	789	21	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.991				0.949	
Flt Protected					0.970	
Satd. Flow (prot)	1883	0	0	1900	1749	0
Flt Permitted					0.970	
Satd. Flow (perm)	1883	0	0	1900	1749	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	146.8			78.8	99.5	
Travel Time (s)	6.6			3.5	7.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	623	47	4	858	23	14
Shared Lane Traffic (%)						
Lane Group Flow (vph)	670	0	0	862	37	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	54.7%	ICU Level of Service	A
Analysis Period (min)	15		

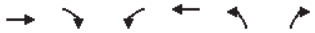
Intersection	
Int Delay, s/veh	0.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	573	43	4	789	21	13
Future Vol, veh/h	573	43	4	789	21	13
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, %	0	0	0	0	0	0
Mvmt Flow	623	47	4	858	23	14

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	670	0	1513	647
Stage 1	-	-	-	-	647	-
Stage 2	-	-	-	-	866	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	930	-	133	475
Stage 1	-	-	-	-	525	-
Stage 2	-	-	-	-	415	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	930	-	132	475
Mov Cap-2 Maneuver	-	-	-	-	132	-
Stage 1	-	-	-	-	525	-
Stage 2	-	-	-	-	412	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	29.8
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	182	-	-	930	-
HCM Lane V/C Ratio	0.203	-	-	0.005	-
HCM Control Delay (s)	29.8	-	-	8.9	0
HCM Lane LOS	D	-	-	A	A
HCM 95th %tile Q(veh)	0.7	-	-	0	-



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	583	3	19	786	7	31
Future Volume (vph)	583	3	19	786	7	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.999				0.891	
Flt Protected				0.999	0.991	
Satd. Flow (prot)	1898	0	0	1898	1678	0
Flt Permitted				0.999	0.991	
Satd. Flow (perm)	1898	0	0	1898	1678	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	78.8			455.2	101.7	
Travel Time (s)	3.5			20.5	7.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	634	3	21	854	8	34
Shared Lane Traffic (%)						
Lane Group Flow (vph)	637	0	0	875	42	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	66.6%	ICU Level of Service	C
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	583	3	19	786	7	31
Future Vol, veh/h	583	3	19	786	7	31
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, %	0	0	0	0	0	0
Mvmt Flow	634	3	21	854	8	34

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	637	0	1532	636
Stage 1	-	-	-	-	636	-
Stage 2	-	-	-	-	896	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	956	-	130	481
Stage 1	-	-	-	-	531	-
Stage 2	-	-	-	-	402	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	956	-	125	481
Mov Cap-2 Maneuver	-	-	-	-	125	-
Stage 1	-	-	-	-	531	-
Stage 2	-	-	-	-	385	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	18.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	315	-	-	956	-
HCM Lane V/C Ratio	0.131	-	-	0.022	-
HCM Control Delay (s)	18.1	-	-	8.8	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0.1	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	567	47	329	783	22	298
Future Volume (vph)	567	47	329	783	22	298
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)		35.0	30.0		0.0	0.0
Storage Lanes		1	1		1	0
Taper Length (m)			40.0		7.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850			0.874	
Flt Protected			0.950		0.997	
Satd. Flow (prot)	1881	1583	1787	1881	1656	0
Flt Permitted			0.950		0.997	
Satd. Flow (perm)	1881	1583	1787	1881	1656	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	455.2			209.2	221.5	
Travel Time (s)	20.5			9.4	15.9	
Confl. Peds. (#/hr)		1	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	2%	1%	1%	0%	0%
Adj. Flow (vph)	616	51	358	851	24	324
Shared Lane Traffic (%)						
Lane Group Flow (vph)	616	51	358	851	348	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.6			3.6	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	77.7%	ICU Level of Service	D
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	41.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	567	47	329	783	22	298
Future Vol, veh/h	567	47	329	783	22	298
Conflicting Peds, #/hr	0	1	1	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	35	30	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	2	1	1	0	0
Mvmt Flow	616	51	358	851	24	324

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	668	0	2184	617
Stage 1	-	-	-	-	617	-
Stage 2	-	-	-	-	1567	-
Critical Hdwy	-	-	4.11	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.209	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	927	-	51	494
Stage 1	-	-	-	-	542	-
Stage 2	-	-	-	-	191	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	926	-	31	494
Mov Cap-2 Maneuver	-	-	-	-	31	-
Stage 1	-	-	-	-	541	-
Stage 2	-	-	-	-	117	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.3	252
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	244	-	-	926	-
HCM Lane V/C Ratio	1.426	-	-	0.386	-
HCM Control Delay (s)	252	-	-	11.3	-
HCM Lane LOS	F	-	-	B	-
HCM 95th %tile Q(veh)	19.6	-	-	1.8	-

Appendix H

2029 Total Traffic Operations Reports

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	329	1	2	320	1	2
Future Volume (vph)	329	1	2	320	1	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.910	
Flt Protected					0.984	
Satd. Flow (prot)	1771	0	0	1776	1021	0
Flt Permitted					0.984	
Satd. Flow (perm)	1771	0	0	1776	1021	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	146.8			78.8	99.5	
Travel Time (s)	6.6			3.5	7.2	
Confl. Peds. (#/hr)		2	2			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	7%	100%	0%	7%	0%	100%
Adj. Flow (vph)	358	1	2	348	1	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	359	0	0	350	3	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	28.4%	ICU Level of Service A	
Analysis Period (min)	15		

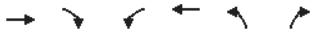
Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	329	1	2	320	1	2
Future Vol, veh/h	329	1	2	320	1	2
Conflicting Peds, #/hr	0	2	2	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, %	7	100	0	7	0	100
Mvmt Flow	358	1	2	348	1	2

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	361	0	713	361
Stage 1	-	-	-	-	361	-
Stage 2	-	-	-	-	352	-
Critical Hdwy	-	-	4.1	-	6.4	7.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	4.2
Pot Cap-1 Maneuver	-	-	1209	-	401	510
Stage 1	-	-	-	-	710	-
Stage 2	-	-	-	-	716	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1207	-	399	509
Mov Cap-2 Maneuver	-	-	-	-	399	-
Stage 1	-	-	-	-	709	-
Stage 2	-	-	-	-	715	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	12.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	466	-	-	1207	-
HCM Lane V/C Ratio	0.007	-	-	0.002	-
HCM Control Delay (s)	12.8	-	-	8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	282	49	47	277	45	42
Future Volume (vph)	282	49	47	277	45	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.980				0.935	
Flt Protected				0.993	0.975	
Satd. Flow (prot)	1743	0	0	1754	1660	0
Flt Permitted				0.993	0.975	
Satd. Flow (perm)	1743	0	0	1754	1660	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	78.8			455.2	101.7	
Travel Time (s)	3.5			20.5	7.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	8%	0%	11%	7%	0%	9%
Adj. Flow (vph)	307	53	51	301	49	46
Shared Lane Traffic (%)						
Lane Group Flow (vph)	360	0	0	352	95	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	50.1%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	2.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	282	49	47	277	45	42
Future Vol, veh/h	282	49	47	277	45	42
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, %	8	0	11	7	0	9
Mvmt Flow	307	53	51	301	49	46

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	360	0	737	334
Stage 1	-	-	-	-	334	-
Stage 2	-	-	-	-	403	-
Critical Hdwy	-	-	4.21	-	6.4	6.29
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.299	-	3.5	3.381
Pot Cap-1 Maneuver	-	-	1151	-	389	692
Stage 1	-	-	-	-	730	-
Stage 2	-	-	-	-	679	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1151	-	368	692
Mov Cap-2 Maneuver	-	-	-	-	368	-
Stage 1	-	-	-	-	730	-
Stage 2	-	-	-	-	643	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.2	14.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	475	-	-	1151	-
HCM Lane V/C Ratio	0.199	-	-	0.044	-
HCM Control Delay (s)	14.5	-	-	8.3	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.7	-	-	0.1	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	311	13	127	310	14	313
Future Volume (vph)	311	13	127	310	14	313
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)		35.0	30.0		0.0	0.0
Storage Lanes		1	1		1	0
Taper Length (m)			40.0		7.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850			0.871	
Flt Protected			0.950		0.998	
Satd. Flow (prot)	1759	1615	1570	1810	1585	0
Flt Permitted			0.950		0.998	
Satd. Flow (perm)	1759	1615	1570	1810	1585	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	455.2			209.2	221.5	
Travel Time (s)	20.5			9.4	15.9	
Confl. Peds. (#/hr)		1	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	8%	0%	15%	5%	8%	4%
Adj. Flow (vph)	338	14	138	337	15	340
Shared Lane Traffic (%)						
Lane Group Flow (vph)	338	14	138	337	355	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.6			3.6	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	53.5%	ICU Level of Service A	
Analysis Period (min)	15		

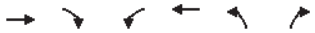
Intersection	
Int Delay, s/veh	6.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	311	13	127	310	14	313
Future Vol, veh/h	311	13	127	310	14	313
Conflicting Peds, #/hr	0	1	1	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	35	30	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	8	0	15	5	8	4
Mvmt Flow	338	14	138	337	15	340

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	353	0	952	339
Stage 1	-	-	-	-	339	-
Stage 2	-	-	-	-	613	-
Critical Hdwy	-	-	4.25	-	6.48	6.24
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	-	-	2.335	-	3.572	3.336
Pot Cap-1 Maneuver	-	-	1137	-	281	699
Stage 1	-	-	-	-	708	-
Stage 2	-	-	-	-	529	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1136	-	247	698
Mov Cap-2 Maneuver	-	-	-	-	247	-
Stage 1	-	-	-	-	707	-
Stage 2	-	-	-	-	465	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.5	17.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	647	-	-	1136	-
HCM Lane V/C Ratio	0.549	-	-	0.122	-
HCM Control Delay (s)	17.1	-	-	8.6	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	3.3	-	-	0.4	-



