

**TRANSPORTATION IMPACT STUDY &  
PARKING JUSTIFICATION STUDY**

**3404-3445 FIELDGATE DRIVE  
CITY OF MISSISSAUGA  
REGION OF PEEL**

**PREPARED FOR:**

**FOREST GLEN SHOPPING CENTRE INC.**

**PREPARED BY:**

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<b>Revision Number</b>	<b>Date</b>	<b>Comments</b>
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## Executive Summary

C.F. Crozier & Associates (Crozier) was retained by Forest Glen Shopping Centre Inc. to complete a Transportation Impact Study (TIS) & Parking Justification Study for a mixed-use high-rise residential development situated at 3403-3445 Fieldgate Drive in the City of Mississauga, Region of Peel.

The analysis undertaken herein was completed using the Site Plan prepared by Onespace Unlimited Inc., dated August 23<sup>rd</sup>, 2024. The development consists of one 22-storey tower consisting of 204 residential units and 1,792.78 sq.m. commercial area, one 18-storey tower consisting of 212 residential units and one 13-storey tower consisting of 163 residential units and 1,077.15 sq.m. commercial area.

The overall site proposes a total of 597 vehicle parking (454 residential and 143 shared commercial/visitor), 401 bicycle parking spaces (361 long-term and 40 short-term) and consists of multiple underground parking levels.

### 2024 Existing Conditions

- The overall boundary road network operates at a Level of Service (LOS) "E" or better, with the exception of a few approaches at signalized intersections.
- The westbound left-turn movement at the intersection of Dixie Road & Bloor Street operates at capacity during the weekday A.M. and P.M. peak hours and exceeds capacity during the Saturday peak hour. The minimum control delay observed is 101.2 seconds during the weekday A.M. peak hour. A Level of Service (LOS) of "F" is observed for all the peak hours. The overcapacity is expected to be an outcome of aggressive driving during intergreen phases.
- A LOS "F" is observed for some approaches at the intersections along Burnhamthorpe Road. However, the delays are acceptable, and movements are under capacity.
- The 95<sup>th</sup> percentile queue lengths for various movements exceed available storage during peak hours, but generally remain within the current taper lengths. The 95<sup>th</sup> percentile queue length for westbound left-turn at the intersection of Dixie Road and Bloor Street and westbound right-turn at the intersection of Burnhamthorpe Road and Ponytrail Drive exceed the available taper.

### 2029 Future Background Conditions

- The future background conditions include improvements in the Bloor Street preliminary design and removal of Fieldgate Plaza trips.
- The intersections are anticipated to perform similarly to their current state, with further deterioration in operations for those already performing poorly, due to the reduction of one through lane in each direction along Bloor Street.
- At the intersection of Dixie Road and Bloor Street, the westbound left-turn movement is anticipated to experience increased control delay and capacity issues during all peak hours, exacerbated by projected future background traffic volumes. Similarly, the southbound left-turn movement is forecasted to worsen, with an observed increase in the v/c ratio to 1.23. The 95<sup>th</sup> percentile queue lengths for these movements are also expected to grow by 10 to 20 meters.

- The eastbound left-turn movement at the intersection of Bloor Street and Havenwood Drive is expected to degrade to LOS "F" with a v/c ratio of 1.12 during the weekday P.M. peak hour, attributed to the loss of a westbound through lane.
- Maximum 95th percentile queue lengths of 50 meters for southbound left-turns at Bloor Street and Fieldgate Drive during the weekday P.M. peak hour, and 75 meters for northbound left-turns at Burnhamthorpe Road and Fieldgate Drive during the weekday A.M. peak hour, exceed available storage capacity.
- The 95th percentile queue lengths for eastbound left-turns, westbound right-turns, northbound left-turns, and southbound left-turns are expected to exceed available storage, with particular concern for westbound left-turn queues potentially exceeding available taper capacity.

### Site Generated Trips

The proposed mixed-use development is expected to generate a total of 218 trips (77 inbound and 141 outbound) in the weekday A.M. peak hour, 270 trips (154 inbound and 116 outbound) in the weekday P.M. peak hour and 288 trips (159 inbound and 129 outbound) in the Saturday peak hour.

### 2029 Future Total Conditions

- Traffic operations are projected to maintain similar conditions compared to the associated future background scenario, although certain approaches are anticipated to deteriorate further compared to their corresponding 2029 future background conditions:
- At Dixie Road & Bloor Street intersection, the westbound left-turn movement is expected to deteriorate further with a minimum v/c ratio of 1.54 and a minimum control delay of 160.3 seconds. The southbound left-turn movement is also anticipated to worsen, with control delay increasing to 242.1 seconds and v/c ratio to 1.35. The 95th percentile queue for westbound left-turns is forecasted to increase by 20 meters during weekday A.M. and P.M. peak hours, and by 30 meters during the Saturday peak hour.
- At Bloor Street and Fieldgate Drive intersection, the eastbound left-turn movement is expected to deteriorate further with a v/c ratio of 1.53 and an increase in control delay to 310.9 seconds during the weekday P.M. peak hour. The westbound shared through/right lane is forecasted to have a v/c ratio of 0.93 during the weekday P.M. peak hour. The 95th percentile queue length for eastbound left-turns is expected to exceed storage capacity by only 5 meters, which can be accommodated within the available taper.
- The 95th percentile queues at intersections along Burnhamthorpe Road are expected to align similarly with the future background scenario, with a minor increase in some queues by 5 meters. Monitoring of the westbound right-turn queue at these intersections is recommended for future planning.
- The unsignalized intersections, including site accesses at Fieldgate Drive and Ponytrail Drive, are anticipated to operate at LOS "C" or better, with no movements exceeding capacity or experiencing critical delays.
- It is noted that a sensitivity analysis where the existing Bloor Street lane configurations remain and the Bloor Street bike lane project is not implemented. In this scenario, some movements would operate with long delays but all movements would operate within capacity.

### Access Review

- Sufficient sightlines are available at site accesses for vehicles turning left or right onto the roadways. Drivers are expected to use two-stage sight lines when approaching the access at Fieldgate Drivers, as the bend in the roadway and lay-by parking may obstruct direct sight lines for vehicles turning right. However, the crosswalk is located approximately 5.6 meters from the edge of the traveled roadway, allowing vehicles to proceed close to the edge before making their turn onto the major roadway.
- The proposed sight accesses have sufficient corner clearance and meet the TAC GDGCR minimum requirements.
- The driveway alignment with the existing Williamsport Drive is considered acceptable given the offset is 0.7 meters, which is within the TAC GDGCR maximum requirement of 1.5 meters.
- Sufficient throat length is proposed at both the site accesses to accommodate any queues in the peak hours.

### Vehicle Maneuvering

There are no expected vehicle maneuverability constraints within the subject site for fire trucks, waste collection vehicles, loading vehicles or passenger vehicles.

### Parking Assessment & Justification

The proposed parking supply of 454 parking spaces for residents is in deficit by 209 spaces with respect to the City's Zoning By-Law requirements and the shared commercial/visitor parking supply of 143 spaces meet the minimum requirement.

A parking justification was conducted for the proposed development and the proposed auto parking supply for residents was determined to be adequate to support the needs of residents at the proposed site based on a review on the surrounding land-use context, transit availability and observed parking rates within the City of Mississauga.

The accessible parking spaces meet the minimum Zoning By-Law requirement and is in surplus by 8 spaces.

The resident and commercial long-term and short-term bicycle parking supply meets the Zoning By-Law requirement and short-term parking is in surplus by 4 spaces.

### Transportation Demand Management

Transportation Demand Management (TDM) measures, including 'hard' measures like adequate cycling and pedestrian facilities, as well as 'soft' measures such as unbundling the parking supply and providing transit incentives, were recommended to reduce single-occupant vehicle trips and promote transit and active transportation. It is also recommended that the owner monitor TDM requirements and communicate TDM opportunities to residents to raise awareness of alternative transportation modes.

## Conclusion

Therefore, the proposed site is not expected to materially impact the surrounding study transportation network and supports the build out of a multi-modal transportation and can therefore be supported from a transportation perspective.

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## 1.0 Introduction

Forest Glen Shopping Centre Inc. retained C.F. Crozier & Associates Inc. (Crozier) to complete a Transportation Impact Study & Parking Justification Study to support the proposed mixed-use development located at 3403-3445 Fieldgate Drive in the City of Mississauga.

The purpose the Transportation Impact Study is to evaluate the impacts of the proposed development in the surrounding road network and recommend transportation-related mitigation measures, if required. The study has been prepared in accordance with procedures set out in the City of Mississauga's updated Transportation Impact Study Guidelines in December 2022.

A Terms of Reference (ToR) encompassing the scope of the Transportation Impact Study was circulated to the City of Mississauga on April 17<sup>th</sup>, 2024, and comments were received on April 26<sup>th</sup>, 2024. Correspondence from the City is included in **Appendix A**.

### 1.1 Developments Lands

The subject lands cover an area of approximately 1.58 ha and currently consist of a 1-storey commercial plaza and a standalone commercial building with associated surface parking. The property, located in a mixed-use residential and commercial neighborhood, is bounded by residential apartments to the north, a gas station and Bloor Street to the east, Fieldgate Drive to the south, and Ponytail Drive to the west.

**Figure 1** includes the Site Location.

### 1.2 Development Proposal

Per the Site Plan prepared by Onespace Unlimited Inc. August 8<sup>th</sup>, 2024, the proposed development comprises of the following:

- A 22-storey tower consisting of 204 residential units and 1,792.78 sq.m. commercial area
- A 18-storey tower consisting of 212 residential units
- A 13-storey tower consisting of 163 residential units and 1,077.15 sq.m. commercial area
- Thirteen (13) stacked condominium townhouse units
- Two underground Parking Levels consisting of a total of 454 resident parking spaces and 143 shared commercial/visitor parking spaces
- A total of 361 long-term bicycle parking spaces and 40 short-term bicycle parking spaces
- A total of 11 lay-by parking spaces along Fieldgate Drive.
- Site Access via Fieldgate Drive and Ponytrail Drive

**Figure 2** outlines the current Site Plan (August 23<sup>rd</sup>, 2024).



**Legend**

- xx A.M. Peak Hour Traffic Volumes
- (xx) P.M. Peak Hour Traffic Volumes
- (xx) Weekend Peak Hour Traffic Volumes

3403-3445 Fieldgate Drive

Site Location



**Figure 1**

Project No. 2455-7073  
 Date: 2024-08-16  
 Analyst: Acazoo D



### **1.3 Study Purpose and Scope**

The purpose of the study is to evaluate the transportation-related impacts of the proposed development on the study road network and to recommend or confirm any required mitigation measures, if warranted. This TIS is in support of an Official Plan Amendment (OPA) and a Zoning By-law Amendment (ZBA) application.

The study reviews the following main aspects of the proposed development from a transportation engineering perspective:

- Impacts of development traffic on the study road network through analyzing existing, future background, and future total traffic operations;
- Need for external roadway improvements to mitigate traffic impacts;
- Adequacy of the development plan to allow for anticipated vehicle servicing internally;
- Safety requirements of the proposed site accesses;
- Adequacy of the proposed vehicle and bicycle parking supply; and
- Existing, future, and site-specific Transportation Demand Management opportunities.

The study has been completed in accordance with the City of Mississauga's Transportation Impact Study Guidelines dated December 2022.

As confirmed in the Terms of Reference, this Transportation Impact Study considers the following study intersections:

- Dixie Road and Bloor Street
- Bloor Street and Havenwood Drive
- Bloor Street and Fieldgate Drive
- Bloor Street and Fieldgate Plaza Access
- Fieldgate Drive and Fieldgate Plaza Access
- Fieldgate Drive and Williamsport Drive
- Fieldgate Drive and Ponytrail Drive
- Ponytrail Drive and Fieldgate Plaza Accesses
- Fieldgate Drive and Haven Glenn
- Burnhamthorpe Road and Fieldgate Drive
- Burnhamthorpe Road and Ponytrail Drive

For the purposes of this study, it has been assumed that the entirety of the development will be built out by 2029.

## 2.0 Existing Conditions

This section outlines the current conditions of the transportation network in the vicinity of the site. Details of the study road network, including traffic controls, lane configurations, speed limits, transit routes and stops, active transportation infrastructure and other relevant transportation elements are identified. The existing traffic operations are also summarized.

### 2.1 Study Road Network

The study road network consists of the existing road network near the site, which includes the study intersections and the adjoining roadway segments. **Table 1** delineates the arterial and collector study roadways and **Table 2** delineates the local study roadways. **Figure 3** illustrates the study road network, including the lane configurations and intersection control at the study intersections.

**Table 1: Study Roadways – Arterial and Collector**

Features	Roadways (Arterial and Collector)		
	Dixie Road	Bloor Street	Burnhamthorpe Road
Direction	Two-way (North-South)	Two-way (East-West)	Two-way (East-West)
Classification	Arterial	Major Collector	Minor Collector
Jurisdiction	Region of Peel	City of Mississauga	City of Mississauga
Speed Limit	60 km/h	50 km/h	50 km/h
Number of travel lanes	Six	Four	Four
Median type	Concrete Median	Two-Way Left Turn	Two-Way Left Turn
Active Transportation	Sidewalk on east side and MUP on west side	Sidewalk on both sides	Sidewalk on south side and MUP on north side

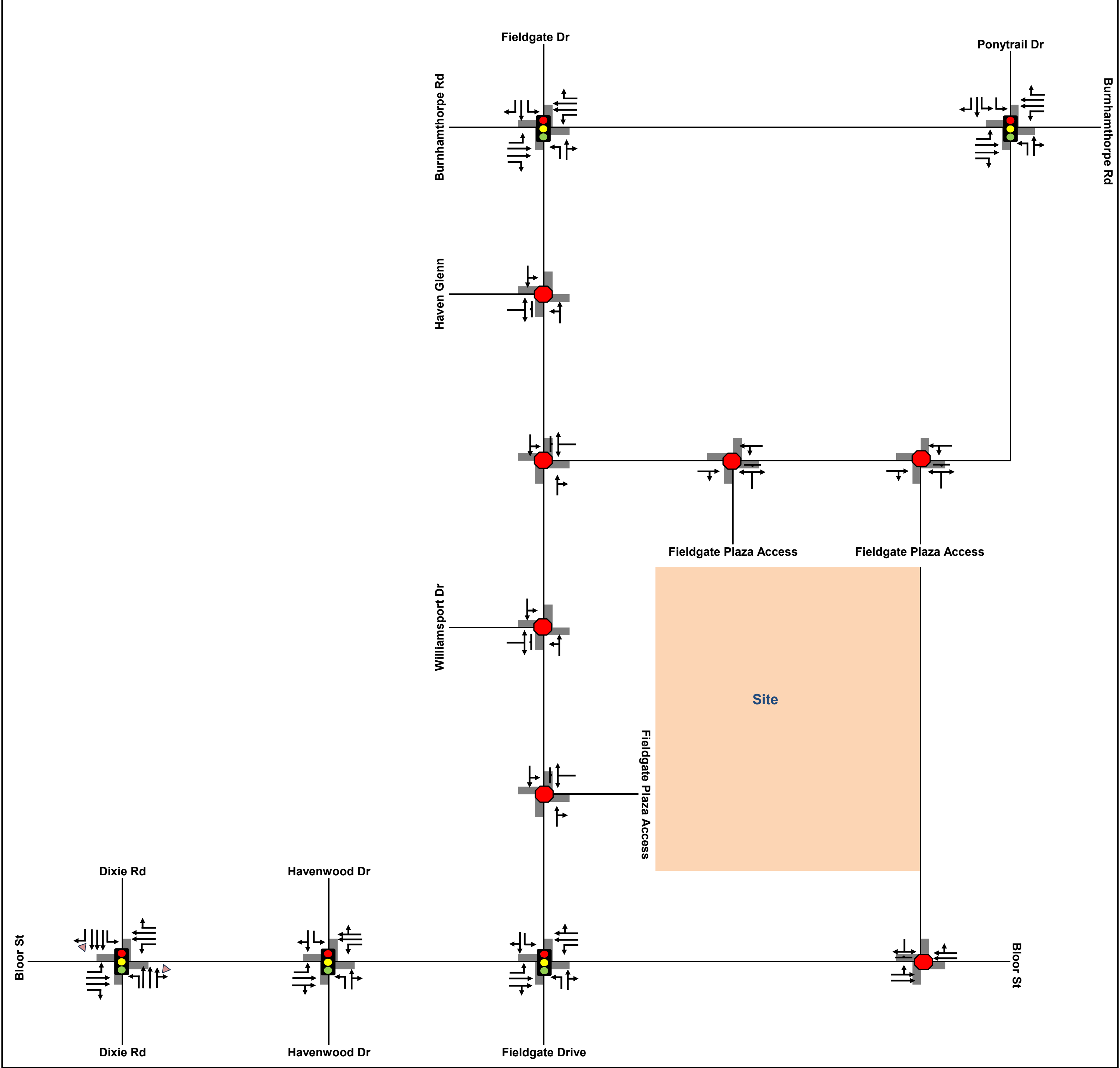


**Table 2: Study Roadways - Local**

Feature	Roadways				
	Fieldgate Drive	Havenwood Drive	WilliamSPORT Drive	Ponytrail Drive	Haven Glenn
Direction	Two-way (North-South)	Two-way (North-South)	Two-way (East-West)	Two-way (East-West before Silverplains Dr & North-South after Silverplains Dr)	Two-way (East-West)
Classification	Local	Local	Local	Local	Local
Jurisdiction	City of Mississauga	City of Mississauga	City of Mississauga	City of Mississauga	City of Mississauga
Speed Limit	40 km/h (south of Ponytrail Dr) 30 km/h (north of Ponytrail Dr)	30 km/h (south of Bloor St) 40 km/h (north of Bloor St)	40 km/h (assumed)	30 km/h (south of Silverplains Dr) 40 km/h (north of silverplains Dr)	40 km/h
Number of travel lanes	Two	Two	Two	Two	Two
Median type	None	None	None	None	None
Active Transportation	Sidewalk on both sides	Sidewalk on both sides	Sidewalk on both sides	Sidewalk on both sides	Sidewalk on both sides

Note: A speed limit of 40 km/h is assumed for the roads with no posted speed per speed limits in Neighbourhood area.

Relevant excerpts are provided in **Appendix B**.



**Legend**  
 xx A.M. Peak Hour Traffic Volumes  
 [xx] P.M. Peak Hour Traffic Volumes  
 [xx] Weekend Peak Hour Traffic Volumes

3403-3445 Fieldgate Drive  
 2024 Existing Study Road Network



**Figure 3**  
 Project No. 2655-7073  
 Date: 2024-06-28  
 Analyst: Aarzo D

## 2.2 Transit Network

The subject site is located in the area that is served by the MiWay Transit Network. The subject site is within walkable distance of bus stops along Bloor Street.

**MiWay Bus Route 3** connects Square One in Mississauga to Kipling Station in Toronto, serving as key transit hubs with 15-minute intervals during weekdays and 30-minute intervals after 7:00 PM. On weekends, buses run every 20-30 minutes. The route provides connections to GO Transit services at City Centre Terminal and TTC's subway line 2 at Kipling Station

**MiWay Bus Route 307** (School Route) operates between Philip Pocock Secondary School and Kipling station. The bus has 33 stops departing from Tomken Road at Philip Pocock Secondary School and ending at Kipling Terminal Platform 6. It departs once a day at 14:22.

Transit route maps are provided in **Appendix C**.

## 2.3 Transportation Data

A variety of transportation data was obtained and used to support the analysis in this study. **Table 3** summarizes the study intersections, date of data collection and signal timing plans, and the source of the information. Traffic data was collected during the hours of 7:00 a.m. to 10:00 a.m. and 4:00 p.m. to 7:00 p.m. on a weekday and 10:00 a.m. to 2:00 p.m. on a Saturday.

**Table 3: Traffic Data**

Intersection	TMC Date	Source	Timing Plan Date	Source
Dixie Road & Bloor Street	Thursday, May 09, 2024 & Saturday, May 11, 2024	Spectrum	May 02, 2024	Region
Bloor Street & Havenwood Drive			May 08, 2024	City
Bloor Street & Fieldgate Drive			May 08, 2024	City
Bloor Street & Fieldgate Plaza Access			May 08, 2024	City
Fieldgate Drive & Fieldgate Plaza Access			N/A	
Fieldgate Drive & Williamsport Drive			N/A	
Fieldgate Drive & Ponytrail Drive			N/A	
Ponytrail Drive & Fieldgate Plaza West Access			N/A	
Ponytrail Drive & Fieldgate Plaza East Access			N/A	
Fieldgate Drive & Haven Glenn			N/A	
Burnhamthorpe Road & Fieldgate Drive			May 08, 2024	City
Burnhamthorpe Road & Ponytrail Drive			May 08, 2024	City

**Appendix D** contains all transportation data used in support of this study.

## 2.4 Traffic Modelling and Assumptions

The evaluation of intersections within this report is conducted based on the methodology outlined in the Highway Capacity Manual (2000), using Synchro 11 modelling software. Intersections are assessed using a Level of Service (LOS) metric, with ranges of intersection delays assigned a letter from "A" to "F". For stop-controlled intersections, a Level of Service "A" or "B" would typically be measured during off-peak hours when lesser traffic volumes are on the roadways. Levels of Service "C" through "F" would typically be observed during commuter peak hours when significant vehicle volumes would cause lengthy travel times. The Level of Service definitions for signalized and stop-controlled intersections are included in **Appendix E**.

The City/Region's Transportation Impact Study Guidelines provide the following parameters indicating critical operations requiring mitigation measures:

- For signalized intersections,
  - The critical v/c threshold for intersections with Regional Roads (Dixie Road & Bloor Street) is 0.90 for all shared/through/turning movements per Peel Region guidelines and 1:00 for exclusive movements.
  - Volume-to-capacity (v/c) ratio of 0.85 or greater for through or shared turning movements, and a v/c ratio of 1.00 or greater for exclusive turning movements.
  - 95th percentile queues exceeding the available storage length.
- For stop-controlled intersections:
  - A Level of Service "E" or worse, or movement v/c ratios exceeding 0.85
  - 95th percentile queues exceeding the available storage length.

The traffic volumes applied to the existing conditions model are the volumes established in **Section 2.3**, based on the turning movement count survey data. This survey data was also applied to the model for the heavy vehicle percentages for each intersection during each time period. A peak hour factor of 0.92 was assumed for all the approaches per the City's Synchro guidelines.

The signal timing plans identified in **Section 2.3** were incorporated into the model for the signalized study intersections, while stop control was applied in the model to the remaining study intersections.

## 2.5 Intersection Operations

**Table 4** and **Table 5** outline the 2024 existing conditions traffic operations at the signalized and unsignalized study intersections, respectively. **Table 6** outlines the existing conditions queues. Synchro 11 was used to determine intersection operations at both the signalized and unsignalized study intersections. **Figure 4** illustrates the 2024 existing conditions traffic volumes used in the operational analysis. **Appendix F** contains the detailed capacity analysis worksheets.

**Table 4: 2024 Existing Conditions Traffic Operations – Signalized Intersections**

Intersection	Performance Metrics									
	Movement	LOS <sup>1</sup>			Delay (s)			v/c ratio <sup>2</sup>		
		AM	PM	SAT	AM	PM	SAT	AM	PM	SAT
Dixie Rd & Bloor St	Overall	D	D	D	36.9	48.2	45.1	1.01	1.05	1.30
	EBL	F	E	E	83.1	65.6	79.9	0.77	0.79	0.76
	EBT	E	D	E	61.5	53.3	57.5	0.66	0.52	0.59
	EBR	D	C	C	37.6	29.1	34.6	0.49	0.44	0.56
	WBL	F	F	F	101.2	112.1	200.5	1.01	1.05	1.30
	WBT	D	E	D	42.8	64.7	45.9	0.36	0.82	0.43
	WBR	D	C	D	38.8	32.5	39.4	0.54	0.50	0.48
	NBL	C	E	C	34.0	59.9	23.7	0.32	0.79	0.63
	NBTR	C	D	B	28.6	35.6	19.2	0.52	0.73	0.51
	SBL	C	D	F	26.9	49.0	117.1	0.69	0.68	0.99
SBT	B	D	C	18.6	46.7	30.7	0.42	0.77	0.50	
SBR	A	B	A	3.2	11.6	4.7	0.11	0.34	0.20	
Bloor St & Havenwood Dr	Overall	B	A	A	12.7	8.9	7.9	0.69	0.62	0.50
	EBL	A	A	A	6.8	8.8	4.1	0.14	0.31	0.21
	EBTR	A	A	A	6.5	5.5	3.5	0.34	0.35	0.34
	WBL	A	A	A	6.1	3.6	5.6	0.16	0.12	0.06
	WBTR	A	A	A	5.2	3.6	5.6	0.29	0.44	0.34
	NBL	E	D	C	57.4	42.6	33.6	0.60	0.28	0.27
	NBTR	C	C	B	26.2	22.4	16.6	0.44	0.29	0.19
	SBL	D	D	D	38.5	46.4	35.4	0.25	0.41	0.36
SBTR	D	D	C	37.8	36.6	23.7	0.69	0.62	0.50	
Bloor St & Fieldgate Dr	Overall	B	B	B	18.0	18.4	15.5	0.73	0.70	0.58
	EBL	B	B	B	11.9	12.0	11.2	0.30	0.32	0.21
	EBTR	B	B	B	13.9	13.2	15.1	0.30	0.31	0.31
	WBL	B	B	B	14.1	13.7	12.9	0.07	0.19	0.17
	WBTR	B	B	B	13.0	14.6	11.4	0.28	0.51	0.34
	NBL	D	D	C	45.3	42.0	34.0	0.48	0.41	0.38
	NBTR	B	B	B	19.7	17.0	14.5	0.38	0.29	0.26
	SBL	E	D	D	55.3	53.9	39.5	0.73	0.70	0.58
SBTR	B	C	B	12.5	28.2	12.0	0.54	0.57	0.50	

Intersection	Performance Metrics									
	Movement	LOS <sup>1</sup>			Delay (s)			v/c ratio <sup>2</sup>		
		AM	PM	SAT	AM	PM	SAT	AM	PM	SAT
Burnhamthorpe Rd & Fieldgate Dr	<b>Overall</b>	B	B	A	19.8	11.9	6.1	0.78	0.63	0.41
	EBL	A	A	A	7.1	5.2	6.1	0.08	0.18	0.15
	EBT	A	A	A	8.2	4.7	6.1	0.41	0.36	0.41
	EBR	A	A	A	4.2	1.8	0.2	0.18	0.09	0.06
	WBL	A	A	A	7.4	3.5	1.7	0.17	0.15	0.14
	WBT	A	A	A	6.2	3.3	1.1	0.27	0.39	0.32
	WBR	A	A	A	0.0	0.2	0.1	0.03	0.04	0.04
	NBL	<b>F</b>	<b>F</b>	C	<b>89.5</b>	<b>83.2</b>	33.1	0.78	0.49	0.32
	NBTR	<b>E</b>	<b>E</b>	B	<b>68.1</b>	<b>55.3</b>	14.4	0.69	0.47	0.32
	SBL	<b>F</b>	<b>E</b>	D	<b>81.6</b>	<b>79.5</b>	36.6	0.59	0.46	0.34
	SBT	<b>E</b>	<b>F</b>	C	<b>61.1</b>	<b>84.8</b>	32.3	0.29	0.63	0.19
SBR	B	B	A	13.4	17.2	1.5	0.23	0.27	0.17	
Burnhamthorpe Rd & Ponytrail Dr	<b>Overall</b>	C	D	D	32.1	36.5	42.0	0.92	0.87	0.90
	EBL	B	D	<b>E</b>	14.8	37.4	<b>69.8</b>	0.16	0.52	0.77
	EBT	B	B	C	17.0	18.6	20.1	0.55	0.49	0.51
	EBR	A	A	A	0.1	0.1	0.3	0.05	0.03	0.03
	WBL	C	C	D	29.0	30.8	46.6	0.18	0.26	0.36
	WBT	C	D	D	30.5	36.8	49.0	0.43	0.68	0.70
	WBR	B	C	D	13.6	30.9	36.4	0.42	0.78	0.75
	NBL	<b>E</b>	<b>F</b>	<b>E</b>	<b>70.6</b>	<b>80.2</b>	<b>74.2</b>	0.28	0.22	0.25
	NBTR	<b>E</b>	<b>E</b>	<b>E</b>	<b>60.2</b>	<b>69.2</b>	<b>62.9</b>	0.67	0.54	0.59
	SBL	<b>F</b>	<b>F</b>	<b>F</b>	<b>100.2</b>	<b>87.3</b>	<b>91.2</b>	0.92	0.87	0.90
	SBT	D	D	D	46.0	44.7	45.1	0.09	0.10	0.12
SBR	A	A	A	9.3	9.6	7.7	0.18	0.15	0.26	

Note 1: The Level of Service of a signalized intersection is based on the average control delay per vehicle (Synchro).

Note 2: All v/c ratios above critical thresholds are bolded, all v/c ratios greater than 1.00 are bolded with red text. The critical v/c threshold for intersections with Regional Roads (Dixie Road & Bloor Street) is 0.90 for all shared/through/turning movements per Peel Region guidelines and 1.00 for exclusive movements.

Note 3: The critical threshold for all intersections without Regional Roads is 0.85 for shared/through/turning movements and 1.00 for exclusive through and turning movements per the City of Mississauga guidelines.

**Table 5: 2024 Existing Conditions Traffic Operations – Unsignalized Intersections**

Intersection	Performance Metrics									
	Movement	LOS <sup>1</sup>			Delay (s)			v/c ratio <sup>2</sup>		
		AM	PM	SAT	AM	PM	SAT	AM	PM	SAT
Bloor St & Fieldgate Plaza Access (TWSC)	Overall	B	<b>E</b>	C	13.0	<b>41.7</b>	16.8	0.35	0.46	0.33
	EBLT	A	A	A	0.1	0.1	0.1	0.35	0.36	0.33
	WBTR	A	A	A	0.0	0.0	0.0	0.13	0.24	0.16
	WBT	A	A	A	0.0	0.0	0.0	0.25	0.46	0.30
	SBLR	B	<b>E</b>	C	13.0	<b>41.7</b>	16.8	0.01	0.12	0.06
Fieldgate Rd & Fieldgate Plaza Access (TWSC)	Overall	C	B	B	19.1	14.0	13.9	0.20	0.16	0.21
	WBLR	C	B	B	19.1	14.0	13.9	0.15	0.14	0.21
	NBTR	A	A	A	0.0	0.0	0.0	0.20	0.16	0.13
	SBLT	A	A	A	0.5	0.4	0.9	0.01	0.01	0.02
Fieldgate Dr & Williamspoint Dr (TWSC)	Overall	B	B	B	13.9	12.2	10.7	0.22	0.18	0.12
	EBLR	B	B	B	13.9	12.2	10.7	0.22	0.18	0.12
	NBLT	A	A	A	1.8	2.2	2.0	0.05	0.04	0.03
	SBTR	A	A	A	0.0	0.0	0.0	0.17	0.16	0.11
Fieldgate Dr & Ponytrail Dr (AWSC)	Overall	B	A	A	10.1	9.5	8.6	0.36	0.31	0.21
	WBLR	A	A	A	9.7	8.7	8.2	0.24	0.16	0.12
	NBTR	B	A	A	10.1	8.5	8.1	0.36	0.23	0.20
	SBLT	A	A	A	9.9	9.5	8.6	0.31	0.31	0.21
Ponytrail Dr & Fieldgate Plaza West Access (TWSC)	Overall	B	B	A	10.3	10.1	9.7	0.08	0.07	0.07
	EBTR	A	A	A	0.0	0.0	0.0	0.08	0.07	0.07
	WBLT	A	A	A	0.6	0.6	1.2	0.01	0.01	0.01
	NBLR	B	B	A	10.3	10.1	9.7	0.04	0.07	0.05
Ponytrail Dr & Fieldgate Plaza East Access (TWSC)	Overall	B	A	A	11.7	10.0	9.6	0.08	0.07	0.06
	EBTR	A	A	A	0.0	0.0	0.0	0.08	0.07	0.06
	WBLT	A	A	A	0.1	0.2	0.1	0.00	0.00	0.00
	NBLR	B	A	A	11.7	10.0	9.6	0.00	0.00	0.00
Fieldgate Dr & Haven Glenn (TWSC)	Overall	B	B	A	13.6	10.5	9.7	0.20	0.13	0.08
	EBLR	B	B	A	13.6	10.5	9.7	0.20	0.06	0.05
	NBLT	A	A	A	1.5	1.8	1.2	0.03	0.03	0.02
	SBTR	A	A	A	0.0	0.0	0.0	0.13	0.13	0.08

Note 1: The overall Level of Service of a two-way stop-controlled intersection is based on the delay associated with the critical minor road approach (HCM 2000).

Note 2: All v/c ratios above critical thresholds are bolded, all v/c ratios greater than 1.00 are bolded with red text.

Note 3: The critical threshold for all intersections is 0.85 for shared/through/turning movements and 1.00 for exclusive through and turning movements per the City of Mississauga guidelines.

**Table 6: 2024 Existing Conditions Queuing Assessment**

Intersection	Performance Metrics				
	Movement	95 <sup>th</sup> Percentile Queue Length (m) [50 <sup>th</sup> Percentile Queue Length (m)]			Auxiliary Lane Storage Length (m)
		AM	PM	SAT	
Dixie Rd & Bloor St	EBL	<b>70 [50]</b>	<b>50 [35]</b>	<b>65 [50]</b>	40
	EBR	<b>55 [35]</b>	<b>50 [30]</b>	<b>60 [40]</b>	15
	WBL	<b>105 [70]</b>	<b>130 [85]</b>	<b>165 [130]</b>	60
	WBR	<b>75 [60]</b>	<b>60 [35]</b>	<b>75 [50]</b>	10
	NBL	30	<b>120 [70]</b>	55	75
	SBL	50	50	<b>100</b>	100
	SBR	10	35	20	85
Bloor St & Havenwood Dr	EBL	15	20	10	50
	WBL	10	5	5	50
	NBL	<b>30 [15]</b>	20	20	<b>25</b>
	SBL	20	25	20	25
Bloor St & Fieldgate Dr	EBL	45	25	30	50
	WBL	10	20	15	45
	NBL	25	25	20	45
	SBL	<b>50 [30]</b>	<b>50 [30]</b>	<b>30 [25]</b>	<b>25</b>
Burnhamthorpe Rd & Fieldgate Dr	EBL	10	10	10	30
	EBR	25	10	5	25
	WBL	10	5	5	30
	WBR	0	5	5	30
	NBL	<b>70 [50]</b>	<b>30 [20]</b>	<b>20 [10]</b>	15
	SBL	40	35	20	65
	SBR	15	15	5	65
Burnhamthorpe Rd & Ponytrail Dr	EBL	10	<b>35</b>	<b>60 [15]</b>	35
	EBR	0	0	5	30
	WBL	20	25	35	35
	WBR	<b>55 [30]</b>	<b>170 [115]</b>	<b>140 [90]</b>	30
	NBL	<b>20 [10]</b>	<b>20 [10]</b>	<b>20 [10]</b>	15
	SBL	<b>85 [60]</b>	<b>95 [70]</b>	<b>90 [70]</b>	40
	SBR	15	15	20	45

Note 1: The 95<sup>th</sup> percentile queue length for an individual movement exceeding available turn lane storage are bolded with red text. The available turn lane storage are also bolded

Table 4, the signalized intersections operate with a Level of Service (LOS) "E" or better except for the intersection of Dixie Street & Bloor Drive, Burnhamthorpe Road & Fieldgate Drive, and Burnhamthorpe Road & Ponytrail Drive. **Table 6** shows the existing queuing assessment.

Dixie Road and Bloor Street

The eastbound left-turn movement operates at a LOS "F" during the weekday A.M. peak hour, however the volume-to-capacity ratio is not critical and the delays are acceptable.



The westbound left-turn movement also operates at a LOS "F" during all peak hours, with a v/c ratio at capacity during weekday A.M. and P.M. peak hours and significantly overcapacity (1.30) during the Saturday peak hour.

It is noted that the Saturday peak hour signal timings were further confirmed with the Region of Peel, and it was noted that the provided timings match the existing field data on the date of the data collection. Therefore, the significantly overcapacity existing movement is considered to be a result of aggressive driving during the intergreen phase, which was also confirmed through the review of intersection video provided by Spectrum.

The only other critical capacity movement identified was the southbound left-turn, which operates at a LOS "F" in the Saturday peak hour only with a control delay of 117.1 seconds and v/c ratio of 0.99.

The 95<sup>th</sup> and 50<sup>th</sup> percentile queues for the eastbound right-turn, westbound left-turn, and westbound right-turn exceed available storage during weekday and Saturday peak hours. The 95<sup>th</sup> percentile queue for the eastbound left-turn exceeds available storage during both weekday and Saturday peak hours, and the 50<sup>th</sup> percentile queue exceeds storage during the weekday A.M. and Saturday peak hours. However, the queue lengths for eastbound left-turn, eastbound right-turn, westbound right-turn, and northbound left-turn can be accommodated within the current taper length.

#### Bloor Street and Havenwood Drive

The 95<sup>th</sup> percentile queue for northbound left-turn at Bloor Street & Havenwood Drive exceeds the available storage in weekday A.M. peak hour by 5.0 meters with 50<sup>th</sup> percentile queue well within storage.

#### Bloor Street and Fieldgate Drive

The 95<sup>th</sup> and 50<sup>th</sup> percentile queue for southbound left-turn at Bloor Street & Fieldgate Drive exceeds the available storage in weekday and Saturday peak hours.

#### Burnhamthorpe Road and Fieldgate Drive

The northbound left-turn movement operates at LOS "F" during the weekday A.M. and P.M. peak hours, southbound left-turn operates at LOS "F" during the weekday A.M. peak hour and southbound through movement operates at LOS "F" during the weekday P.M. peak hours. However, the movements operate with acceptable delays and well under capacity.

The 95<sup>th</sup> percentile queue for southbound left-turn exceeds the available storage in weekday and Saturday peak hours and 50<sup>th</sup> percentile queue exceeds the available storage in weekday A.M. and P.M. peak hours. However, the queues do not exceed the available taper.

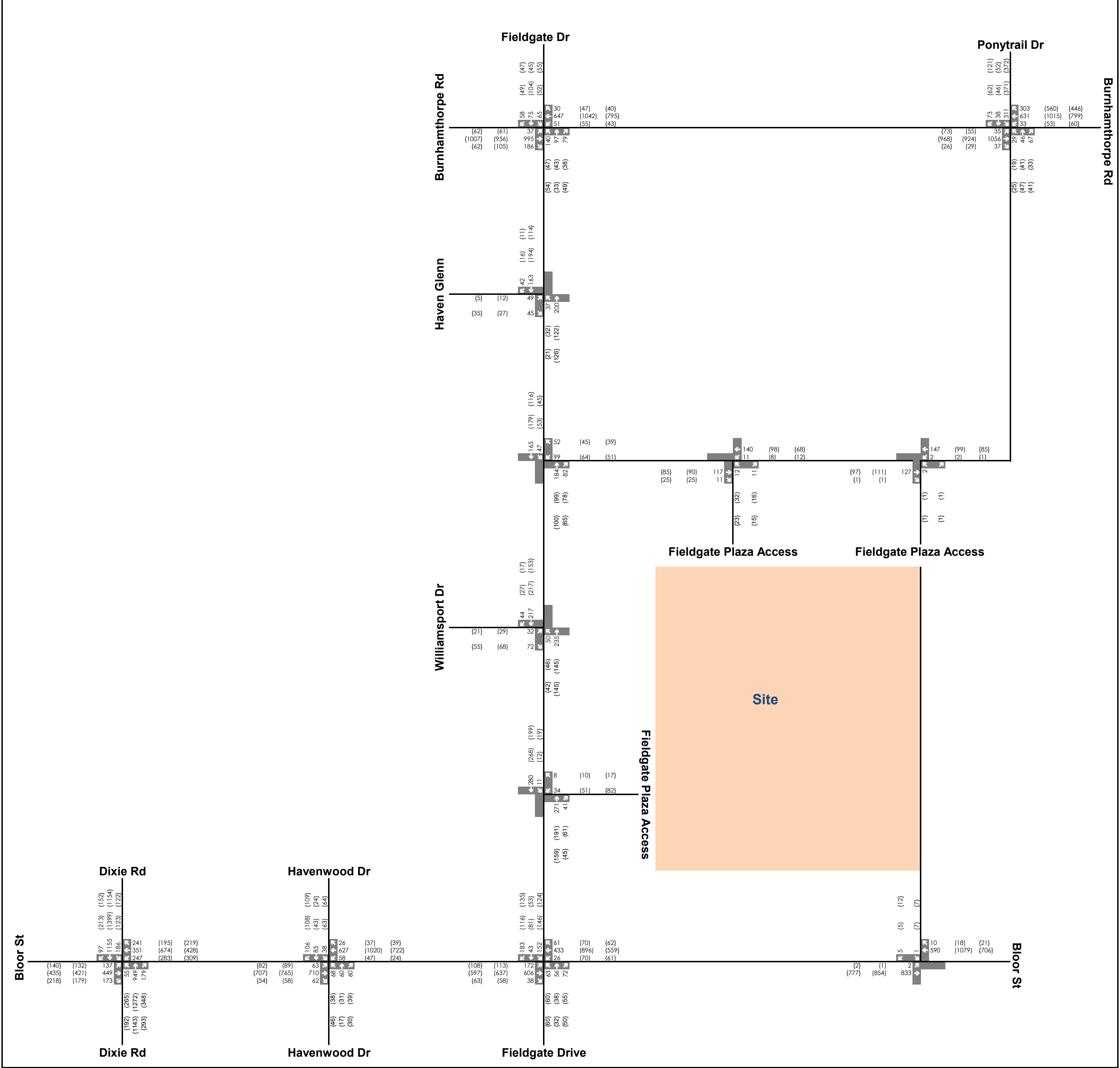
#### Burnhamthorpe Road and Ponytrail Drive

The northbound left-turn movement operates at LOS "F" during the weekday P.M. peak hour, and southbound left-turn operates at LOS "F" during the weekday and Saturday peak hours. However, the movements operate with acceptable delays and well under capacity.

The 95<sup>th</sup> percentile queue for eastbound left-turn exceeds the available storage and 50<sup>th</sup> percentile queue operates under the available storage. The 95<sup>th</sup> percentile queue for westbound right-turn exceeds the available storage during weekday and Saturday peak hours and 50<sup>th</sup> percentile queue exceeds during the weekday P.M. and Saturday peak hours. The northbound left-turn 95<sup>th</sup> percentile queue exceeds the available storage during weekday and Saturday peak hours and 50<sup>th</sup> percentile queue operates within storage. The southbound left-turn 95<sup>th</sup> and 50<sup>th</sup> percentile queue exceeds the available storage; however, the queues stay within the available taper.

#### Unsignalized Intersections

As per **Table 6**, the unsignalized intersections operate with a Level of Service (LOS) "E" or better with minimal delays and well under capacity.



Legend	
xx	A.M. Peak Hour Traffic Volumes
[xx]	P.M. Peak Hour Traffic Volumes
{xx}	Weekend Peak Hour Traffic Volumes

**3403-3445 Fieldgate Drive**  
**2024 Existing Traffic Volumes**



Figure 4	
Project No.	2655-7073
Date	2024-06-28
Analyst	Aarzo D

### 3.0 Future Background Conditions

This section summarizes the future background conditions of the study road network and provides details relating to growth rates, future transportation network improvements, and background developments within the study area. The study considers the 2029 horizon year in the future background traffic analysis, the results of which are summarized here in **Section 3.4**.

#### 3.1 Future Transportation Network

The City of Mississauga completed study for road improvements to the Bloor Street corridor in the year 2023 and it has resulted in the Bloor Street redesign. The improvements planned as part of this project will help make road safer and more accessible to pedestrians, cyclists and transit users. These improvements include road rehabilitation work, construction of cycling facilities, road safety improvements and landscaping work.

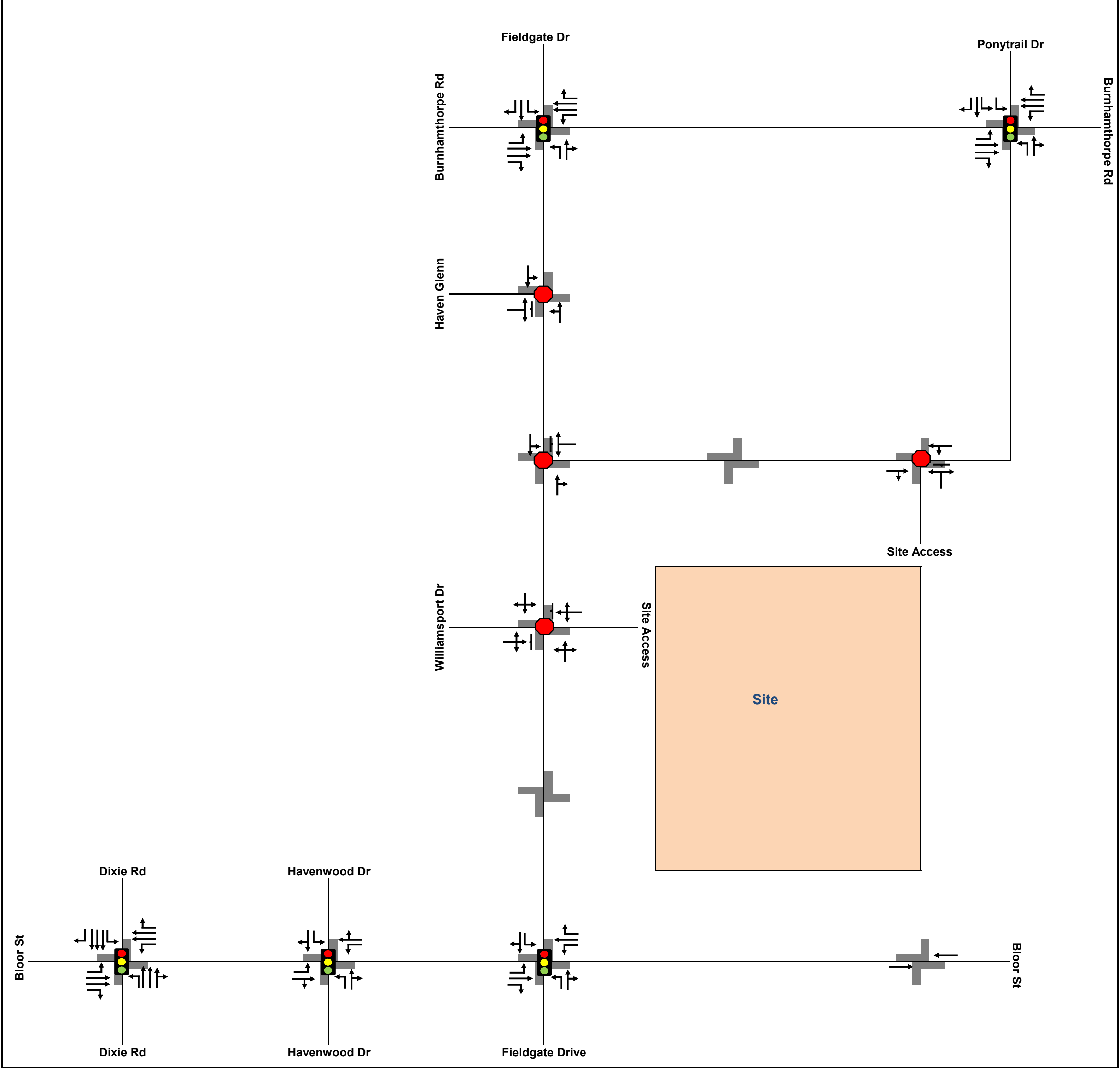
The construction will begin in the fall of 2024 and finish in December of 2025 and restoration work will be completed in 2026.

The upgrades will result in following changes:

- Bloor Street & Dixie Road: Removal of channelized right-turn lane in both northbound and southbound directions.
- Bloor Street & Havenwood Road: Removal of one through lane in both eastbound and westbound directions.
- Bloor Street & Fieldgate Drive: Removal of one through lane in both eastbound and westbound directions and conversion of eastbound and westbound shared through/right lane to right-turn lane.
- Inclusion of dedicated bicycle lanes in both eastbound and westbound directions.

For the purpose of properly calibrating the traffic model, the future lane configurations were obtained from the preliminary design in **Appendix G**. The noted improvements along Bloor Street were also applied in the future scenarios.

**Figure 5** illustrates the future background boundary road network, which is applicable for future horizon year analyzed herein.



**Legend**  
 xx A.M. Peak Hour Traffic Volumes  
 [xx] P.M. Peak Hour Traffic Volumes  
 [xx] Weekend Peak Hour Traffic Volumes

3403-3445 Fieldgate Drive  
 2029 Study Road Network



**Figure 5**  
 Project No. 2655-7073  
 Date: 2024-06-28  
 Analyst: Aarzo D

### 3.2 Growth Rates

The growth rate for Dixie Road was obtained from Region of Peel and a compounded growth rate of 0.5% was assumed for the northbound and southbound approach for the horizon year of 2029.

Furthermore, upon further consultation with City staff, no growth rate was assumed along Bloor Street due to the future improvements and narrowing of the roadway.

The growth rate for Burnhamthorpe Road has been provided in the **Table 7** below:

**Table 7: Growth Rate**

Compounded Annual Growth Rate from Existing to 2029		
Burnhamthorpe Road	Eastbound	Westbound
AM Peak	1.0%	2.0%
PM Peak	1.5%	1.0%

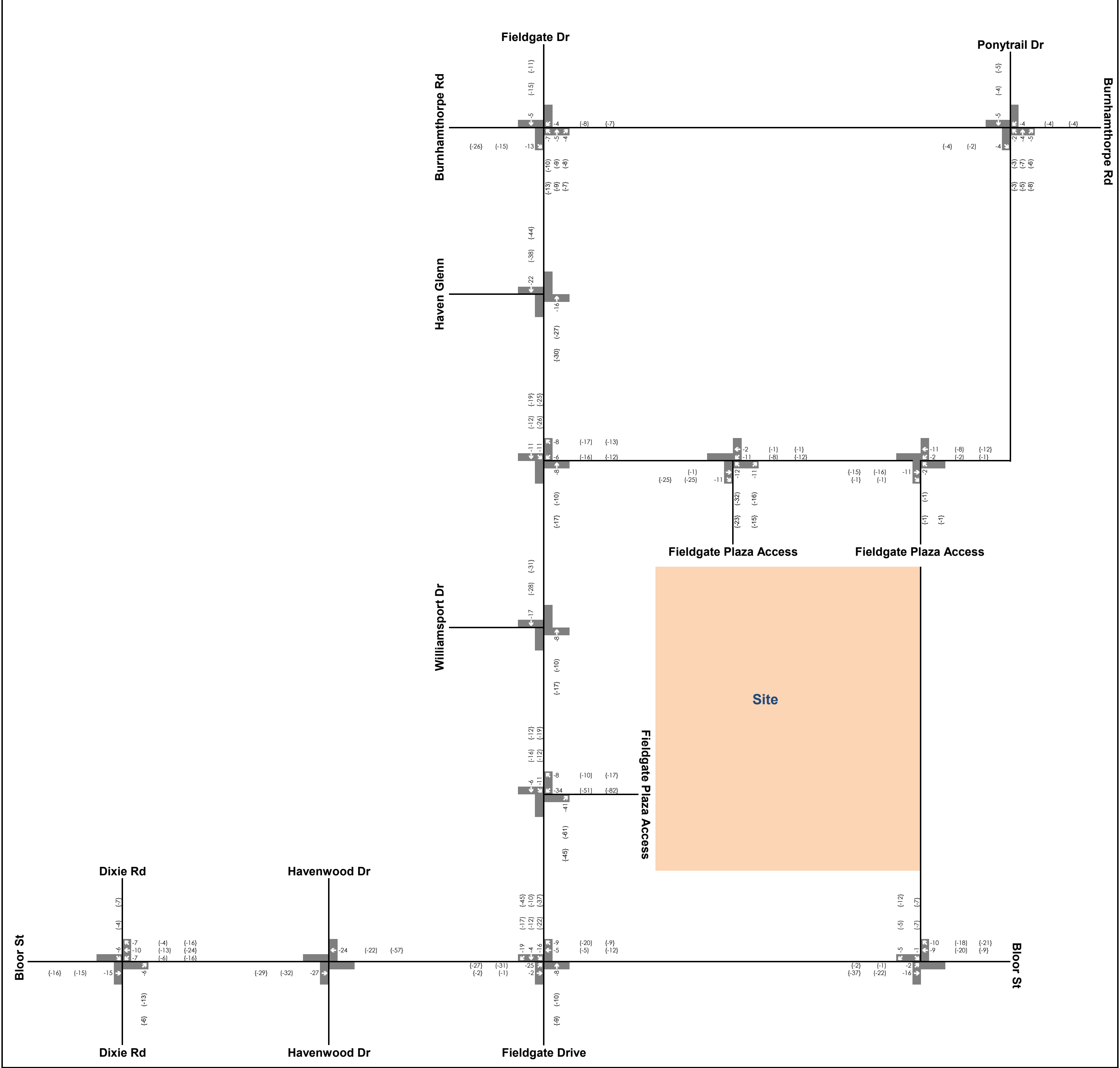
*Note: The growth rate has only been applied to through movements.*

### 3.3 Existing Site Generated Trip Reduction

The subject site currently consists of a 1-storey commercial plaza and a standalone commercial building with associated surface parking. The proposed mixed-use development will replace the existing development in the year 2029 and therefore, the existing trips in and out of the Fieldgate Plaza obtained from Spectrum were removed from the study road network.

The trips were removed from the study intersections based on the existing traffic data and travel patterns.

**Figure 6** shows the existing plaza trip reduction.



### 3.4 Background Developments

The background developments were identified near the site, which were confirmed with the City staff. The development details and respective traffic volume forecasts are discussed in the subsequent sections, and the forecasted volumes have been incorporated into the future background volumes for all horizon years. **Table 8** summarizes the background developments.

**Table 8: Summary of Background Developments**

Development	Land Use & Site Statistics	Background Report/Reference
1785 Bloor Street	<ul style="list-style-type: none"> <li>Addition of a new 14-storey apartment to existing apartment building</li> <li>A total of 238 units are proposed</li> </ul>	TIS (Trans-Plan, June 2022)
Bloor Street	<ul style="list-style-type: none"> <li>Addition of two new 18-storey apartments to existing two 14-storey apartment buildings</li> <li>A total of 433 units are proposed</li> </ul>	Urban Transportation Consideration Report (BA Group, March 2020)
3480 Havenwood Drive & 1485 Williamsport Drive	<ul style="list-style-type: none"> <li>Addition of two new 8 to 9-storey apartments to existing two apartment buildings</li> <li>A total of 466 units are proposed</li> </ul>	Transportation Impact Study (LEA Consulting, June 2018)
1750 Bloor Street & 3315 Fieldgate Drive	<ul style="list-style-type: none"> <li>Addition of a 17-storey apartment and 2-storey building to existing two apartment buildings</li> <li>A total of 266 units are proposed</li> </ul>	Transportation Impact Study (LEA Consulting, October 2020)

The background development trips are provided in **Appendix H**.

It is noted that not all the study intersections overlap with the background development study network and therefore the background trips at the intersections not overlapping were distributed per the existing travel patterns.

**Figure 7** shows the background developments trips including the existing plaza trip reduced from the study road network.





### 3.5 Intersection Operations

**Table 9** and **Table 10** outline the 2029 future background traffic operations for signalized and unsignalized intersections respectively.

**Table 11** outlines the future background queues. Synchro 11 was used to determine intersection operations at both the signalized and unsignalized study intersections. **Figure 8** illustrates the 2029 future background traffic operations, respectively.

**Table 9: 2029 Future Background Conditions Traffic Operations – Signalized Intersections**

Intersection	Performance Metrics									
	Movement	LOS <sup>1</sup>			Delay (s)			v/c ratio <sup>2</sup>		
		AM	PM	SAT	AM	PM	SAT	AM	PM	SAT
Dixie Rd & Bloor St	<b>Overall</b>	D	D	D	38.8	51.4	49.6	<b>1.10</b>	<b>1.13</b>	<b>1.39</b>
	EBL	<b>F</b>	<b>E</b>	E	<b>84.5</b>	<b>65.5</b>	78.7	0.78	0.80	0.75
	EBT	<b>E</b>	D	E	61.1	53.0	58.3	0.66	0.55	0.63
	EBR	D	C	D	37.1	28.2	36.4	0.48	0.42	0.56
	WBL	<b>F</b>	<b>F</b>	<b>F</b>	<b>125.6</b>	<b>134.1</b>	<b>232.6</b>	<b>1.10</b>	<b>1.13</b>	<b>1.39</b>
	WBT	D	<b>E</b>	D	43.1	<b>63.8</b>	44.1	0.39	0.83	0.43
	WBR	C	C	D	29.7	32.0	37.2	0.53	0.49	0.47
	NBL	D	<b>E</b>	C	36.5	<b>58.9</b>	25.1	0.35	0.79	0.63
	NBTR	C	D	B	30.1	39.3	20.0	0.54	0.80	0.54
	SBL	C	<b>E</b>	<b>F</b>	31.0	<b>57.4</b>	<b>192.2</b>	0.73	0.72	<b>1.23</b>
	SBT	B	D	C	19.1	50.4	32.4	0.44	0.82	0.53
SBR	A	B	A	3.2	12.9	5.2	0.12	0.36	0.21	
Bloor St & Havenwood Dr	<b>Overall</b>	B	C	B	16.6	23.0	14.1	0.72	<b>1.12</b>	0.70
	EBL	A	<b>F</b>	A	8.6	<b>146.3</b>	6.7	0.20	<b>1.12</b>	0.34
	EBTR	B	B	B	13.4	13.2	11.8	0.67	0.71	0.70
	WBL	A	A	A	7.8	5.2	8.7	0.21	0.18	0.09
	WBTR	A	B	B	8.7	15.1	12.3	0.61	<b>0.89</b>	0.66
	NBL	<b>E</b>	D	C	<b>58.1</b>	40.6	32.1	0.61	0.28	0.26
	NBTR	C	C	B	25.2	20.7	15.7	0.44	0.27	0.18
	SBL	D	D	C	39.5	44.2	34.6	0.32	0.42	0.37
	SBTR	D	D	C	37.7	39.2	25.3	0.72	0.66	0.55
Bloor St & Fieldgate Dr	<b>Overall</b>	C	C	B	20.5	26.9	16.3	0.73	0.92	0.61
	EBL	A	B	A	10.0	14.7	6.5	0.31	0.42	0.18
	EBT	B	B	B	18.6	17.2	15.7	0.57	0.61	0.58
	EBR	A	B	A	4.1	10.2	4.8	0.29	0.44	0.38
	WBL	B	B	B	13.7	14.7	12.3	0.09	0.24	0.19
	WBT	B	C	B	17.8	34.7	16.1	0.54	0.92	0.61
	WBR	B	B	A	19.2	12.3	7.1	0.60	0.51	0.42
	NBL	D	D	C	45.1	39.1	33.5	0.49	0.37	0.35
	NBTR	B	B	B	19.1	15.2	14.1	0.40	0.28	0.28
	SBL	<b>E</b>	D	D	<b>57.1</b>	54.4	39.1	0.73	0.71	0.55
SBTR	B	C	B	12.9	26.0	13.3	0.53	0.51	0.43	

Intersection	Performance Metrics									
	Movement	LOS <sup>1</sup>			Delay (s)			v/c ratio <sup>2</sup>		
		AM	PM	SAT	AM	PM	SAT	AM	PM	SAT
Burnhamthorpe Rd & Fieldgate Dr	Overall	C	B	A	20.0	11.2	6.2	0.78	0.62	0.41
	EBL	A	A	A	7.5	5.4	6.1	0.09	0.19	0.15
	EBT	A	A	A	8.8	4.8	6.1	0.43	0.39	0.41
	EBR	A	A	A	4.5	1.7	0.1	0.17	0.09	0.04
	WBL	A	A	A	8.3	3.6	1.7	0.17	0.16	0.14
	WBT	A	A	A	6.9	3.2	1.1	0.30	0.41	0.32
	WBR	A	A	A	0.3	0.2	0.1	0.03	0.04	0.04
	NBL	<b>F</b>	<b>F</b>	C	<b>88.7</b>	<b>81.5</b>	34.8	0.78	0.45	0.29
	NBTR	<b>E</b>	D	B	<b>68.1</b>	52.4	17.6	0.70	0.44	0.31
	SBL	<b>F</b>	<b>F</b>	D	<b>81.0</b>	<b>80.4</b>	36.6	0.59	0.47	0.34
	SBT	<b>E</b>	<b>F</b>	C	<b>59.5</b>	<b>84.6</b>	32.2	0.27	0.62	0.18
SBR	B	B	A	13.0	17.4	1.5	0.22	0.27	0.17	
Burnhamthorpe Rd & Ponytrail Dr	Overall	C	D	D	31.9	36.7	41.9	0.92	0.87	0.90
	EBL	B	D	<b>E</b>	15.0	47.2	<b>73.8</b>	0.18	0.60	0.79
	EBT	B	B	B	16.7	18.7	19.7	0.58	0.53	0.51
	EBR	A	A	A	0.1	0.1	0.2	0.04	0.03	0.03
	WBL	C	C	D	29.1	31.5	45.8	0.18	0.27	0.34
	WBT	C	D	D	31.5	38.1	49.2	0.48	0.71	0.70
	WBR	B	C	D	15.3	32.1	36.7	0.43	0.78	0.75
	NBL	<b>E</b>	<b>E</b>	<b>E</b>	<b>71.0</b>	<b>79.2</b>	<b>75.2</b>	0.26	0.19	0.24
	NBTR	<b>E</b>	<b>E</b>	<b>E</b>	<b>58.3</b>	<b>62.1</b>	<b>60.6</b>	0.64	0.47	0.54
	SBL	<b>F</b>	<b>F</b>	<b>F</b>	<b>100.2</b>	<b>87.3</b>	<b>91.2</b>	0.92	0.87	0.90
	SBT	D	D	D	46.5	45.6	45.7	0.09	0.10	0.11
SBR	A	A	A	9.5	9.9	7.9	0.19	0.15	0.26	

Note 1: The Level of Service of a signalized intersection is based on the average control delay per vehicle (Synchro).

Note 2: All v/c ratios above critical thresholds are bolded, all v/c ratios greater than 1.00 are bolded with red text. The critical v/c threshold for intersections with Regional Roads (Dixie Road & Bloor Street) is 0.90 for all shared/through/turning movements per Peel Region guidelines and 1:00 for exclusive movements.

Note 3: The critical threshold for all intersections without Regional Roads is 0.85 for shared/through/turning movements and 1.00 for exclusive through and turning movements per the City of Mississauga guidelines.

**Table 10: 2029 Future Background Conditions Traffic Operations – Unsignalized Intersections**

Intersection	Performance Metrics									
	Movement	LOS <sup>1</sup>			Delay (s)			v/c ratio <sup>2</sup>		
		AM	PM	SAT	AM	PM	SAT	AM	PM	SAT
Fieldgate Dr & Williamspoint Dr (TWSC)	Overall	B	B	B	15.0	12.8	11.0	0.24	0.19	0.12
	EBLR	B	B	B	15.0	12.8	11.0	0.24	0.19	0.12
	NBLT	A	A	A	1.7	2.1	2.0	0.05	0.04	0.03
	SBTR	A	A	A	0.0	0.0	0.0	0.00	0.00	0.00

Intersection	Performance Metrics									
	Movement	LOS <sup>1</sup>			Delay (s)			v/c ratio <sup>2</sup>		
		AM	PM	SAT	AM	PM	SAT	AM	PM	SAT
Fieldgate Dr & Ponytrail Dr (AWSC)	Overall	C	B	B	19.7	11.9	10.8	0.38	0.14	0.11
	WBLR	C	B	B	19.7	11.9	10.8	0.38	0.14	0.10
	NBTR	A	A	A	0.0	0.0	0.0	0.18	0.12	0.11
	SBLT	A	A	A	1.9	1.1	1.2	0.04	0.02	0.02
Fieldgate Dr & Haven Glenn (TWSC)	Overall	B	B	A	13.5	10.4	9.5	0.19	0.13	0.07
	EBLR	B	B	A	13.5	10.4	9.5	0.19	0.06	0.05
	NBLT	A	A	A	1.4	1.9	1.3	0.03	0.03	0.02
	SBTR	A	A	A	0.0	0.0	0.0	0.12	0.13	0.07

Note 1: The overall Level of Service of a two-way stop-controlled intersection is based on the delay associated with the critical minor road approach (HCM 2000).

Note 2: All v/c ratios above critical thresholds are bolded, all v/c ratios greater than 1.00 are bolded with red text. The critical threshold for all intersections is 0.85 for shared/through/turning movements and 1.00 for exclusive through and turning movements per the City of Mississauga guidelines.

**Table 11: 2029 Future Background Conditions Queuing Assessment**

Intersection	Movement	Performance Metrics			
		95 <sup>th</sup> Percentile Queue Length (m) [50 <sup>th</sup> Percentile Queue Length (m)]			Auxiliary Lane Storage Length (m)
		AM	PM	SAT	
Dixie Rd & Bloor St	EBL	<b>70 [45]</b>	<b>50 [35]</b>	<b>65 [50]</b>	<b>40</b>
	EBR	<b>55 [35]</b>	<b>50 [30]</b>	<b>65 [45]</b>	<b>15</b>
	WBL	<b>125 [85]</b>	<b>140 [95]</b>	<b>185 [140]</b>	<b>60</b>
	WBR	<b>70 [50]</b>	<b>60 [35]</b>	<b>80 [45]</b>	<b>10</b>
	NBL	30	<b>130 [75]</b>	60	<b>75</b>
	SBL	55	55	<b>110 [60]</b>	<b>100</b>
	SBR	10	40	20	85
Bloor St & Havenwood Dr	EBL	15	45	10	50
	WBL	10	5	5	50
	NBL	<b>30 [15]</b>	20	15	<b>25</b>
	SBL	20	25 [15]	25	<b>25</b>
Bloor St & Fieldgate Dr	EBL	25	10	10	80
	EBR	0	0	0	75
	WBL	10	20	15	95
	WBR	10	0	0	95
	NBL	25	25	20	45
	SBL	<b>45 [30]</b>	<b>50 [30]</b>	<b>30 [20]</b>	<b>25</b>
Burnhamthorpe Rd & Fieldgate Dr	EBL	10	10	10	30
	EBR	25	10	0	25
	WBL	10	5	5	30
	WBR	0	5	5	30
	NBL	<b>75 [50]</b>	<b>30 [15]</b>	<b>20 [10]</b>	<b>15</b>
	SBL	40	35	20	65

Intersection	Movement	Performance Metrics			
		95 <sup>th</sup> Percentile Queue Length (m) [50 <sup>th</sup> Percentile Queue Length (m)]			Auxiliary Lane Storage Length (m)
		AM	PM	SAT	
	SBR	15	15	5	65
Burnhamthorpe Rd & Ponytrail Dr	EBL	10	<b>40 [10]</b>	<b>60 [15]</b>	<b>35</b>
	EBR	0	0	5	30
	WBL	15	25	30	35
	WBR	<b>60 [35]</b>	<b>175 [115]</b>	<b>140 [95]</b>	<b>30</b>
	NBL	<b>20 [10]</b>	<b>15</b>	<b>20 [10]</b>	<b>15</b>
	SBL	<b>85 [60]</b>	<b>95 [70]</b>	<b>90 [70]</b>	<b>40</b>
	SBR	15	15	20	45

Note 1: The 95<sup>th</sup> percentile queue length for an individual movement exceeding available turn lane storage are bolded with red text. The available turn lane storage are also bolded.

As per **Table 9**, the signalized intersections are expected to operate with an overall Level of Service (LOS) "D" or better with few approaches expected to operate at a LOS "F". **Table 11** shows the 2029 future background queuing assessment.

#### Dixie Road and Bloor Street

The eastbound left-turn movement operates similar to the existing conditions. The westbound left-turn movement is expected to have an increase in control delay to 125.6, 134.1 and 232.6 s in the weekday A.M., weekday P.M. and Saturday peak hours respectively with an increased v/c ratio of 1.10, 1.13 and 1.39 in the weekday A.M., weekday P.M. and Saturday peak hours respectively. The control delay for southbound left-turn movement is expected to increase to 192.2 s from 117.7 s and v/c ratio is expected to increase to 1.23 from 0.99 in the weekday P.M. peak hour.

The 95<sup>th</sup> percentile queue for eastbound left-turn, eastbound right-turn and westbound right-turn is expected to operate similar to the existing conditions with an increase in eastbound right-turn and westbound right-turn queue by 5 meters in the Saturday peak hour. The 95<sup>th</sup> percentile queue for the westbound left-turn is expected to increase by 20 meters in the weekday A.M. and Saturday peak hours and 10 meters in the weekday P.M. peak hour. The 95<sup>th</sup> percentile queue for northbound left-turn is expected to increase by 10 meters in the weekday P.M. peak hour compared to the existing conditions with the 50<sup>th</sup> percentile queue expected to operate at/within available storage. The 95<sup>th</sup> percentile queue for southbound left-turn is also expected to exceed the available storage by 10 meters with 50<sup>th</sup> percentile queue expected to stay within the available storage.

#### Bloor Street and Havenwood Drive

The intersection is anticipated to operate with an overall LOS "C" or better. The eastbound left-turn movement is expected to deteriorate to LOS "F" and the control delay is expected to increase by 137.5 seconds and v/c ratio to 1.12 in the weekday P.M. peak hour. The increase in LOS and v/c ratio is mostly attributed to the increase in background volumes and loss of lane in eastbound direction causing congestion in the roadway. Furthermore, the eastbound left-turning vehicles are also expected to have less gaps due to an increase in the westbound through traffic.

No queues are anticipated to exceed the available storage except for the northbound left-turn queue anticipated to exceed the storage by 5 meters with 50<sup>th</sup> percentile well under storage in the weekday A.M. peak hour.

### Bloor Street and Fieldgate Drive

The intersection is expected to operate with an overall LOS "C" or better. The westbound through movement is forecasted to have an increase in v/c ratio from 0.51 to 0.92 when compared to the existing conditions. However, the v/c is considered to be acceptable per the threshold of 1.0 for exclusive through movements. The increase in v/c ratio is expected to be an outcome of background development volumes and loss of through lane due to the Bloor Street redesign.

The 95<sup>th</sup> percentile queues are forecasted to operate similar to the existing conditions.

### Burnhamthorpe Road and Fieldgate Drive

The intersection is expected to operate similar to the existing conditions. The northbound left-turn movement operates at LOS "F" during the weekday A.M. and P.M. peak hours, southbound left-turn operates at LOS "F" during the weekday A.M. peak hour and southbound through movement operates at LOS "F" during the weekday P.M. peak hours. However, the movements operate with acceptable delays and well under capacity.

The 95<sup>th</sup> percentile queue for northbound left-turn is forecasted to exceed the available storage in weekday and Saturday peak hours and 50<sup>th</sup> percentile queue is forecasted to exceed the available storage in weekday A.M. and P.M. peak hours. However, the queues are not forecasted to exceed the available taper similar to the existing conditions except in the weekday A.M. peak hour.

### Burnhamthorpe Road and Ponytrail Drive

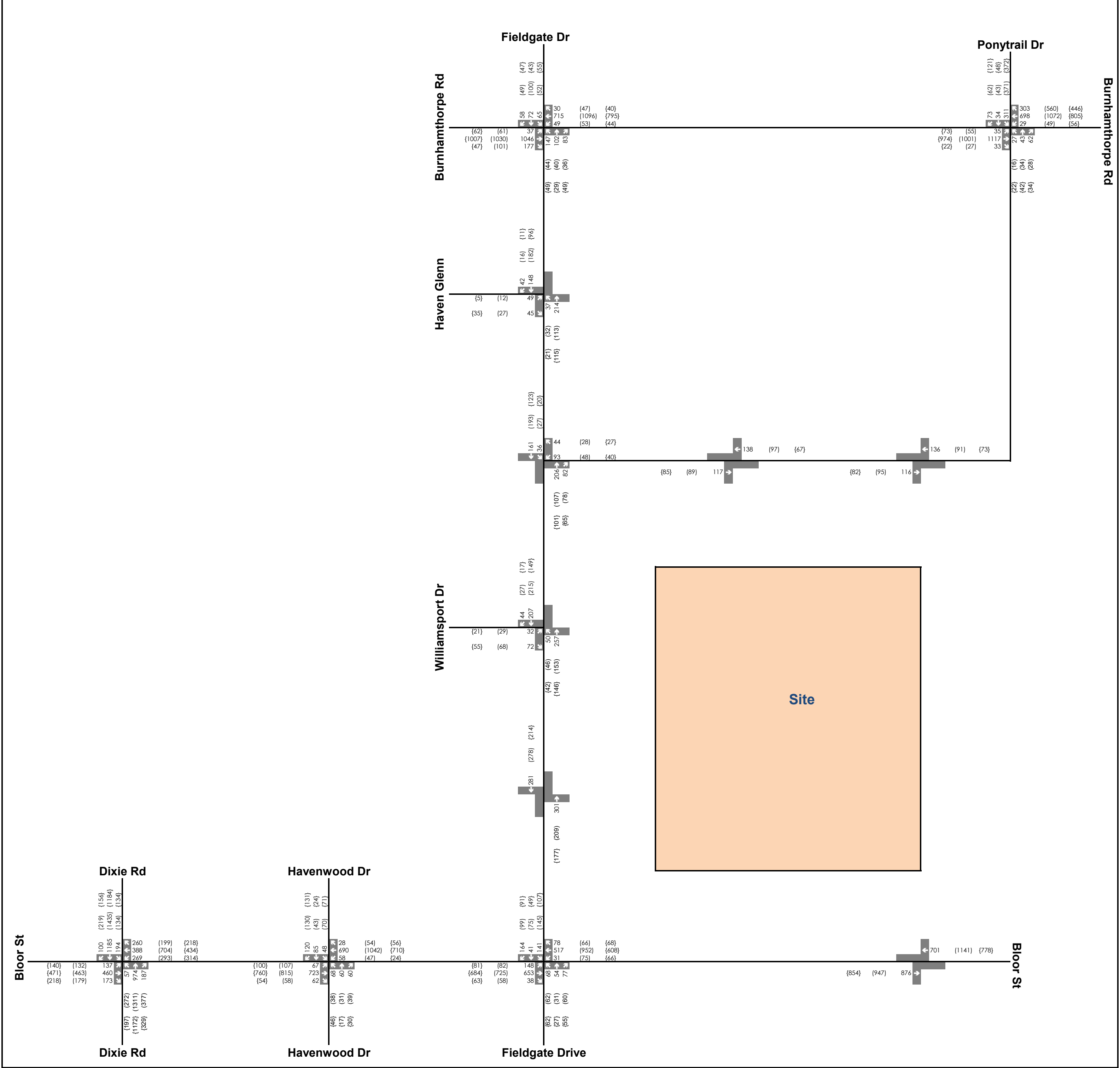
The intersection is expected to operate similar to the existing conditions. The northbound left-turn movement is expected to improve to LOS "E" during the weekday P.M. peak hour due to reduction in Fieldgate Plaza trips. The southbound left-turn is expected to operate at LOS "F" during the weekday and Saturday peak hours. However, the movement are anticipated to operate with acceptable delays and well under capacity.