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	529	21	22	552	13	29
Future Volume (vph)	529	21	22	552	13	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.995				0.906	
Flt Protected				0.998	0.985	
Satd. Flow (prot)	1855	0	0	1875	1655	0
Flt Permitted				0.998	0.985	
Satd. Flow (perm)	1855	0	0	1875	1655	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	146.8			78.8	99.5	
Travel Time (s)	6.6			3.5	7.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	0%	5%	1%	8%	0%
Adj. Flow (vph)	575	23	24	600	14	32
Shared Lane Traffic (%)						
Lane Group Flow (vph)	598	0	0	624	46	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	56.9%	ICU Level of Service	B
Analysis Period (min)	15		

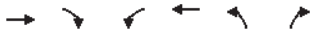
Intersection	
Int Delay, s/veh	0.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	529	21	22	552	13	29
Future Vol, veh/h	529	21	22	552	13	29
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	0	5	1	8	0
Mvmt Flow	575	23	24	600	14	32

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	598	0	1235	587
Stage 1	-	-	-	-	587	-
Stage 2	-	-	-	-	648	-
Critical Hdwy	-	-	4.15	-	6.48	6.2
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	-	-	2.245	-	3.572	3.3
Pot Cap-1 Maneuver	-	-	964	-	189	513
Stage 1	-	-	-	-	544	-
Stage 2	-	-	-	-	510	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	964	-	182	513
Mov Cap-2 Maneuver	-	-	-	-	182	-
Stage 1	-	-	-	-	544	-
Stage 2	-	-	-	-	491	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	17.7
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	328	-	-	964	-
HCM Lane V/C Ratio	0.139	-	-	0.025	-
HCM Control Delay (s)	17.7	-	-	8.8	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.5	-	-	0.1	-



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	512	46	41	530	44	38
Future Volume (vph)	512	46	41	530	44	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.989				0.938	
Flt Protected				0.996	0.974	
Satd. Flow (prot)	1862	0	0	1749	1736	0
Flt Permitted				0.996	0.974	
Satd. Flow (perm)	1862	0	0	1749	1736	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	78.8			455.2	101.7	
Travel Time (s)	3.5			20.5	7.3	
Confl. Peds. (#/hr)		2	2			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	0%	100%	1%	0%	0%
Adj. Flow (vph)	557	50	45	576	48	41
Shared Lane Traffic (%)						
Lane Group Flow (vph)	607	0	0	621	89	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	73.1%	ICU Level of Service D	
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	2.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	512	46	41	530	44	38
Future Vol, veh/h	512	46	41	530	44	38
Conflicting Peds, #/hr	0	2	2	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, %	1	0	100	1	0	0
Mvmt Flow	557	50	45	576	48	41

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	609	0	1250	584
Stage 1	-	-	-	-	584	-
Stage 2	-	-	-	-	666	-
Critical Hdwy	-	-	5.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	3.1	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	630	-	193	515
Stage 1	-	-	-	-	561	-
Stage 2	-	-	-	-	515	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	629	-	172	514
Mov Cap-2 Maneuver	-	-	-	-	172	-
Stage 1	-	-	-	-	560	-
Stage 2	-	-	-	-	461	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.8	27.3
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	249	-	-	629	-
HCM Lane V/C Ratio	0.358	-	-	0.071	-
HCM Control Delay (s)	27.3	-	-	11.2	0
HCM Lane LOS	D	-	-	B	A
HCM 95th %tile Q(veh)	1.6	-	-	0.2	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	520	30	333	554	17	250
Future Volume (vph)	520	30	333	554	17	250
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)		35.0	30.0		0.0	0.0
Storage Lanes		1	1		1	0
Taper Length (m)			40.0		7.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.873	
Flt Protected			0.950		0.997	
Satd. Flow (prot)	1863	1615	1805	1881	1654	0
Flt Permitted			0.950		0.997	
Satd. Flow (perm)	1863	1615	1805	1881	1654	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	455.2			209.2	221.5	
Travel Time (s)	20.5			9.4	15.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	0%	0%	1%	0%	0%
Adj. Flow (vph)	565	33	362	602	18	272
Shared Lane Traffic (%)						
Lane Group Flow (vph)	565	33	362	602	290	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.6			3.6	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	72.2%	ICU Level of Service	C
Analysis Period (min)	15		

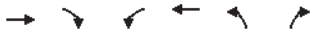
Intersection	
Int Delay, s/veh	11.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	520	30	333	554	17	250
Future Vol, veh/h	520	30	333	554	17	250
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	35	30	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	0	0	1	0	0
Mvmt Flow	565	33	362	602	18	272

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	598	0	1891	565
Stage 1	-	-	-	-	565	-
Stage 2	-	-	-	-	1326	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	989	-	78	528
Stage 1	-	-	-	-	573	-
Stage 2	-	-	-	-	250	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	989	-	49	528
Mov Cap-2 Maneuver	-	-	-	-	49	-
Stage 1	-	-	-	-	573	-
Stage 2	-	-	-	-	159	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4	62.9
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	325	-	-	989	-
HCM Lane V/C Ratio	0.893	-	-	0.366	-
HCM Control Delay (s)	62.9	-	-	10.7	-
HCM Lane LOS	F	-	-	B	-
HCM 95th %tile Q(veh)	8.5	-	-	1.7	-



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	614	43	4	828	21	13
Future Volume (vph)	614	43	4	828	21	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.991				0.949	
Flt Protected					0.970	
Satd. Flow (prot)	1883	0	0	1900	1749	0
Flt Permitted					0.970	
Satd. Flow (perm)	1883	0	0	1900	1749	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	146.8			78.8	99.5	
Travel Time (s)	6.6			3.5	7.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	667	47	4	900	23	14
Shared Lane Traffic (%)						
Lane Group Flow (vph)	714	0	0	904	37	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	56.8%	ICU Level of Service	B
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	614	43	4	828	21	13
Future Vol, veh/h	614	43	4	828	21	13
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, %	0	0	0	0	0	0
Mvmt Flow	667	47	4	900	23	14

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	714	0	1599	691
Stage 1	-	-	-	-	691	-
Stage 2	-	-	-	-	908	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	895	-	118	448
Stage 1	-	-	-	-	501	-
Stage 2	-	-	-	-	397	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	895	-	117	448
Mov Cap-2 Maneuver	-	-	-	-	117	-
Stage 1	-	-	-	-	501	-
Stage 2	-	-	-	-	393	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	33.4
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	163	-	-	895	-
HCM Lane V/C Ratio	0.227	-	-	0.005	-
HCM Control Delay (s)	33.4	-	-	9	0
HCM Lane LOS	D	-	-	A	A
HCM 95th %tile Q(veh)	0.8	-	-	0	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	566	61	77	762	70	80
Future Volume (vph)	566	61	77	762	70	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.987				0.928	
Flt Protected				0.995	0.977	
Satd. Flow (prot)	1875	0	0	1890	1723	0
Flt Permitted				0.995	0.977	
Satd. Flow (perm)	1875	0	0	1890	1723	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	78.8			455.2	101.7	
Travel Time (s)	3.5			20.5	7.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	615	66	84	828	76	87
Shared Lane Traffic (%)						
Lane Group Flow (vph)	681	0	0	912	163	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	96.6%	ICU Level of Service	F
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	12.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	566	61	77	762	70	80
Future Vol, veh/h	566	61	77	762	70	80
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, %	0	0	0	0	0	0
Mvmt Flow	615	66	84	828	76	87

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	681	0	1644	648
Stage 1	-	-	-	-	648	-
Stage 2	-	-	-	-	996	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	921	-	111	474
Stage 1	-	-	-	-	524	-
Stage 2	-	-	-	-	360	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	921	-	92	474
Mov Cap-2 Maneuver	-	-	-	-	92	-
Stage 1	-	-	-	-	524	-
Stage 2	-	-	-	-	299	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.9	131.2
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	161	-	-	921	-
HCM Lane V/C Ratio	1.013	-	-	0.091	-
HCM Control Delay (s)	131.2	-	-	9.3	0
HCM Lane LOS	F	-	-	A	A
HCM 95th %tile Q(veh)	7.9	-	-	0.3	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	595	51	329	813	26	298
Future Volume (vph)	595	51	329	813	26	298
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)		35.0	30.0		0.0	0.0
Storage Lanes		1	1		1	0
Taper Length (m)			40.0		7.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850			0.876	
Flt Protected			0.950		0.996	
Satd. Flow (prot)	1881	1583	1787	1881	1658	0
Flt Permitted			0.950		0.996	
Satd. Flow (perm)	1881	1583	1787	1881	1658	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	455.2			209.2	221.5	
Travel Time (s)	20.5			9.4	15.9	
Confl. Peds. (#/hr)		1	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	2%	1%	1%	0%	0%
Adj. Flow (vph)	647	55	358	884	28	324
Shared Lane Traffic (%)						
Lane Group Flow (vph)	647	55	358	884	352	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.6			3.6	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	79.4%	ICU Level of Service	D
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	58.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	595	51	329	813	26	298
Future Vol, veh/h	595	51	329	813	26	298
Conflicting Peds, #/hr	0	1	1	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	35	30	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	2	1	1	0	0
Mvmt Flow	647	55	358	884	28	324

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	703	0	2248	648
Stage 1	-	-	-	-	648	-
Stage 2	-	-	-	-	1600	-
Critical Hdwy	-	-	4.11	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.209	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	899	-	47	474
Stage 1	-	-	-	-	524	-
Stage 2	-	-	-	-	184	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	898	-	~ 28	474
Mov Cap-2 Maneuver	-	-	-	-	~ 28	-
Stage 1	-	-	-	-	523	-
Stage 2	-	-	-	-	111	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.4	$ 371.9
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	208	-	-	898	-
HCM Lane V/C Ratio	1.693	-	-	0.398	-
HCM Control Delay (s)	$ 371.9	-	-	11.6	-
HCM Lane LOS	F	-	-	B	-
HCM 95th %tile Q(veh)	23.6	-	-	1.9	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Appendix I