The 95<sup>th</sup> percentile queues are expected to stay similar to the existing conditions. The 95<sup>th</sup> percentile queue for westbound right-turn is expected to increase by 5 meters in the weekday A.M. peak hour.

### Unsignalized Intersections

As per **Table 10**, the unsignalized intersections operate with a Level of Service (LOS) "E" or better with minimal delays and well under capacity.

**Appendix I** contains 2029 future background detailed capacity analysis.



## 4.0 Site Generated Traffic

The proposed development will result in additional turning movements at the study intersections. Therefore, this section describes the trip forecasting methodology and results of this forecast for the development proposal.

The site generated traffic forecasting methodology for this study consists of two steps. The first step, Trip Generation, projects the number of trips that originate or are destined for the proposed development, while the second step, Trip Distribution and Assignment, assigns trips to the study road network based on the expected distribution of trips to catchment areas and expected shortest paths for trips destined for particular locations.

As noted, the development is proposed to consist of the following:

- 592 dwelling units consisting of 13 condominium townhouse units.
- Commercial Building with a GFA of 2,869.93 m<sup>2</sup>

### 4.1 Modal Split

Local modal split percentages were obtained from the Transportation Tomorrow Survey (TTS) for Traffic Zone (TZ) 3675 which contains the subject site and nearby TZs 3369, 3670 and 3674. TTS data is provided in **Appendix J**.

A modal split of 8% for Transit, excluding GO rail, and 8% for walking was obtained, with a total reduction of 16% applied during all the peak hours. School trips were not included in the TTS survey when determining the modal split.

### 4.2 Multi-Use Reduction

It is anticipated that there will be internal interactions between the proposed residential use and commercial use. Therefore, a multi-use internal trip adjustment was applied based on information contained in NCHRP Project 8-51. The multi-use adjustment rates for the mixed-use development are summarized in **Table 12**.

**Table 12: Multi-Use Adjustment Factors**

Land Use	Weekday A.M. Peak		Weekday P.M. Peak		Saturday Peak	
	Inbound	Outbound	Inbound	Outbound	Inbound	Outbound
Residential	2%	1%	23%	14%	22%	15%
Retail	3%	3%	10%	26%	10%	25%

### 4.3 Trip Generation

The trip generation of the proposed residential dwelling units and commercial area was forecasted using published data from the Institute of Transportation Engineers (ITE) Trip Generation Manual, 11<sup>th</sup> Edition.

The applicable average rates and fitted curve equations for Land Use Category (LUC) 222 “Multifamily Housing (High-Rise)” and LUC 822 “Strip Retail Plaza” were applied to the proposed development.



Relevant excerpts from the ITE Trip Generation Manual, 11<sup>th</sup> Edition have been included in **Appendix K**. The forecasted trip generation rates of the proposed mixed-use development are summarized in **Table 13** and the site generate trips are summarized in **Table 14**.

**Table 13: Trip Generation Rates**

Land Use (Units/GFA)	Trip Type	Equation/Rate		
		Weekday A.M.	Weekday P.M.	Saturday
222: Multifamily Housing (High-Rise) (592 Units)	Raw Trip Generation	0.32	0.32	0.36
	Modal Split	16%	16%	16%
	Internal	NCHRP	NCHRP	NCHRP
822 – Strip Retail Plaza (30,892 ft <sup>2</sup> )	Raw Trip Generation	2.36	6.59	6.57
	Modal Split	16%	16%	16%
	Internal	NCHRP	NCHRP	NCHRP

**Table 14: Trip Generation**

Land Use (Units/GFA)	Trip Type	AM		PM		SAT	
		Trips Generated		Trips Generated		Trips generated	
		In	Out	In	Out	In	Out
222: Multifamily Housing (High-Rise) (592 Units)	Raw Trip Generation	49	140	117	72	121	92
	Modal Split	7	22	14	10	15	13
	Internal	1	1	27	10	26	13
	<b>Net Total Trips</b>	<b>40</b>	<b>117</b>	<b>76</b>	<b>52</b>	<b>80</b>	<b>66</b>
822 – Strip Retail Plaza (30,892 ft <sup>2</sup> )	Raw Trip Generation	44	30	103	103	105	101
	Modal Split	7	5	15	12	15	12
	Internal	1	1	10	27	11	26
	<b>Net Total Trips</b>	<b>36</b>	<b>24</b>	<b>78</b>	<b>64</b>	<b>79</b>	<b>63</b>
<b>Total Trips</b>		<b>77</b>	<b>141</b>	<b>154</b>	<b>116</b>	<b>159</b>	<b>129</b>

Therefore, the full-buildout of the proposed development is expected to generate a total of 218 trips (77 inbound and 141 outbound) in the weekday A.M. peak hour, 270 trips (154 inbound and 116 outbound) in the weekday P.M. peak hour and 288 trips (159 inbound and 129 outbound) in the Saturday peak hour.

#### 4.4 Trip Distribution and Assignment

The trips generated by the proposed development were distributed to the study road network using 2016 Transportation Tomorrow Survey (TTS) data. The trip distribution for each of the peak periods was estimated using Transportation Tomorrow Survey (TTS) 2016 data for 3675, 3369, 3670 and 3674.

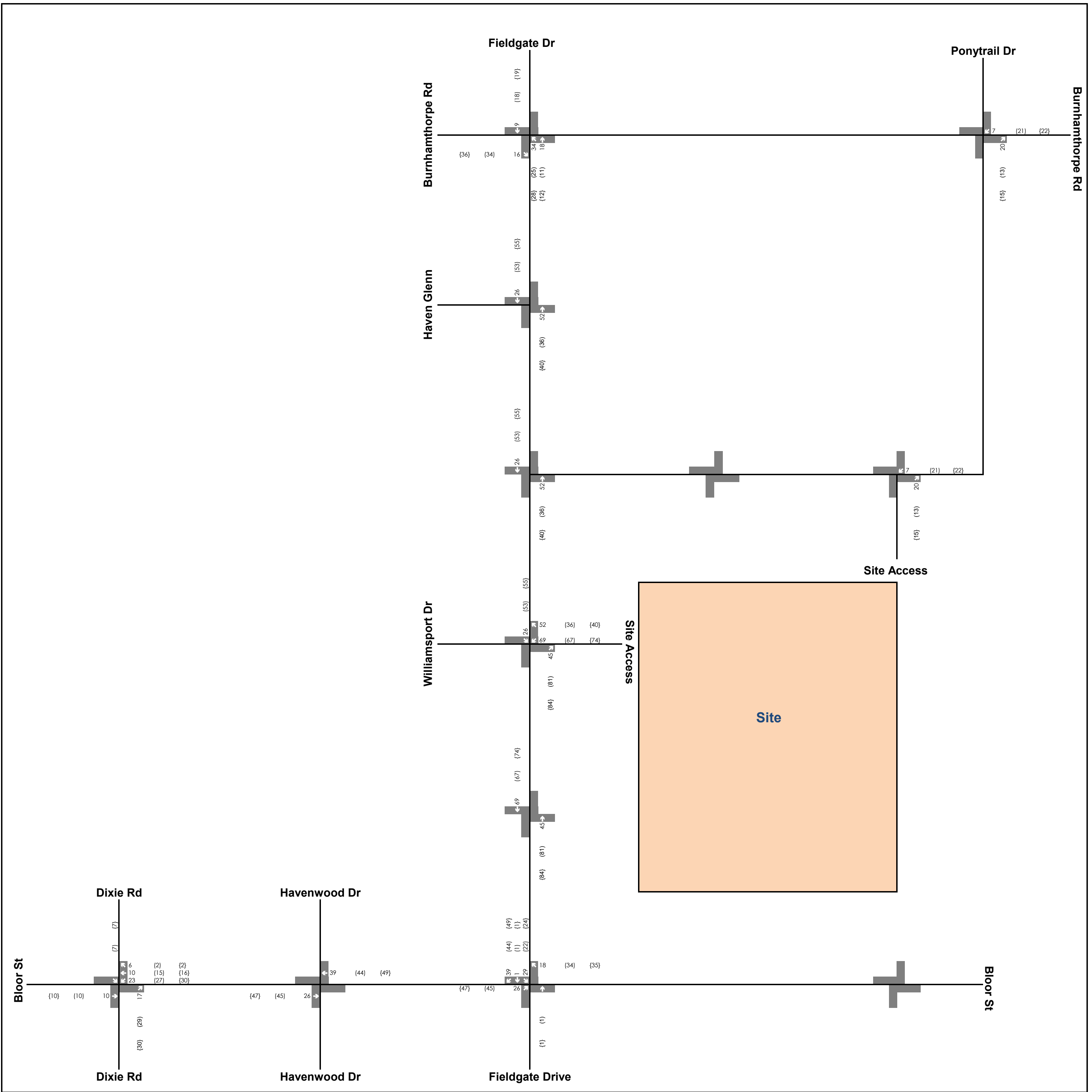
**Table 15** summarizes the assumed trip distribution percentages for site traffic based on the TTS data.

Excerpts from the TTS query have been included in **Appendix L**.

**Table 15: Directional Trip Distribution**

Direction	A.M. Inbound	A.M. Outbound	P.M. Inbound	P.M. Outbound
Northwest	10%	12%	11%	7%
North	13%	18%	17%	14%
Northeast	5%	15%	14%	7%
East	10%	11%	11%	14%
Southeast	34%	20%	24%	23%
South	4%	4%	5%	5%
Southwest	2%	4%	3%	8%
West	20%	17%	16%	22%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

**Figure 9** shows the site generated trips.



**Legend**  
 xx A.M. Peak Hour Traffic Volumes  
 [xx] P.M. Peak Hour Traffic Volumes  
 {xx} Weekend Peak Hour Traffic Volumes

**3403-3445 Fieldgate Drive**  
**Site Generated Trips**



**Figure 9**  
 Project No. 2655-7073  
 Date: 2024-08-12  
 Analyst: Aarzo D

## 5.0 Future Total Conditions

This section will summarize the future total conditions of the study road network. The future total traffic volumes for the horizon years consist of the following components:

- Future background traffic volumes from the corresponding horizon year.
- Proposed development site generated traffic volumes.

### 5.1 Intersection Operations

**Table 16** and **Table 17** outline the 2029 future total traffic operations for signalized and unsignalized intersections respectively. **Table 18** outlines the future total queues. Synchro 11 was used to determine intersection operations at both the signalized and unsignalized study intersections.

The resulting total volumes in the horizon year 2029 are presented in **Figure 10**.

**Table 16: 2029 Future Total Conditions Traffic Operations – Signalized Intersections**

Intersection	Performance Metrics									
	Movement	LOS <sup>1</sup>			Delay (s)			v/c ratio <sup>2</sup>		
		AM	PM	SAT	AM	PM	SAT	AM	PM	SAT
Dixie Rd & Bloor St	Overall	D	D	E	41.8	54.5	56.5	1.20	1.24	1.54
	EBL	F	E	E	84.0	66.1	79.1	0.78	0.81	0.76
	EBT	E	D	E	61.1	52.5	58.1	0.67	0.55	0.63
	EBR	D	C	D	36.8	27.7	36.5	0.48	0.42	0.55
	WBL	F	F	F	160.3	171.2	293.1	1.20	1.24	1.54
	WBT	D	E	D	43.0	63.5	44.2	0.40	0.83	0.44
	WBR	C	C	D	30.2	31.8	37.4	0.54	0.49	0.48
	NBL	D	E	C	36.9	59.8	25.5	0.35	0.79	0.63
	NBTR	C	D	C	30.6	41.3	20.4	0.55	0.82	0.55
	SBL	C	E	F	32.3	57.4	242.1	0.74	0.72	1.35
	SBT	B	D	C	19.3	50.9	32.7	0.44	0.83	0.54
SBR	A	B	A	3.2	13.2	5.2	0.12	0.36	0.21	
Bloor St & Havenwood Dr	Overall	B	C	B	17.2	32.0	16.3	0.72	1.53	0.74
	EBL	A	F	A	9.0	310.9	8.4	0.22	1.53	0.39
	EBTR	B	B	B	14.1	14.9	13.5	0.70	0.75	0.74
	WBL	A	A	B	9.2	6.0	11.2	0.22	0.21	0.11
	WBTR	B	B	B	10.0	19.3	16.0	0.64	0.93	0.70
	NBL	E	D	C	58.1	39.9	31.5	0.61	0.27	0.26
	NBTR	C	C	B	25.2	20.5	15.4	0.44	0.26	0.18
	SBL	D	D	C	39.5	43.5	33.8	0.32	0.41	0.36
SBTR	D	D	C	37.7	40.4	27.0	0.72	0.66	0.56	

Intersection	Performance Metrics									
	Movement	LOS <sup>1</sup>			Delay (s)			v/c ratio <sup>2</sup>		
		AM	PM	SAT	AM	PM	SAT	AM	PM	SAT
Bloor St & Fieldgate Dr	Overall	C	C	B	22.5	34.8	18.2	0.76	<b>1.00</b>	0.67
	EBL	B	C	A	12.5	20.4	8.1	0.38	0.59	0.31
	EBT	C	B	B	21.3	18.5	16.8	0.59	0.63	0.60
	EBR	A	A	A	3.9	9.7	4.6	0.29	0.44	0.38
	WBL	B	B	B	16.1	17.5	14.2	0.09	0.25	0.20
	WBT	C	D	B	20.8	52.6	19.9	0.57	<b>1.00</b>	0.67
	WBR	C	C	B	32.7	37.2	18.8	0.73	0.74	0.63
	NBL	D	D	C	42.1	39.5	33.4	0.47	0.40	0.38
	NBTR	B	B	B	16.8	14.4	13.1	0.36	0.26	0.26
	SBL	D	D	D	54.9	53.9	40.1	0.76	0.74	0.60
SBTR	B	C	B	11.0	24.3	12.7	0.54	0.56	0.49	
Burnhamthorpe Rd & Fieldgate Dr	Overall	C	B	A	21.5	13.3	7.1	0.82	0.71	0.43
	EBL	A	A	A	9.2	6.0	6.7	0.10	0.20	0.15
	EBT	B	A	A	10.8	5.4	6.6	0.45	0.39	0.42
	EBR	A	A	A	5.5	2.5	0.6	0.19	0.12	0.07
	WBL	A	A	A	9.9	3.9	1.9	0.18	0.16	0.15
	WBT	A	A	A	8.2	3.5	1.5	0.31	0.42	0.33
	WBR	A	A	A	0.3	0.2	0.1	0.03	0.04	0.04
	NBL	<b>F</b>	<b>F</b>	D	<b>87.5</b>	<b>104.6</b>	37.9	0.82	0.71	0.43
	NBTR	<b>E</b>	<b>E</b>	B	<b>63.1</b>	<b>58.8</b>	18.7	0.66	0.47	0.33
	SBL	<b>E</b>	<b>E</b>	C	<b>69.2</b>	<b>75.5</b>	34.7	0.51	0.43	0.32
SBT	<b>E</b>	<b>F</b>	C	<b>55.6</b>	<b>83.9</b>	31.9	0.26	0.65	0.24	
SBR	B	B	A	11.7	16.2	1.4	0.20	0.25	0.16	
Burnhamthorpe Rd & Ponytrail Dr	Overall	C	D	D	31.1	36.4	42.0	0.92	0.87	0.90
	EBL	B	D	<b>E</b>	15.3	47.2	<b>72.4</b>	0.18	0.60	0.79
	EBT	B	B	B	16.0	18.8	19.8	0.58	0.53	0.51
	EBR	A	A	A	0.1	0.1	0.2	0.04	0.03	0.03
	WBL	C	D	D	30.6	35.8	52.1	0.22	0.38	0.47
	WBT	C	D	D	31.5	38.1	49.2	0.48	0.71	0.70
	WBR	B	C	D	15.1	30.4	36.1	0.43	0.78	0.75
	NBL	<b>E</b>	<b>E</b>	<b>E</b>	<b>70.9</b>	<b>73.5</b>	<b>73.3</b>	0.24	0.18	0.23
	NBTR	<b>E</b>	<b>E</b>	<b>E</b>	<b>59.2</b>	<b>55.1</b>	<b>57.4</b>	0.69	0.53	0.59
	SBL	<b>F</b>	<b>F</b>	<b>F</b>	<b>100.2</b>	<b>87.3</b>	<b>91.2</b>	0.92	0.87	0.90
SBT	D	D	D	45.4	45.1	45.1	0.09	0.10	0.11	
SBR	A	A	A	9.2	9.7	7.7	0.18	0.15	0.26	

Note 1: The Level of Service of a signalized intersection is based on the average control delay per vehicle (Synchro).

Note 2: All v/c ratios above critical thresholds are bolded, all v/c ratios greater than 1.00 are bolded with red text.

The critical v/c threshold for intersections with Regional Roads (Dixie Road & Bloor Street) is 0.90 for all shared/through/turning movements per Peel Region guidelines and 1:00 for exclusive movements.

The critical threshold for all intersections without Regional Roads is 0.85 for shared/through/turning movements and 1.00 for exclusive through and turning movements per the City of Mississauga guidelines.

**Table 17: 2029 Future Total Conditions Traffic Operations – Unsignalized Intersections**

Intersection	Performance Metrics									
	Movement	LOS <sup>1</sup>			Delay (s)			v/c ratio <sup>2</sup>		
		AM	PM	SAT	AM	PM	SAT	AM	PM	SAT
Fieldgate Dr & Williamsport Dr /Site Access (TWSC)	<b>Overall</b>	C	C	C	22.8	20.1	17.5	0.37	0.31	0.31
	EBLTR	C	B	B	17.6	15.0	12.5	0.28	0.22	0.15
	WBLTR	C	C	C	22.8	20.1	17.5	0.37	0.31	0.31
	NBLTR	A	A	A	1.6	1.6	1.5	0.05	0.04	0.03
	SBLTR	A	A	A	0.9	1.8	2.3	0.02	0.04	0.05
Fieldgate Dr & Ponytrail Dr (AWSC)	<b>Overall</b>	B	A	A	11.4	9.9	8.8	0.46	0.36	0.26
	WBLR	A	A	A	9.9	8.6	8.2	0.22	0.11	0.09
	NBLR	B	A	A	11.4	9.0	8.5	0.46	0.28	0.26
	SBLT	B	A	A	10.1	9.9	8.8	0.32	0.36	0.26
Ponytrail Drive & Site Access (TWSC)	<b>Overall</b>	B	A	A	10.1	9.4	0.0	0.07	0.06	0.05
	EBTR	A	A	A	0.0	0.0	0.0	0.07	0.06	0.05
	WBLT	A	A	A	0.5	1.6	0.0	0.01	0.02	0.00
	NBLR	B	A	A	10.1	9.4	0.0	0.03	0.02	0.02
Fieldgate Dr & Haven Glenn (TWSC)	<b>Overall</b>	B	A	A	14.5	11.0	9.9	0.21	0.06	0.06
	EBLR	B	A	A	14.5	0.0	9.9	0.21	0.06	0.06
	NBLT	A	A	A	1.2	1.6	1.0	0.03	0.02	0.02
	SBTR	A	A	A	0.0	11.0	0.0	0.14	0.02	0.10

Note 1: The overall Level of Service of a two-way stop-controlled intersection is based on the delay associated with the critical minor road approach (HCM 2000).

Note 2: All v/c ratios above critical thresholds are bolded, all v/c ratios greater than 1.00 are bolded with red text. The critical threshold for all intersections is 0.85 for shared/through/turning movements and 1.00 for exclusive through and turning movements per the City of Mississauga guidelines.

**Table 18: 2029 Future Total Conditions Queuing Assessment**

Intersection	Movement	Performance Metrics			
		95 <sup>th</sup> Percentile Queue Length (m) [50 <sup>th</sup> Percentile Queue Length (m)]			Auxiliary Lane Storage Length (m)
		AM	PM	SAT	
Dixie Rd & Bloor St	EBL	<b>70 [45]</b>	<b>55 [30]</b>	<b>65 [45]</b>	40
	EBR	<b>55 [35]</b>	<b>50 [30]</b>	<b>65 [45]</b>	15
	WBL	<b>150 [100]</b>	<b>165 [115]</b>	<b>215 [165]</b>	60
	WBR	<b>70 [50]</b>	<b>60 [35]</b>	<b>75 [50]</b>	10
	NBL	30	<b>130 [75]</b>	65	75
	SBL	60	65	<b>120 [65]</b>	100
	SBR	10	40	20	85
Bloor St & Havenwood Dr	EBL	15	<b>55 [20]</b>	15	50
	WBL	10	5	5	50
	NBL	25	15	15	25
	SBL	20	<b>25 [15]</b>	20	25

Intersection	Movement	Performance Metrics			
		95 <sup>th</sup> Percentile Queue Length (m) [50 <sup>th</sup> Percentile Queue Length (m)]			Auxiliary Lane Storage Length (m)
		AM	PM	SAT	
<b>Bloor St &amp; Fieldgate Dr</b>	EBL	35	20	15	80
	EBR	0	0	0	75
	WBL	10	25	20	95
	WBR	20	20	10	95
	NBL	25	25	20	45
	SBL	<b>55 [35]</b>	<b>50 [35]</b>	<b>35 [20]</b>	25
<b>Burnhamthorpe Rd &amp; Fieldgate Dr</b>	EBL	10	15	10	30
	EBR	<b>25 [15]</b>	15	5	25
	WBL	10	5	5	30
	WBR	0	5	0	30
	NBL	<b>85 [60]</b>	<b>45 [25]</b>	<b>25 [15]</b>	15
	SBL	35	35	20	65
	SBR	15	15	5	65
<b>Burnhamthorpe Rd &amp; Ponytrail Dr</b>	EBL	10	<b>40 [10]</b>	<b>60 [15]</b>	35
	EBR	0	5	5	30
	WBL	20	35 [15]	40 [20]	35
	WBR	<b>60 [35]</b>	<b>170 [115]</b>	<b>140 [90]</b>	30
	NBL	<b>20 [10]</b>	<b>15 [5]</b>	<b>20 [10]</b>	15
	SBL	<b>85 [55]</b>	<b>90 [65]</b>	<b>95 [70]</b>	40
	SBR	15	15	20	45

Note 1: The 95<sup>th</sup> percentile queue length for an individual movement exceeding available turn lane storage are bolded with red text. The available turn lane storage are also bolded.

As per **Table 16**, the signalized intersections are expected to operate with an overall Level of Service (LOS) "E" or better with few approaches expected to operate at a LOS "F". **Table 18** shows the 2029 future background queuing assessment.

#### Dixie Road and Bloor Street

The eastbound left-turn movement operates similar to the future background conditions. The westbound left-turn movement is expected to have an increase in control delay to 160.3, 171.2 and 293.1 s in the weekday A.M., weekday P.M. and Saturday peak hours respectively with an increased v/c ratio of 1.20, 1.24 and 1.54 in the weekday A.M., weekday P.M. and Saturday peak hours respectively. The control delay for southbound left-turn movement is expected to increase to 242.1 s from 192.2 s and v/c ratio is expected to increase to 1.35 from 1.23 in the weekday P.M. peak hour when compared to the future background conditions.

The 95<sup>th</sup> and 50<sup>th</sup> percentile queues for eastbound left-turn, eastbound right-turn, westbound right-turn and northbound left-turn are anticipated to be similar to the future background conditions. However, the queues for westbound left-turn are anticipated to increase by approximately 20 meters in the weekday A.M. and P.M. peak hours and 30 meters in the Saturday peak hour. The 95<sup>th</sup> percentile queue for southbound left-turn is expected to increase by 5 meters in the Saturday peak hour with 50<sup>th</sup> percentile queue expected to stay within the available storage similar to the future background conditions.

#### Bloor Street and Havenwood Drive

The intersection is anticipated to operate with an overall LOS "C" or better. The eastbound left-turn movement is expected to deteriorate with an increase of 164 s in control delay in weekday P.M. peak hour and an increase in v/c to 1.53 in comparison with the future background conditions due to an increase in westbound through movements providing less gaps for eastbound left-turning vehicles.

The 95<sup>th</sup> percentile queue for eastbound left-turn is anticipated to exceed the available storage by 5 meters (~1 vehicle) that can be accommodated in the taper. The northbound left-turn queue is anticipated to exceed the storage by 5 meters with 50<sup>th</sup> percentile well under storage in the weekday A.M. peak hour. The southbound left-turn queue is also expected to operate at/within storage length.

#### Bloor Street and Fieldgate Drive

The intersection is expected to operate with an overall LOS "C" or better. The westbound through movement is forecasted to have an increase in v/c ratio from 0.92 to 1.00 when compared to the future background conditions. However, the v/c is considered acceptable per the threshold of 1.00 for exclusive through movements.

The 95<sup>th</sup> percentile queues for southbound left-turn are forecasted to increase by 5 meters in the weekday A.M. and Saturday peak hours.

#### Burnhamthorpe Road and Fieldgate Drive

The intersection is expected to operate similar to the future background conditions. The northbound left-turn movement is expected to operate at LOS "F" during the weekday A.M. and P.M. peak hours and the southbound through movement is expected to operate at LOS "F" during the weekday P.M. peak hours. However, the movements operate with acceptable delays and well under capacity.

The 95<sup>th</sup> percentile queue for northbound left-turn is forecasted to exceed the available storage in weekday and Saturday peak hours and 50<sup>th</sup> percentile queue is forecasted to exceed the available storage in weekday A.M. and P.M. peak hours. However, the queues are expected to stay within the available taper similar to the future background conditions except in the weekday A.M. peak hour.

#### Burnhamthorpe Road and Ponytrail Drive

The intersection is expected to operate similar to the future background conditions. The southbound left-turn is expected to operate at LOS "F" during the weekday and Saturday peak hours. However, the movement are anticipated to operate with acceptable delays and well under capacity.



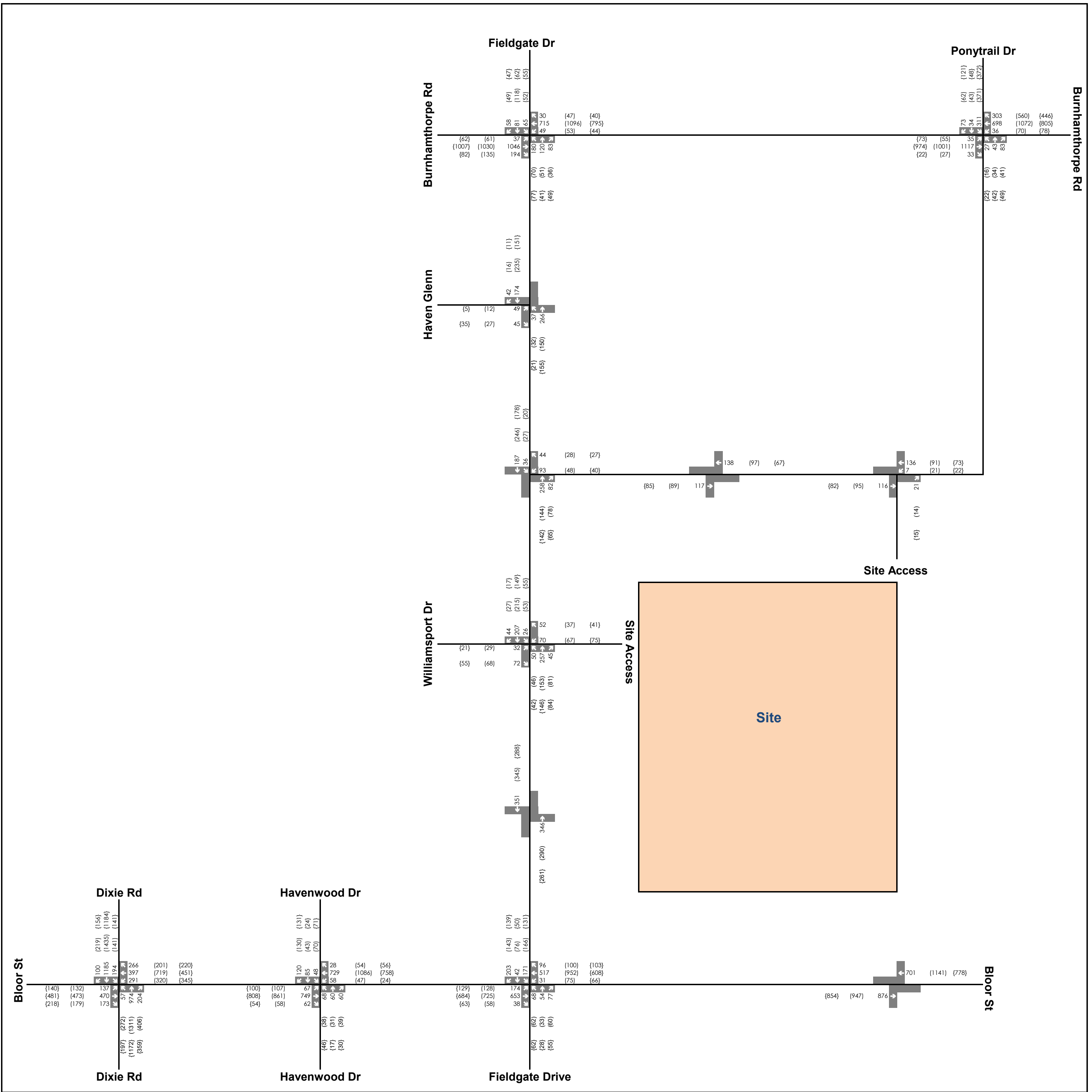
The 95th percentile queues are expected to stay similar to the future background conditions. The 95<sup>th</sup> percentile queue for westbound right-turn and southbound left-turn is expected to increase by 5 meters in the weekday P.M. peak hour.

### Unsignalized Intersections

As per **Table 17**, the unsignalized intersections are forecasted to operate with a Level of Service (LOS) "C" or better with minimal delays and well under capacity.

The site accesses at Fieldgate Drive and Ponytrail would operate efficiently with no critical delays or overcapacity movements.

**Appendix M** contains 2029 future total detailed capacity analysis.



## 5.2 Recommended Improvements

In the projected 2029 conditions, several signalized intersections are forecasted to operate at Level of Service (LOS) "F", with volume-to-capacity ratios (v/c) exceeding capacity and queues expected to surpass available storage. Consequently, recommendations are outlined to enhance intersection operations to address potential deterioration caused by the Bloor Street redesign and anticipated increases in overall traffic volumes.

### 5.2.1 Dixie Road and Bloor Street

The signal timing is recommended to be optimized in weekday A.M., weekday P.M. and Saturday peak hours to improve operations at the intersection, specifically westbound left-turn movement.

The westbound left-turn phase was optimized to change from a permitted phase to a protected permitted phase in the Saturday peak hour. The comparison between before and after optimization is shown below.

Intersection	Performance Metrics									
	Movement	LOS <sup>1</sup>			Delay (s)			v/c ratio <sup>2</sup>		
		AM	PM	SAT	AM	PM	SAT	AM	PM	SAT
Dixie Rd & Bloor St	Overall	D	D	E	41.8	54.5	<b>56.5</b>	<b>1.20</b>	<b>1.24</b>	<b>1.54</b>
	EBL	<b>F</b>	<b>E</b>	<b>E</b>	<b>84.0</b>	<b>66.1</b>	<b>79.1</b>	0.78	0.81	0.76
	EBT	<b>E</b>	D	<b>E</b>	<b>61.1</b>	52.5	<b>58.1</b>	0.67	0.55	0.63
	EBR	D	C	D	36.8	27.7	36.5	0.48	0.42	0.55
	WBL	<b>F</b>	<b>F</b>	<b>F</b>	<b>160.3</b>	<b>171.2</b>	<b>293.1</b>	<b>1.20</b>	<b>1.24</b>	<b>1.54</b>
	WBT	D	<b>E</b>	D	43.0	<b>63.5</b>	44.2	0.40	0.83	0.44
	WBR	C	C	D	30.2	31.8	37.4	0.54	0.49	0.48
	NBL	D	<b>E</b>	C	36.9	<b>59.8</b>	25.5	0.35	0.79	0.63
	NBTR	C	D	C	30.6	41.3	20.4	0.55	0.82	0.55
	SBL	C	<b>E</b>	<b>F</b>	32.3	<b>57.4</b>	<b>242.1</b>	0.74	0.72	<b>1.35</b>
	SBT	B	D	C	19.3	50.9	32.7	0.44	0.83	0.54
SBR	A	B	A	3.2	13.2	5.2	0.12	0.36	0.21	
Dixie Rd & Bloor St (Optimized)	Overall	D	D	D	38.7	51.9	46.3	0.88	<b>1.00</b>	0.98
	EBL	<b>F</b>	<b>E</b>	<b>F</b>	<b>88.2</b>	<b>59.3</b>	<b>92.1</b>	0.80	0.76	0.83
	EBT	<b>E</b>	<b>E</b>	<b>E</b>	<b>62.6</b>	<b>70.9</b>	<b>62.7</b>	0.69	0.79	0.69
	EBR	D	C	D	37.9	30.0	37.5	0.49	0.53	0.58
	WBL	<b>E</b>	<b>F</b>	<b>E</b>	<b>62.0</b>	<b>87.9</b>	<b>80.1</b>	0.88	<b>1.00</b>	0.98
	WBT	D	<b>E</b>	D	36.7	<b>63.4</b>	39.4	0.34	0.83	0.36
	WBR	C	C	C	24.4	31.8	27.6	0.48	0.49	0.38
	NBL	D	<b>E</b>	D	46.5	<b>59.4</b>	40.8	0.40	0.79	0.75
	NBTR	D	D	D	38.7	42.4	41.8	0.63	0.83	0.77
	SBL	D	<b>E</b>	<b>E</b>	41.2	<b>56.5</b>	<b>74.1</b>	0.77	0.72	0.84
	SBT	C	D	D	24.0	52.3	40.6	0.48	0.84	0.61
SBR	A	B	A	3.7	13.2	7.9	0.13	0.36	0.24	

The v/c ratios for the westbound left-turn movements clearly show significant improvement during all peak hours, along with a reduction in control delay. A maximum v/c ratio of 1.00 and control delay of 87.4 seconds will be observed during the weekday P.M. peak hour for the westbound left-turn movement with the signal optimization.

The southbound left-turn movement is also expected to see a reduction in control delay to 74.1 seconds and a v/c ratio reduced to 0.84.

Furthermore, the results below show the improvement in queues.

Intersection	Performance Metrics				
	Movement	95 <sup>th</sup> Percentile Queue Length (m) [50 <sup>th</sup> Percentile Queue Length (m)]			Auxiliary Lane Storage Length (m)
		AM	PM	SAT	
Dixie Rd & Bloor St	EBL	70 [45]	55 [30]	65 [45]	40
	EBR	55 [35]	50 [30]	65 [45]	15
	WBL	150 [100]	165 [115]	215 [160]	60
	WBR	70 [50]	60 [35]	75 [50]	10
	NBL	30	130 [75]	65	75
	SBL	60	65	115 [65]	100
	SBR	10	40	20	85
Dixie Rd & Bloor St (Optimized)	EBL	70 [45]	45 [30]	75 [45]	40
	EBR	55 [35]	50 [25]	65 [40]	15
	WBL	100 [75]	135 [85]	135 [85]	60
	WBR	65 [45]	60 [35]	65 [40]	10
	NBL	35	130 [75]	65	75
	SBL	65	65	70	100
	SBR	10	40	25	85

The queues for westbound left-turns are anticipated to decrease during all peak hours. However, the storage will still need to be updated, as the reduced queues are expected to exceed the available capacity.

The queue for southbound left-turns is projected to reduce by 45 meters in the Saturday peak hour and remain within the available storage.

### 5.2.2 Bloor Street and Havenwood Drive

The intersection signal timings were adjusted to include a protected permitted phase for eastbound left-turns during weekday P.M. peak hours, addressing congestion caused by the Bloor Street redesign. The cycle length of 100 seconds is maintained to preserve coordination along the corridor. The intersection improvements are outlined below.