2034 Background Traffic Operations Reports

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	308	1	2	305	1	2
Future Volume (vph)	308	1	2	305	1	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.910	
Flt Protected					0.984	
Satd. Flow (prot)	1771	0	0	1776	1021	0
Flt Permitted					0.984	
Satd. Flow (perm)	1771	0	0	1776	1021	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	146.8			78.8	99.5	
Travel Time (s)	6.6			3.5	7.2	
Confl. Peds. (#/hr)		2	2			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	7%	100%	0%	7%	0%	100%
Adj. Flow (vph)	335	1	2	332	1	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	336	0	0	334	3	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	27.6%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	308	1	2	305	1	2
Future Vol, veh/h	308	1	2	305	1	2
Conflicting Peds, #/hr	0	2	2	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, %	7	100	0	7	0	100
Mvmt Flow	335	1	2	332	1	2

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	338	0	674	338
Stage 1	-	-	-	-	338	-
Stage 2	-	-	-	-	336	-
Critical Hdwy	-	-	4.1	-	6.4	7.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	4.2
Pot Cap-1 Maneuver	-	-	1232	-	423	528
Stage 1	-	-	-	-	727	-
Stage 2	-	-	-	-	728	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1230	-	421	527
Mov Cap-2 Maneuver	-	-	-	-	421	-
Stage 1	-	-	-	-	726	-
Stage 2	-	-	-	-	727	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	12.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	486	-	-	1230	-
HCM Lane V/C Ratio	0.007	-	-	0.002	-
HCM Control Delay (s)	12.5	-	-	7.9	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	301	9	9	301	6	11
Future Volume (vph)	301	9	9	301	6	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.996				0.915	
Flt Protected				0.999	0.982	
Satd. Flow (prot)	1756	0	0	1772	1615	0
Flt Permitted				0.999	0.982	
Satd. Flow (perm)	1756	0	0	1772	1615	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	78.8			455.2	101.7	
Travel Time (s)	3.5			20.5	7.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	8%	0%	11%	7%	0%	9%
Adj. Flow (vph)	327	10	10	327	7	12
Shared Lane Traffic (%)						
Lane Group Flow (vph)	337	0	0	337	19	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	33.1%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	301	9	9	301	6	11
Future Vol, veh/h	301	9	9	301	6	11
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, %	8	0	11	7	0	9
Mvmt Flow	327	10	10	327	7	12

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	337	0	679	332
Stage 1	-	-	-	-	332	-
Stage 2	-	-	-	-	347	-
Critical Hdwy	-	-	4.21	-	6.4	6.29
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.299	-	3.5	3.381
Pot Cap-1 Maneuver	-	-	1174	-	420	694
Stage 1	-	-	-	-	731	-
Stage 2	-	-	-	-	720	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1174	-	416	694
Mov Cap-2 Maneuver	-	-	-	-	416	-
Stage 1	-	-	-	-	731	-
Stage 2	-	-	-	-	713	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	11.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	562	-	-	1174	-
HCM Lane V/C Ratio	0.033	-	-	0.008	-
HCM Control Delay (s)	11.6	-	-	8.1	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	300	12	128	297	13	315
Future Volume (vph)	300	12	128	297	13	315
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)		35.0	30.0		0.0	0.0
Storage Lanes		1	1		1	0
Taper Length (m)			40.0		7.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850			0.870	
Flt Protected			0.950		0.998	
Satd. Flow (prot)	1759	1615	1570	1810	1584	0
Flt Permitted			0.950		0.998	
Satd. Flow (perm)	1759	1615	1570	1810	1584	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	455.2			209.2	221.5	
Travel Time (s)	20.5			9.4	15.9	
Confl. Peds. (#/hr)		1	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	8%	0%	15%	5%	8%	4%
Adj. Flow (vph)	326	13	139	323	14	342
Shared Lane Traffic (%)						
Lane Group Flow (vph)	326	13	139	323	356	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.6			3.6	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type:	Unsignalized		
Intersection Capacity Utilization	53.1%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	6.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	300	12	128	297	13	315
Future Vol, veh/h	300	12	128	297	13	315
Conflicting Peds, #/hr	0	1	1	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	35	30	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	8	0	15	5	8	4
Mvmt Flow	326	13	139	323	14	342

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	340	0	928	327
Stage 1	-	-	-	-	327	-
Stage 2	-	-	-	-	601	-
Critical Hdwy	-	-	4.25	-	6.48	6.24
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	-	-	2.335	-	3.572	3.336
Pot Cap-1 Maneuver	-	-	1150	-	290	710
Stage 1	-	-	-	-	717	-
Stage 2	-	-	-	-	536	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1149	-	255	709
Mov Cap-2 Maneuver	-	-	-	-	255	-
Stage 1	-	-	-	-	716	-
Stage 2	-	-	-	-	471	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.6	16.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	662	-	-	1149	-
HCM Lane V/C Ratio	0.539	-	-	0.121	-
HCM Control Delay (s)	16.6	-	-	8.6	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	3.2	-	-	0.4	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	507	21	22	531	13	29
Future Volume (vph)	507	21	22	531	13	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.995				0.906	
Flt Protected				0.998	0.985	
Satd. Flow (prot)	1855	0	0	1874	1655	0
Flt Permitted				0.998	0.985	
Satd. Flow (perm)	1855	0	0	1874	1655	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	146.8			78.8	99.5	
Travel Time (s)	6.6			3.5	7.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	0%	5%	1%	8%	0%
Adj. Flow (vph)	551	23	24	577	14	32
Shared Lane Traffic (%)						
Lane Group Flow (vph)	574	0	0	601	46	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	55.8%	ICU Level of Service	B
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	507	21	22	531	13	29
Future Vol, veh/h	507	21	22	531	13	29
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	0	5	1	8	0
Mvmt Flow	551	23	24	577	14	32

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	574	0	1188	563
Stage 1	-	-	-	-	563	-
Stage 2	-	-	-	-	625	-
Critical Hdwy	-	-	4.15	-	6.48	6.2
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	-	-	2.245	-	3.572	3.3
Pot Cap-1 Maneuver	-	-	984	-	202	530
Stage 1	-	-	-	-	558	-
Stage 2	-	-	-	-	522	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	984	-	195	530
Mov Cap-2 Maneuver	-	-	-	-	195	-
Stage 1	-	-	-	-	558	-
Stage 2	-	-	-	-	503	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	17
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	346	-	-	984	-
HCM Lane V/C Ratio	0.132	-	-	0.024	-
HCM Control Delay (s)	17	-	-	8.8	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.5	-	-	0.1	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	536	0	1	553	0	0
Future Volume (vph)	536	0	1	553	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt						
Flt Protected						
Satd. Flow (prot)	1881	0	0	1878	1900	0
Flt Permitted						
Satd. Flow (perm)	1881	0	0	1878	1900	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	78.8			455.2	101.7	
Travel Time (s)	3.5			20.5	7.3	
Confl. Peds. (#/hr)		2	2			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	0%	100%	1%	0%	0%
Adj. Flow (vph)	583	0	1	601	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	583	0	0	602	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	33.2%	ICU Level of Service A	
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	536	0	1	553	0	0
Future Vol, veh/h	536	0	1	553	0	0
Conflicting Peds, #/hr	0	2	2	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, %	1	0	100	1	0	0
Mvmt Flow	583	0	1	601	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	585	0	1188	585
Stage 1	-	-	-	-	585	-
Stage 2	-	-	-	-	603	-
Critical Hdwy	-	-	5.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	3.1	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	645	-	210	515
Stage 1	-	-	-	-	561	-
Stage 2	-	-	-	-	550	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	644	-	209	514
Mov Cap-2 Maneuver	-	-	-	-	209	-
Stage 1	-	-	-	-	560	-
Stage 2	-	-	-	-	549	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	644	-
HCM Lane V/C Ratio	-	-	-	0.002	-
HCM Control Delay (s)	0	-	-	10.6	0
HCM Lane LOS	A	-	-	B	A
HCM 95th %tile Q(veh)	-	-	-	0	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	508	28	335	539	15	253
Future Volume (vph)	508	28	335	539	15	253
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)		35.0	30.0		0.0	0.0
Storage Lanes		1	1		1	0
Taper Length (m)			40.0		7.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.872	
Flt Protected			0.950		0.997	
Satd. Flow (prot)	1863	1615	1805	1881	1652	0
Flt Permitted			0.950		0.997	
Satd. Flow (perm)	1863	1615	1805	1881	1652	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	455.2			209.2	221.5	
Travel Time (s)	20.5			9.4	15.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	0%	0%	1%	0%	0%
Adj. Flow (vph)	552	30	364	586	16	275
Shared Lane Traffic (%)						
Lane Group Flow (vph)	552	30	364	586	291	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.6			3.6	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	71.8%	ICU Level of Service	C
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	9.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	508	28	335	539	15	253
Future Vol, veh/h	508	28	335	539	15	253
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	35	30	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	0	0	1	0	0
Mvmt Flow	552	30	364	586	16	275