Intersection	Performance Metrics			
	Movement	LOS	Delay (s)	v/c ratio <sup>2</sup>
		PM	PM	PM
Bloor St & Havenwood Dr	<b>Overall</b>	C	32.0	<b>1.53</b>
	EBL	<b>F</b>	<b>310.9</b>	<b>1.53</b>
	EBTR	B	14.9	0.75
	WBL	A	6.0	0.21
	WBTR	B	19.3	<b>0.93</b>
	NBL	D	39.9	0.27
	NBTR	C	20.5	0.26
	SBL	D	43.5	0.41
	SBTR	D	40.4	0.66
Bloor St & Havenwood Dr (Optimized)	<b>Overall</b>	C	24.4	1.02
	EBL	<b>B</b>	<b>19.8</b>	<b>0.51</b>
	EBTR	A	10.0	0.70
	WBL	A	2.8	0.17
	WBTR	D	35.7	<b>1.02</b>
	NBL	D	46.4	0.34
	NBTR	C	23.0	0.30
	SBL	D	50.6	0.49
	SBTR	C	20.4	0.58

Following these adjustments, the volume-to-capacity ratio (v/c) for eastbound left-turns is anticipated to decrease to 0.51. Conversely, the v/c ratio for westbound shared and through movements is projected to increase to 1.02. Despite this, the Level of Service (LOS) is anticipated to remain at "D" with acceptable delays.

It is recognized that the Bloor Street redesign will result in the loss of one through lane in both eastbound and westbound directions. The study did not factor in potential traffic pattern changes resulting from the redesign, relying instead on trip assignment data from TTS. This scenario represents a worst-case situation, with vehicles expected to seek alternative routes to minimize delays.

Furthermore, upon reviewing the preliminary design, it has been observed that the bus stops are positioned before the intersection. This placement may contribute to congestion due to potential bus blockages. It is recommended that the City explore options to relocate the bus stops to the far end of the intersection. This relocation would involve realigning bicycle tracks further from the street, to integrate seamlessly with the existing intersection layout.

### 5.2.3 Storage Length Improvements

It is recommended that the storage length at the intersections listed below be increased to accommodate future queue lengths.

Intersection	Movement	Recommended storage length (m)
Bloor Street and Dixie Road	EBL	75
	EBR	65
	WBL	135
	WBR	65
Bloor Street & Fieldgate Drive	SBL	55
Burnhamthorpe Road & Fieldgate Drive	NBL	50 (till the Glen Rutley Cir)
Burnhamthorpe Road & Ponytrail Drive	WBR	170
	NBL	20
	SBL	50

The aforementioned approaches should be monitored in the future, and if necessary, storage lengths should be increased as recommended to accommodate the 95th percentile queue length.

**Appendix N** contains 2029 future total optimized detailed capacity analysis.

### 5.3 Sensitivity Analysis

This section analyzes the traffic operations along the Bloor Street study intersections using the existing lane configurations and signal timings along with the future total traffic volumes. This scenario has been included in case the Bloor Street project is cancelled.

**Table 19** outlines the operations of the study network in the event that the full buildout does not include the bike lanes.

**Table 19: Sensitivity Analysis Conditions Traffic Operations**

Intersection	Performance Metrics									
	Movement	LOS <sup>1</sup>			Delay (s)			v/c ratio <sup>2</sup>		
		AM	PM	SAT	AM	PM	SAT	AM	PM	SAT
Dixie Rd & Bloor St	<b>Overall</b>	<b>D</b>	<b>D</b>	<b>E</b>	<b>42.4</b>	<b>54.5</b>	<b>56.8</b>	<b>1.20</b>	<b>1.24</b>	<b>1.54</b>
	EBL	<b>F</b>	<b>E</b>	<b>E</b>	<b>84.0</b>	<b>66.1</b>	<b>78.9</b>	0.78	0.81	0.76
	EBT	<b>E</b>	D	<b>E</b>	<b>61.1</b>	52.5	<b>58.0</b>	0.67	0.55	0.63
	EBR	D	C	D	36.8	27.7	36.5	0.48	0.42	0.55
	WBL	<b>F</b>	<b>F</b>	<b>F</b>	<b>160.3</b>	<b>171.2</b>	<b>294.9</b>	<b>1.20</b>	<b>1.24</b>	<b>1.54</b>
	WBT	D	<b>E</b>	D	43.0	<b>63.5</b>	45.6	0.40	0.83	0.44
	WBR	D	C	D	40.9	31.8	39.0	0.59	0.49	0.47
	NBL	D	<b>E</b>	C	36.9	<b>59.8</b>	25.5	0.35	0.79	0.63
	NBTR	C	D	C	30.6	41.3	20.5	0.55	0.82	0.55
	SBL	C	<b>E</b>	<b>F</b>	32.3	<b>57.4</b>	<b>242.1</b>	0.74	0.72	<b>1.35</b>
	SBT	B	D	C	19.3	50.9	32.7	0.44	0.83	0.54
SBR	A	B	A	3.2	13.2	5.2	0.12	0.36	0.21	
Dixie Rd & Bloor St (Optimized)	<b>Overall</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>39.3</b>	<b>51.5</b>	<b>46.2</b>	<b>0.89</b>	<b>1.00</b>	<b>0.98</b>
	EBL	<b>F</b>	D	<b>F</b>	<b>88.2</b>	49.8	<b>92.0</b>	0.80	0.68	0.83
	EBT	<b>E</b>	<b>E</b>	<b>E</b>	<b>62.6</b>	<b>65.1</b>	<b>62.6</b>	0.69	0.72	0.69
	EBR	D	C	D	37.9	27.8	40.4	0.49	0.49	0.59
	WBL	<b>E</b>	<b>F</b>	<b>F</b>	<b>62.0</b>	<b>86.2</b>	<b>83.8</b>	<b>0.89</b>	<b>1.00</b>	<b>0.98</b>
	WBT	D	<b>E</b>	D	36.7	<b>66.1</b>	38.8	0.34	<b>0.85</b>	0.36
	WBR	C	C	C	33.7	32.8	29.9	0.51	0.50	0.39
	NBL	D	<b>E</b>	D	46.5	<b>77.2</b>	40.7	0.40	<b>0.91</b>	0.75
	NBTR	D	D	D	38.7	41.2	40.8	0.64	0.82	0.76
	SBL	D	<b>E</b>	<b>E</b>	41.2	<b>71.9</b>	<b>66.8</b>	0.76	0.83	0.81
	SBT	C	D	D	24.0	49.0	40.6	0.48	0.80	0.61
SBR	A	B	A	3.7	12.4	7.9	0.13	0.35	0.24	
Bloor St & Havenwood Dr	<b>Overall</b>	<b>B</b>	<b>A</b>	<b>A</b>	<b>12.7</b>	<b>9.9</b>	<b>8.9</b>	<b>0.70</b>	<b>0.66</b>	<b>0.56</b>
	EBL	A	B	A	7.7	14.0	5.3	0.18	0.44	0.28
	EBTR	A	A	A	7.0	6.7	4.2	0.36	0.40	0.39
	WBL	A	A	A	6.4	4.3	7.9	0.17	0.14	0.07
	WBTR	A	A	A	5.4	4.1	7.2	0.34	0.49	0.37
	NBL	<b>E</b>	D	C	<b>57.6</b>	40.2	31.6	0.60	0.27	0.26
	NBTR	C	C	B	25.1	20.5	15.4	0.42	0.26	0.18
	SBL	D	D	C	39.0	43.3	33.8	0.30	0.40	0.36
SBTR	D	D	C	37.1	40.2	26.9	0.70	0.66	0.56	

Intersection	Performance Metrics									
	Movement	LOS <sup>1</sup>			Delay (s)			v/c ratio <sup>2</sup>		
		AM	PM	SAT	AM	PM	SAT	AM	PM	SAT
<b>Bloor St &amp; Fieldgate Dr</b>	<b>Overall</b>	B	B	B	18.9	19.6	15.9	0.75	0.73	0.60
	EBL	B	B	B	14.1	14.0	11.8	0.35	0.40	0.27
	EBT	B	B	B	15.5	14.4	15.2	0.33	0.36	0.35
	EBR	B	B	B	15.5	14.4	15.2	0.33	0.36	0.35
	WBL	B	B	B	15.7	16.3	14.3	0.09	0.24	0.21
	WBT	B	B	B	15.0	17.2	12.9	0.37	0.56	0.42
	WBR	B	B	B	15.0	17.2	12.9	0.37	0.56	0.42
	NBL	D	D	C	44.0	40.9	33.5	0.50	0.42	0.38
	NBTR	B	B	B	17.1	14.6	13.2	0.35	0.27	0.25
	SBL	D	D	D	54.3	53.6	40.1	0.75	0.73	0.60
SBTR	B	C	B	11.1	24.7	12.6	0.54	0.57	0.48	

Note 1: The Level of Service of a signalized intersection is based on the average control delay per vehicle (Synchro).

Note 2: All v/c ratios above critical thresholds are bolded, all v/c ratios greater than 1.00 are bolded with red text.

The critical v/c threshold for intersections with Regional Roads (Dixie Road & Bloor Street) is 0.90 for all shared/through/turning movements per Peel Region guidelines and 1:00 for exclusive movements.

Note 3: The critical threshold for all intersections without Regional Roads is 0.85 for shared/through/turning movements and 1.00 for exclusive through and turning movements per the City of Mississauga guidelines.

**Table 20: Sensitivity Analysis Conditions Queuing Assessment**

Intersection	Movement	Performance Metrics			
		95 <sup>th</sup> Percentile Queue Length (m) [50 <sup>th</sup> Percentile Queue Length (m)]			Auxiliary Lane Storage Length (m)
		AM	PM	SAT	
<b>Dixie Rd &amp; Bloor St</b>	EBL	<b>70 [45]</b>	<b>55 [30]</b>	<b>65 [45]</b>	40
	EBR	<b>55 [35]</b>	<b>50 [30]</b>	<b>65 [45]</b>	15
	WBL	<b>150 [100]</b>	<b>165 [115]</b>	<b>215 [165]</b>	60
	WBR	<b>90 [65]</b>	<b>60 [35]</b>	<b>75 [50]</b>	10
	NBL	30	<b>130 [75]</b>	65	75
	SBL	60	65	<b>120 [65]</b>	100
	SBR	10	40	20	85
<b>Dixie Rd &amp; Bloor St (Optimized)</b>	EBL	<b>70[50]</b>	<b>45[30]</b>	<b>80[50]</b>	40
	EBR	<b>60[35]</b>	<b>50[25]</b>	<b>70[45]</b>	15
	WBL	<b>100[75]</b>	<b>135[85]</b>	<b>145[85]</b>	60
	WBR	<b>85[60]</b>	<b>60[35]</b>	<b>50[45]</b>	10
	NBL	35	<b>135[80]</b>	65	75
	SBL	65	75	65	100
	SBR	15	40	25	85
<b>Bloor St &amp; Havenwood Dr</b>	EBL	15	30	10	50
	WBL	10	5	5	50
	NBL	<b>30[15]</b>	20	15	25
	SBL	20	<b>30 [15]</b>	<b>25[15]</b>	25



Intersection	Movement	Performance Metrics				Auxiliary Lane Storage Length (m)
		95 <sup>th</sup> Percentile Queue Length (m) [50 <sup>th</sup> Percentile Queue Length (m)]				
		AM	PM	SAT		
Bloor St & Fieldgate Dr	EBL	45	30	30	50	
	EBR	0	0	0	75	
	WBL	15	25	20	45	
	WBR	20	20	10	95	
	NBL	25	20	20	45	
	SBL	<b>55 [35]</b>	<b>55 [35]</b>	<b>35 [25]</b>	25	

Note 1: The 95<sup>th</sup> percentile queue length for an individual movement exceeding available turn lane storage are bolded with red text. The available turn lane storage are also bolded.

As per **Table 19**, the signalized intersections are expected to operate with an overall Level of Service (LOS) "E" or better with few approaches expected to operate at a LOS "F". No movements would be expected to operate above capacity after the signal optimizations.

#### Dixie Road and Bloor Street (Optimized)

The eastbound left-turn movement operates similar to the 2029 future total conditions with a slight increase in delay on the Saturday peak hour but a decrease in the weekday P.M. peak hour. The westbound left-turn movement is improved with a decrease in control delay to 62.0, 86.2 and 83.8 s in the weekday A.M., weekday P.M. and Saturday peak hours respectively with a decreased v/c ratio of 0.89, 1.00 and 0.98 in the weekday A.M., weekday P.M. and Saturday peak hours respectively. The control delay for the Saturday peak hour southbound left-turn movement is expected to decrease to 66.8 s from 242.1 s and v/c ratio is expected to decrease to 0.81 from 1.35 in the weekday P.M. peak hour when compared to the future total conditions.

The 95<sup>th</sup> and 50<sup>th</sup> percentile queues for eastbound left-turn, eastbound right-turn, westbound right-turn and westbound right-turn are anticipated to exceed the storage length of their respective movements during all peak hours excluding the 50<sup>th</sup> percentile queue for the eastbound left-turn movement. However, the queues for the northbound left-turn, southbound left-turn and southbound right-turn movements are anticipated to fit within their respective storage length excluding the northbound left-turn movement during the P.M. peak hours.

#### Bloor Street and Havenwood Drive

The intersection is anticipated to operate with an overall LOS "D" or better. The northbound left-turn movement is expected to improve with a decrease to 57.6 s in control delay in weekday A.M. peak hour and an decrease in v/c to 0.60 in comparison with the future total conditions.

All 95<sup>th</sup> and 50<sup>th</sup> percentile queues can be stored within their respective lane storage length with the exception of the northbound left and southbound left-turn movements during the A.M. and P.M. peak hours respectively.

## Bloor Street and Fieldgate Drive

The intersection is expected to operate with an overall LOS "D" or better. There are no critical movements in the operations of this intersection.

Apart from the southbound left-turn movement during all peak hours, the 95th and 50th percentile queues are forecasted to fit within their respective lane storage lengths.

## 6.0 Site Access Safety Review

The development proposal includes site accesses via Fieldgate Drive and Ponytrail Drive that will provide transportation servicing to and from the site. This section evaluates the suitability of the site accesses from a transportation safety perspective and recommends mitigation measures, if warranted. The safety review of the accesses includes an assessment of whether turning maneuvers can be made safely at the site accesses without issues related to sight lines, intersection spacing, access spacing, or clear throat length.

### 6.1 Intersection Sight Distance

Section 9.9 of the TAC GDGCR provides intersection sight distance for different intersection control types. The calculated and design sight distances are further summarized in TAC GDGCR Tables 9.9.4, 9.9.6 and 9.9.12 for vehicles turning left from stop, turning right from stop, or turning left from the major road, respectively.

Case B1 (Left Turn from the Minor Road) and Case B2/B3 (Right Turn / Crossing Maneuver from the Minor Road) were used to evaluate sight line adequacy for the site accesses. **Table 21** outlines the sight distance requirements and compares them to the available sight distance.

**Appendix O** contained relevant TAC GDGCR excerpts.

**Table 21: Intersection Sight Distance Assessment**

Fieldgate Drive and Site Access #1 Posted Speed = 40 km/h Design Speed = 50 km/h		
Formula	ISD = 0.278 * V <sub>major</sub> * t <sub>g</sub>	
Feature	Case B1 – Left Turn	Case B2/B3 – Right Turn
Time Gap <sup>1</sup>	Left Turn: 7.5s	Right Turn: 6.5s
Required Sight Distance	105m (looking north)	95m (looking south)
Available Sight Distance	>105m (looking north)	>95m (looking south)
Ponytrail Drive and Site Access #2 Posted Speed = 30 km/h Design Speed = 40 km/h		
Formula (TAC)	ISD = 0.278 * V <sub>major</sub> * t <sub>g</sub>	
Feature	Case B1 – Left Turn	Case B2/B3 – Right Turn
Time Gap <sup>1</sup>	Left Turn: 7.5s	Right Turn: 6.5s
Required Sight Distance	85m (looking east)	75m (looking west)
Available Sight Distance	>85m (looking east)	>75m (looking west)

Note 1: To calculate Time Gap, base time gap is required. This default parameter is based on particular turning cases (such as Case B1 and Case B2/B3) and particular design vehicles. Roadways with more than one lane per direction require additions of 0.5s and 0.7s per addition lane for passenger car and truck design vehicles, respectively. For minor street approach upgrades that exceed 3%, additions of 0.2s and 0.1s for Case B1 and Case B2/B3, respectively, are required per percent grade. Refer to Section 9.9 of TAC-GDGCR for additional details.

The drivers are expected to approach in two stages before making a left/right turn at from the site access via Fieldgate Drive. Stage 1 involves drivers stopping before the crosswalk and proceeding cautiously due to the setback of the sidewalk from the major roadway lane and the presence of lay-by parking on the south side, which obstructs sight lines for vehicles turning right. Given the approximately 5.6m spacing between the crosswalk and the edge of the major roadway, drivers are expected to advance and stop before the edge of the major roadway to ensure a clear view before making a right turn onto the major roadway. There will be no visibility issues noted for vehicles turning left from the access onto Fieldgate Drive.

**Figure 11** and **Figure 12** show the stage 1 and stage 2 sightlines at Fieldgate Drive, respectively.

There were no sight-distance issues observed at the site access via Ponytrail Drive. Drivers will have adequate visibility.

**Figure 13** shows the sight lines at Ponytrail Drive.

## 6.2 Corner Clearance

Figure 8.8.2 of the TAC GDGCR Guidelines was reviewed to evaluate the corner clearance for the proposed site accesses on Fieldgate Drive and Ponytrail Drive. Since both roads fall under the jurisdiction of the City of Mississauga as local roadways, the appropriate corner clearance for these access points was established accordingly.

**Table 22** shows the corner clearance details.

**Table 22: Corner Clearance**

Roadways	Required	Provided
Fieldgate Drive and Site Access #1	15 m	145 m
Ponytrail Drive and Site Access #2		70 m

Sufficient corner clearance is provided and meets the minimum TAC requirement.

## 6.3 Driveway Alignment at Fieldgate Drive and Williamsport Drive

The driveway is offset from the existing Williamsport Drive and Fieldgate Drive intersection. However, the offset is very minor. Per TAC GDGCR, opposing legs of four-legged intersections should not have an offset of more than 1.5m. The site driveway is only offset approximately 0.7m from the south approach and therefore falls within the maximum offset specified in TAC.

## 6.4 Clear Throat Length

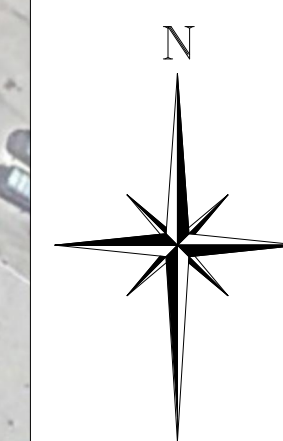
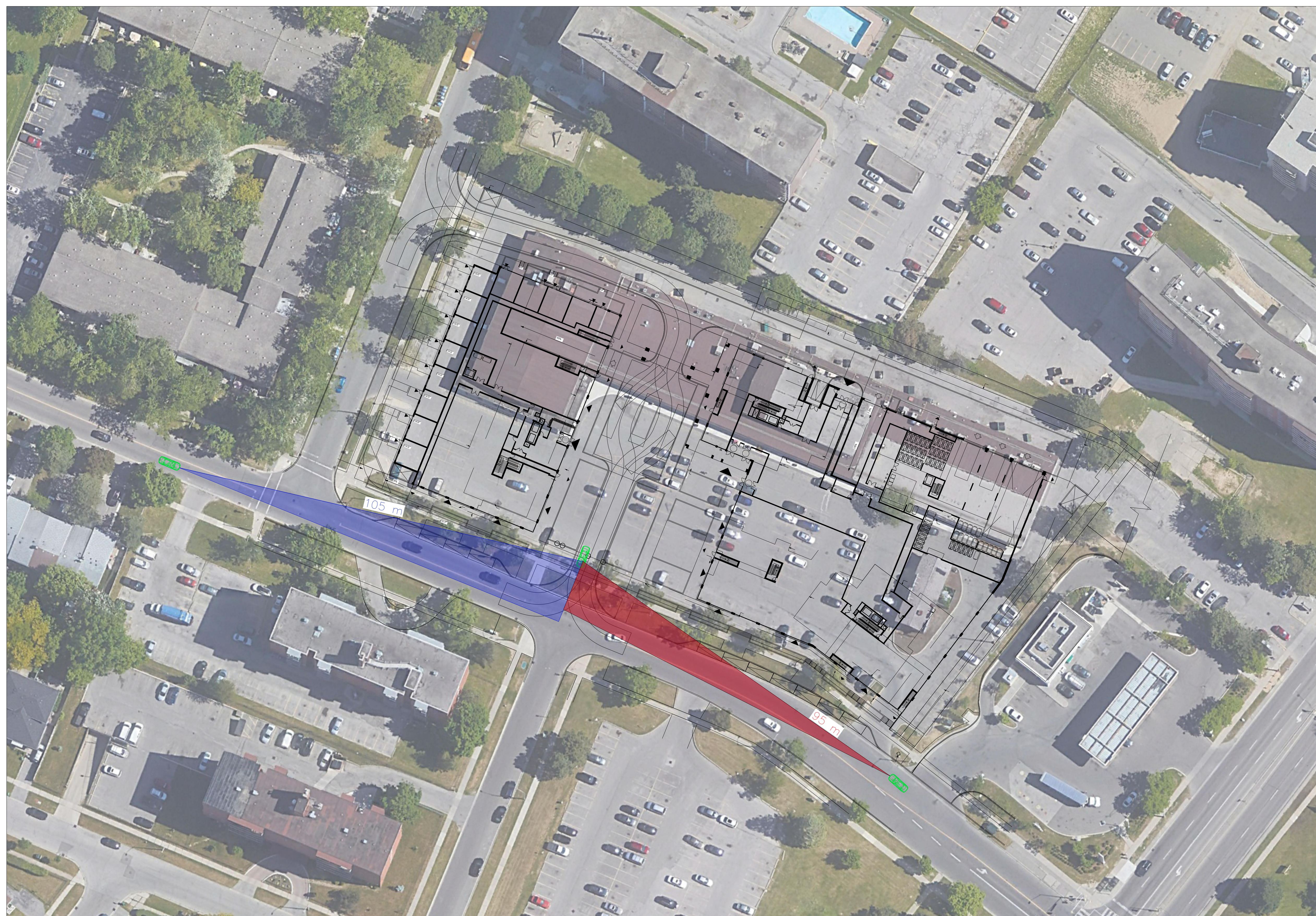
TAC GDGCR does not specify a requirement for throat length at site accesses along local roadways. Therefore, the queues at the site accesses were compared to the throat length provided in the site plan to determine if the throat length provided sufficient storage.

#### **6.4.1 Access via Fieldgate Drive**

A maximum queue of 13 metre is anticipated to be observed at site access in the weekday P.M. peak hour. The throat length of approximately 30 meters measured to the edge of the crosswalk is considered sufficient to accommodate the associated queues.

#### **6.4.2 Access via Ponytrail Drive**

A minimal queue of about 5 meters is expected at the site access. The throat length of approximately 40 meters, extending to the edge of the crosswalk, is considered sufficient to accommodate the associated queues.



LEGEND	
	SIGHT DISTANCE FOR RIGHT-TURN
	SIGHT DISTANCE FOR LEFT-TURN

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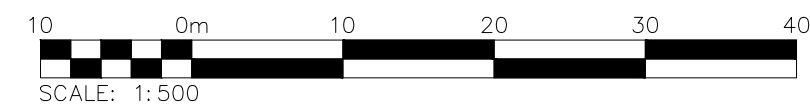
Project: 3403-3445 FIELDGATE DRIVE

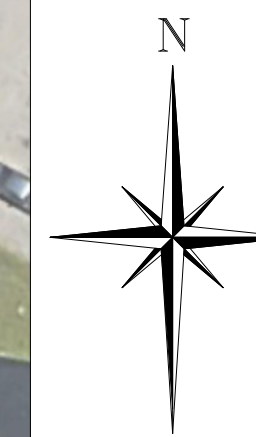
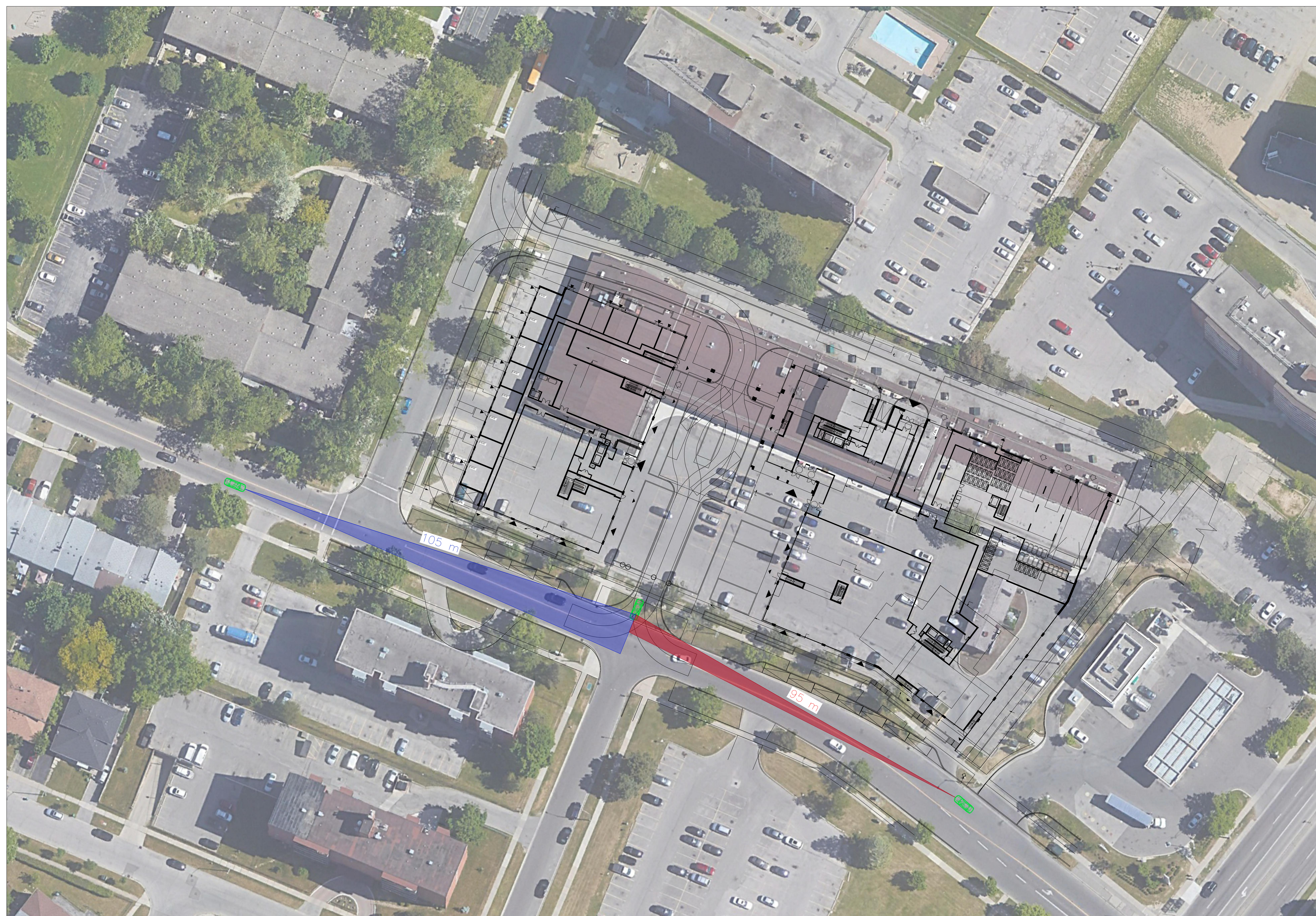
Drawing: SIGHT LINES AT FIELDGATE DRIVE  
STAGE 1

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Drawn By	B.L.	Design By	Project	3403-3445
Check By	A.D.	Check By	Scale	1:500
			Drawing	FIG 11





LEGEND	
	SIGHT DISTANCE FOR RIGHT-TURN
	SIGHT DISTANCE FOR LEFT-TURN

No.	ISSUE	DATE: MM/DD/YYYY
0	ISSUED FOR 1st SUBMISSION	06/28/2024

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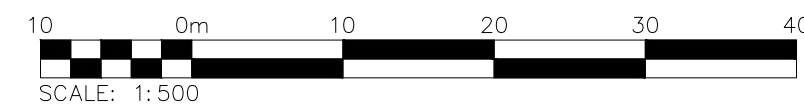
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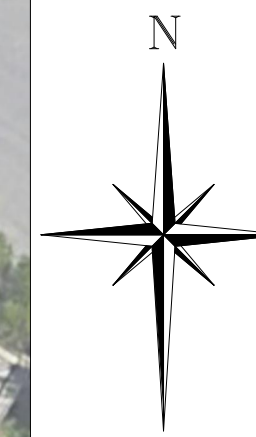
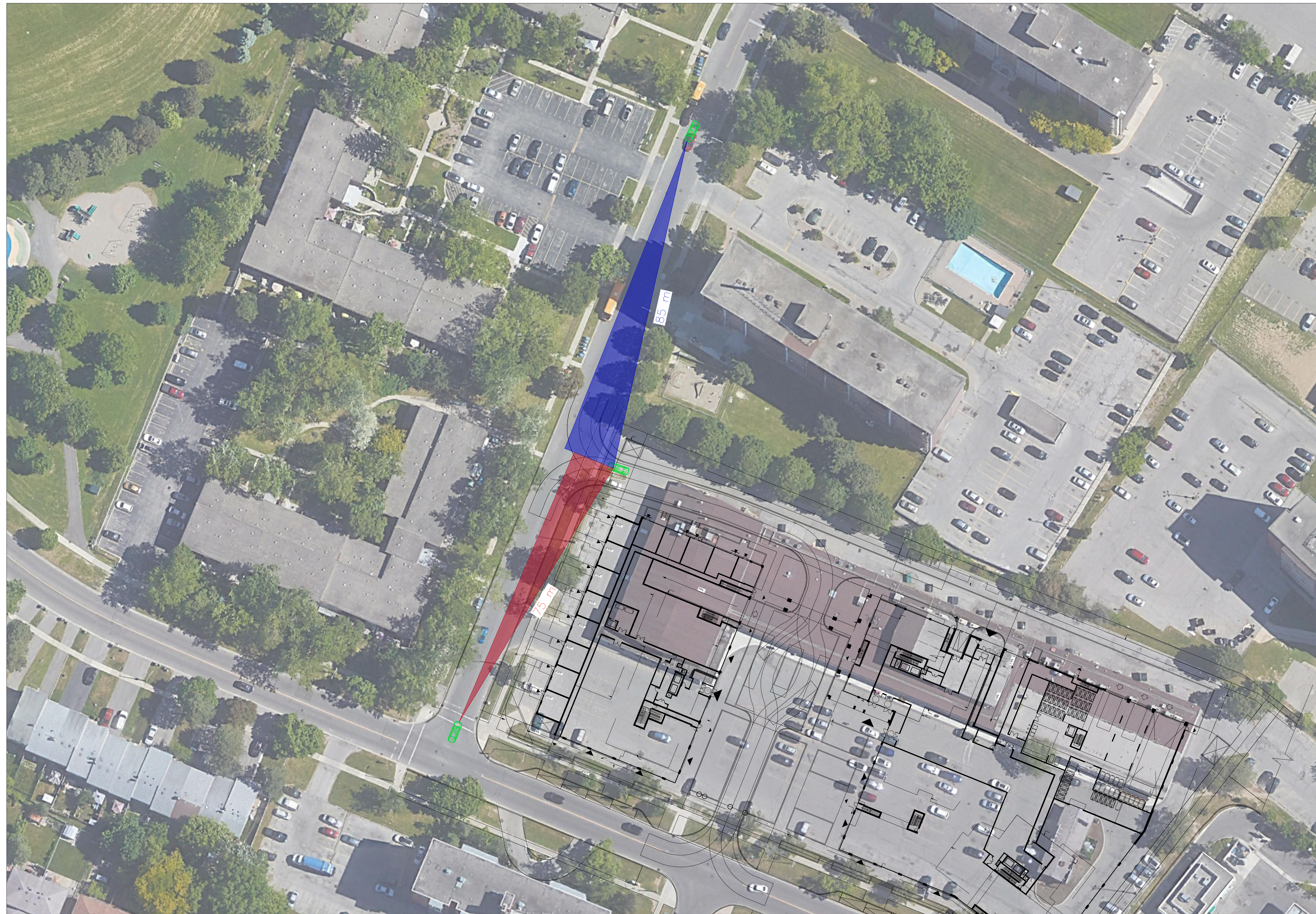
Project: 3403-3445 FIELDGATE DRIVE

Drawing: SIGHT LINES AT FIELDGATE DRIVE  
STAGE 2

ADMIRAL BUILDING  
1 FIRST STREET, SUITE 200  
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Check By	A.D.	Check By	Scale	1:500
			Drawing	FIG 12





LEGEND

	SIGHT DISTANCE FOR RIGHT-TURN
	SIGHT DISTANCE FOR LEFT-TURN

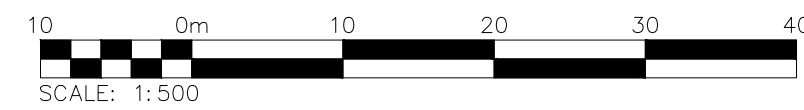
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Drawing: SIGHT LINES AT PONYRAIL DRIVE



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Drawn By	B.L.	Design By	Project	3403-3445
Check By	A.D.	Check By	Scale	1:500
			Drawing	FIG 13

## **7.0 Vehicle Maneuverability Review**

This section considers the internal servicing of the development proposal, including the adequacy and safety of the internal driveways and roadways. The vehicles expected to operate within and service the development proposal is identified and assessed as to whether they can be safely accommodated without conflicts or constraints. The Auto-TURN vehicle turning software was used to assess the expected design vehicles onsite.

### **7.1.1 Emergency Vehicles**

A maneuvering assessment was conducted for emergency vehicles using a Pumper Fire Truck 12.19 metres wide. Fire trucks would arrive at the site and use the drop off area in front of the building entrances to service the site.

It is noted that as the building entrance is within 15 meters of the proposed drop-off area. Emergency vehicles would not need to reverse within the site as one of the accesses can be used to access the site and other to exit the site.

**Figure 14** and **Figure 15** illustrate the emergency vehicle maneuvers.

### **7.1.2 Waste Collection Vehicles**

Vehicle turning plans were prepared using a Region of Peel front-end bin loading waste vehicle, following the standards outlined in the Region of Peel Waste Collection Design Standards Manual (WCDSM). The waste collection vehicle adheres to a 13-meter centerline radius while maneuvering in and out of the site.

The waste collection vehicle can enter and exit both site accesses and loading area without any conflicts.

**Figure 16** and **Figure 17** illustrate the inbound and outbound waste vehicle maneuvers.

### **7.1.3 Loading Vehicles**

A maneuvering assessment was conducted using Medium Single Unit (MSU) vehicle accessing the loading space. The vehicle turning diagrams demonstrate that the MSU can access the site via Fieldgate Drive and Ponytrail Drive, reverse into the loading space, and exit the loading space and site without encroaching on curbs or obstacles.

**Figure 18** and **Figure 19** illustrate the inbound and outbound loading vehicle maneuvers.

### **7.1.4 Light Single Unit Vehicle**

A maneuvering assessment was conducted for a Light Single Unit (LSU) vehicle accessing the loading/unloading space near the moving room. This loading space is intended for use by small loading vehicles, such as U-Haul trucks.

**Figure 20** illustrates the LSU vehicle maneuver.



### **7.1.5 Passenger Vehicles**

A maneuvering assessment was conducted for passenger vehicle using a TAC passenger vehicle (PTAC) and no encroachments were observed while entering and exiting the site access.

The underground parking ramp, currently 6.6 meters wide as shown on the plan, accommodates passenger vehicles. However, it will be widened to 7.0 meters in future applications.

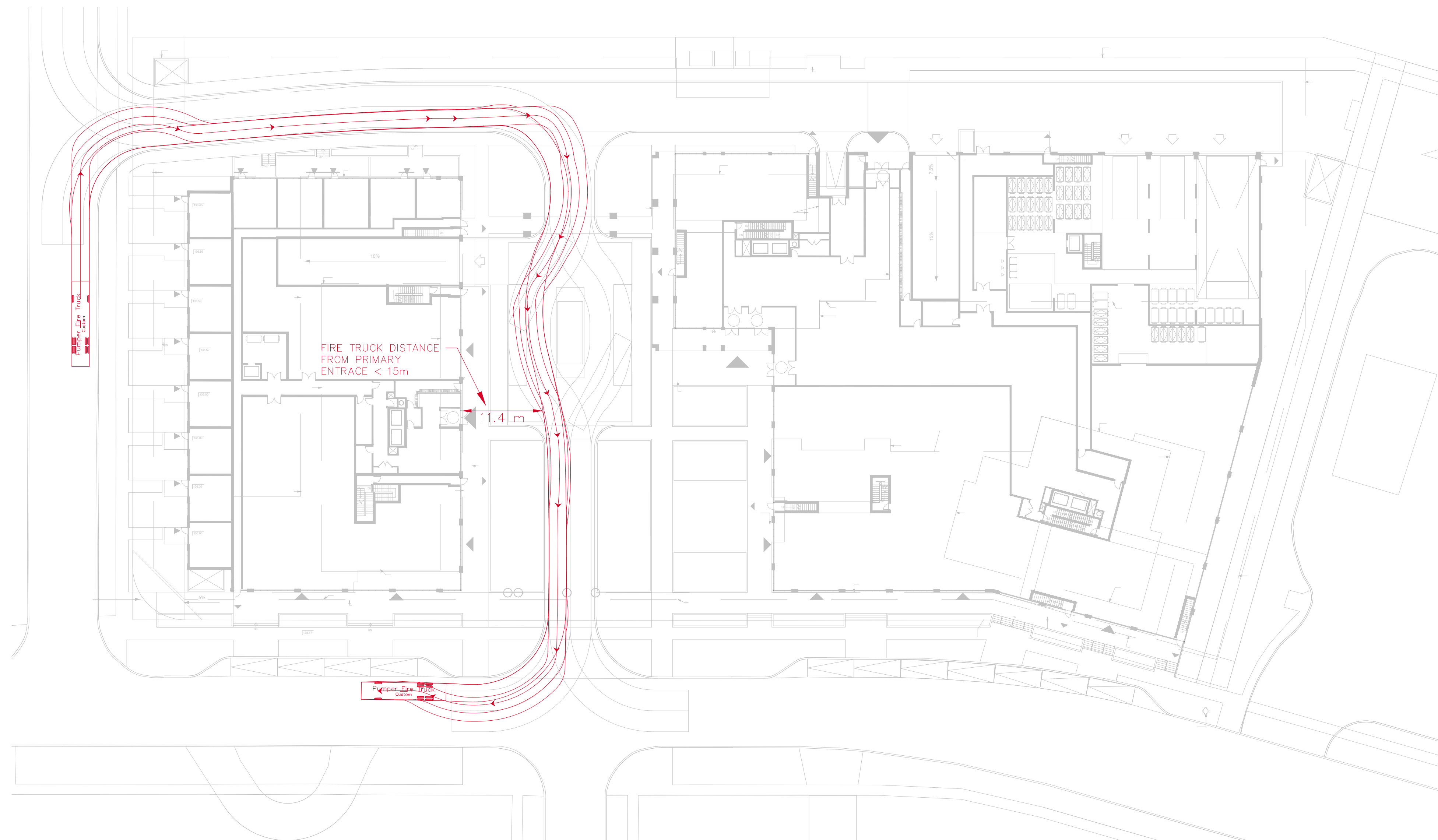
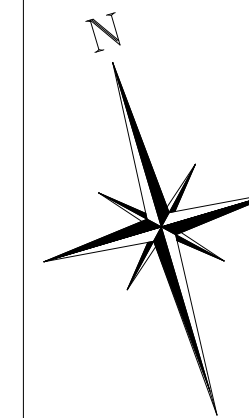
**Figure 21** illustrates the simultaneous passenger vehicle maneuvers.

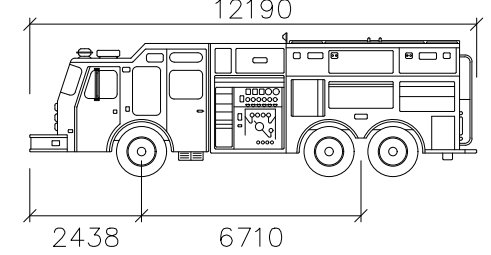
The passenger can also enter/exit the underground parking ramp and access the pick-up/drop-off area in front of the towers without any conflicts.

**Figure 22** illustrates the passenger vehicles accessing the underground parking ramp and pick-up/drop-off area.

The lay-by parking in front of the site along Fieldgate Drive was also tested and no conflicts are observed.

**Figure 23** illustrate the passenger vehicle assessment in the lay-by parking.




VEHICLE PROFILE	
	
Pumper Fire Truck	
	mm
Width	: 2490
Track	: 2500
Lock to Lock Time	: 6.0
Steering Angle	: 45.0

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 3403-3445 FIELDGATE DRIVE  
 CITY OF MISSISSAUGA

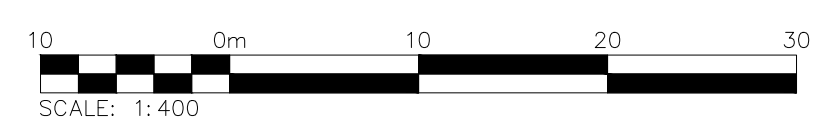
**Drawing**  
 VEHICLE MANEUVERING DIAGRAM  
 FIRE TRUCK

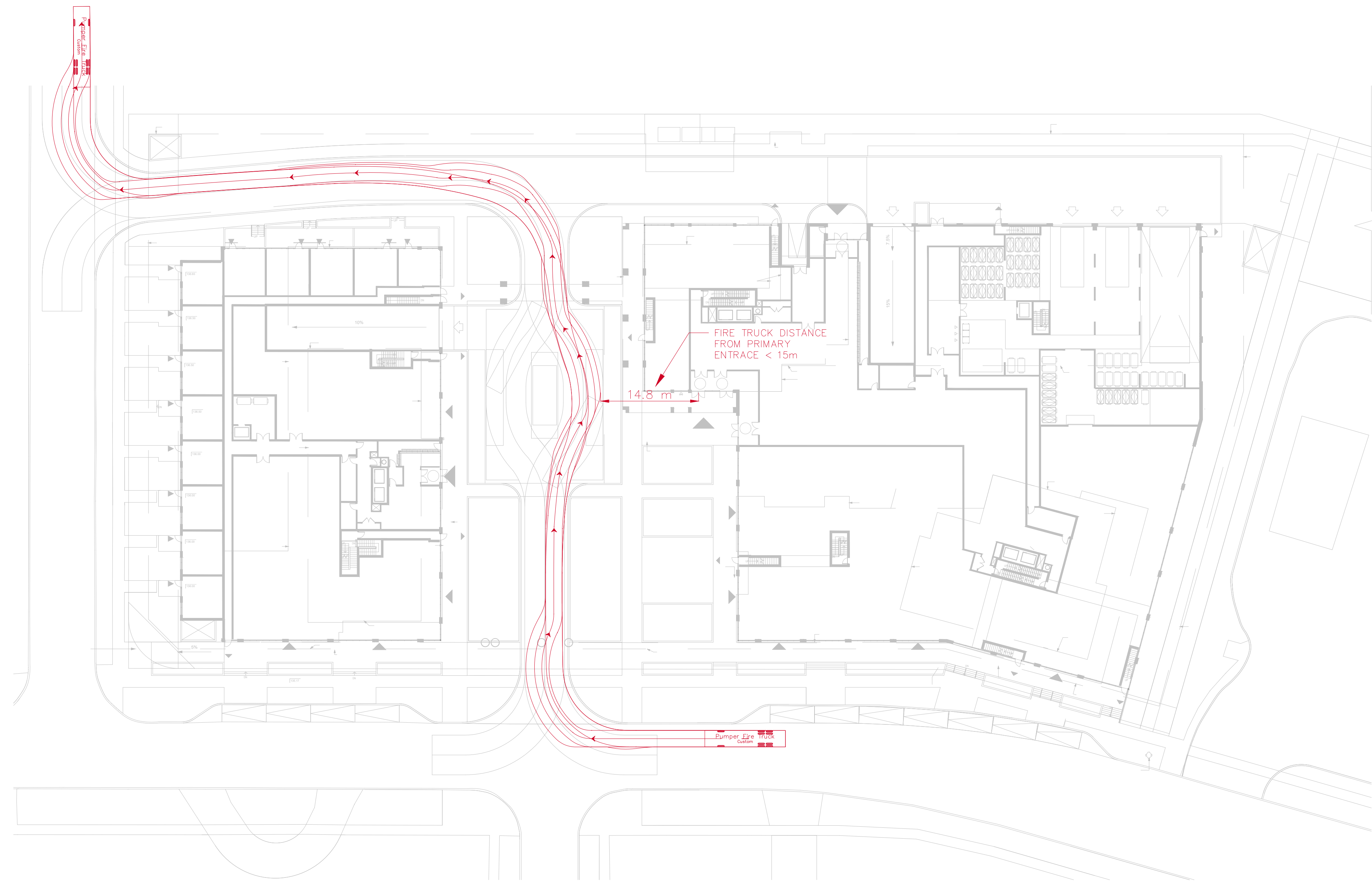
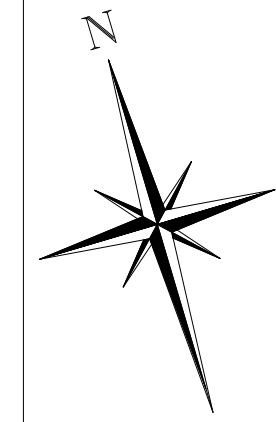


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Check By	A.D.	Check By	B.E.	Scale 1:400 Drawing FIG 14





VEHICLE PROFILE

12190

2438 6710

Pumper Fire Truck

mm

Width : 2490  
Track : 2500  
Lock to Lock Time : 6.0  
Steering Angle : 45.0

No.	ISSUE	DATE: MM/DD/YYYY
0	ISSUED TO SUBMISSION	08/12/2024

Engineer

Engineer

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3403-3445 FIELDGATE DRIVE  
CITY OF MISSISSAUGA

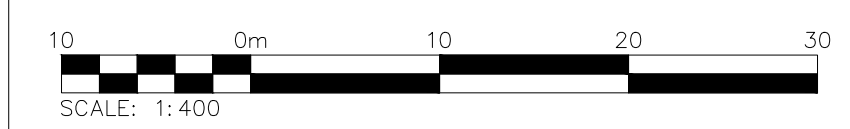
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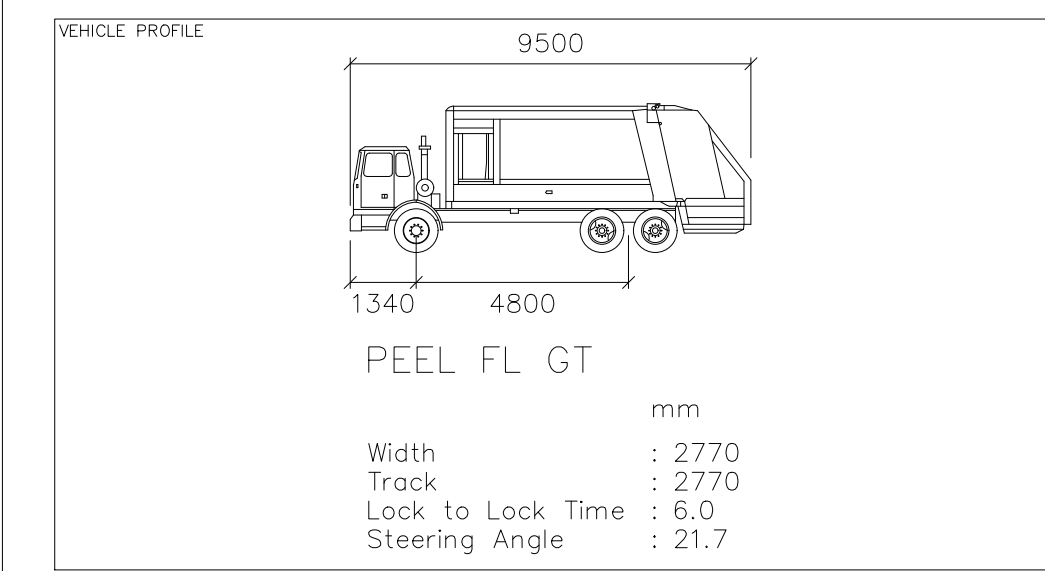
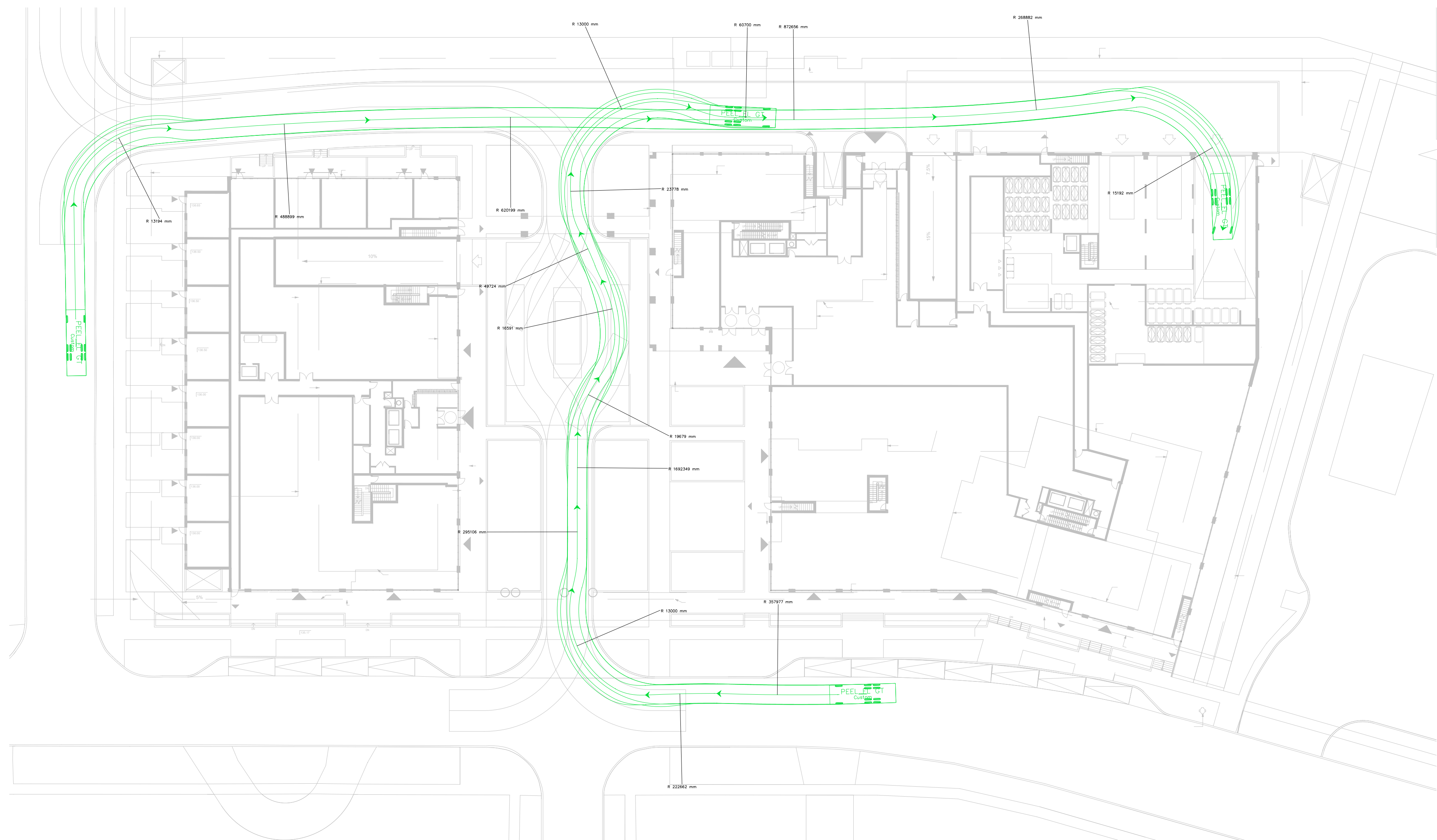
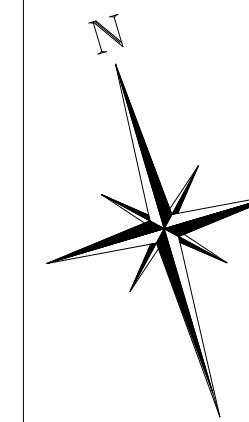
VEHICLE MANEUVERING DIAGRAM  
FIRE TRUCK

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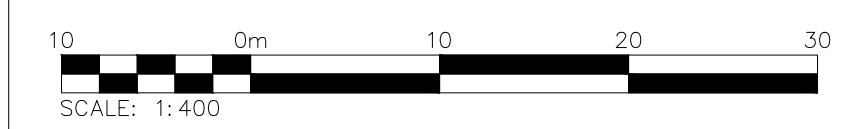
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CITY OF MISSISSAUGA

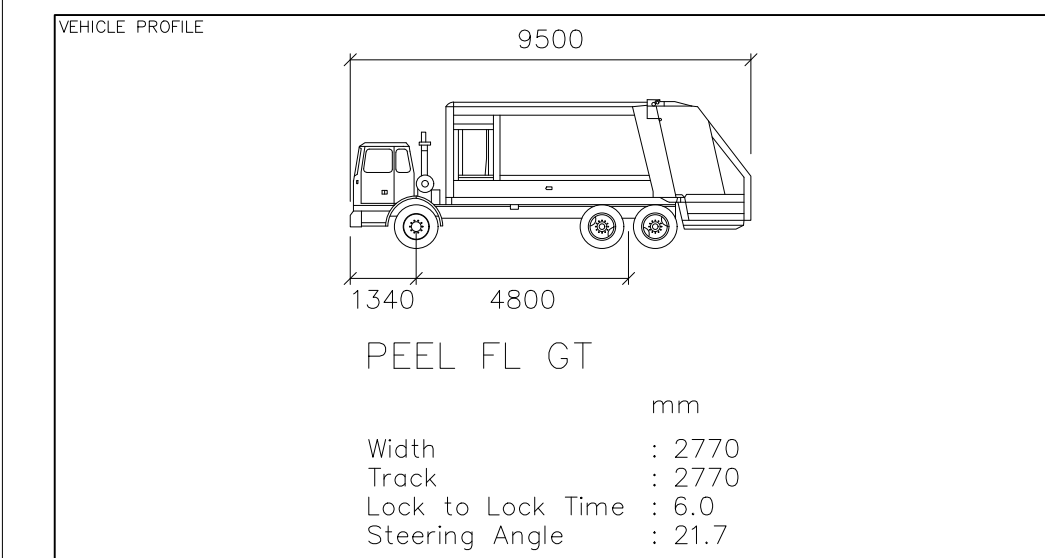
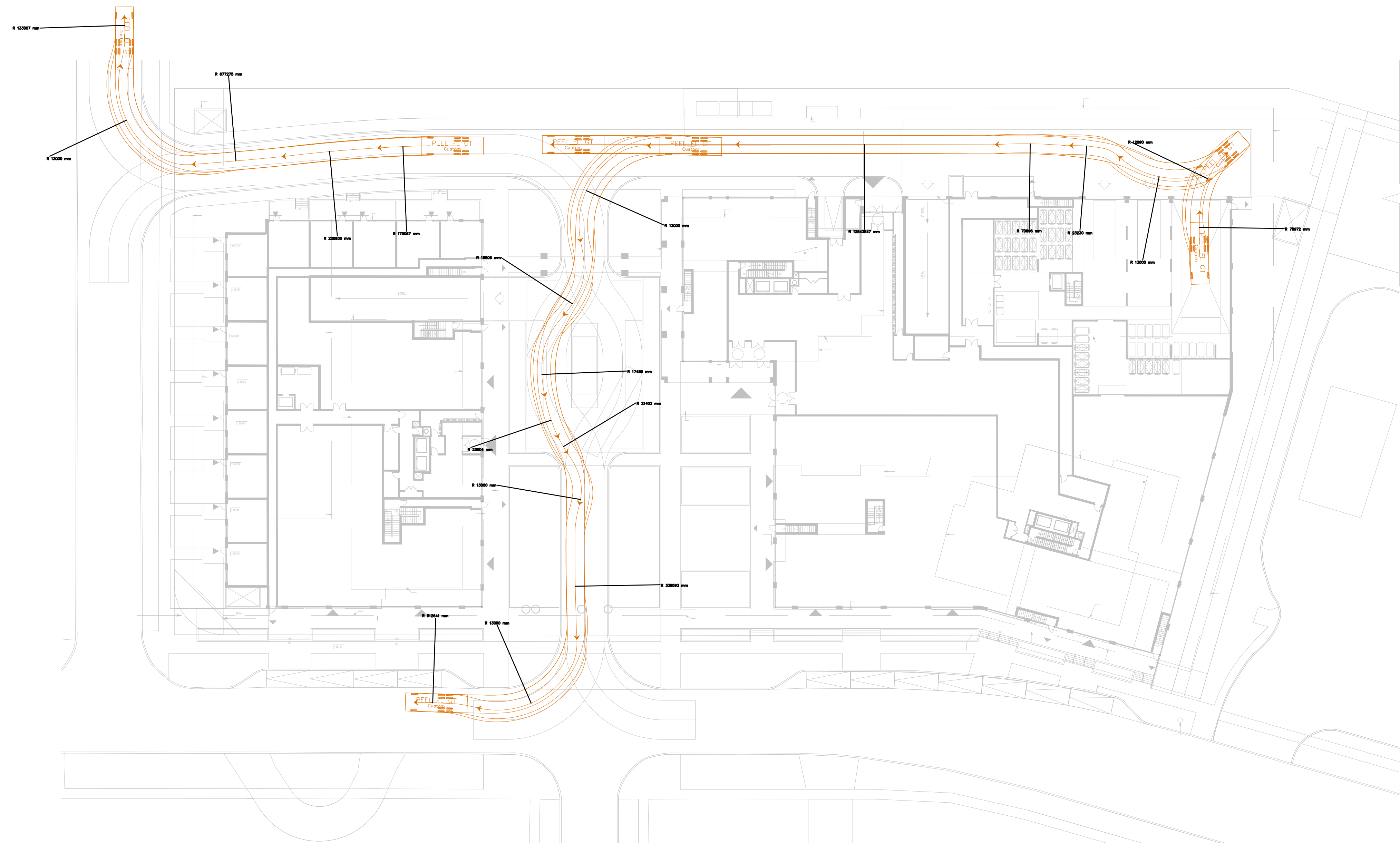
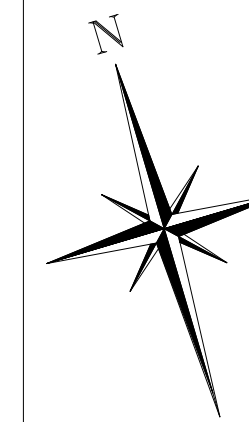
Drawing  
VEHICLE MANEUVERING DIAGRAM  
GARBAGE TRUCK-INBOUND

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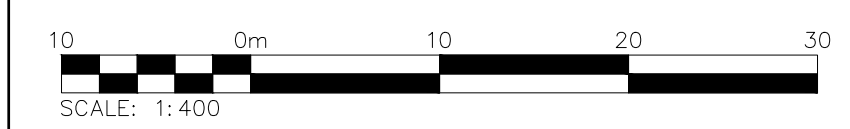
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CITY OF MISSISSAUGA

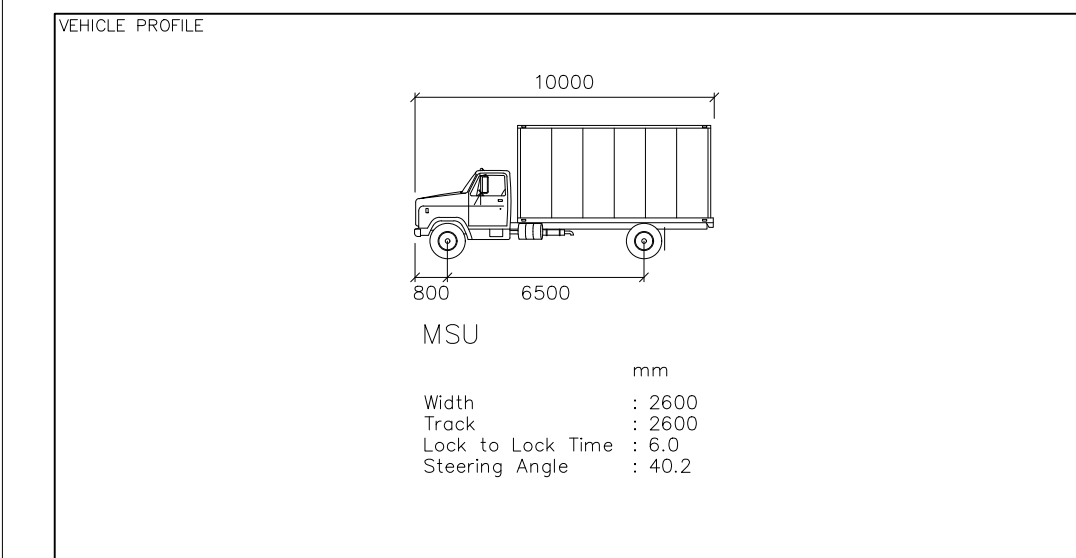
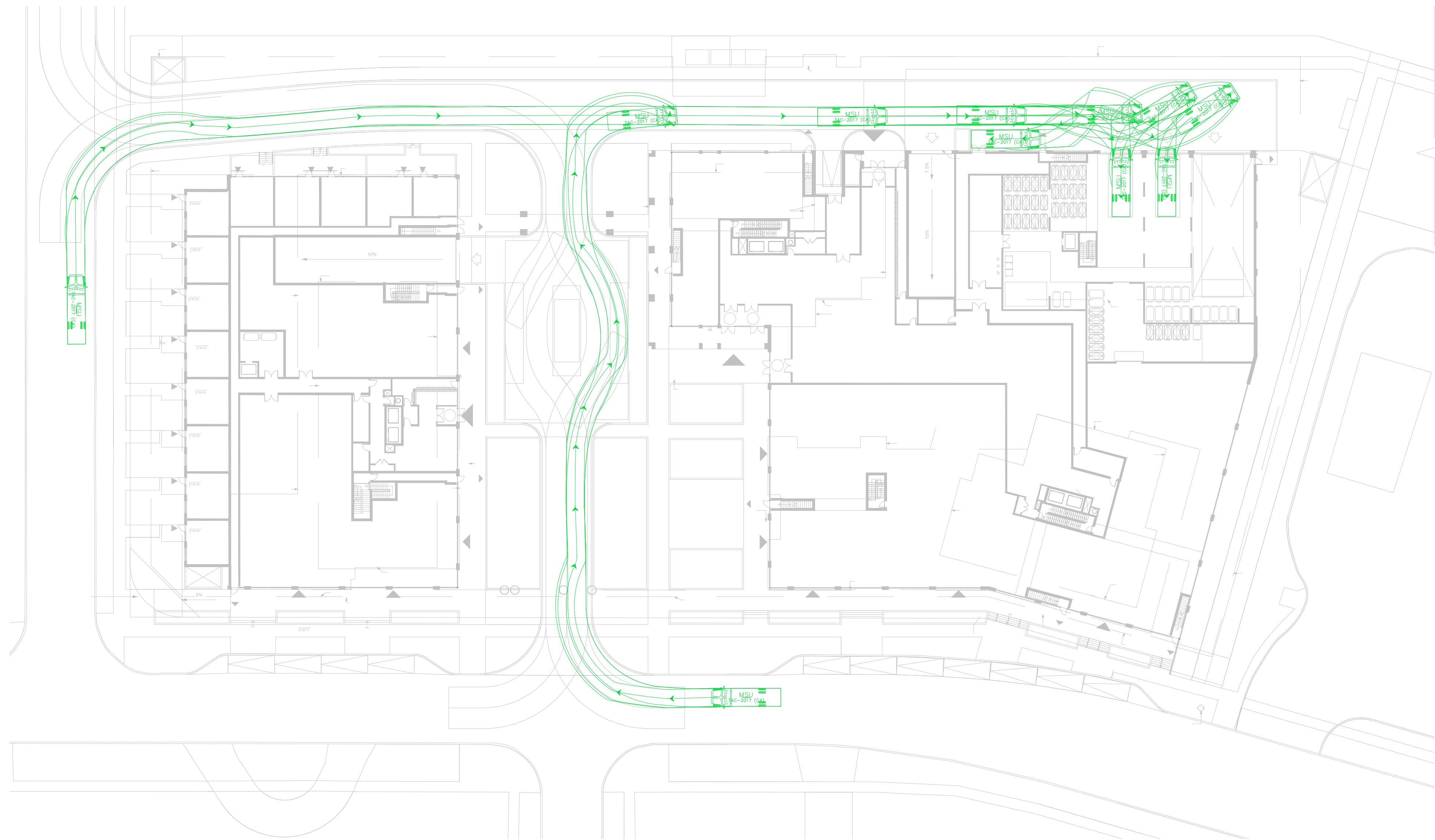
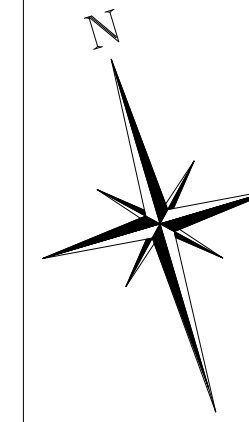
Drawing  
VEHICLE MANEUVERING DIAGRAM  
GARBAGE TRUCK-OUTBOUND

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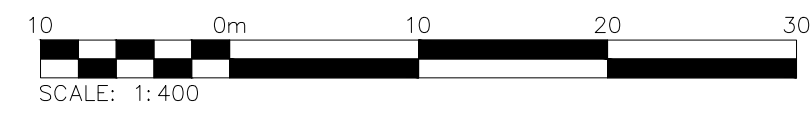
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CITY OF MISSISSAUGA

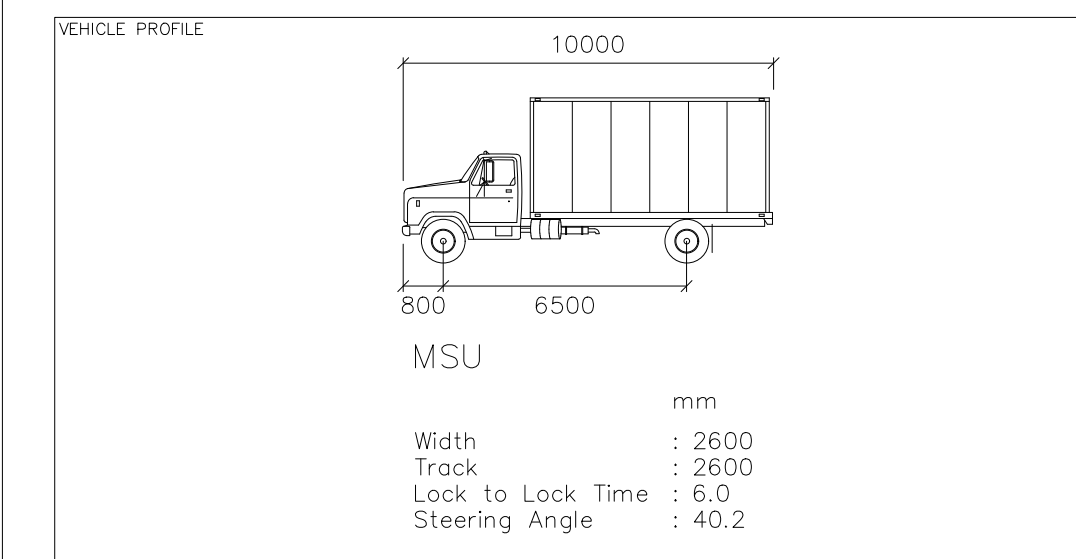
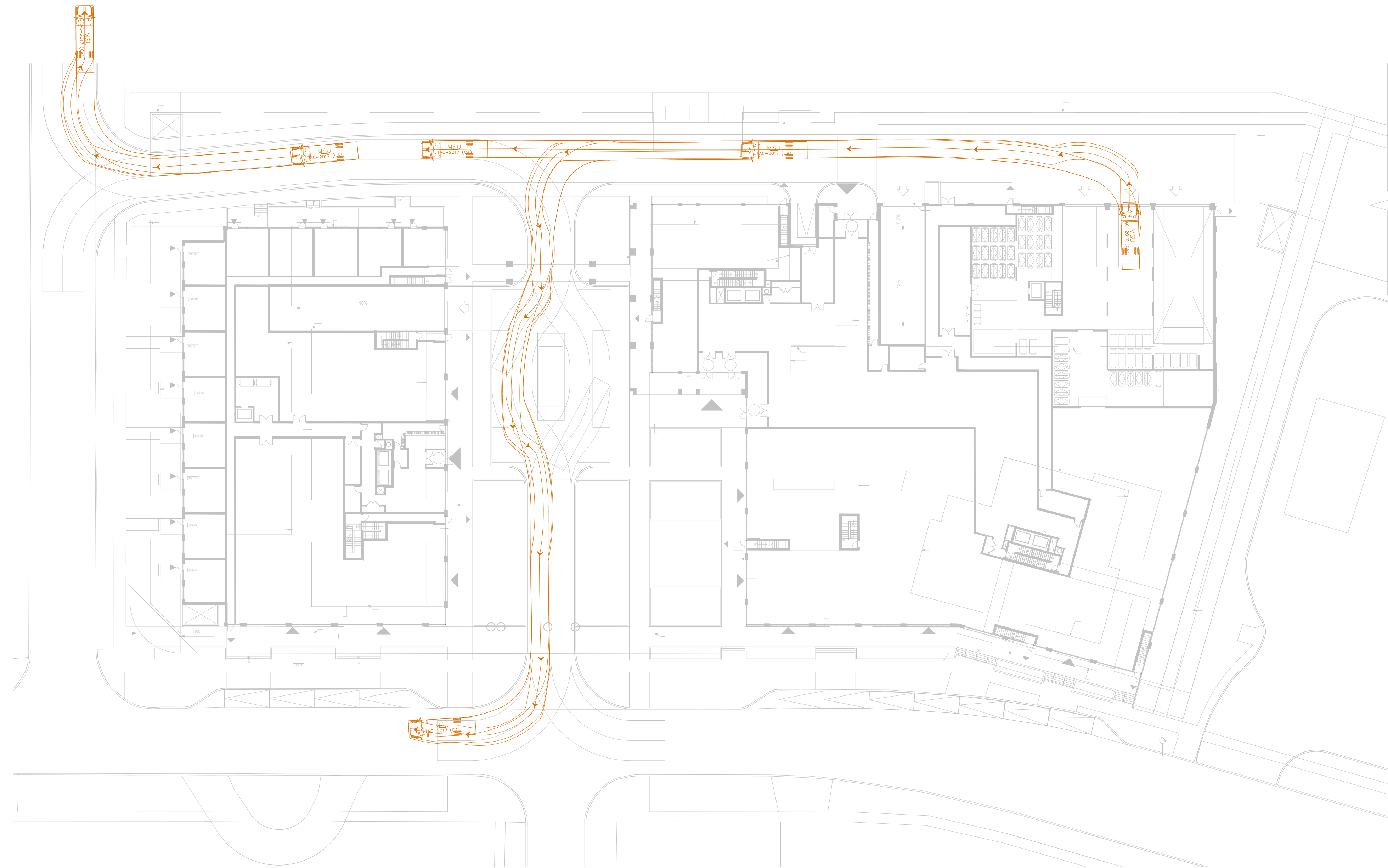
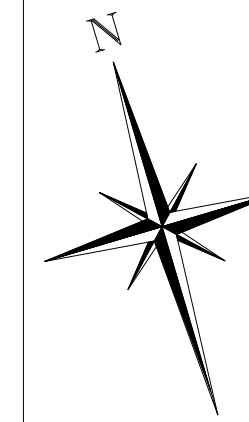
Drawing  
VEHICLE MANEUVERING DIAGRAM  
MSU-INBOUND