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	582	0	1866	552
Stage 1	-	-	-	-	552	-
Stage 2	-	-	-	-	1314	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1002	-	81	537
Stage 1	-	-	-	-	581	-
Stage 2	-	-	-	-	254	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1002	-	52	537
Mov Cap-2 Maneuver	-	-	-	-	52	-
Stage 1	-	-	-	-	581	-
Stage 2	-	-	-	-	162	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.1	48.9
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	353	-	-	1002	-
HCM Lane V/C Ratio	0.825	-	-	0.363	-
HCM Control Delay (s)	48.9	-	-	10.6	-
HCM Lane LOS	E	-	-	B	-
HCM 95th %tile Q(veh)	7.3	-	-	1.7	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	586	43	4	806	21	13
Future Volume (vph)	586	43	4	806	21	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.991				0.949	
Flt Protected					0.970	
Satd. Flow (prot)	1883	0	0	1900	1749	0
Flt Permitted					0.970	
Satd. Flow (perm)	1883	0	0	1900	1749	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	146.8			78.8	99.5	
Travel Time (s)	6.6			3.5	7.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	637	47	4	876	23	14
Shared Lane Traffic (%)						
Lane Group Flow (vph)	684	0	0	880	37	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	55.6%	ICU Level of Service	B
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	586	43	4	806	21	13
Future Vol, veh/h	586	43	4	806	21	13
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, %	0	0	0	0	0	0
Mvmt Flow	637	47	4	876	23	14

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	684	0	1545	661
Stage 1	-	-	-	-	661	-
Stage 2	-	-	-	-	884	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	919	-	127	466
Stage 1	-	-	-	-	517	-
Stage 2	-	-	-	-	407	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	919	-	126	466
Mov Cap-2 Maneuver	-	-	-	-	126	-
Stage 1	-	-	-	-	517	-
Stage 2	-	-	-	-	404	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	31
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	175	-	-	919	-
HCM Lane V/C Ratio	0.211	-	-	0.005	-
HCM Control Delay (s)	31	-	-	8.9	0
HCM Lane LOS	D	-	-	A	A
HCM 95th %tile Q(veh)	0.8	-	-	0	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	596	3	19	803	7	31
Future Volume (vph)	596	3	19	803	7	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.999				0.891	
Flt Protected				0.999	0.991	
Satd. Flow (prot)	1898	0	0	1898	1678	0
Flt Permitted				0.999	0.991	
Satd. Flow (perm)	1898	0	0	1898	1678	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	78.8			455.2	101.7	
Travel Time (s)	3.5			20.5	7.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	648	3	21	873	8	34
Shared Lane Traffic (%)						
Lane Group Flow (vph)	651	0	0	894	42	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	67.5%	ICU Level of Service	C
Analysis Period (min)	15		

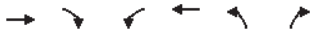
Intersection	
Int Delay, s/veh	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	596	3	19	803	7	31
Future Vol, veh/h	596	3	19	803	7	31
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, %	0	0	0	0	0	0
Mvmt Flow	648	3	21	873	8	34

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	651	0	1565	650
Stage 1	-	-	-	-	650	-
Stage 2	-	-	-	-	915	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	945	-	124	473
Stage 1	-	-	-	-	523	-
Stage 2	-	-	-	-	394	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	945	-	119	473
Mov Cap-2 Maneuver	-	-	-	-	119	-
Stage 1	-	-	-	-	523	-
Stage 2	-	-	-	-	377	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	18.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	306	-	-	945	-
HCM Lane V/C Ratio	0.135	-	-	0.022	-
HCM Control Delay (s)	18.6	-	-	8.9	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.5	-	-	0.1	-



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	579	48	331	800	22	301
Future Volume (vph)	579	48	331	800	22	301
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)		35.0	30.0		0.0	0.0
Storage Lanes		1	1		1	0
Taper Length (m)			40.0		7.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850			0.874	
Flt Protected			0.950		0.997	
Satd. Flow (prot)	1881	1583	1787	1881	1656	0
Flt Permitted			0.950		0.997	
Satd. Flow (perm)	1881	1583	1787	1881	1656	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	455.2			209.2	221.5	
Travel Time (s)	20.5			9.4	15.9	
Confl. Peds. (#/hr)		1	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	2%	1%	1%	0%	0%
Adj. Flow (vph)	629	52	360	870	24	327
Shared Lane Traffic (%)						
Lane Group Flow (vph)	629	52	360	870	351	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.6			3.6	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	78.6%	ICU Level of Service	D
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	46.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	579	48	331	800	22	301
Future Vol, veh/h	579	48	331	800	22	301
Conflicting Peds, #/hr	0	1	1	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	35	30	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	2	1	1	0	0
Mvmt Flow	629	52	360	870	24	327

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	682	0	2220	630
Stage 1	-	-	-	-	630	-
Stage 2	-	-	-	-	1590	-
Critical Hdwy	-	-	4.11	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.209	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	916	-	48	485
Stage 1	-	-	-	-	535	-
Stage 2	-	-	-	-	186	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	915	-	29	485
Mov Cap-2 Maneuver	-	-	-	-	29	-
Stage 1	-	-	-	-	534	-
Stage 2	-	-	-	-	113	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.4	284.8
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	234	-	-	915	-
HCM Lane V/C Ratio	1.5	-	-	0.393	-
HCM Control Delay (s)	284.8	-	-	11.5	-
HCM Lane LOS	F	-	-	B	-
HCM 95th %tile Q(veh)	20.9	-	-	1.9	-

Appendix J

2034 Total Traffic Operations Reports

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	335	1	2	327	1	2
Future Volume (vph)	335	1	2	327	1	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.910	
Flt Protected					0.984	
Satd. Flow (prot)	1771	0	0	1776	1021	0
Flt Permitted					0.984	
Satd. Flow (perm)	1771	0	0	1776	1021	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	146.8			78.8	99.5	
Travel Time (s)	6.6			3.5	7.2	
Confl. Peds. (#/hr)		2	2			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	7%	100%	0%	7%	0%	100%
Adj. Flow (vph)	364	1	2	355	1	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	365	0	0	357	3	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	28.8%	ICU Level of Service A	
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	335	1	2	327	1	2
Future Vol, veh/h	335	1	2	327	1	2
Conflicting Peds, #/hr	0	2	2	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, %	7	100	0	7	0	100
Mvmt Flow	364	1	2	355	1	2

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	367	0	726	367
Stage 1	-	-	-	-	367	-
Stage 2	-	-	-	-	359	-
Critical Hdwy	-	-	4.1	-	6.4	7.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	4.2
Pot Cap-1 Maneuver	-	-	1203	-	394	506
Stage 1	-	-	-	-	705	-
Stage 2	-	-	-	-	711	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1201	-	392	505
Mov Cap-2 Maneuver	-	-	-	-	392	-
Stage 1	-	-	-	-	704	-
Stage 2	-	-	-	-	710	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	12.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	461	-	-	1201	-
HCM Lane V/C Ratio	0.007	-	-	0.002	-
HCM Control Delay (s)	12.9	-	-	8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	288	49	47	284	45	42
Future Volume (vph)	288	49	47	284	45	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.980				0.935	
Flt Protected				0.993	0.975	
Satd. Flow (prot)	1743	0	0	1754	1660	0
Flt Permitted				0.993	0.975	
Satd. Flow (perm)	1743	0	0	1754	1660	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	78.8			455.2	101.7	
Travel Time (s)	3.5			20.5	7.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	8%	0%	11%	7%	0%	9%
Adj. Flow (vph)	313	53	51	309	49	46
Shared Lane Traffic (%)						
Lane Group Flow (vph)	366	0	0	360	95	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	50.7%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	2.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	288	49	47	284	45	42
Future Vol, veh/h	288	49	47	284	45	42
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, %	8	0	11	7	0	9
Mvmt Flow	313	53	51	309	49	46

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	366	0	751	340
Stage 1	-	-	-	-	340	-
Stage 2	-	-	-	-	411	-
Critical Hdwy	-	-	4.21	-	6.4	6.29
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.299	-	3.5	3.381
Pot Cap-1 Maneuver	-	-	1145	-	381	687
Stage 1	-	-	-	-	725	-
Stage 2	-	-	-	-	674	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1145	-	360	687
Mov Cap-2 Maneuver	-	-	-	-	360	-
Stage 1	-	-	-	-	725	-
Stage 2	-	-	-	-	638	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.2	14.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	467	-	-	1145	-
HCM Lane V/C Ratio	0.202	-	-	0.045	-
HCM Control Delay (s)	14.7	-	-	8.3	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.8	-	-	0.1	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	316	14	128	316	15	315
Future Volume (vph)	316	14	128	316	15	315
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)		35.0	30.0		0.0	0.0
Storage Lanes		1	1		1	0
Taper Length (m)			40.0		7.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850			0.871	
Flt Protected			0.950		0.998	
Satd. Flow (prot)	1759	1615	1570	1810	1585	0
Flt Permitted			0.950		0.998	
Satd. Flow (perm)	1759	1615	1570	1810	1585	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	455.2			209.2	221.5	
Travel Time (s)	20.5			9.4	15.9	
Confl. Peds. (#/hr)		1	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	8%	0%	15%	5%	8%	4%
Adj. Flow (vph)	343	15	139	343	16	342
Shared Lane Traffic (%)						
Lane Group Flow (vph)	343	15	139	343	358	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.6			3.6	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	54.0%	ICU Level of Service	A
Analysis Period (min)	15		

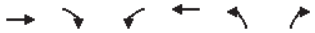
Intersection	
Int Delay, s/veh	6.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	316	14	128	316	15	315
Future Vol, veh/h	316	14	128	316	15	315
Conflicting Peds, #/hr	0	1	1	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	35	30	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	8	0	15	5	8	4
Mvmt Flow	343	15	139	343	16	342

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	359	0	965	344
Stage 1	-	-	-	-	344	-
Stage 2	-	-	-	-	621	-
Critical Hdwy	-	-	4.25	-	6.48	6.24
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	-	-	2.335	-	3.572	3.336
Pot Cap-1 Maneuver	-	-	1131	-	276	694
Stage 1	-	-	-	-	705	-
Stage 2	-	-	-	-	525	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1130	-	242	693
Mov Cap-2 Maneuver	-	-	-	-	242	-
Stage 1	-	-	-	-	704	-
Stage 2	-	-	-	-	460	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.5	17.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	639	-	-	1130	-
HCM Lane V/C Ratio	0.561	-	-	0.123	-
HCM Control Delay (s)	17.6	-	-	8.6	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	3.5	-	-	0.4	-