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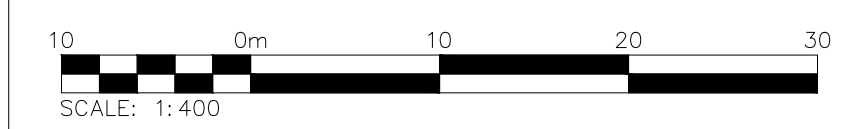
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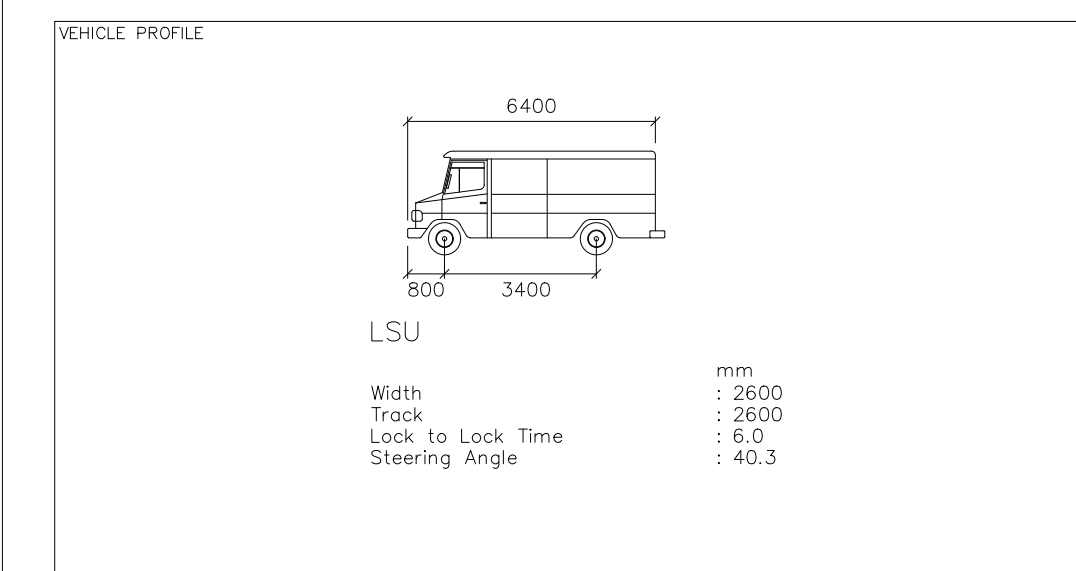
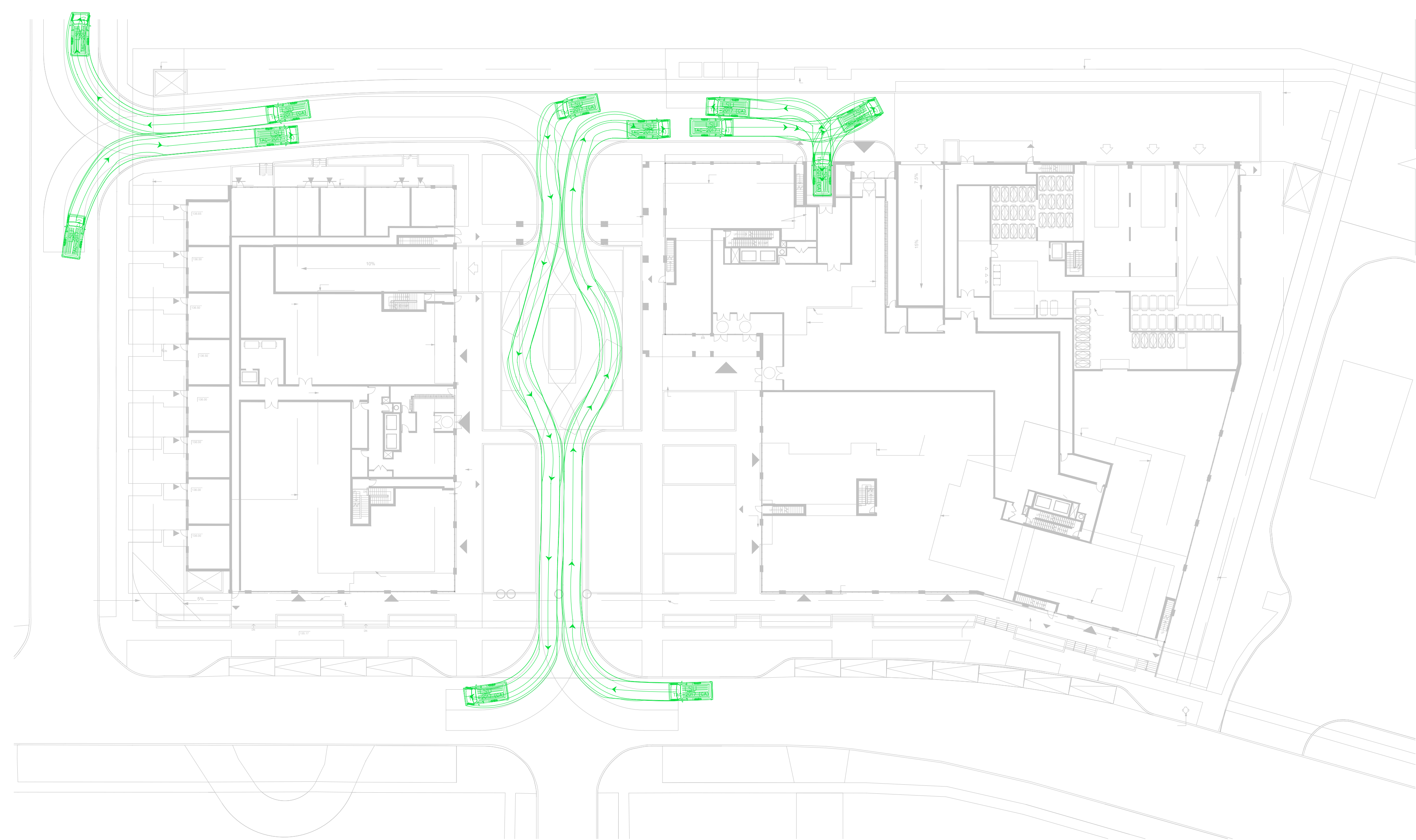
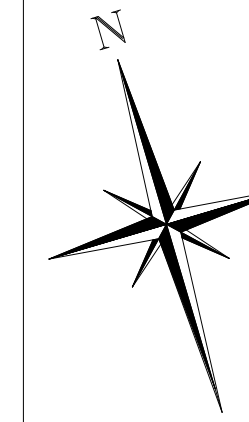
Drawing  
VEHICLE MANEUVERING DIAGRAM  
MSU-OUTBOUND

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			Drawing	FIG 19






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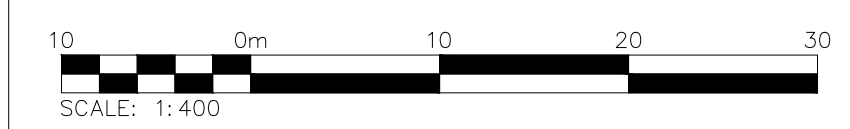
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CITY OF MISSISSAUGA

Drawing  
VEHICLE MANEUVERING DIAGRAM  
LSU

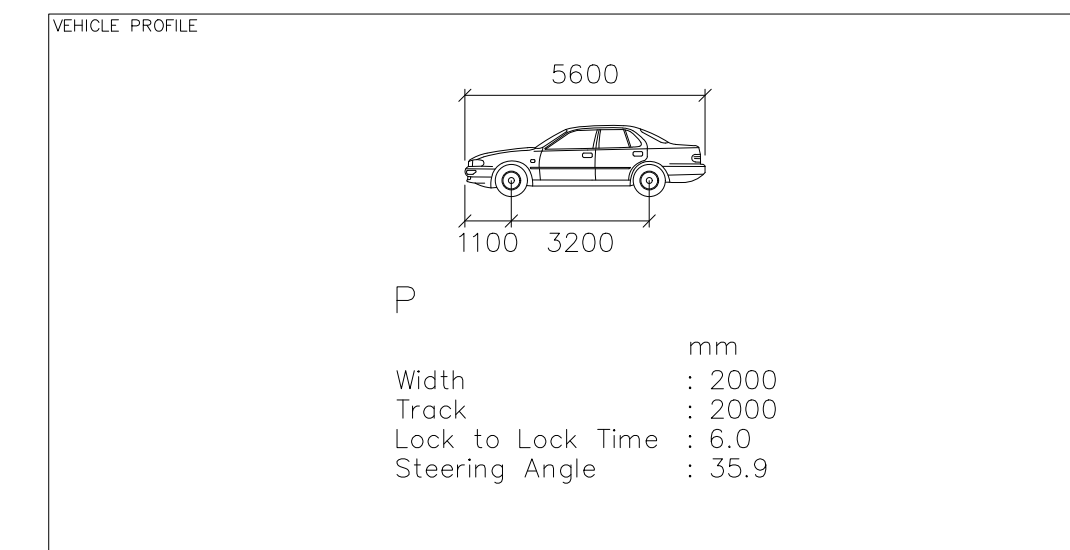
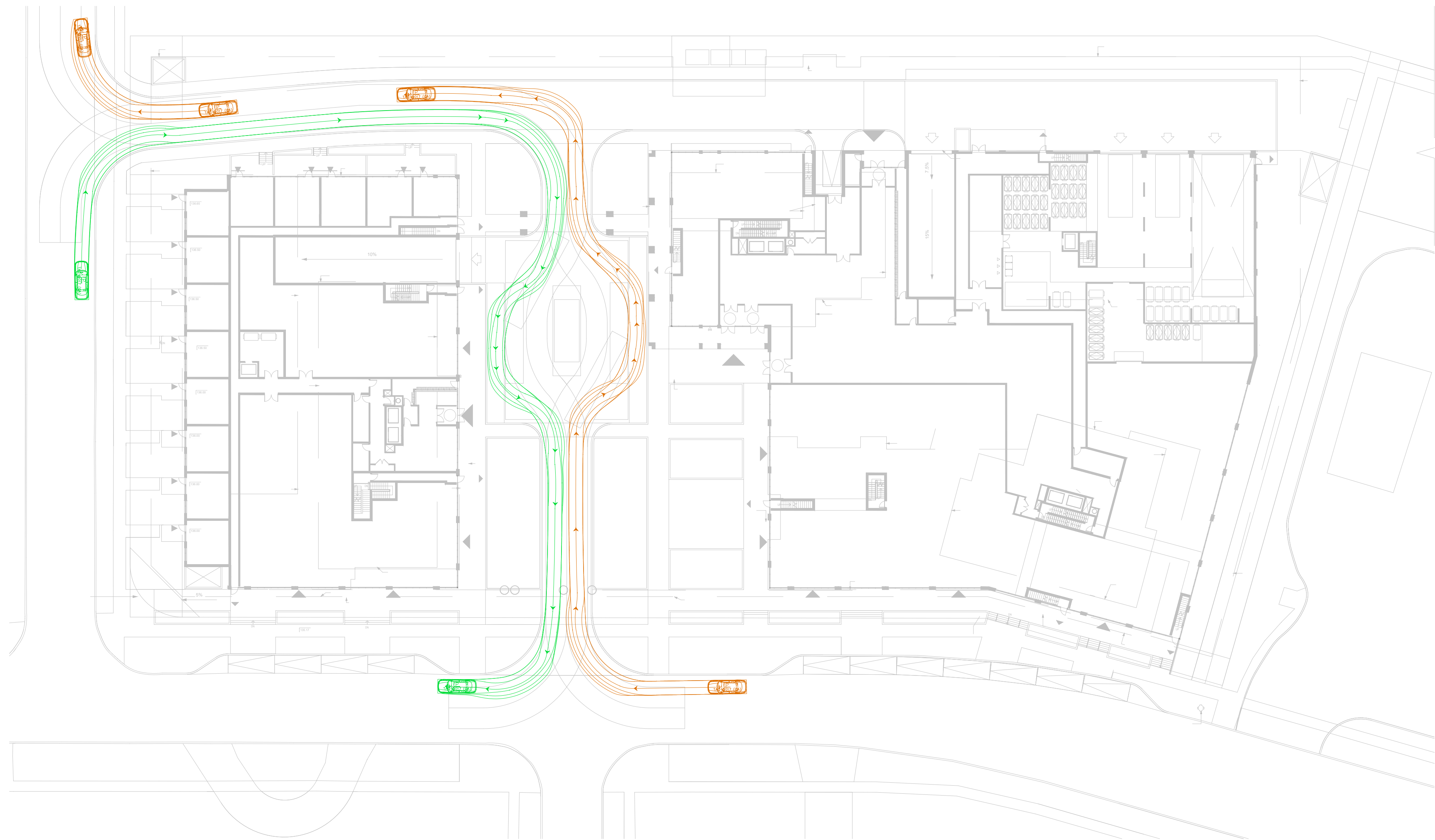
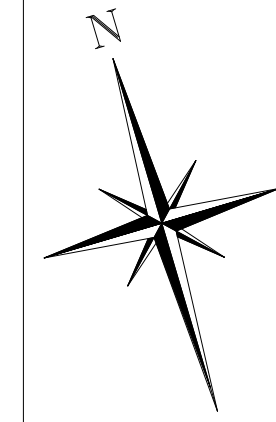
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		B.B.	Drawing	FIG 20







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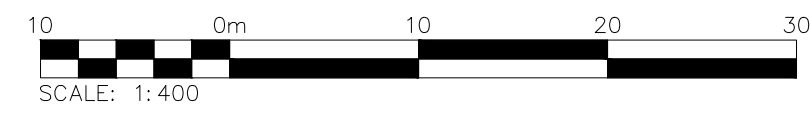
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CITY OF MISSISSAUGA

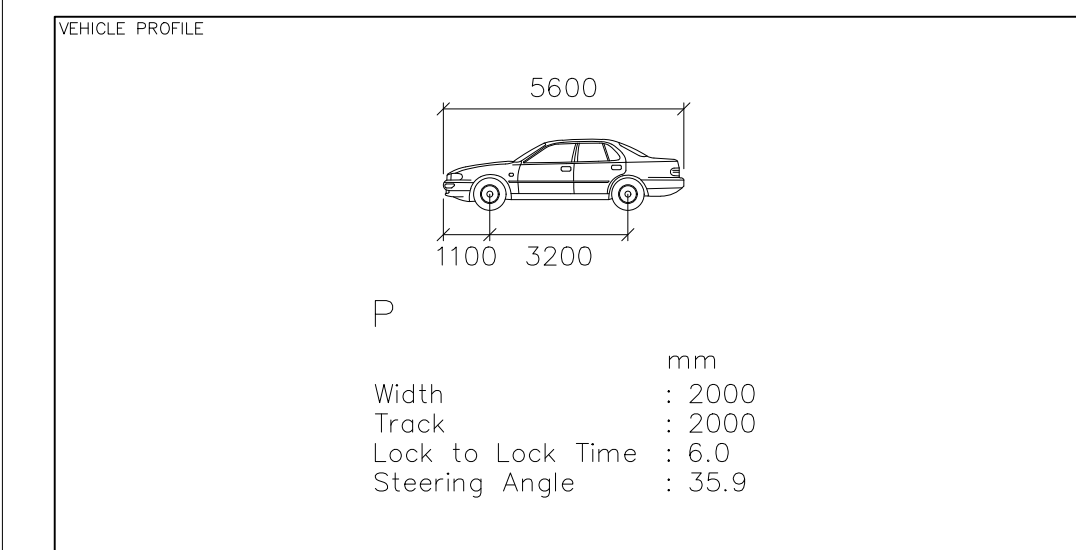
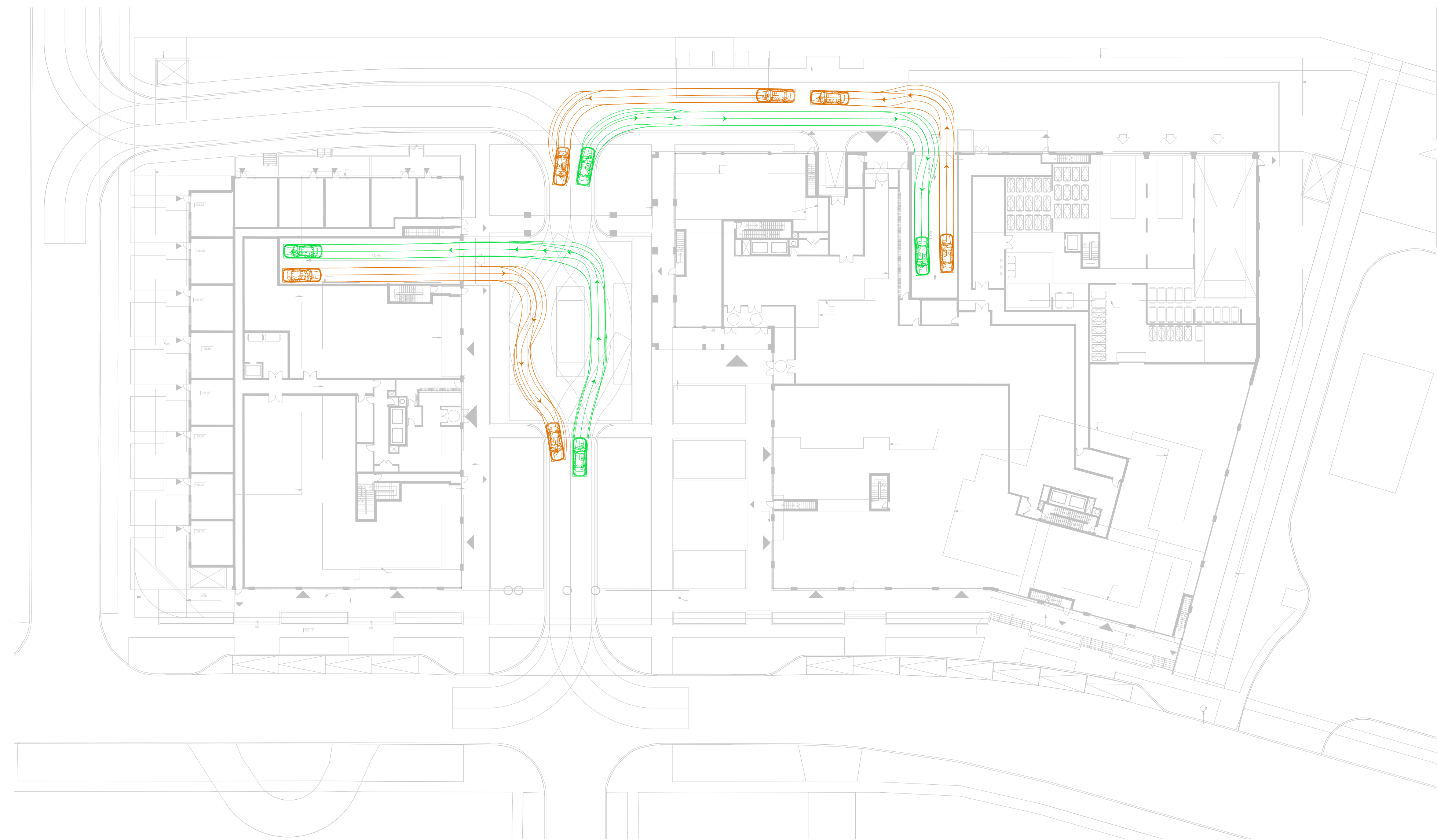
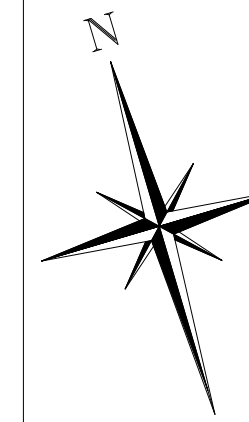
Drawing  
VEHICLE MANEUVERING DIAGRAM  
PASSENGER VEHICLE

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CITY OF MISSISSAUGA

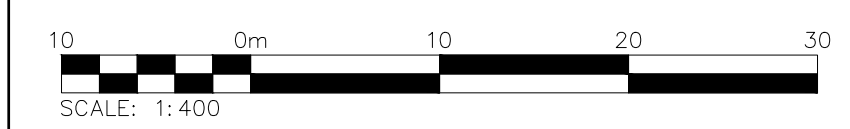
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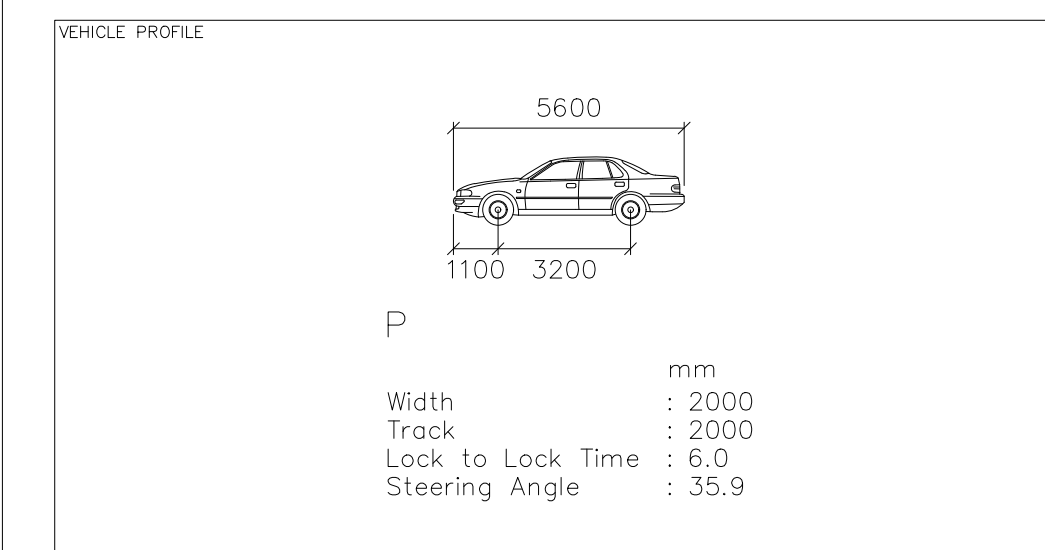
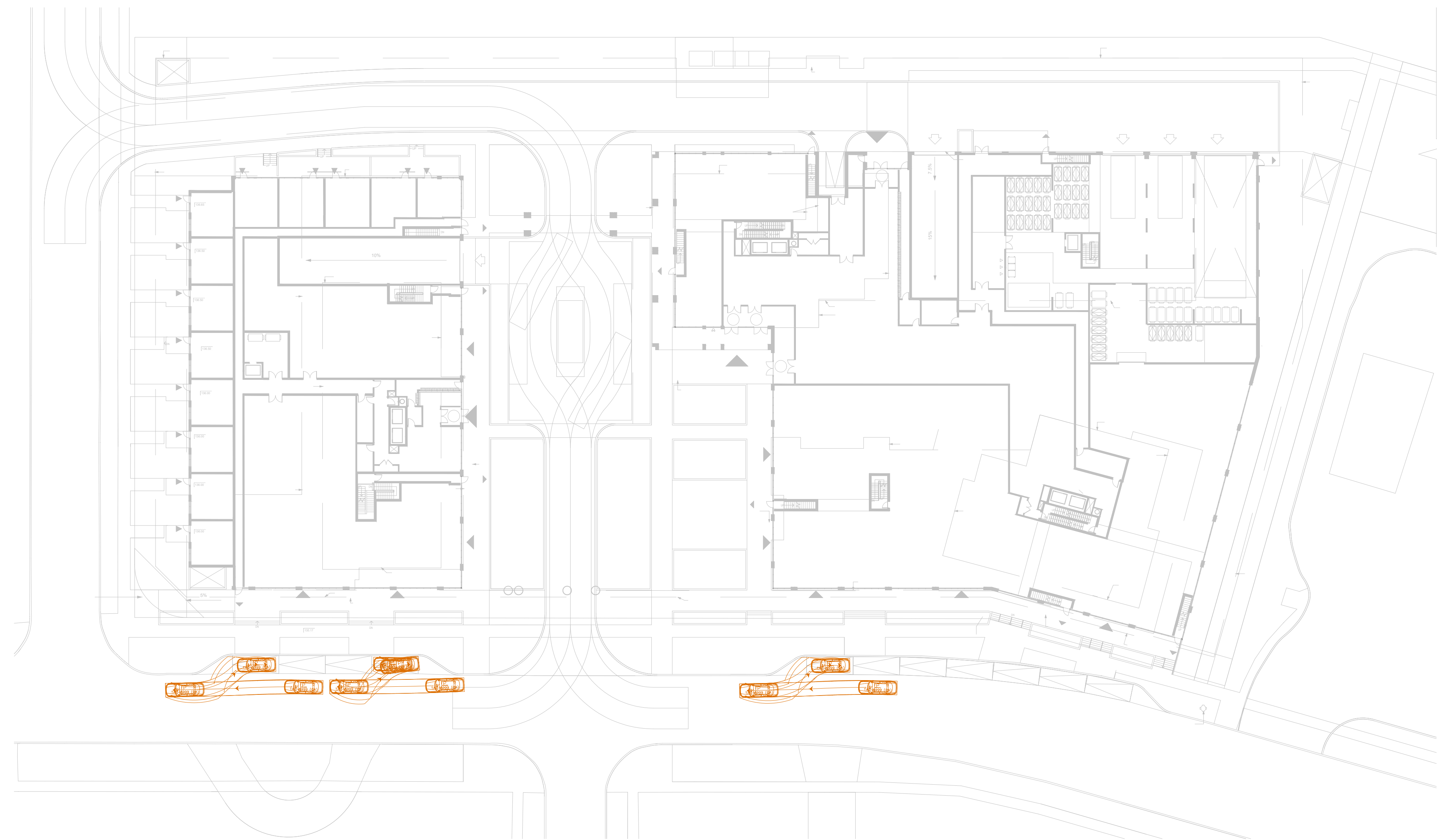
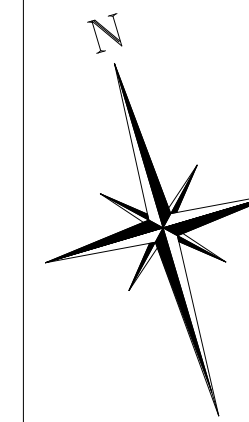
VEHICLE MANEUVERING DIAGRAM  
PASSENGER VEHICLE-RAMP AND PUDO

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			Drawing	FIG 22





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3403-3445 FIELDGATE DRIVE  
CITY OF MISSISSAUGA

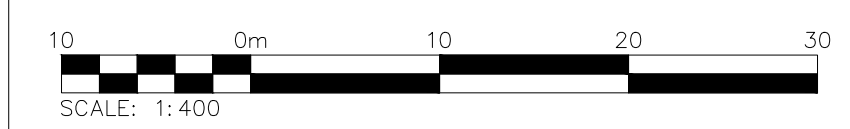
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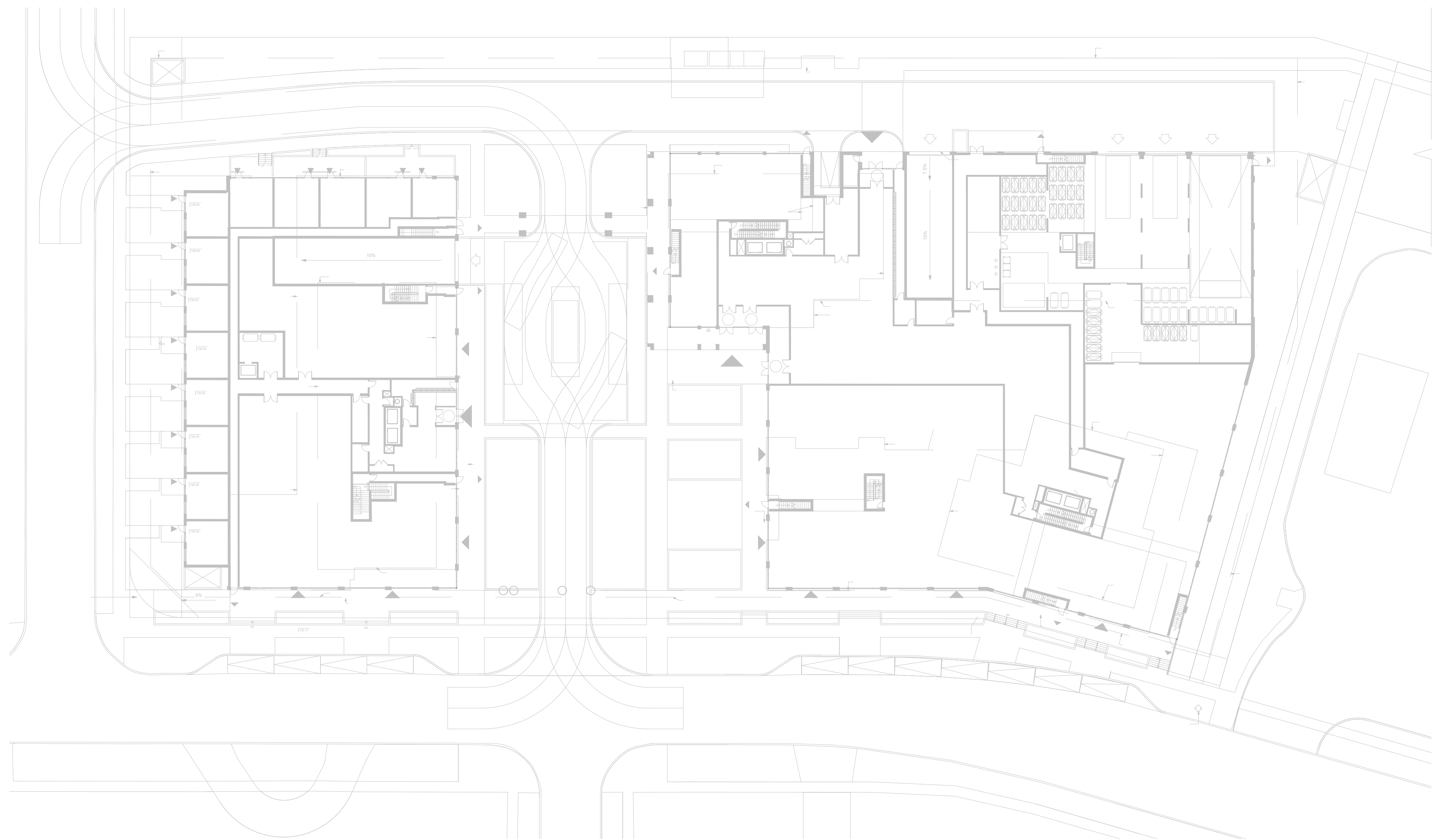
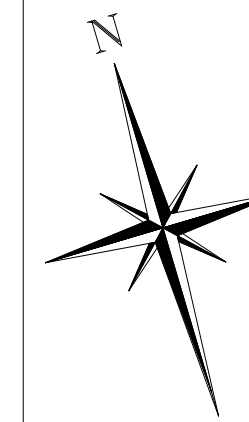
VEHICLE MANEUVERING DIAGRAM  
PASSENGER VEHICLE-LAY BY PARKING

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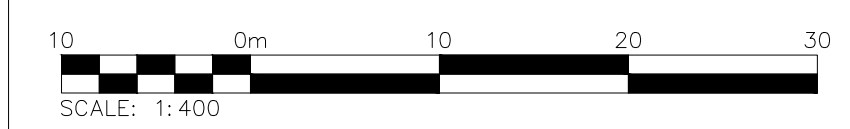
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Drawing  
PEDESTRAIN CIRCULATION PLAN

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## 8.0 Parking and Loading Review

The following section reviews the adequacy of the parking supply of the proposed development. The parking review includes an assessment of the proposed parking supply of the development against the requirements outlined in the City of Mississauga's Zoning By-Law No. 0225-2007.

**Appendix P** contains relevant Zoning By-Law No. 0225-2007 excerpts.

### 8.1 Vehicle Parking Assessment

Section 3.1.2 of the City of Mississauga Zoning By-Law was used to calculate the minimum number of vehicle parking spaces required for the proposed development including the parking required for dwelling units and commercial area. The minimum parking space rates outlined in Table 3.2.1.1 for Precinct 4 were applied to the residential dwelling units and rates outlined in Table 3.2.1.2 for Precinct 4 were applied to non-residential uses per the development statistics outline in Section 1.2.

**Table 23** outlines the calculated vehicle parking requirements and compares them with the proposed supply.

**Table 23: Zoning By-Law No. 0225-2007 Vehicle Parking Requirement Assessment**

Building (By-Law Land Use)	Units / GFA	Minimum Parking Space Rate	Required Minimum Spaces	Proposed Spaces
			Resident	Total
Condominium Apartment	579	1.1 resident spaces per dwelling	637	454 (Resident) + 143 (Shared commercial/visitor)
		0.2 visitor spaces per dwelling	116	
Condominium Townhouses	13	2.0 resident spaces per dwelling	26	
		0.25 visitor spaces per dwelling	3	
Retail Store	2,869.93 m <sup>2</sup>	5.0 spaces/ 100m <sup>2</sup> GFA	143	
<b>Total Resident Parking Spaces</b>			<b>663</b>	
<b>Total Shared Commercial/Visitor Parking Spaces</b>			<b>143<sup>1</sup></b>	<b>143</b>
<b>Total Required Parking Spaces</b>			<b>806</b>	<b>597</b>
<b>Surplus/Deficit</b>			<b>-</b>	<b>-209</b>

Note 1: The visitor parking and non-residential parking are provided on the basis of a shared arrangement for residential visitor and non-residential parking component in section 3.1.2.1.3 under City of Mississauga Zoning By-Law. The governing parking requirement is the larger of the two shared uses individually.

The development proposes a total of 597 parking spaces, resulting in a parking deficit of 209 resident parking spaces when compared with the parking requirements outlined in the Zoning By-Law. The shared commercial/visitor supply meets the minimum requirement of 143 spaces. A review of the adequacy of the proposed reduced parking supply is presented in subsequent sections.

## 8.2 Resident Parking Justification

The proposed supply of 454 residential parking spaces is deficient of 209 parking spaces compared to the associated By-Law requirement. Therefore, a resident parking supply justification has been prepared to support a rate of 0.77 residential spaces per unit within the proposed development.

### 8.2.1 ITE Parking Demand Benchmark

The latest Institute of Transportation Engineers (ITE) Parking Generation Manual 6<sup>th</sup> Edition was used to benchmark the parking demand at the subject site as it based on parking data from across North America. The Land Use Code 222 “Multifamily Housing – 2 + BR (High-Rise)” for sites not located close to rail transit was used to estimate the site’s peak parking generation, as tabulated in **Table 24**.

The Multifamily Housing – 1BR (High-Rise) was not used to determine the demand due to the lack of studies available and given that this provides a conservative estimate of parking demand at the site.

**Table 24: ITE Parking Demand**

Land Use Code	Location	Number of Units/ GFA	Parking Requirements	Parking Required	Parking Provided
Multifamily housing (High-Rise) (LUC 222)	Not close to rail transit	592 Dwelling Units	1.02 spaces per unit	604 spaces	597 Spaces

As can be seen in **Table 22** above, the proposed parking supply is expected to be close to the parking demand at the site, especially when considering that the ITE parking rates include both resident and visitor demand.

The supply remains close to the ITE Parking Demand suggesting that anticipated parking demand for high-rise buildings will be sufficient.

### 8.2.2 Observed Resident Parking Demand

The observed parking demand at sites within the City of Mississauga were reviewed and compared to evaluate the parking supply.

#### 1785 Bloor Street

It is noted that a 24-hour survey was conducted on Thursday, 25<sup>th</sup> November 2021 by Trans-Plan at 1785 Bloor Street which is located just east of subject site. The site is approximately 3.1 km from Dixie GO Station and located just east (~400m) of subject site consists of approximately 76 rental units.

The peak residential parking demand observed at this site was 0.77 spaces/unit and the subject site has similar transportation context with access to major highways and higher-order transit.

3480 Havenwood Dr & 1485 Williamsport Dr

It is noted that a parking rate of 0.56 spaces/unit was observed from the rental information obtained by LEA Consulting Ltd. in 2018 for the existing buildings consisting of a total of 132 rental units. The site is approximately 2.4 km from Dixie GO Station and located west (~750m) of subject site.

4095 Tomken Road

It is noted that parking surveys were undertaken for the existing apartment rental building and the Westminster Church. The surveys were conducted across a 4-month period for eight days from Tuesday March 22<sup>nd</sup>, 2024 to Tuesday July 7<sup>th</sup>, 2024.

The site is approximately 4.2 km to Dixie GO Station and the peak residential parking demand observed at this site was 0.63 spaces/unit. It is noted that this site is farther from a GO Station when compared to the subject site.

4011 Brickstone Mews & 510 Curran Place

It is noted that an overnight parking survey was conducted by BA Group at 4011 Brickstone Mews and 510 Curran Place in February of 2020. The site is approximately 2.9 km from Cooksville GO Station and 1.6 km from Hurontario LRT stop and consists of approximately 1,000 units with ground floor retail uses.

The peak residential parking demand observed at this site was 0.78 spaces/unit and the subject site has a similar mixed-use context, as well as transportation context with access to major highways and higher-order transit.

Conclusion

The observed parking rates and the rate provided at the subject site are summarized below:

Location	Parking Demand (spaces/unit)
3403-3445 Fieldgate Drive (Subject Site)	0.77 (proposed)
1785 Bloor Street (east of subject site)	0.77
3480 Havenwood Dr & 1485 Williamsport Dr (west of subject site)	0.56
4095 Tomken Road	0.63
4011 Brickstone Mews & 510 Curran Place	0.78

As a result of the above, the parking supply at the proposed site, with a rate of 0.77 spaces/unit, is expected to be sufficient based on the maximum observed parking demand at the comparable sites reviewed herein.

### **8.2.3 Regional and Local Policy Directives**

Mississauga's transportation policy and planning are evolving to address the city's changing transportation needs. Current policies and initiatives now prioritize the mobility and experience of people over the efficiency of car movement.

#### Transit Initiatives

Public transit is being transformed into an interconnected network. Efforts in planning and funding are being undertaken on both local and regional scales to achieve this. It is noted that residents using Dixie GO Station do not have to pay to transfer to a local MiWay transit route.

#### Designing streets and public realm for people

The focus of transportation planning has shifted from prioritizing car movement to enhancing the enjoyment, safety, and efficiency of the pedestrian realm in Mississauga. The subject site contributes to this by offering a spacious and pedestrian-friendly area in front of the commercial stores.

#### Expanding active transportation infrastructure

The City is expanding cycling infrastructure, exemplified by the Bloor Street redesign project, which includes separate cycling tracks and sidewalks on both sides of the street, which will support cycling trips for future residents of the proposed site.

#### Reduced parking in transit-accessible areas.

Support for public transit and active transportation facilities has increased, leading to a decreased demand for excessive parking. Provincial and local plans now aim to establish appropriate parking standards in response to advancements in transit-focused areas and the growing number of rezoning and minor variance applications for new developments.

### **8.2.4 Applewood Area Context**

The site is located in the Applewood area, which features a diverse mix of land uses along Bloor Street and Dixie Road, including low to high-rise residential buildings, restaurants, pharmacies, a medical clinic, supermarkets, religious facilities, schools, and various employment and commercial establishments. The range of amenities (~ 20-minute walking distance) allows residents to access essential and non-essential services without needing a vehicle, making it convenient to walk, cycle, or use public transit for errands.

As the area continues to develop, the availability of amenities is expected to increase, further encouraging local trips via non-auto modes of transportation.

Additionally, the site plans to incorporate retail spaces, providing residents with more shopping options without needing to visit other amenities on Bloor Street and Dixie Road. The combination of existing and future amenities suggests that the site is well-supported and additional parking for residents may not be necessary.



### 8.2.5 Conclusion

Based on the review, the justification presented supports a parking rate of 0.77 residential spaces per unit within the proposed development, which aligns with the latest Institute of Transportation Engineers (ITE) Parking Generation Manual 6th Edition for similar multifamily housing not close to rail transit.

Observations from nearby locations such as 1785 Bloor Street and 3480 Havenwood Dr & 1485 Williamsport Dr, which share similar transportation contexts also show parking demand rates of 0.77 and 0.56 spaces per unit, respectively. This suggests the proposed parking supply should adequately serve residents at the subject site.

Furthermore, Mississauga's evolving transportation policies prioritize enhanced transit connectivity and pedestrian-friendly environments over excessive car dependence. This shift is expected to reduce overall parking demand in the area. The Applewood area's range of amenities within walking distance encourages alternative transportation modes, which supports the feasibility of the proposed parking supply.

### 8.3 Accessible Parking Assessment

Section 3.1.3 of the City of Mississauga Zoning By-Law was used to calculate the minimum number of accessible (barrier free) parking spaces required for the proposed development.

It is understood that the accessible parking spaces for residential uses only apply to the total number of visitor parking spaces required.

Furthermore, per the section 3.1.3.1.3 when a shared parking arrangement is used for the calculation of required visitor/ non-residential parking, the required accessible parking space requirement will be calculated on either the visitor component or non-residential component.

The parking supply is provided based on Table 3.1.3.1 of the Zoning By-Law.

**Table 25** outlines the results of the barrier free parking space requirement evaluation.

**Table 25: Zoning By-Law No. 2014-014 Barrier-Free Parking Requirement Assessment**

Building (By-Law Land Use)	Required Parking Spaces	Required Minimum Barrier Free Parking Spaces	Provided Accessible Parking Spaces
Residential Use	-	-	8
Visitor Parking	119	1.0 space + 3% of the total = 6 spaces	6
Non-Residential Uses	143		
Proposed Barrier Free Parking Spaces		6	14 (+8)

The requirement for non-residential accessible parking spaces takes precedence over visitor parking, necessitating a total of 6 designated accessible parking spaces. The proposed accessible parking supply for the development meets and exceeds the requirements of the City of Mississauga Zoning By-Law.

It should also be noted that no accessible parking spaces are required for the residential use. However, a total of 8 accessible parking spaces are provided for residents.

#### 8.4 Bicycle Parking Assessment

Bicycle parking requirements for City of Mississauga's Zoning By-Law No. 0225-2007 are identified in Section 3.6.5.1 for residential and non-residential uses.

**Table 26** outlines the bicycle parking requirement assessment.

**Table 26: Zoning By-Law No.1-2021 Bicycle Parking Requirement Assessment**

Building (By-Law Land Use)	Units / GFA	Type	Minimum Parking Space Rate	Required	Proposed
				Resident	Total
Condominium Apartment + Townhouses	592	Class A	0.6 spaces per unit	356	356
		Class B	The greater of 0.05 or 6.0 spaces per unit	30	32
Retail Store	2,869.93 m <sup>2</sup>	Class A	0.15 spaces/ 100m <sup>2</sup> GFA	5	5
		Class B	0.2 spaces/ 100m <sup>2</sup> GFA	6	8
<b>Total Required Parking Spaces</b>		<b>Class A</b>		<b>361</b>	<b>361</b>
		<b>Class B</b>		<b>36</b>	<b>40</b>
<b>Surplus/Deficit</b>				<b>+4</b>	

The site proposes a total of 356 long-term and 32 short-term for residents and 5 long-term and 8 short-term for commercial area. The bicycle parking meets the minimum requirement per the City of Mississauga Zoning By-Law and is in surplus of 4 short-term spaces.

## 8.5 Loading Spaces Assessment

The City of Mississauga's minimum loading requirements were reviewed to determine the adequacy of the proposed loading supply. **Table 27** below outlines the City of Mississauga Zoning By-Law 0225-2007 minimum loading requirements.

**Table 27: Loading Spaces Assessment**

Land Use	Units/GFA	Statistic Range	Loading Required
Residential	592 units	-	1 loading space (3.5m*9.0m)
Retail	2,869.93 m <sup>2</sup>	2350 - 7500 square metres	2.0 spaces
<b>Total Loading Required</b>			<b>3 spaces</b>
<b>Loading Supply</b>			<b>3 spaces</b>

According to Section 3.1.4.3 of the City of Mississauga Zoning By-Law, an apartment complex with 30 or more dwelling units must provide one loading space. The proposed site, which includes two towers, provides one loading space to comply with this regulation. Waste will be collected in a common area on underground parking level 1, and bins will be maneuvered to the loading area at the time of collection.

Additionally, the commercial area requires two loading spaces, and the proposed development meets this requirement.

## 8.6 Lay-by Parking and Pick-Up/Drop-Off

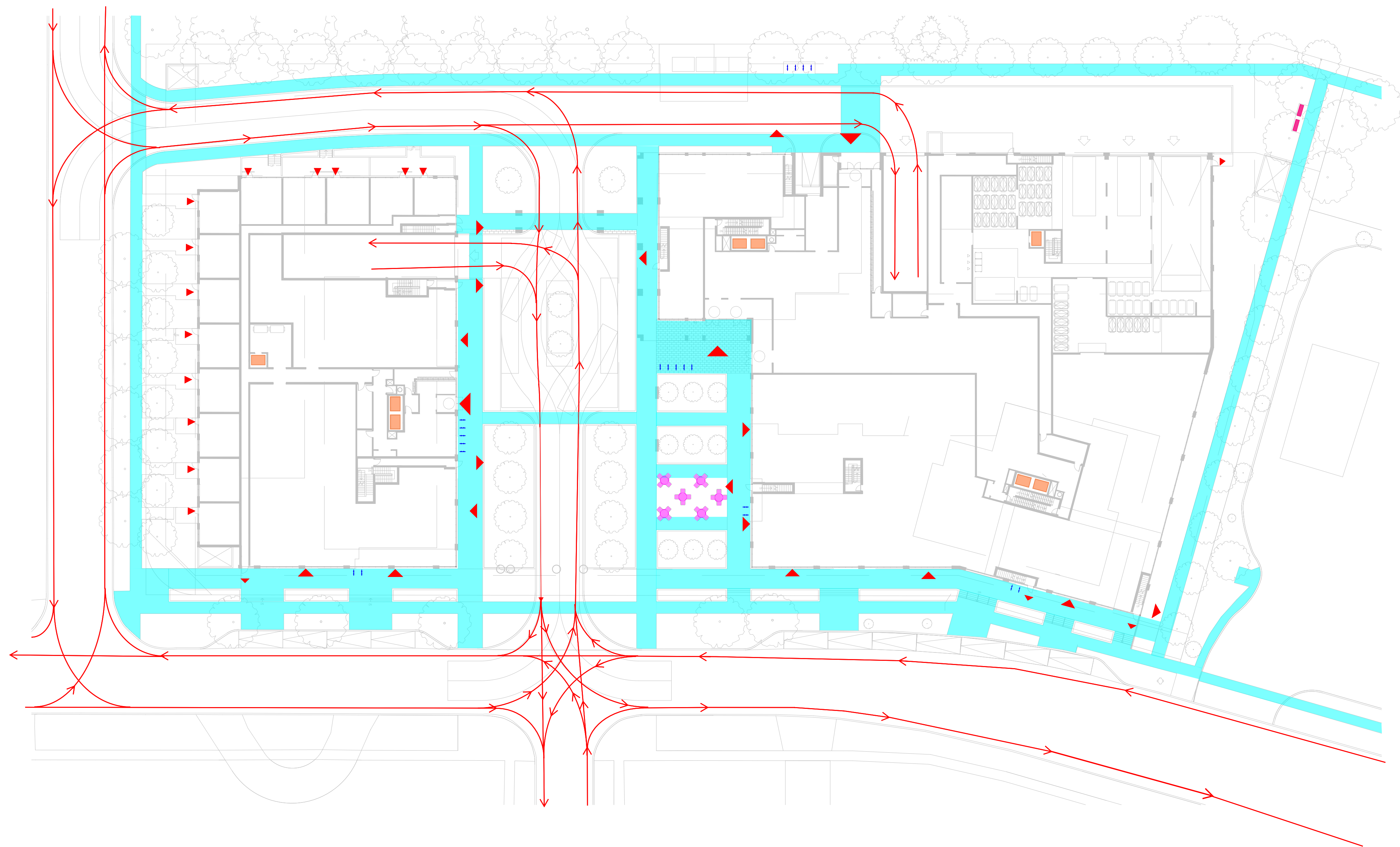
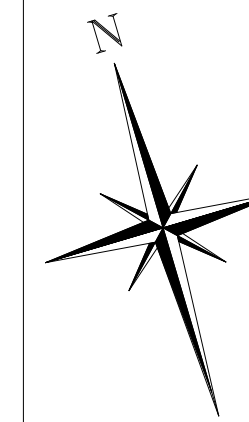
The proposed site includes 11 lay-by parking spaces on Fieldgate Drive in front of the development. Although these lay-by spaces are not included in the parking requirement evaluation, they are intended for short-term use by visitors and commercial activities.







Furthermore, pick-up/drop-off area is also proposed in front of both the towers along the driveway to facilitate any pick-up and drop off activities. These areas are designed to provide convenience for residents and visitors, ensuring efficient and safe pick-up and drop-off.

## 9.0 Pedestrian and Cycling Circulation Plan


A Pedestrian and Cycling Circulation Plan has been prepared, showing both the circulation within the site and its connectivity to existing pedestrian and cycling infrastructure.

**Figure 24** outlines the Pedestrian and Cycling Circulation Plan.




LEGEND	
	PEDESTRIAN CIRCULATION PLAN
	CYCLIST CIRCULATION PLAN
	BICYCLE PARKING
	ELEVATOR
	BENCH
	ENTRANCE/EXIT

No.	ISSUE	DATE: MM/DD/YYYY
0	ISSUED TO SUBMISSION	08/12/2024



Project  
 3403-3445 FIELDGATE DRIVE  
 CITY OF MISSISSAUGA

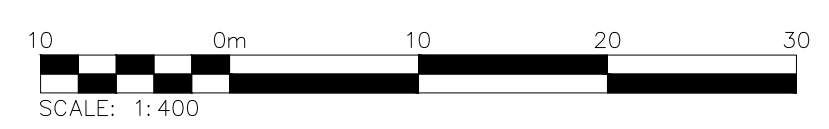
Drawing  
 PEDESTRIAN & CYCLING  
 CIRCULATION PLAN



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Drawn By	B.L.	Design By	Project	2655-7073
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## 10.0 Transportation Demand Management (TDM)

Transportation Demand Management (TDM) measures are recommended to promote alternative modes of transportation, such as transit, cycling or walking, and reduce single-occupant vehicle (SOV) trips entering and exiting the proposed development.

### 10.1 Existing TDM Opportunities

#### 10.1.1 Modal Split

Transportation Tomorrow Survey (TTS) data was analyzed to determine the modal split at the subject development, located in 2006 GTA Zones 3609, 3670, 3674 and 3675. **Table 28** summarizes the modal split at the site, resulting from the TTS query analysis. The detailed TTS query is provided in **Appendix J**.

**Table 28: Modal Split**

Mode of Travel	Modal Split
Auto	84%
Transit	8%
Cycling	0%
Walking	8%

*Note: other modes of transportation such as motorcycles and taxi passengers only represent less than 1% of the modal split and were not included in the results.*

Per the results summarized above, while vehicles are the dominant form of travel mode in the area, there is a sizeable portion of the community using transit to reach their destinations, with some walking.

With the upcoming redevelopment of Bloor Street to include separate bicycle lanes on both sides, creating a more bicycle-friendly environment, it is anticipated that cycling trips will see an overall increase.

#### 10.1.2 Pedestrian Connectivity

Existing sidewalk infrastructure is present along all roadways within the study area, including Williamsport Drive, Havenwood Drive and Bloor.

Bloor Street, which is located approximately 15-20 meters south of the main entrance to the existing building. However, there is currently no direct walkway providing access from the building to the sidewalk.

As previously indicated in Section 5.3, the Bloor Street Integrated Road Project proposes to widen the roadway. However, the plans provided by the City ensure that the sidewalk network and boulevard will be maintained.

The site plan (refer to Figure 2) further illustrates the proposed installation of concrete sidewalks within the site, which will connect the main entrances of both buildings to the sidewalk network along Bloor Street.

The study area provides ample opportunities for pedestrians to make trips, as sidewalks are available on both sides of the road on the surrounding roadways. Additionally, the sidewalks, separated by

wide landscaped strips as per the Bloor Street redesign, will further encourage walking by creating a pedestrian-friendly environment.

Cyclists will have connectivity along the Bloor Street once the separate cycle tracks develop as part of Bloor Street redesign that will connect to MUP provided on west of Dixie Road.

### **10.1.3 Transit**

As outlined previously in Section 2.2, there is one primary route providing connection to Square One in Mississauga and Kipling Station in Toronto which also provide connectivity to Route 5 running north-south on Dixie Road connecting to Dixie GO Station. As indicated by the TTS results, approximately 8% of peak hour trips use transit in the study area.

The bus service operates with approximately 15-minute headways during morning and afternoon peak hours, and about 30-minute headways during the PM peak hour after 7:00 PM on weekdays. On weekends, the service runs with intervals of approximately 20 to 30 minutes. Additionally, the development is approximately 1.5km from Dixie GO station, accessible by cycling.

## **10.2 TDM Opportunities and Recommendations**

This section discusses the Transportation Demand Management opportunities and recommendations to enhance the non-single occupant auto vehicle trips for the future residents of the subject development. A variety of TDM measures and strategies have been detailed below.

### **10.2.1 Pedestrian Facilities**

The proposed site plan prioritizes safe, comfortable pedestrian connections to enhance mobility between the site and surrounding roadways. This includes establishing pedestrian pathways on both sides of the driveway within the site and along its frontage. The wider space allocated near the commercial area aims to create a pedestrian-friendly environment.

The proposed sidewalk will integrate with existing sidewalks, providing direct access to bus stops on Bloor Street and ensuring continuous pedestrian connectivity.

Furthermore, pedestrian-friendly design elements such as adequate lighting, benches, and landscaping are planned to enhance safety and aesthetics. The ground floor is recommended to offer weather protection, along with additional beautification through landscaping, greenery, and amenities.

### **10.2.2 Cycling Facilities**

The proposed site includes bicycle parking amenities to promote and support active transportation, aligning with planned improvements to the cycling network along Bloor Street.

Short-term bicycle parking facilities are recommended to be situated at ground level, prominently visible and easily accessible near building entrances and outdoor amenity areas. Long-term parking areas should be secure and sheltered from the weather.

The proposed bicycle parking exceeds current mandated provisions, encouraging bicycle ownership as a practical alternative to vehicle ownership. This strategy promotes cycling for daily commuting and facilitates convenient access to destinations like the Dixie GO station, supporting first and last-mile journeys.

The proposed site offers bicycle parking amenities, aiming to promote and facilitate active transportation. This initiative aligns with the planned improvements to the cycling network along Bloor Street.

### **10.2.3 Active Transportation**

The Bloor Street redesign aims to provide dedicated bicycle lanes along Bloor Street. This improvement would further encourage people to choose cycling as a mode of commuting.

### **10.2.4 Transit Facilities**

Transit use is encouraged through adequate pedestrian connectivity from the site to the existing sidewalk on Fieldgate Drive, offering convenient access to nearby local transit stops within a short walk.

As the area undergoes redevelopment with high-density developments, MiWay Transit may consider monitoring headway times during weekday P.M. peak hours and weekends to enhance transit service.

### **10.2.5 Wayfinding**

Signage or digital displays can be integrated at front entrances or central areas like lobbies to offer residents and visitors transit information, including schedules of nearby routes.

Wayfinding signage should be installed to guide residents and visitors to bike share locations, transit stops, stations, and trails in the vicinity. Additional wayfinding signage directing residents to nearby bus stops can also be implemented to encourage the use of local transit options.

### **10.2.6 Unbundled Resident Parking**

The develop is recommended to provide unbundled resident parking to separate the cost of parking from the cost of each residential unit for all new residents in site. This is expected to make visible the hidden cost of driving and encourage residents to make more effective use of active transportation and available transit facilities.

### **10.2.7 Parking Reduction**

Restricting parking availability will incentivize residents to consider alternative transportation modes other than driving. This approach aims to reduce the number of vehicles on the road, lessen auto-dependency, and discourage excessive vehicle ownership and usage.

Given the Bloor Street redesign, which will reduce one through lane in each direction, potential congestion along the roadway is anticipated. Residents are expected to seek out alternative commuting options as a result.

### **10.2.8 Subsidized Transit Passes**

As an incentive to encourage residents to use the MiWay transit service, the Owner will consider providing and distributing (one time) prepaid and fee-waived complimentary PRESTO cards. This subsidized transit card will provide a financial incentive to encourage public transit, especially for 'first-time' users to try local transit services as a primary mode of transportation. Each PRESTO card is to be pre-loaded with \$50. The PRESTO cards' total cost is estimated to be (\$50 PRESTO card x

592 units) \$29,600 to be borne by the Owner. Note that the amount and provision of PRESTO cards are subject to the Owner's discretion.

Ontario's One Fare Program aims to simplify transit fares by allowing riders to pay once when connecting between TTC, GO Transit, Brampton Transit, Durham Region Transit, MiWay, and York Region Transit. This program enhances the integration of transit services, reduces barriers, and enables cost-savings, making transfers between transit agencies more convenient for customers.



### **10.2.9 Education and Incentives**

It is advisable for the Owner to create an information package aimed at informing new and prospective residents about alternative transportation options. Consultation with the City is recommended to include the following materials promoting active transportation:

- Peel Region Transit Map
- City of Mississauga Trails Map
- Peel Region Cycling Map
- Peel Region Bike-to-Work Practical Guide

Additionally, the information package will feature transit schedules (e.g., MiWay Transit, Go Transit) to aid residents in planning their commutes to/from work or school using the expanding transit network. A location map will also be included, highlighting nearby facilities and points of interest (e.g., retail stores, grocery stores, schools, community centers, and libraries) within convenient walking distance, aiming to reduce dependence on vehicles.

The approximate cost to compile this information into the package is estimated at \$8,880 (\$15/unit), to be covered by the Owner. Availability of the above materials is subject to discretion and availability.

### **10.2.10 TDM Monitoring**

Monitoring a TDM program can be accomplished by conducting a biennial commuter survey to determine the TDM measures (individually or as a combination). It is recommended that the first survey be conducted at substantial occupancy (80%) and after that every two years.

A commuter survey typically gathers quantitative data (i.e., percentage use of the various modes of transportation) and qualitative data (i.e., respondents' perception of the alternative transportation programs). This survey will produce and collect essential information to understand the effectiveness of the proposed TDM strategies, which will provide valuable indications (if any) in determining adjustments to the TDM initiatives to be required to achieve or exceed the targeted outcomes. Moreover, the collected data can also focus on the marketing initiatives and efforts of the City.

The questionnaire should be concise, containing up to five questions to maximize response rates and accuracy. Key information to gather includes:

- Trip Rate - to obtain information on how many people travel during the morning, afternoon and weekend peak hours.
- Modal Split - what is the primary transportation modes when travelling during peak hours.
- Trip Purpose - this is to test whether most trips are the journey-to-work trip or other trips, as the TDM strategies should be altered accordingly between work trips and non-work trips.
- Traveler's preference - to understand, aside from driving alone, which TDM measures have the most significant potential to reduce vehicle dependency further.

- Comments - to allow respondents to express any comments that can assist in improving the proposed/implemented TDM strategies.

A survey's statistical reliability depends on the response rate, which is the number of correctly completed surveys compared to the total number of distributed surveys. Therefore, it is essential to maximize the survey response rate. Some of the methods that can be used to maximize the response rate are listed as follows:

- Place a notice on a bulletin board and other high pedestrian locations and attach a cover memorandum to the questionnaire describing the purpose of the survey and requesting cooperation.
- Inform recipients of the duration it takes to respond to the questionnaire and note that their responses are strictly confidential.
- Offer prizes to respondents, and it is preferably based on a drawing to ensure un-biases.
- Offer a contact person and phone number to respond to any questions that survey recipients may have.
- Facilitate access to the survey questionnaire by posting it on a webpage. As an alternative, deliver the questionnaire and pick-up responses of the different tenants.
- Providing the survey in different languages to assist in non-English speaking residents to understand the survey.
- Send one or more reminders (e-mail and flyers) requesting to complete the survey by the due date.

As noted previously, allowing the completion of the survey on-line can help reduce the time and effort spent on circulating and administrating the survey.

It is recommended to conduct a baseline survey to residents before starting the TDM program. This can assist in evaluating the program's effectiveness (before and after comparative analysis). Besides, comparing the biennial survey results to previous years can evaluate the program's progress and potential modifications. It is possible to add survey questions to assess the new improvements. Furthermore, MiWay can be consulted for ridership statistics. The estimated cost to conduct the survey is \$5,000.

#### **10.2.11 Estimated TDM Cost**

The estimated cost to implement the TDM program components are outlined in **Table 27**. The estimated cost to administer the TDM plan would be \$43,480.

**Table 29: Travel Demand Management Plan Costs**

<b>TDM Measure</b>	<b>Unit Price</b>	<b>Quantity / Number of</b>	<b>Product Cost</b>
PRESTO Cards	\$50	592	\$29,600
TDM Information Package	\$15	592	\$8,880
Travel Survey	\$5,000	1	\$5,000
<b>Total Cost</b>			<b>\$43,480</b>

## 11.0 Community Impacts

It is noted that an in-person Community Meeting for the proposed development took place on the evening of November 26<sup>th</sup> 2024 at 6:30 p.m. located at Burnhamthorpe Community Centre. At the meeting, the project was presented to the public and after the presentation questions and concerns were heard from members of the public.

The following items are summarized below that were heard from the public related to transportation:

- Existing pick-up and drop-off activity at the nearby Glenforest Secondary School may be causing illegal parking activity that blocks residents driveways during peak periods for the school. It is noted that this issue is not associated with the proposed development and would be expected to generally occur outside the peak hours of traffic for the development. Furthermore, residents of this development will have the option to walk/cycle to the school given its proximity. The City should consider stronger enforcement within the school zones and a dedicated traffic controller to assist with pick-up and drop-off activity. The school should pursue transportation demand management initiatives to incentivize and encourage this activity to occur by other modes of travel than private vehicles.
- Additionally, the community cited the need for increased transit in the area, particularly along Bloor Street, to meet the needs of existing users, as well as the significant amount of growth expected in the area. City staff and Mi-Way are encouraged to consider increased service frequency to decrease headways and increase transit capacity so that transit use is It is noted that the traffic generated by the development is not anticipated to have a significant impact on the local road network. The net trip generation is expected to be minimal, especially considering the reduction in trips resulting from the demolition of Fieldgate Plaza. It is projected that unsignalized intersections at Williamsport Drive, Haven Glenn, and Ponytrail Drive will experience only a minor increases in delay during peak hours.

Any further community concerns or comments related to transportation will be incorporated into subsequent applications.

## 12.0 Conclusions and Recommendations

This study has assessed the transportation impacts of the proposed development at 3403-3445 Fieldgate Drive in the City of Mississauga, Region of Peel. The existing conditions, the future conditions, and the potential net impacts of the development proposal on the study road network have been evaluated. In addition, the study has assessed the development proposal for its ability to facilitate access, maneuverability and parking of the expected vehicle servicing within the site.

A number of conclusions have been identified as a result of the study process. Furthermore, given these conclusions, several transportation planning recommendations have been produced for consideration. These include recommendations related to the overall scope considered within this study, in addition to the recommendations specific to supporting the development proposal from a transportation operations and safety perspective.

### 12.1 Conclusions

The analysis contained within this study has resulted in the following key findings:

- Under the 2024 existing conditions scenario:
  - The overall boundary road network operates at a Level of Service (LOS) "E" or better, with the exception of a few approaches at signalized intersections.
  - The westbound left-turn movement at the intersection of Dixie Road & Bloor Street operates at capacity during the weekday A.M. and P.M. peak hours and exceeds capacity during the Saturday peak hour. The minimum control delay observed is 101.2 seconds during the weekday A.M. peak hour. A Level of Service (LOS) of "F" is observed for all the peak hours.
  - A LOS "F" is observed for some approaches at the intersections along Burnhamthorpe Road, mostly in exclusive left-turn lanes. However, the movements operate under capacity.
  - The 95<sup>th</sup> percentile queue lengths for various movements exceed available storage during peak hours, but generally remain within the current taper lengths. The 95<sup>th</sup> percentile queue length for westbound left-turn at the intersection of Dixie Road and Bloor Street exceeds the storage by a maximum of 105 metres in the Saturday peak hour. The 95<sup>th</sup> percentile queue length for westbound right-turn at the intersection of Burnhamthorpe Road and Ponytrail Drive exceeds the available storage by a maximum of 140 metres in the weekday P.M. peak hour.
- Under 2029 future background conditions, which includes improvements associated with the Bloor Street preliminary design as well as the removal of existing Fieldgate Plaza trips per the Terms of Reference:
  - The intersections are anticipated to perform similarly to their current state, with further deterioration in operations generally due to the reduction of one through lane in each direction along Bloor Street.
  - At the intersection of Dixie Road and Bloor Street, the westbound left-turn movement is anticipated to experience increased control delay and capacity issues during all peak hours, exacerbated by projected future background traffic volumes. Similarly,

the southbound left-turn movement is forecasted to operate overcapacity, with an observed increase in the v/c ratio from 0.99 to 1.23. The 95<sup>th</sup> percentile queue length for westbound left-turn is expected to grow by 10 to 20 meters and exceed the available storage in all the peak hours. The 95<sup>th</sup> percentile queue length for southbound left-turn is expected to grow by 10 metres and exceed the available storage in Saturday peak hour only.

- The eastbound left-turn movement at the intersection of Bloor Street and Havenwood Drive is expected to degrade to LOS "F" from LOS "A" with a v/c ratio of 1.12 during the weekday P.M. peak hour, attributed to the current signal timings not able to accommodate westbound through volumes and addition of background development traffic volumes.
- Maximum 95<sup>th</sup> percentile queue lengths of 50 meters for southbound left-turns at Bloor Street and Fieldgate Drive during the weekday P.M. peak hour, and 75 meters for northbound left-turns at Burnhamthorpe Road and Fieldgate Drive during the weekday A.M. peak hour, exceed available storage capacity.
- The 95<sup>th</sup> percentile queue lengths for eastbound left-turns, westbound right-turns, northbound left-turns, and southbound left-turns are expected to exceed available storage, with particular concern for westbound left-turn queues potentially exceeding available taper capacity.
- The proposed mixed-use development is expected to generate a total of 218 trips (77 inbound and 141 outbound) in the weekday A.M. peak hour, 270 trips (154 inbound and 116 outbound) in the weekday P.M. peak hour and 288 trips (159 inbound and 129 outbound) in the Saturday peak hour.
- Under the ultimate horizon 2029 future total conditions:
  - Traffic operations are projected to maintain similar conditions compared to the associated future background scenario, although certain approaches are anticipated to deteriorate further compared to their corresponding 2029 future background conditions:
    - At the Dixie Road & Bloor Street intersection, the westbound left-turn movement is expected to deteriorate further with a minimum v/c ratio of 1.20 and a minimum control delay of 160.3 seconds. The southbound left-turn movement is also anticipated to worsen, with control delay increasing to 238.8 seconds and v/c ratio to 1.35. The 95<sup>th</sup> percentile queue for westbound left-turns is forecasted to increase by 20 meters during weekday A.M. and P.M. peak hours, and by 30 meters during the Saturday peak hour.
    - At the Bloor Street and Fieldgate Drive intersection, the eastbound left-turn movement is expected to deteriorate further with a v/c ratio of 1.53 and an increase in control delay to 310.9 seconds during the weekday P.M. peak hour. The westbound shared through/right lane is forecasted to have a v/c ratio of 0.93 during the weekday P.M. peak hour. The 95<sup>th</sup> percentile queue length for eastbound left-turns is expected to exceed storage capacity by only 5 meters, which can be accommodated within the available taper.
    - The 95<sup>th</sup> percentile queues at intersections along Burnhamthorpe Road are expected to align similarly with the future background scenario, with a minor

increase in some queues by 5 meters. Monitoring of the westbound right-turn queue at these intersections is recommended for future planning.

- The unsignalized intersections, including site accesses at Fieldgate Drive and Ponytrail Drive, are anticipated to operate at LOS "C" or better, with no movements exceeding capacity or experiencing critical delays.
- Analysis of site access safety components associated with the proposed development indicate the following:
  - Sufficient sightlines are available at site accesses for vehicles turning left or right onto the roadways. Drivers are expected to use two-stage sight lines when approaching the access at Fieldgate Drivers, as the bend in the roadway and lay-by parking may obstruct direct sight lines for vehicles turning right. However, the crosswalk is located approximately 5.6 meters from the edge of the traveled roadway, allowing vehicles to proceed close to the edge before making their turn onto the major roadway.
  - The proposed sight accesses have sufficient corner clearance and meet the TAC GDGCR minimum requirements.
  - The driveway alignment with the existing Williamsport Drive does not possess a problem as the offset is only 0.71 meters which is within the TAC GDGCR maximum requirement of 1.5 meters.
  - Sufficient throat length is proposed at both the site accesses to accommodate any queues in the peak hours.
- There are no expected vehicle maneuverability constraints within the subject site for fire trucks, waste collection vehicles, loading vehicles or passenger vehicles.
- The proposed parking supply of 454 parking spaces for residents is in deficit by 209 spaces with respect to the City's Zoning By-Law requirements and the shared commercial/visitor parking supply of 143 spaces meet the minimum requirement.
- The proposed accessible parking supply meets the City's Zoning By-Law requirement of 6 spaces for shared commercial/visitor use, with a total of 6 spaces provided. Additionally, 8 accessible parking spaces are proposed for residential use, even though the By-Law does not require them for residential areas. As a result, the overall accessible parking supply exceeds the requirement by 8 spaces.
- The long-term and short-term bicycle parking for residential and commercial area meets the City's Zoning By-law requirement and short-term bicycle parking is in surplus of 4 spaces.
- A parking justification was conducted for the proposed development and the proposed auto parking supply for residents was determined to be adequate to support the needs of residents at the proposed site based on a review on the surrounding land-use context, transit availability and observed parking rates within the City of Mississauga.
- Transportation Demand Management (TDM) measures, including 'hard' measures like adequate cycling and pedestrian facilities, as well as 'soft' measures such as unbundling the parking supply and providing transit incentives, were recommended to reduce single-occupant vehicle trips and promote transit and active transportation. It is also

recommended that the owner monitor TDM requirements and communicate TDM opportunities to residents to raise awareness of alternative transportation modes.

- Therefore, the proposed site is not expected to materially impact the surrounding study transportation network and supports the build out of a multi-modal transportation and can therefore be supported from a transportation perspective.

## 12.2 Recommendations

The conclusions and findings from this study have led to the following recommendations:

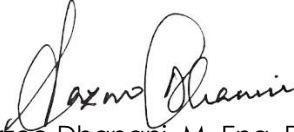
- It is recommended to optimize the signal timings for Dixie Road and Bloor Street during the weekday and Saturday peak hours based on the retimed splits contained herein. In addition, a westbound left-turn protected phase should be added during the Saturday peak hour similar to the weekday peak hours to accommodate the traffic volumes resulting from existing scenario, background developments and subject site.
- The intersection of Bloor Street and Havenwood Drive should be monitored, and it is recommended to add a protected eastbound left-turn phase to reduce delays during the weekday P.M. peak hour to accommodate the traffic expected to generate from background developments and subject site.
- During the weekday A.M. peak hour, the northbound left-turn queues at the intersection of Burnhamthorpe Road and Fieldgate Drive significantly exceed storage capacity which is expected due to trips from Glenforest Secondary School. As the queue length is projected to increase by only 10 meters in the future total scenario, it is recommended to monitor the intersection for potential additional storage needs.
- The southbound left-turn storage at the intersection of Bloor Street and Fieldgate Drive is recommended to be increased to 55 meters by repainting the lines. The increased queues are due to existing conditions.
- It is recommended to monitor the intersection of Burnhamthorpe Road and Ponytrail Drive for queue lengths and increase the storage lengths as follows:
  - Westbound Right-Turn: to approximately 170 meters (an additional 140 meter storage required) should the property on the northeast corner redevelop and the necessary Right-of-Way becomes available to accommodate the existing traffic.
  - Northbound Left-Turn: 20 meters by repainting the lines (an additional 5 meter storage required to accommodate existing queues).

The analysis undertaken herein was prepared using the most recent Concept Plan. Any minor changes to the Plan will not materially affect the conclusions contained within this report.

In conclusion, the proposed mixed-use residential/commercial development can be supported from a traffic operations and safety perspective.

Respectfully submitted,

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**Appendix A: Certification & Terms of Reference Correspondence**

**Appendix B: Road Map Excerpts**

**Appendix C: Transit Maps**

**Appendix D: Traffic Data**

**Appendix E: LOS Definitions**

**Appendix F: 2024 Detailed Capacity Analysis**

**Appendix G: Bloor Street Preliminary Design**

**Appendix H: Background Development Traffic Volumes**

**Appendix I: 2029 Future Background Detailed Capacity Analysis**

**Appendix J: TTS Modal Split**

**Appendix K: ITE Trip Generation**

**Appendix L: TTS Survey**

**Appendix M: 2029 Future Total Detailed Capacity Analysis**

**Appendix N: 2029 Future Total Detailed Capacity Analysis Optimized**

**Appendix O: TAC GDGCR Excerpts**

**Appendix P: Parking Excerpts**

# APPENDIX A

## Certification & Terms of Reference Correspondence

## Certification

# Appendix A

## Certification Form

Individuals submitting reports will be responsible for all aspects of development-related transportation assessment and reporting, and undertaking such work, in accordance and compliance with the City of Mississauga's Official Plan, Transportation Master Plan, and Transportation Impact Study Guidelines.


By submitting the attached report (and any associated documents) and signing this document, I acknowledge that:

- I have reviewed and have a sound understanding of the objectives, needs, and requirements of the City of Mississauga's Official Plan, Transportation Master Plan, and the Transportation Impact Study Guidelines as they apply to this submission;
- I have sound knowledge of industry standard practices pertaining to the preparation of development-related transportation study reports;
- I have substantial experience (more than five years) in completing development-related transportation studies and strong background knowledge of the transportation planning and engineering principles underpinning these studies; and
- I am registered as a Professional Engineer (P.Eng.), Licensed Engineering Technologist (LET), Certified Engineering Technologist (C.E.T.), or Registered Professional Planner (RPP) in good standing in the Province of Ontario with specific training in transportation planning and engineering.

Dated at Toronto this 16<sup>th</sup> day of August, 2024.  
(City)

Name: Brandon Bradt

Professional Title: Manager, Transportation Planning

Signature: 

### Office Contact Information (Please Print)

Address: 211 Yonge Street, Suite 600

City/Postal Code: Toronto M5B 1M4

Telephone/Extension: 416.842.0033

E-mail Address: bbradt@cfcrozier.ca

## Terms of Reference Correspondence

## Aarzo Dhanani

---

**From:** Aarzo Dhanani  
**Sent:** Wednesday, May 1, 2024 11:11 AM  
**To:** Cyrus Hiranandani  
**Cc:** Brandon Bradt; Trans Projects  
**Subject:** RE: Transportation Impact Study - Terms of Reference for 3403-3445 Fieldgate Drive (CFC# 2655-7075)

Hi Cyrus,

Thanks for confirming the Terms of Reference. We will let you know if we have any concerns.