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	541	21	22	563	13	29
Future Volume (vph)	541	21	22	563	13	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.995				0.906	
Flt Protected				0.998	0.985	
Satd. Flow (prot)	1855	0	0	1875	1655	0
Flt Permitted				0.998	0.985	
Satd. Flow (perm)	1855	0	0	1875	1655	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	146.8			78.8	99.5	
Travel Time (s)	6.6			3.5	7.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	0%	5%	1%	8%	0%
Adj. Flow (vph)	588	23	24	612	14	32
Shared Lane Traffic (%)						
Lane Group Flow (vph)	611	0	0	636	46	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	57.5%	ICU Level of Service	B
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	541	21	22	563	13	29
Future Vol, veh/h	541	21	22	563	13	29
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	0	5	1	8	0
Mvmt Flow	588	23	24	612	14	32

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	611	0	1260	600
Stage 1	-	-	-	-	600	-
Stage 2	-	-	-	-	660	-
Critical Hdwy	-	-	4.15	-	6.48	6.2
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	-	-	2.245	-	3.572	3.3
Pot Cap-1 Maneuver	-	-	953	-	183	505
Stage 1	-	-	-	-	537	-
Stage 2	-	-	-	-	503	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	953	-	176	505
Mov Cap-2 Maneuver	-	-	-	-	176	-
Stage 1	-	-	-	-	537	-
Stage 2	-	-	-	-	484	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	18.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	320	-	-	953	-
HCM Lane V/C Ratio	0.143	-	-	0.025	-
HCM Control Delay (s)	18.1	-	-	8.9	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.5	-	-	0.1	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	524	46	41	541	44	38
Future Volume (vph)	524	46	41	541	44	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.989				0.938	
Flt Protected				0.996	0.974	
Satd. Flow (prot)	1862	0	0	1752	1736	0
Flt Permitted				0.996	0.974	
Satd. Flow (perm)	1862	0	0	1752	1736	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	78.8			455.2	101.7	
Travel Time (s)	3.5			20.5	7.3	
Confl. Peds. (#/hr)		2	2			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	0%	100%	1%	0%	0%
Adj. Flow (vph)	570	50	45	588	48	41
Shared Lane Traffic (%)						
Lane Group Flow (vph)	620	0	0	633	89	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	73.7%	ICU Level of Service D	
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	2.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	524	46	41	541	44	38
Future Vol, veh/h	524	46	41	541	44	38
Conflicting Peds, #/hr	0	2	2	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, %	1	0	100	1	0	0
Mvmt Flow	570	50	45	588	48	41

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	622	0	1275	597
Stage 1	-	-	-	-	597	-
Stage 2	-	-	-	-	678	-
Critical Hdwy	-	-	5.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	3.1	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	621	-	186	507
Stage 1	-	-	-	-	554	-
Stage 2	-	-	-	-	508	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	620	-	166	506
Mov Cap-2 Maneuver	-	-	-	-	166	-
Stage 1	-	-	-	-	553	-
Stage 2	-	-	-	-	453	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.8	28.4
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	241	-	-	620	-
HCM Lane V/C Ratio	0.37	-	-	0.072	-
HCM Control Delay (s)	28.4	-	-	11.3	0
HCM Lane LOS	D	-	-	B	A
HCM 95th %tile Q(veh)	1.6	-	-	0.2	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	531	31	335	564	18	253
Future Volume (vph)	531	31	335	564	18	253
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)		35.0	30.0		0.0	0.0
Storage Lanes		1	1		1	0
Taper Length (m)			40.0		7.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.874	
Flt Protected			0.950		0.997	
Satd. Flow (prot)	1863	1615	1805	1881	1656	0
Flt Permitted			0.950		0.997	
Satd. Flow (perm)	1863	1615	1805	1881	1656	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	455.2			209.2	221.5	
Travel Time (s)	20.5			9.4	15.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	0%	0%	1%	0%	0%
Adj. Flow (vph)	577	34	364	613	20	275
Shared Lane Traffic (%)						
Lane Group Flow (vph)	577	34	364	613	295	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.6			3.6	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	73.1%	ICU Level of Service	D
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	13.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	531	31	335	564	18	253
Future Vol, veh/h	531	31	335	564	18	253
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	35	30	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	0	0	1	0	0
Mvmt Flow	577	34	364	613	20	275

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	611	0	1918	577
Stage 1	-	-	-	-	577	-
Stage 2	-	-	-	-	1341	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	978	-	75	520
Stage 1	-	-	-	-	566	-
Stage 2	-	-	-	-	246	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	978	-	47	520
Mov Cap-2 Maneuver	-	-	-	-	47	-
Stage 1	-	-	-	-	566	-
Stage 2	-	-	-	-	154	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4	75.1
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	312	-	-	978	-
HCM Lane V/C Ratio	0.944	-	-	0.372	-
HCM Control Delay (s)	75.1	-	-	10.8	-
HCM Lane LOS	F	-	-	B	-
HCM 95th %tile Q(veh)	9.5	-	-	1.7	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	627	43	4	845	21	13
Future Volume (vph)	627	43	4	845	21	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.991				0.949	
Flt Protected					0.970	
Satd. Flow (prot)	1883	0	0	1900	1749	0
Flt Permitted					0.970	
Satd. Flow (perm)	1883	0	0	1900	1749	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	146.8			78.8	99.5	
Travel Time (s)	6.6			3.5	7.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	682	47	4	918	23	14
Shared Lane Traffic (%)						
Lane Group Flow (vph)	729	0	0	922	37	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	57.7%	ICU Level of Service	B
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	627	43	4	845	21	13
Future Vol, veh/h	627	43	4	845	21	13
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, %	0	0	0	0	0	0
Mvmt Flow	682	47	4	918	23	14

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	729	0	1632	706
Stage 1	-	-	-	-	706	-
Stage 2	-	-	-	-	926	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	884	-	113	439
Stage 1	-	-	-	-	493	-
Stage 2	-	-	-	-	389	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	884	-	112	439
Mov Cap-2 Maneuver	-	-	-	-	112	-
Stage 1	-	-	-	-	493	-
Stage 2	-	-	-	-	385	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	34.9
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	157	-	-	884	-
HCM Lane V/C Ratio	0.235	-	-	0.005	-
HCM Control Delay (s)	34.9	-	-	9.1	0
HCM Lane LOS	D	-	-	A	A
HCM 95th %tile Q(veh)	0.9	-	-	0	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	579	61	77	779	70	80
Future Volume (vph)	579	61	77	779	70	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.987				0.928	
Flt Protected				0.996	0.977	
Satd. Flow (prot)	1875	0	0	1892	1723	0
Flt Permitted				0.996	0.977	
Satd. Flow (perm)	1875	0	0	1892	1723	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	78.8			455.2	101.7	
Travel Time (s)	3.5			20.5	7.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	629	66	84	847	76	87
Shared Lane Traffic (%)						
Lane Group Flow (vph)	695	0	0	931	163	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	98.2%	ICU Level of Service	F
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	13.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	579	61	77	779	70	80
Future Vol, veh/h	579	61	77	779	70	80
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, %	0	0	0	0	0	0
Mvmt Flow	629	66	84	847	76	87

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	695	0	1677	662
Stage 1	-	-	-	-	662	-
Stage 2	-	-	-	-	1015	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	910	-	106	465
Stage 1	-	-	-	-	517	-
Stage 2	-	-	-	-	353	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	910	-	88	465
Mov Cap-2 Maneuver	-	-	-	-	88	-
Stage 1	-	-	-	-	517	-
Stage 2	-	-	-	-	292	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.8	145.4
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	155	-	-	910	-
HCM Lane V/C Ratio	1.052	-	-	0.092	-
HCM Control Delay (s)	145.4	-	-	9.4	0
HCM Lane LOS	F	-	-	A	A
HCM 95th %tile Q(veh)	8.3	-	-	0.3	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	607	52	331	830	26	301
Future Volume (vph)	607	52	331	830	26	301
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)		35.0	30.0		0.0	0.0
Storage Lanes		1	1		1	0
Taper Length (m)			40.0		7.5	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850			0.876	
Flt Protected			0.950		0.996	
Satd. Flow (prot)	1881	1583	1787	1881	1658	0
Flt Permitted			0.950		0.996	
Satd. Flow (perm)	1881	1583	1787	1881	1658	0
Link Speed (k/h)	80			80	50	
Link Distance (m)	455.2			209.2	221.5	
Travel Time (s)	20.5			9.4	15.9	
Confl. Peds. (#/hr)		1	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	2%	1%	1%	0%	0%
Adj. Flow (vph)	660	57	360	902	28	327
Shared Lane Traffic (%)						
Lane Group Flow (vph)	660	57	360	902	355	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.6			3.6	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type:	Unsignalized		
Intersection Capacity Utilization	80.3%	ICU Level of Service	D
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	64.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	607	52	331	830	26	301
Future Vol, veh/h	607	52	331	830	26	301
Conflicting Peds, #/hr	0	1	1	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	35	30	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	2	1	1	0	0
Mvmt Flow	660	57	360	902	28	327

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	718	0	2283	661
Stage 1	-	-	-	-	661	-
Stage 2	-	-	-	-	1622	-
Critical Hdwy	-	-	4.11	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.209	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	888	-	44	466
Stage 1	-	-	-	-	517	-
Stage 2	-	-	-	-	179	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	887	-	~ 26	466
Mov Cap-2 Maneuver	-	-	-	-	~ 26	-
Stage 1	-	-	-	-	516	-
Stage 2	-	-	-	-	106	-

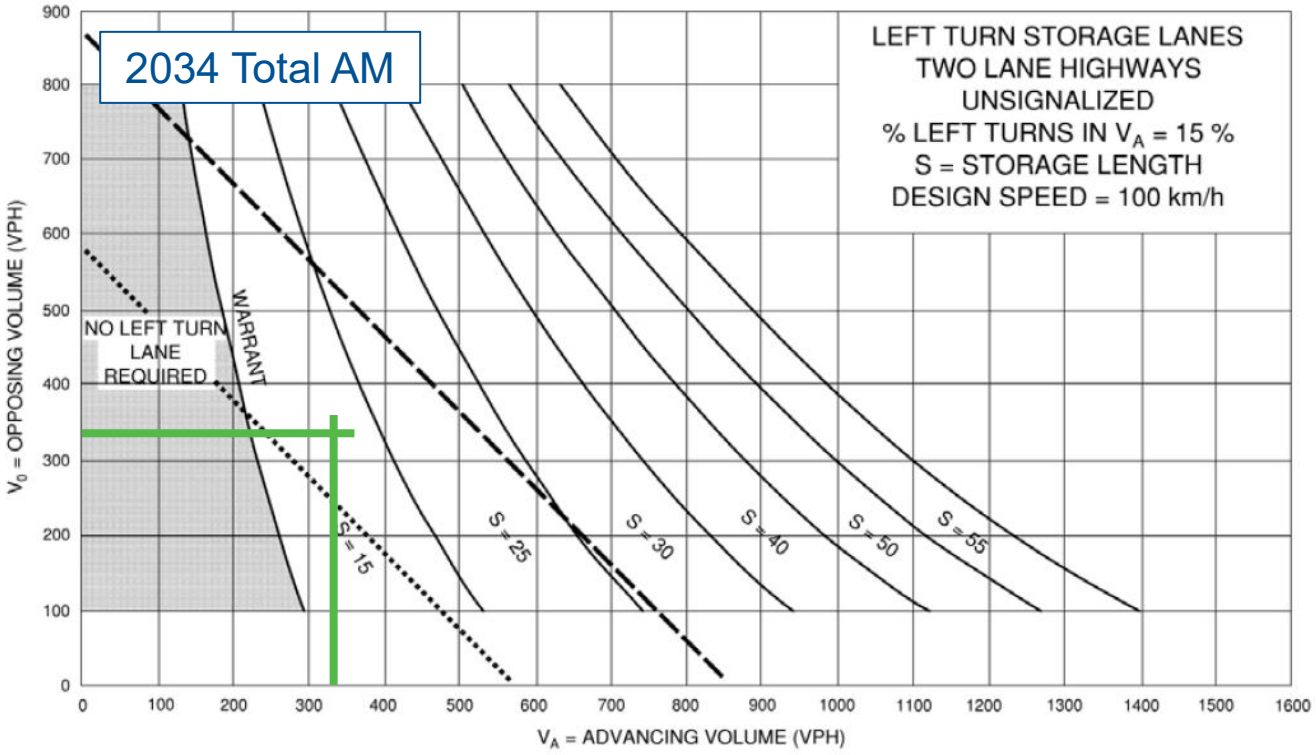
Approach	EB	WB	NB
HCM Control Delay, s	0	3.4	$ 414
HCM LOS			F

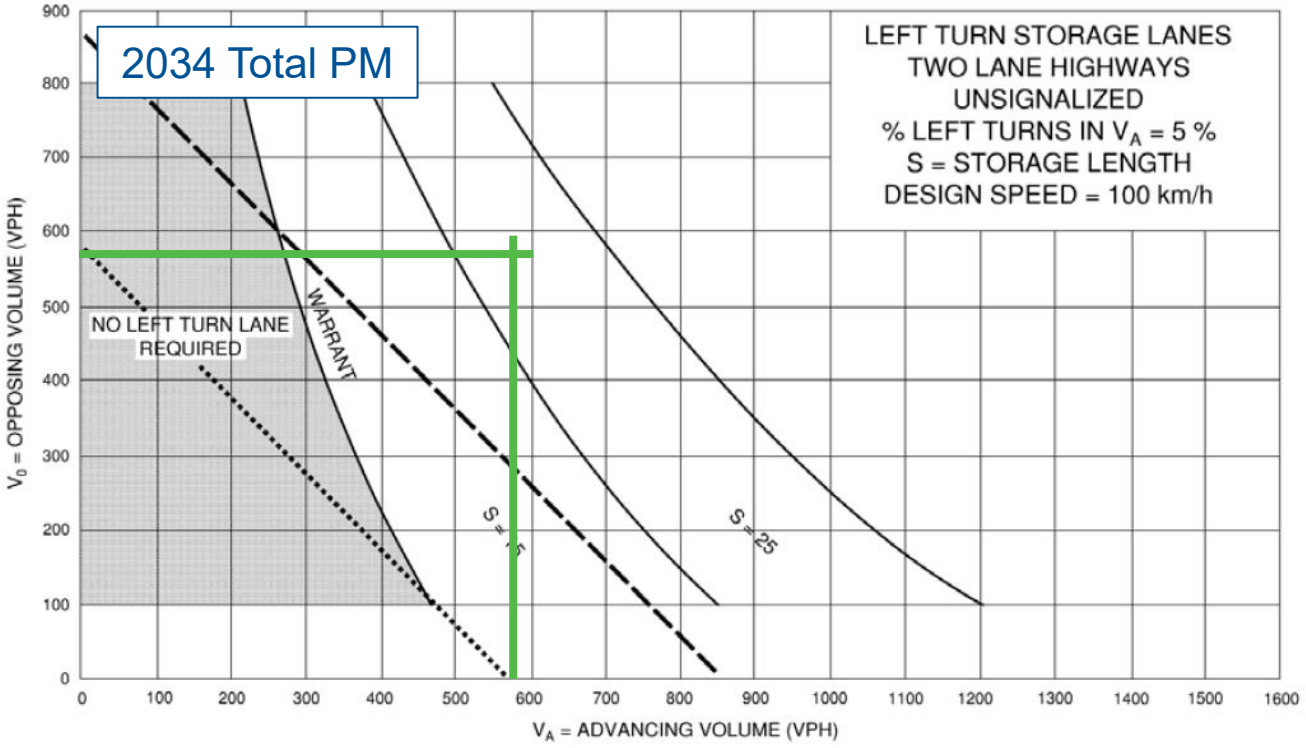
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	199	-	-	887	-
HCM Lane V/C Ratio	1.786	-	-	0.406	-
HCM Control Delay (s)	$ 414	-	-	11.8	-
HCM Lane LOS	F	-	-	B	-
HCM 95th %tile Q(veh)	24.9	-	-	2	-

Notes				
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

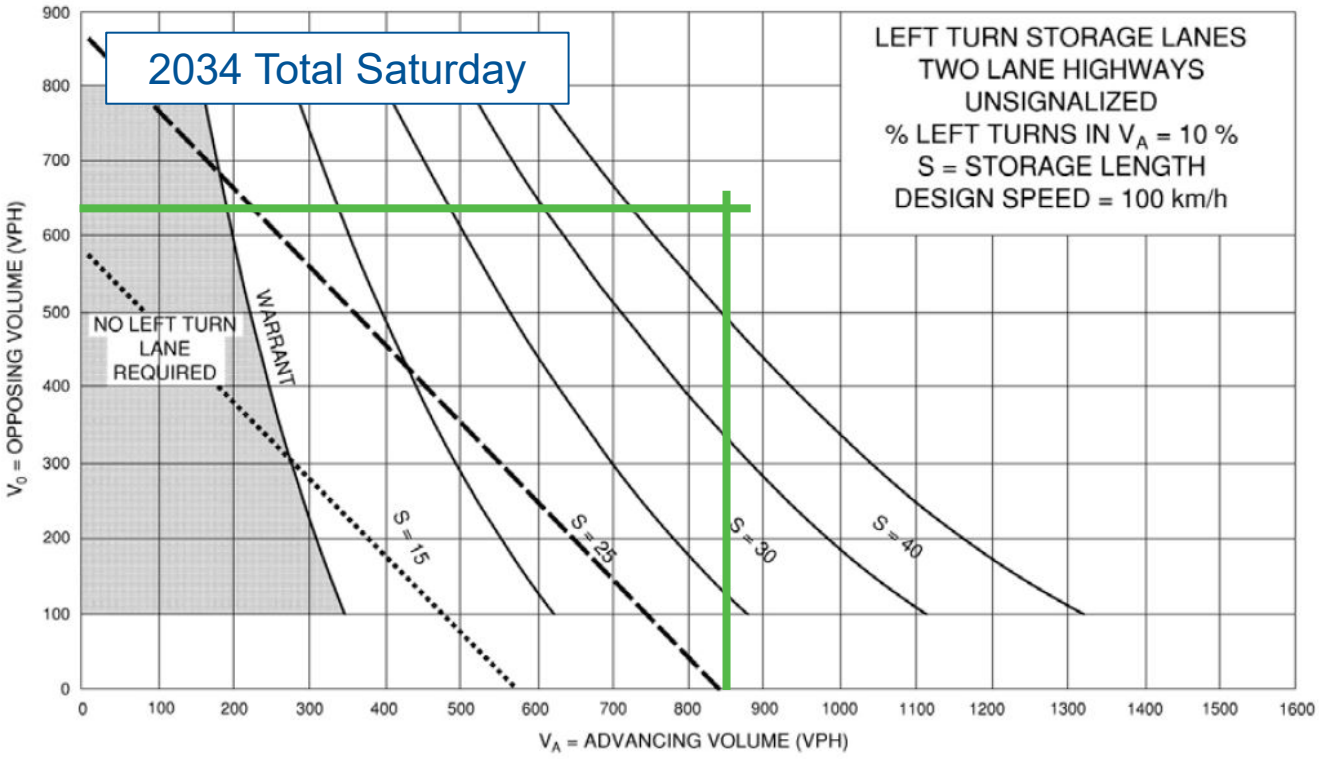
Appendix K

Left-Turn Lane Warrants

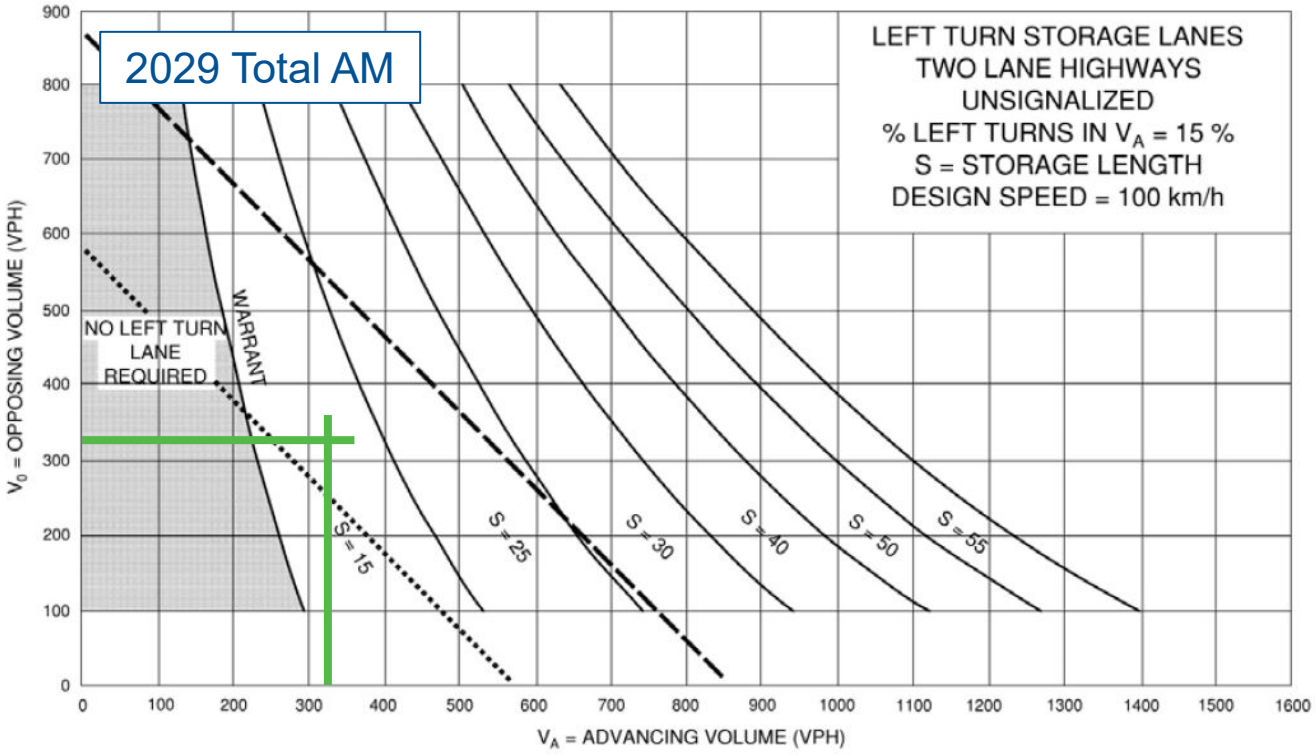


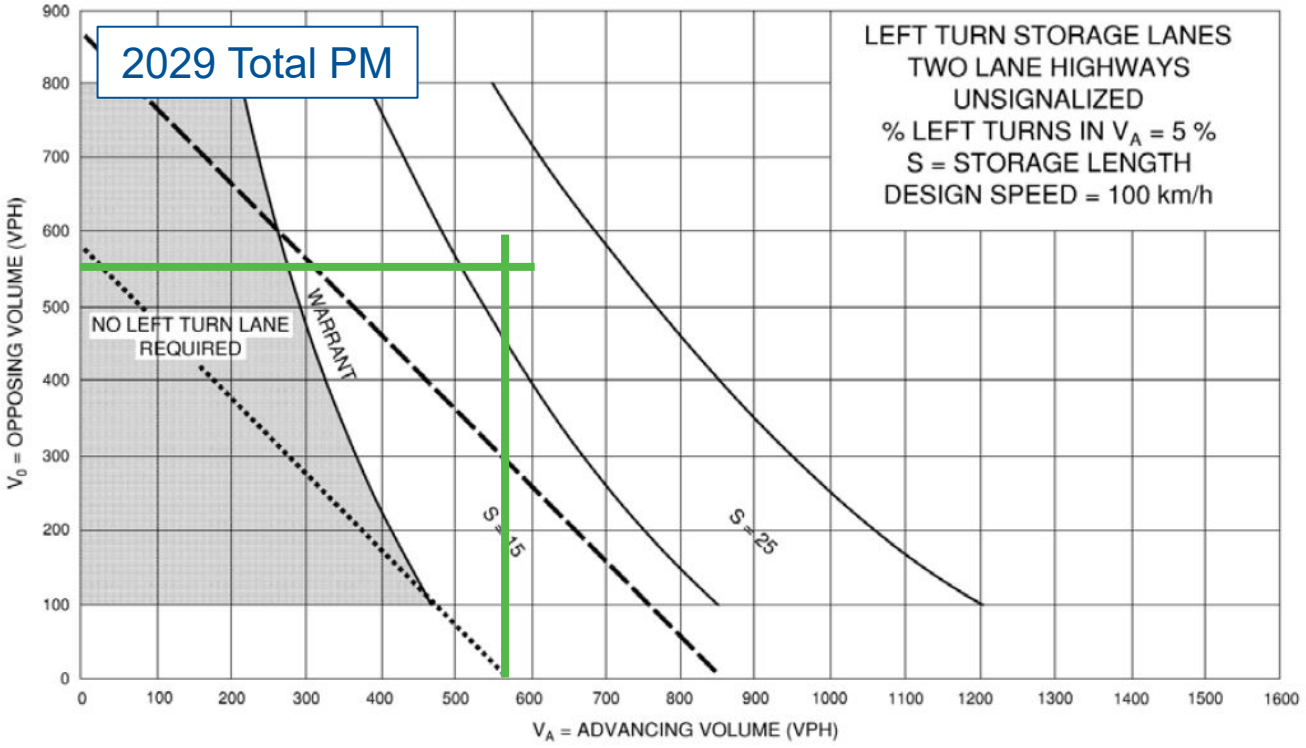


Westbound Left-Turn Lane Warrants
Sunset Drive & Driveway B
AM and PM Peak Hours

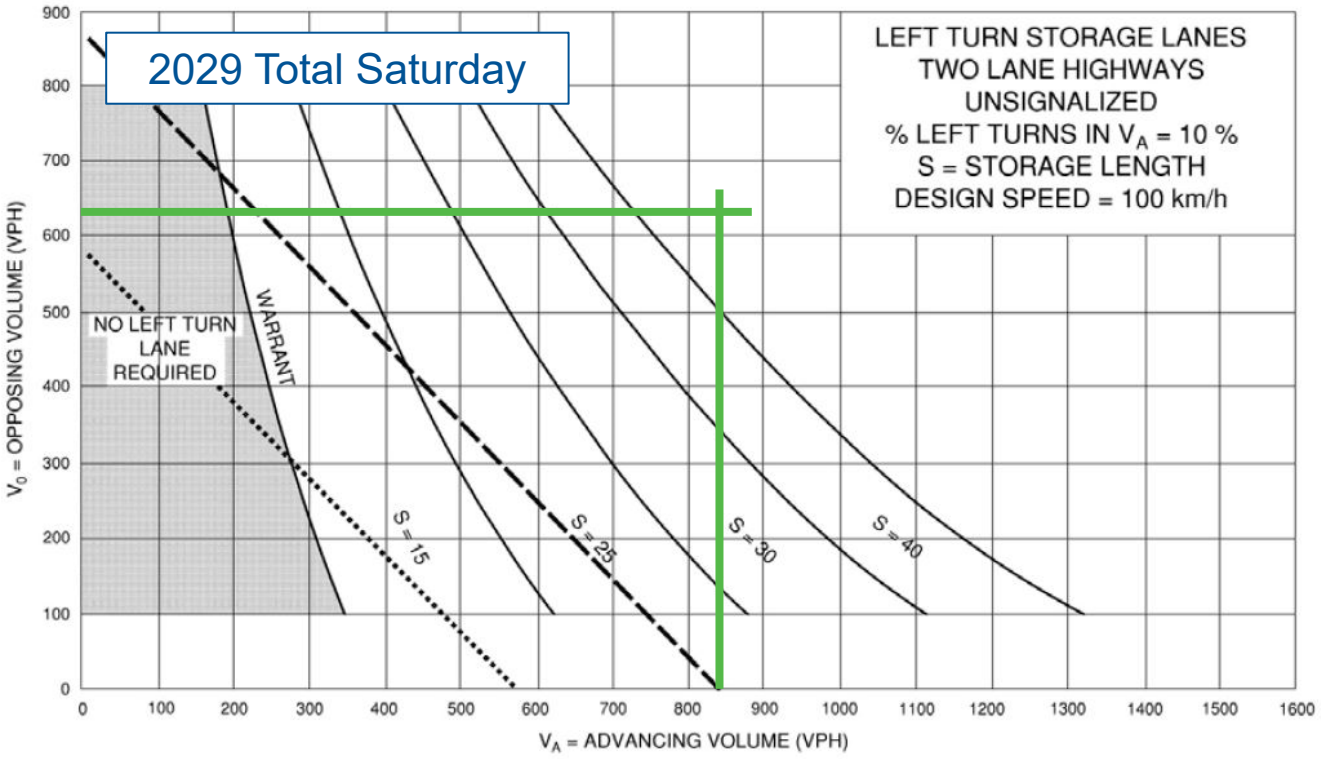


Westbound Left-Turn Lane Warrants
Sunset Drive & Driveway B
Saturday Peak Hour

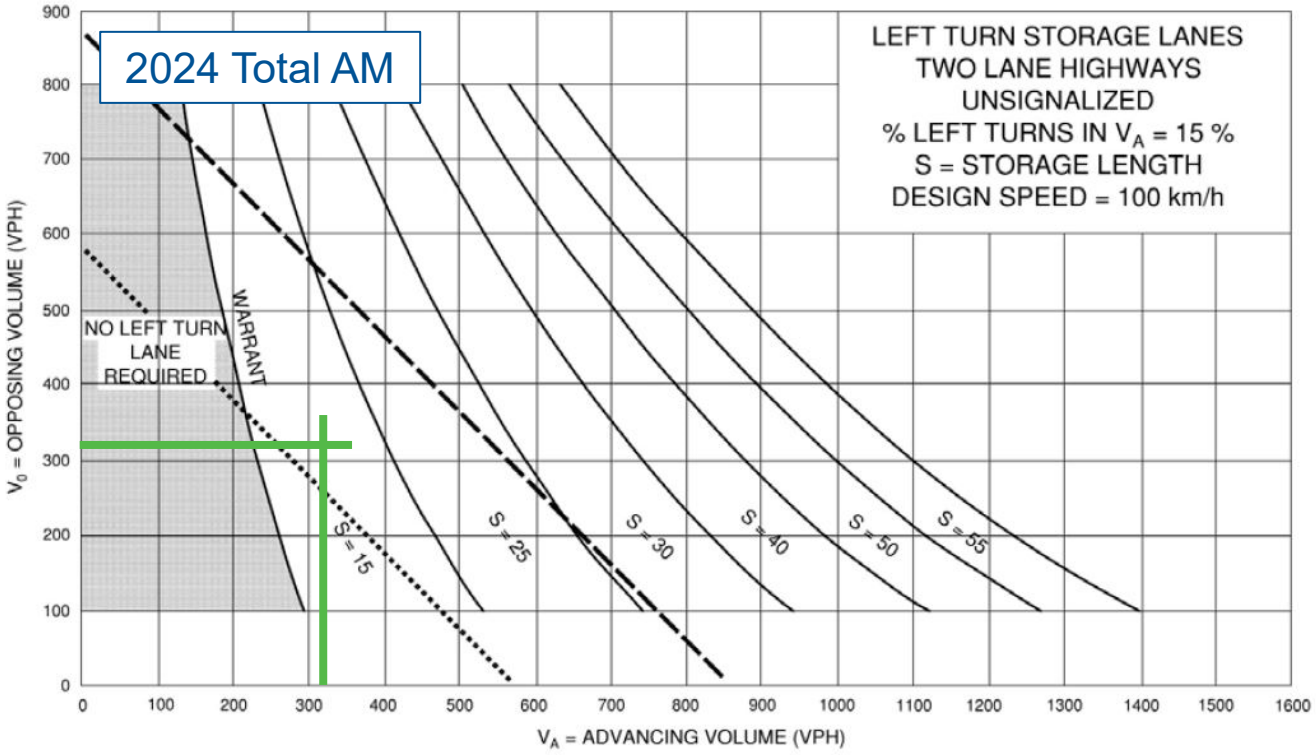


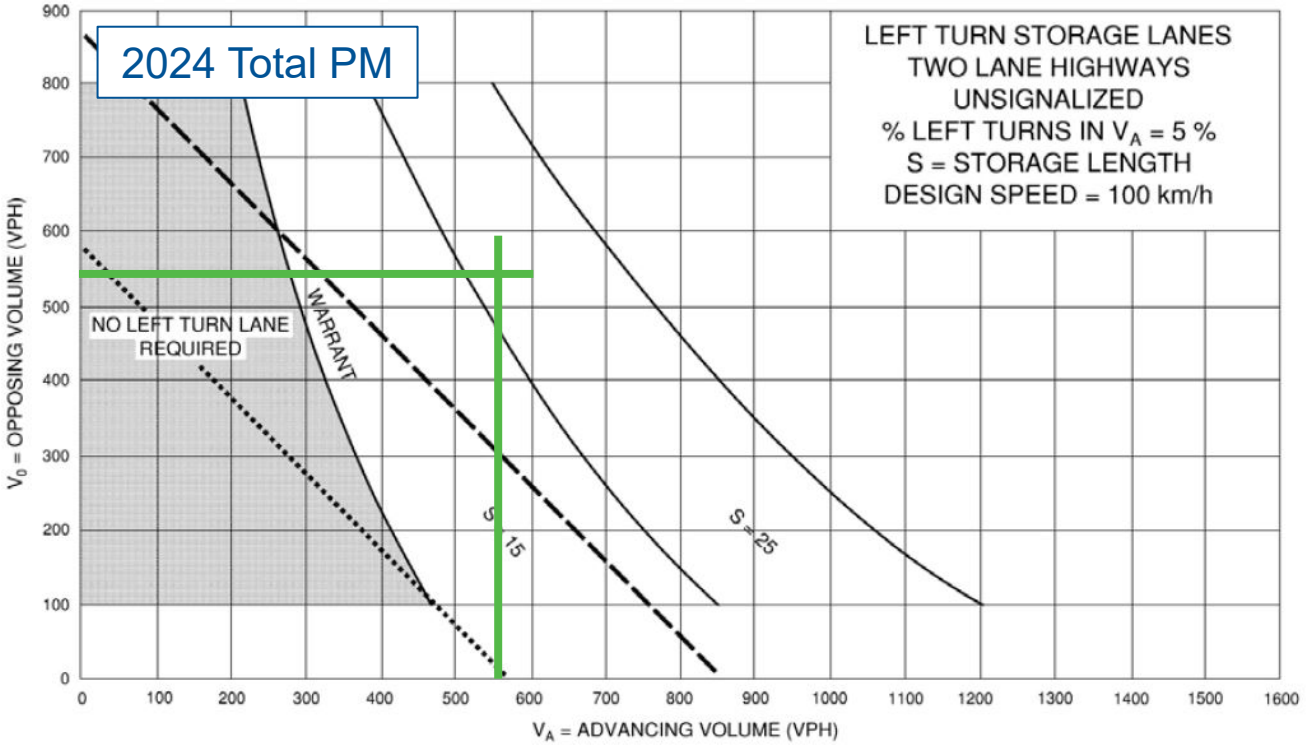


Westbound Left-Turn Lane Warrants
Sunset Drive & Driveway B
AM and PM Peak Hours

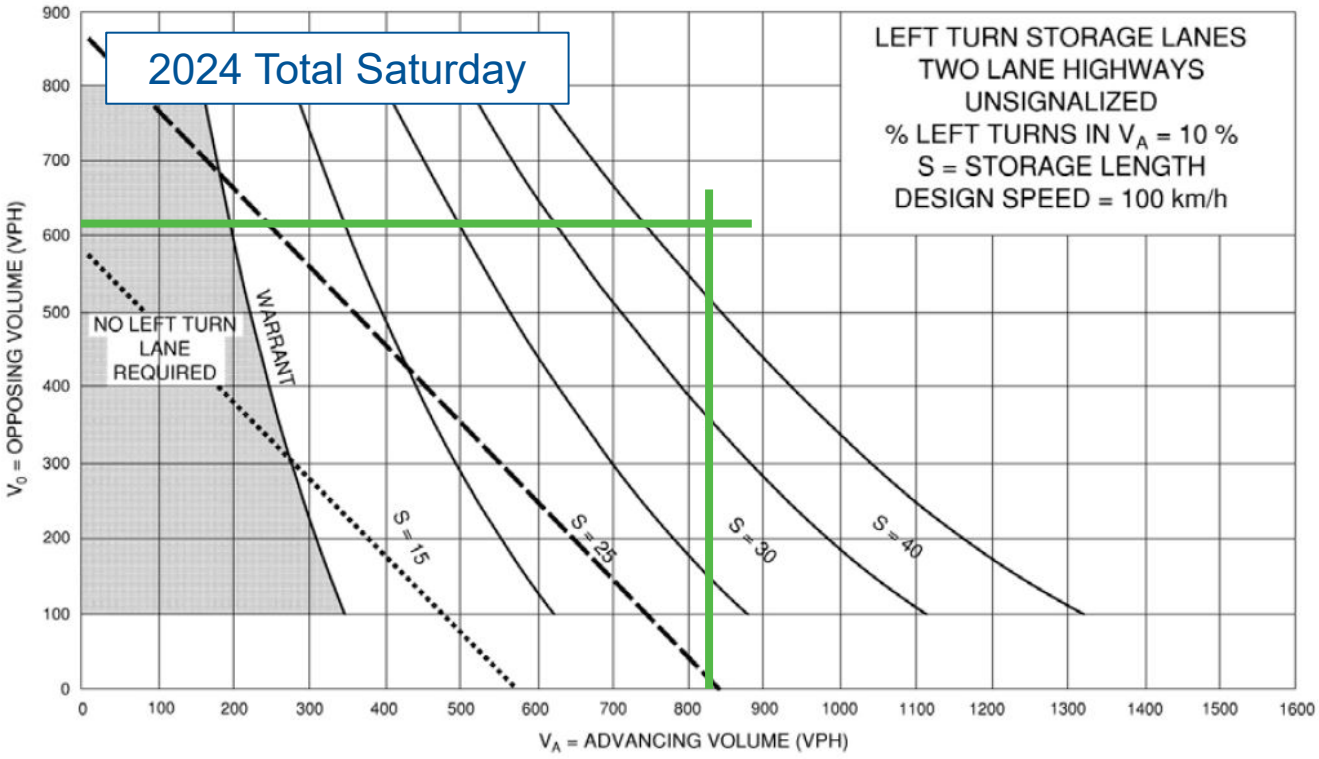


Westbound Left-Turn Lane Warrants
Sunset Drive & Driveway B
Saturday Peak Hour





Westbound Left-Turn Lane Warrants
Sunset Drive & Driveway B
AM and PM Peak Hours



Westbound Left-Turn Lane Warrants
Sunset Drive & Driveway B
Saturday Peak Hour