Kind Regards,  
Aarzo

**Aarzo Dhanani**, M.Eng., EIT  
Engineering Intern, Transportation  
DID: 416.842.0020

---

**From:** Cyrus Hiranandani <Cyrus.Hiranandani@mississauga.ca>  
**Sent:** Friday, April 26, 2024 3:11 PM  
**To:** Aarzo Dhanani <adhanani@cfcrozier.ca>  
**Cc:** Brandon Bradt <bbradt@cfcrozier.ca>; Trans Projects <Trans.Projects@mississauga.ca>  
**Subject:** RE: Transportation Impact Study - Terms of Reference for 3403-3445 Fieldgate Drive (CFC#2655-7075)

Good afternoon Aarzo,

Please find attached stamped and approved ToR for the proposed development, which encompasses City comments. Other items to note:

- Certification Form - The Transportation Consultant must complete, sign, and seal (if appropriate) the attached Certification Form from the City's TIS Guidelines (2022) and submit the document with the application/report to ensure compliance with qualification requirements. The TIS Guidelines can be found at <https://www.mississauga.ca/wp-content/uploads/2023/03/CMississauga-TIS-Guidelines-Version-5.1-Dec-2022.pdf> . It must be ensured that the report conforms to the City's TIS Guidelines.
- Growth Rates/Traffic Data - Please contact Tyler Xuereb from the City's Transportation Planning Section ([tyler.xuereb@mississauga.ca](mailto:tyler.xuereb@mississauga.ca), Ext. 4783) to confirm growth rates and/or obtain traffic data for the study area roadways.
- Signal Timing Plans - Signal timing plans for signalized intersections under the City's jurisdiction can be obtained from Jim Kartsomanis ([Jim.Kartsomanis@mississauga.ca](mailto:Jim.Kartsomanis@mississauga.ca), Ext. 3964).

Let me know if you have any questions.

Thanks,



**Cyrus Hiranandani, E.I.T.**

Traffic Planning Technologist  
T 905-615-3200 ext. 4363  
[cyrus.hiranandani@mississauga.ca](mailto:cyrus.hiranandani@mississauga.ca)

[City of Mississauga](#) | Transportation & Works Department  
300 City Centre Drive | Mississauga ON | L5B 3C1

Please consider the environment before printing.

---

**From:** Aarzo Dhanani <[adhanani@cfcrozier.ca](mailto:adhanani@cfcrozier.ca)>

**Sent:** Wednesday, April 17, 2024 2:44 PM

**To:** Trans Projects <[Trans.Projects@mississauga.ca](mailto:Trans.Projects@mississauga.ca)>

**Cc:** Cyrus Hiranandani <[Cyrus.Hiranandani@mississauga.ca](mailto:Cyrus.Hiranandani@mississauga.ca)>; Brandon Bradt <[bbradt@cfcrozier.ca](mailto:bbradt@cfcrozier.ca)>

**Subject:** [EXTERNAL] Transportation Impact Study - Terms of Reference for 3403-3445 Fieldgate Drive (CFC#2655-7075)

---

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---

Good Afternoon,

C.F. Crozier and Associates Inc. (Crozier) has been retained to prepare a Transportation Impact Study (TIS) for a mixed-use development located at 3403-3445 Fieldgate Drive in Mississauga. We have prepared the Terms of Reference (Pre-Study Consultation Checklist) and are contacting you to confirm the scope of work required for the proposed development.

Additionally, please note that a separate Terms of Reference will be provided for the Parking Justification Study. A site plan is also attached for your reference.

Please review the attached Terms of Reference and feel free to reach out if you have any questions or concerns.

Kind Regards,  
Aarzo

**Aarzo Dhanani, M.Eng., EIT**  
Engineering Intern, Transportation  
Office: 416.842.0020  
Collingwood | Milton | Toronto | Bradford | Guelph

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**From:** Aarzo Dhanani  
**Sent:** Friday, May 24, 2024 8:55 AM  
**To:** Tyler Xuereb  
**Cc:** Brandon Bradt  
**Subject:** RE: Transportation Impact Study - Terms of Reference for 3403-3445 Fieldgate Drive (CFC#2655-7075)

Good morning Tyler,

Thanks for confirming the growth rates. Based on this, we will assume no growth along Bloor Street.

Kind regards,  
Aarzo

**Aarzo Dhanani**, M.Eng., EIT  
Engineering Intern, Transportation  
Office: 416.842.0020  
Collingwood | Milton | Toronto | Bradford | Guelph

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---

**From:** Tyler Xuereb <[Tyler.Xuereb@mississauga.ca](mailto:Tyler.Xuereb@mississauga.ca)>  
**Sent:** Friday, May 24, 2024 8:12 AM  
**To:** Aarzo Dhanani <[adhanani@cfcrozier.ca](mailto:adhanani@cfcrozier.ca)>  
**Cc:** Brandon Bradt <[bbradt@cfcrozier.ca](mailto:bbradt@cfcrozier.ca)>  
**Subject:** RE: Transportation Impact Study - Terms of Reference for 3403-3445 Fieldgate Drive (CFC#2655-7075)

Good Morning Aarzo,

Below are the updated growth rates to be used along Bloor Street from existing to 2029. These rates include the lane reductions as a result of the bike lane implementations.

Compounded Annual Growth from Existing to 2029		
	EB	WB
AM Peak	0.0%	0.0%

PM Peak	0.0%	0.0%
---------	------	------

Regards,



**Tyler Xuereb**

Transportation Planning Analyst  
T 905-615-3200 ext.4783  
[Tyler.xuereb@mississauga.ca](mailto:Tyler.xuereb@mississauga.ca)

[City of Mississauga](#) | Transportation and Works Department,  
Infrastructure Planning and Engineering Services Division

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---

**From:** Aarzo Dhanani <[adhanani@cfcrozier.ca](mailto:adhanani@cfcrozier.ca)>  
**Sent:** Wednesday, May 22, 2024 1:41 PM  
**To:** Tyler Xuereb <[Tyler.Xuereb@mississauga.ca](mailto:Tyler.Xuereb@mississauga.ca)>  
**Cc:** Brandon Bradt <[bbradt@cfcrozier.ca](mailto:bbradt@cfcrozier.ca)>  
**Subject:** [EXTERNAL] RE: Transportation Impact Study - Terms of Reference for 3403-3445 Fieldgate Drive (CFC#2655-7075)

---

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---

Hi Tyler,

Thank you! I'm looking forward to receiving the updated growth rates. Please keep me posted on the progress and let me know if you anticipate any delays.

Kind Regards,  
Aarzo

**Aarzo Dhanani**, M.Eng., EIT  
Engineering Intern, Transportation  
Office: 416.842.0020  
Collingwood | Milton | Toronto | Bradford | Guelph

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---

**From:** Tyler Xuereb <[Tyler.Xuereb@mississauga.ca](mailto:Tyler.Xuereb@mississauga.ca)>  
**Sent:** Wednesday, May 22, 2024 1:19 PM  
**To:** Aarzoo Dhanani <[adhanani@cfcrozier.ca](mailto:adhanani@cfcrozier.ca)>  
**Subject:** RE: Transportation Impact Study - Terms of Reference for 3403-3445 Fieldgate Drive (CFC#2655-7075)

Hi Aarzoo,

The growth rates that I provided do not include the lane reduction on Bloor Street. It is coded as a 4 lane cross section in our model. After talking to Cyrus, he has advised me to provide rates with the lane reductions. We are going to recode Bloor Street in our model and provide you with rates that would reflect these changes. This will take some additional time depending on how busy our modeller is.

Regards,



**Tyler Xuereb**

Transportation Planning Analyst  
T 905-615-3200 ext.4783  
[Tyler.xuereb@mississauga.ca](mailto:Tyler.xuereb@mississauga.ca)

[City of Mississauga](#) | Transportation and Works Department,  
Infrastructure Planning and Engineering Services Division

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---

**From:** Aarzoo Dhanani <[adhanani@cfcrozier.ca](mailto:adhanani@cfcrozier.ca)>  
**Sent:** Friday, May 17, 2024 10:10 AM  
**To:** Tyler Xuereb <[Tyler.Xuereb@mississauga.ca](mailto:Tyler.Xuereb@mississauga.ca)>  
**Cc:** Brandon Bradt <[bbradt@cfcrozier.ca](mailto:bbradt@cfcrozier.ca)>; Cyrus Hiranandani <[Cyrus.Hiranandani@mississauga.ca](mailto:Cyrus.Hiranandani@mississauga.ca)>  
**Subject:** [EXTERNAL] RE: Transportation Impact Study - Terms of Reference for 3403-3445 Fieldgate Drive (CFC#2655-7075)

---

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---

Hi Tyler,

Thank you for providing the growth rates. Could you confirm if these rates account for the modified Bloor Street lane configuration, including any changes in traffic patterns or any reduction in traffic resulting from the narrowing of the roadway to accommodate bicycle lanes?

Kind Regards,  
Aarzoo

**Aarzoo Dhanani, M.Eng., EIT**

Engineering Intern, Transportation  
Office: 416.842.0020  
Collingwood | Milton | Toronto | Bradford | Guelph

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**From:** Tyler Xuereb <[Tyler.Xuereb@mississauga.ca](mailto:Tyler.Xuereb@mississauga.ca)>  
**Sent:** Thursday, May 16, 2024 4:51 PM  
**To:** Aarzo Dhanani <[adhanani@cfcrozier.ca](mailto:adhanani@cfcrozier.ca)>  
**Cc:** Brandon Bradt <[bbradt@cfcrozier.ca](mailto:bbradt@cfcrozier.ca)>; Cyrus Hiranandani <[Cyrus.Hiranandani@mississauga.ca](mailto:Cyrus.Hiranandani@mississauga.ca)>  
**Subject:** RE: Transportation Impact Study - Terms of Reference for 3403-3445 Fieldgate Drive (CFC#2655-7075)

Hi Aarzo,

Below are the recommended growth rates to be used along Burnhamthorpe Road and Bloor Street. These rates are compounded annually from existing to 2029.

Burnhamthorpe

	Compounded Annual Growth from Existing to 2029	
	EB	WB
AM Peak	1.0%	2.0%
PM Peak	1.5%	1.0%

Bloor Street

	Compounded Annual Growth from Existing to 2029	
	EB	WB
AM Peak	0.5%	1.0%
PM Peak	0.5%	0.0%

Regards,



**Tyler Xuereb**

Transportation Planning Analyst  
T 905-615-3200 ext.4783  
[Tyler.xuereb@mississauga.ca](mailto:Tyler.xuereb@mississauga.ca)

[City of Mississauga](#) | Transportation and Works Department,  
Infrastructure Planning and Engineering Services Division

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---

**From:** Aarzo Dhanani <[adhanani@cfcrozier.ca](mailto:adhanani@cfcrozier.ca)>  
**Sent:** Thursday, May 16, 2024 11:20 AM  
**To:** Tyler Xuereb <[Tyler.Xuereb@mississauga.ca](mailto:Tyler.Xuereb@mississauga.ca)>  
**Cc:** Brandon Bradt <[bbradt@cfcrozier.ca](mailto:bbradt@cfcrozier.ca)>; Cyrus Hiranandani <[Cyrus.Hiranandani@mississauga.ca](mailto:Cyrus.Hiranandani@mississauga.ca)>  
**Subject:** [EXTERNAL] RE: Transportation Impact Study - Terms of Reference for 3403-3445 Fieldgate Drive (CFC#2655-7075)

---

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Thank you Tyler!

**Aarzo Dhanani**, M.Eng., EIT  
Engineering Intern, Transportation  
Office: 416.842.0020  
Collingwood | Milton | Toronto | Bradford | Guelph

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**Sent:** Thursday, May 16, 2024 10:19 AM  
**To:** Aarzo Dhanani <[adhanani@cfcrozier.ca](mailto:adhanani@cfcrozier.ca)>  
**Cc:** Brandon Bradt <[bbradt@cfcrozier.ca](mailto:bbradt@cfcrozier.ca)>; Cyrus Hiranandani <[Cyrus.Hiranandani@mississauga.ca](mailto:Cyrus.Hiranandani@mississauga.ca)>  
**Subject:** RE: Transportation Impact Study - Terms of Reference for 3403-3445 Fieldgate Drive (CFC#2655-7075)

Good Morning Aarzo,

I am hoping to have them to you by the end of the week.

Regards,



**Tyler Xuereb**

Transportation Planning Analyst  
T 905-615-3200 ext.4783  
[Tyler.xuereb@mississauga.ca](mailto:Tyler.xuereb@mississauga.ca)

[City of Mississauga](#) | Transportation and Works Department,  
Infrastructure Planning and Engineering Services Division

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---

**From:** Aarzo Dhanani <[adhanani@cfcrozier.ca](mailto:adhanani@cfcrozier.ca)>  
**Sent:** Thursday, May 16, 2024 10:16 AM  
**To:** Tyler Xuereb <[Tyler.Xuereb@mississauga.ca](mailto:Tyler.Xuereb@mississauga.ca)>  
**Cc:** Brandon Bradt <[bbradt@cfcrozier.ca](mailto:bbradt@cfcrozier.ca)>; Cyrus Hiranandani <[Cyrus.Hiranandani@mississauga.ca](mailto:Cyrus.Hiranandani@mississauga.ca)>  
**Subject:** [EXTERNAL] RE: Transportation Impact Study - Terms of Reference for 3403-3445 Fieldgate Drive (CFC#2655-7075)

---

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---

Good morning Tyler,

Hope all is well!

Would you be able to provide growth rates for the study roadways in accordance with the email below?

Please let me know if you need anything else!

Kind regards,  
Aarzo

**Aarzo Dhanani**, M.Eng., EIT  
Engineering Intern, Transportation  
Office: 416.842.0020

Collingwood | Milton | Toronto | Bradford | Guelph

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---

**From:** Aarzo Dhanani <[adhanani@cfcrozier.ca](mailto:adhanani@cfcrozier.ca)>  
**Sent:** Thursday, May 2, 2024 4:47 PM  
**To:** Tyler Xuereb <[Tyler.Xuereb@mississauga.ca](mailto:Tyler.Xuereb@mississauga.ca)>  
**Cc:** Brandon Bradt <[bbradt@cfcrozier.ca](mailto:bbradt@cfcrozier.ca)>; Cyrus Hiranandani <[Cyrus.Hiranandani@mississauga.ca](mailto:Cyrus.Hiranandani@mississauga.ca)>  
**Subject:** RE: Transportation Impact Study - Terms of Reference for 3403-3445 Fieldgate Drive (CFC#2655-7075)

Hi Tyler,

Please see the approved Terms of Reference that has the background developments to be included in the study.

Additionally, Bloor Street is expected to be redesigned by the year 2025 and restoration is expected to be completed by the year 2026. Per the preliminary design (Alternative 6), Bloor Street will undergo changes, resulting in the loss of one lane in both eastbound and westbound directions. Please let us know if the growth rate provided by the City will account for these changes, as well as any other travel pattern alterations that may occur on adjacent roadways due to the narrowing of the roadway?

I have cc'd Cyrus, who has approved the attached Terms of Reference and will be assisting with this file for any future correspondence.

Happy to provide any further details if needed!

Kind Regards,  
Aarzo

**Aarzo Dhanani**, M.Eng., EIT  
Engineering Intern, Transportation  
Office: 416.842.0020  
Collingwood | Milton | Toronto | Bradford | Guelph

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**Sent:** Thursday, May 2, 2024 3:47 PM  
**To:** Aarzo Dhanani <[adhanani@cfcrozier.ca](mailto:adhanani@cfcrozier.ca)>  
**Cc:** Brandon Bradt <[bbradt@cfcrozier.ca](mailto:bbradt@cfcrozier.ca)>  
**Subject:** RE: Transportation Impact Study - Terms of Reference for 3403-3445 Fieldgate Drive (CFC#2655-7075)

Hi Aarzo,

Thank you for your email.

Can you please provide me with any background developments that you are including in your analysis.

In addition, we do not provide growth rates for weekend periods.

Regards,



**Tyler Xuereb**

Transportation Planning Analyst

T 905-615-3200 ext.4783

[Tyler.xuereb@mississauga.ca](mailto:Tyler.xuereb@mississauga.ca)

[City of Mississauga](#) | Transportation and Works Department,  
Infrastructure Planning and Engineering Services Division

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---

**From:** Aarzo Dhanani <[adhanani@cfcrozier.ca](mailto:adhanani@cfcrozier.ca)>

**Sent:** Wednesday, May 1, 2024 1:42 PM

**To:** Tyler Xuereb <[Tyler.Xuereb@mississauga.ca](mailto:Tyler.Xuereb@mississauga.ca)>

**Cc:** Brandon Bradt <[bbradt@cfcrozier.ca](mailto:bbradt@cfcrozier.ca)>

**Subject:** [EXTERNAL] RE: Transportation Impact Study - Terms of Reference for 3403-3445 Fieldgate Drive (CFC#2655-7075)

---

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---

Good afternoon Tyler,

We would like to obtain traffic growth rates for the roadways at the intersections provided below, as part of our development site located at 3403-3445 Fieldgate Drive:

- Bloor Street and Fieldgate Drive (Signalized)
- Williamsport Drive and Fieldgate Drive (Unsignalized)
- Fieldgate Drive and Ponytrail Drive (Unsignalized)
- Fieldgate Drive and Haven Glenn (Unsignalized)
- Fieldgate Drive and Burnhamthorpe Road E (Signalized)
- Burnhamthorpe Road E and Ponytrail Drive (Signalized)
- Bloor Street and Havenwood Drive (Signalized)
- Bloor Street and Dixie Road (Signalized)



Could you please provide any growth rates to be included for the horizon year 2029 for weekday (AM/PM) and Saturday peak hours?

Please let me know if you have any questions!

Kind Regards,

Aarzo

**Aarzo Dhanani**, M.Eng., EIT  
Engineering Intern, Transportation  
Office: 416.842.0020

Collingwood | Milton | Toronto | Bradford | Guelph

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**From:** Cyrus Hiranandani <[Cyrus.Hiranandani@mississauga.ca](mailto:Cyrus.Hiranandani@mississauga.ca)>

**Sent:** Friday, April 26, 2024 3:11 PM

**To:** Aarzo Dhanani <[adhanani@cfcrozier.ca](mailto:adhanani@cfcrozier.ca)>

**Cc:** Brandon Bradt <[bbradt@cfcrozier.ca](mailto:bbradt@cfcrozier.ca)>; Trans Projects <[Trans.Projects@mississauga.ca](mailto:Trans.Projects@mississauga.ca)>

**Subject:** RE: Transportation Impact Study - Terms of Reference for 3403-3445 Fieldgate Drive (CFC#2655-7075)

Good afternoon Aarzo,

Please find attached stamped and approved ToR for the proposed development, which encompasses City comments. Other items to note:

- Certification Form - The Transportation Consultant must complete, sign, and seal (if appropriate) the attached Certification Form from the City's TIS Guidelines (2022) and submit the document with the application/report to ensure compliance with qualification requirements. The TIS Guidelines can be found at <https://www.mississauga.ca/wp-content/uploads/2023/03/CMississauga-TIS-Guidelines-Version-5.1-Dec-2022.pdf> . It must be ensured that the report conforms to the City's TIS Guidelines.
- Growth Rates/Traffic Data - Please contact Tyler Xuereb from the City's Transportation Planning Section ([tyler.xuereb@mississauga.ca](mailto:tyler.xuereb@mississauga.ca), Ext. 4783) to confirm growth rates and/or obtain traffic data for the study area roadways.
- Signal Timing Plans - Signal timing plans for signalized intersections under the City's jurisdiction can be obtained from Jim Kartsomanis ([Jim.Kartsomanis@mississauga.ca](mailto:Jim.Kartsomanis@mississauga.ca), Ext. 3964).

Let me know if you have any questions.

Thanks,



1974 - 2024



MISSISSAUGA

**Cyrus Hiranandani, E.I.T.**

Traffic Planning Technologist

T 905-615-3200 ext. 4363

[cyrus.hiranandani@mississauga.ca](mailto:cyrus.hiranandani@mississauga.ca)

[City of Mississauga](#) | Transportation & Works Department  
300 City Centre Drive | Mississauga ON | L5B 3C1

Please consider the environment before printing.

---

**From:** Aarzoo Dhanani <[adhanani@cfcrozier.ca](mailto:adhanani@cfcrozier.ca)>

**Sent:** Wednesday, April 17, 2024 2:44 PM

**To:** Trans Projects <[Trans.Projects@mississauga.ca](mailto:Trans.Projects@mississauga.ca)>

**Cc:** Cyrus Hiranandani <[Cyrus.Hiranandani@mississauga.ca](mailto:Cyrus.Hiranandani@mississauga.ca)>; Brandon Bradt <[bbradt@cfcrozier.ca](mailto:bbradt@cfcrozier.ca)>

**Subject:** [EXTERNAL] Transportation Impact Study - Terms of Reference for 3403-3445 Fieldgate Drive (CFC#2655-7075)

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Good Afternoon,

C.F. Crozier and Associates Inc. (Crozier) has been retained to prepare a Transportation Impact Study (TIS) for a mixed-use development located at 3403-3445 Fieldgate Drive in Mississauga. We have prepared the Terms of Reference (Pre-Study Consultation Checklist) and are contacting you to confirm the scope of work required for the proposed development.

Additionally, please note that a separate Terms of Reference will be provided for the Parking Justification Study. A site plan is also attached for your reference.

Please review the attached Terms of Reference and feel free to reach out if you have any questions or concerns.

Kind Regards,  
Aarzoo

**Aarzo Dhanani**, M.Eng., EIT  
Engineering Intern, Transportation  
Office: 416.842.0020

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## Aarzo Dhanani

---

**From:** Roy, Shuvangkor Shusmoy <shuvangkorshusmoy.roy@peelregion.ca>  
**Sent:** Friday, May 17, 2024 1:54 PM  
**To:** Aarzo Dhanani  
**Cc:** Brandon Bradt; ZZL-Transportation Planning Data  
**Subject:** RE: Transportation Impact Study - Terms of Reference for 3403-3445 Fieldgate Drive (CFC# 2655-7075)

Hello Aarzo,

The growth rate provided in the PDF is a standard rate that has been applied throughout the corridor. Therefore, we kindly advise you to use professional judgment when using these values for a study area.

Thank you!

**Shuvangkor Shusmoy Roy, MUP**

Intermediate Planner, Transportation Planning  
Transportation Division, Public Works  
10 Peel Centre Drive, Suite B, 4th Floor  
Brampton, ON L6T 4B9  
905-791-7800 e. 3821



---

**From:** Aarzo Dhanani <adhanani@cfcrozier.ca>  
**Sent:** Friday, May 17, 2024 10:08 AM  
**To:** ZZL-Transportation Planning Data <transportationplanningdata@peelregion.ca>  
**Cc:** Brandon Bradt <bbradt@cfcrozier.ca>  
**Subject:** RE: Transportation Impact Study - Terms of Reference for 3403-3445 Fieldgate Drive (CFC#2655-7075)

**CAUTION: EXTERNAL MAIL. DO NOT CLICK ON LINKS OR OPEN ATTACHMENTS YOU DO NOT TRUST.**

Good morning,

Could you please confirm if the growth rate provided in the attached PDF is applicable to the Weekday A.M., Weekday P.M., and Saturday peak hour scenarios?

Thank you,  
Aarzo

**Aarzo Dhanani, M.Eng., EIT**  
Engineering Intern, Transportation  
Office: 416.842.0020

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---

**From:** Roy, Shuvangkor Shusmoy <[shuvangkorshusmoy.roy@peelregion.ca](mailto:shuvangkorshusmoy.roy@peelregion.ca)>  
**Sent:** Thursday, May 16, 2024 1:32 PM  
**To:** Aarzoo Dhanani <[adhanani@cfcrozier.ca](mailto:adhanani@cfcrozier.ca)>  
**Cc:** Brandon Bradt <[bbradt@cfcrozier.ca](mailto:bbradt@cfcrozier.ca)>; ZZL-Transportation Planning Data <[transportationplanningdata@peelregion.ca](mailto:transportationplanningdata@peelregion.ca)>  
**Subject:** RE: Transportation Impact Study - Terms of Reference for 3403-3445 Fieldgate Drive (CFC#2655-7075)

Good afternoon, Aarzoo.

As requested, please find the attached PDF containing the growth rate data for Dixie Road at Bloor Street. For future requests, please email [transportationplanningdata@peelregion.ca](mailto:transportationplanningdata@peelregion.ca)

Thank you.

**Shuvangkor Shusmoy Roy, MUP**  
Intermediate Planner, Transportation Planning  
Transportation Division, Public Works  
10 Peel Centre Drive, Suite B, 4th Floor  
Brampton, ON L6T 4B9  
905-791-7800 e. 3821



---

**From:** Aarzoo Dhanani <[adhanani@cfcrozier.ca](mailto:adhanani@cfcrozier.ca)>  
**Sent:** Thursday, May 16, 2024 11:51 AM  
**To:** ZZL-Transportation Planning Data <[transportationplanningdata@peelregion.ca](mailto:transportationplanningdata@peelregion.ca)>; Roy, Shuvangkor Shusmoy <[shuvangkorshusmoy.roy@peelregion.ca](mailto:shuvangkorshusmoy.roy@peelregion.ca)>  
**Cc:** Brandon Bradt <[bbradt@cfcrozier.ca](mailto:bbradt@cfcrozier.ca)>  
**Subject:** RE: Transportation Impact Study - Terms of Reference for 3403-3445 Fieldgate Drive (CFC#2655-7075)

**CAUTION: EXTERNAL MAIL. DO NOT CLICK ON LINKS OR OPEN ATTACHMENTS YOU DO NOT TRUST.**

Good morning Shuvangkor,

We are preparing a Transportation Impact Study for a site located at 3403-3445 Fieldgate Drive in Mississauga, which will include the intersection of Bloor Street and Dixie Road.

Since Dixie Road is a Regional road, could you provide the growth rate to be used for the 2029 horizon year?

Please let me know if you need any additional information. If you are not the appropriate contact for this request, could you please direct us to the correct person?

Kind Regards,  
Aarzo

**Aarzo Dhanani**, M.Eng., EIT  
Engineering Intern, Transportation  
Office: 416.842.0020

Collingwood | Milton | Toronto | Bradford | Guelph

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**Aarzo Dhanani**, M.Eng., EIT  
Engineering Intern, Transportation  
Office: 416.842.0020

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---

**From:** Cyrus Hiranandani <[Cyrus.Hiranandani@mississauga.ca](mailto:Cyrus.Hiranandani@mississauga.ca)>  
**Sent:** Friday, April 26, 2024 3:11 PM  
**To:** Aarzo Dhanani <[adhanani@cfcrozier.ca](mailto:adhanani@cfcrozier.ca)>  
**Cc:** Brandon Bradt <[bbradt@cfcrozier.ca](mailto:bbradt@cfcrozier.ca)>; Trans Projects <[Trans.Projects@mississauga.ca](mailto:Trans.Projects@mississauga.ca)>  
**Subject:** RE: Transportation Impact Study - Terms of Reference for 3403-3445 Fieldgate Drive (CFC#2655-7075)

Good afternoon Aarzo,

Please find attached stamped and approved ToR for the proposed development, which encompasses City comments. Other items to note:

- Certification Form - The Transportation Consultant must complete, sign, and seal (if appropriate) the attached Certification Form from the City's TIS Guidelines (2022) and submit the document with the application/report to ensure compliance with qualification requirements. The TIS Guidelines can be found at <https://www.mississauga.ca/wp->

[content/uploads/2023/03/CMississauga-TIS-Guidelines-Version-5.1-Dec-2022.pdf](#) . It must be ensured that the report conforms to the City's TIS Guidelines.

- Growth Rates/Traffic Data - Please contact Tyler Xuereb from the City's Transportation Planning Section ([tyler.xuereb@mississauga.ca](mailto:tyler.xuereb@mississauga.ca), Ext. 4783) to confirm growth rates and/or obtain traffic data for the study area roadways.
- Signal Timing Plans - Signal timing plans for signalized intersections under the City's jurisdiction can be obtained from Jim Kartsomanis ([Jim.Kartsomanis@mississauga.ca](mailto:Jim.Kartsomanis@mississauga.ca), Ext. 3964).

Let me know if you have any questions.

Thanks,



**Cyrus Hiranandani, E.I.T.**

Traffic Planning Technologist  
T 905-615-3200 ext. 4363  
[cyrus.hiranandani@mississauga.ca](mailto:cyrus.hiranandani@mississauga.ca)

[City of Mississauga](#) | Transportation & Works Department  
300 City Centre Drive | Mississauga ON | L5B 3C1

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---

**From:** Aarzo Dhanani <[adhanani@cfcrozier.ca](mailto:adhanani@cfcrozier.ca)>  
**Sent:** Wednesday, April 17, 2024 2:44 PM  
**To:** Trans Projects <[Trans.Projects@mississauga.ca](mailto:Trans.Projects@mississauga.ca)>  
**Cc:** Cyrus Hiranandani <[Cyrus.Hiranandani@mississauga.ca](mailto:Cyrus.Hiranandani@mississauga.ca)>; Brandon Bradt <[bbradt@cfcrozier.ca](mailto:bbradt@cfcrozier.ca)>  
**Subject:** [EXTERNAL] Transportation Impact Study - Terms of Reference for 3403-3445 Fieldgate Drive (CFC#2655-7075)

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Good Afternoon,

C.F. Crozier and Associates Inc. (Crozier) has been retained to prepare a Transportation Impact Study (TIS) for a mixed-use development located at 3403-3445 Fieldgate Drive in Mississauga. We have prepared the Terms of Reference (Pre-Study Consultation Checklist) and are contacting you to confirm the scope of work required for the proposed development.

Additionally, please note that a separate Terms of Reference will be provided for the Parking Justification Study. A site plan is also attached for your reference.

Please review the attached Terms of Reference and feel free to reach out if you have any questions or concerns.

Kind Regards,  
Aarzo

**Aarzo Dhanani**, M.Eng., EIT  
Engineering Intern, Transportation  
Office: 416.842.0020

Collingwood | Milton | Toronto | Bradford | Guelph

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## Aarzo Dhanani

---

**From:** Nix, Sean <sean.nix@peelregion.ca>  
**Sent:** Thursday, May 23, 2024 2:08 PM  
**To:** Aarzo Dhanani  
**Cc:** Smith, Neal; Brandon Bradt  
**Subject:** RE: Inquiry Regarding Preliminary Design - Bloor Street and Dixie Road Intersection

Good afternoon Aarzo,

Sorry for the run-around that you've been given on this topic. I am confirming Cynthia's statement below from her email from yesterday confirming that a northbound right turn lane is not being pursued at the intersection of Regional Road 4 (Dixie Road) and Bloor Street at this time. Your TIS analysis can assume a retained northbound shared through-right turn lane.

### Sean Nix, RPP

Manager, Transportation Operations  
Transportation Division, Public Works  
10 Peel Centre Drive, Suite B, 4<sup>th</sup> Floor, Brampton ON L6T 4B9



---

**From:** Aarzo Dhanani <[adhanani@cfcrozier.ca](mailto:adhanani@cfcrozier.ca)>  
**Sent:** Thursday, May 23, 2024 1:32 PM  
**To:** Smith, Neal <[neal.smith@peelregion.ca](mailto:neal.smith@peelregion.ca)>  
**Cc:** Brandon Bradt <[bbradt@cfcrozier.ca](mailto:bbradt@cfcrozier.ca)>  
**Subject:** RE: Inquiry Regarding Preliminary Design - Bloor Street and Dixie Road Intersection

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Good afternoon Neal,

We reached out to Catherine to inquire about the Dixie Road configuration at Bloor Street, and she suggested we contact you.

Could you please assist with the inquiry below?

Kind regards,  
Aarzo

**Aarzo Dhanani**, M.Eng., EIT  
Engineering Intern, Transportation  
Office: 416.842.0020

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**From:** Barnes, Catherine <[catherine.barnes@peelregion.ca](mailto:catherine.barnes@peelregion.ca)>  
**Sent:** Thursday, May 23, 2024 12:18 PM  
**To:** Aarzoo Dhanani <[adhanani@cfcrozier.ca](mailto:adhanani@cfcrozier.ca)>  
**Cc:** Brandon Bradt <[bbradt@cfcrozier.ca](mailto:bbradt@cfcrozier.ca)>; Smith, Neal <[neal.smith@peelregion.ca](mailto:neal.smith@peelregion.ca)>  
**Subject:** RE: Inquiry Regarding Preliminary Design - Bloor Street and Dixie Road Intersection

Good morning Aarzoo,

Thank you for reaching out. I am not the correct contact to help you with this, but Neal Smith would be the contact point for your question. Please reach out to Neal. I have cc'd him on this email chain but you may also want to send him a direct email as well.

Have a good day,

**Catherine Barnes**  
**Region of Peel**  
**Specialist, Transportation Development**  
Transportation Division, Public Works.  
10 Peel Centre Drive, Suite B, 4<sup>th</sup> Floor  
Brampton, ON , L6T 4B9

**During this Health Emergency please contact me via email as I am out of the office working remotely.**



**P Please consider the environment before printing this email.**

Our working hours may be different. Please do not feel obligated to reply outside of your working hours.

The Region of Peel is situated on the Treaty Lands and Territory of the Mississaugas of the Credit First Nation as well as the traditional territory of the Anishinabeg, Huron-Wendat and Haudenosaunee peoples.

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---

**From:** Aarzoo Dhanani <[adhanani@cfcrozier.ca](mailto:adhanani@cfcrozier.ca)>  
**Sent:** Thursday, May 23, 2024 10:47 AM  
**To:** Barnes, Catherine <[catherine.barnes@peelregion.ca](mailto:catherine.barnes@peelregion.ca)>

Cc: Brandon Bradt <bbradt@cfcrozier.ca>

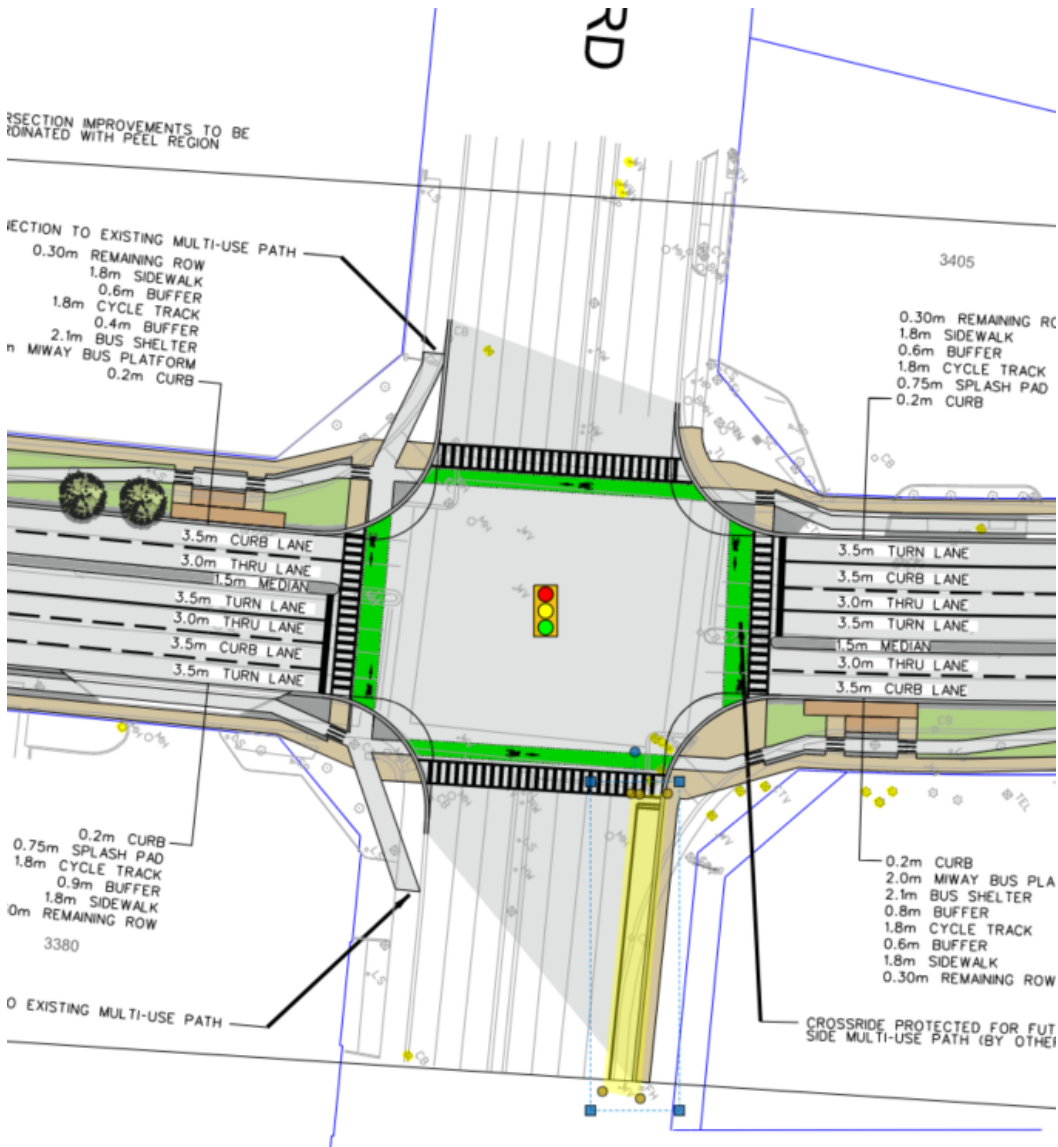
Subject: FW: Inquiry Regarding Preliminary Design - Bloor Street and Dixie Road Intersection

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Good morning Catherine,

C.F. Crozier and Associates (Crozier) has been preparing a Transportation Impact Study for a site located at 3403-3445 Fieldgate Drive in Mississauga. As part of our study, we will be analyzing the intersection of Bloor Street and Dixie Road.

We have reviewed the preliminary design for Bloor Street and Dixie Road as part of the Bloor Street integrated road project, and it appears that a dedicated right-turn lane will be introduced to the northbound approach on Dixie Road, in addition to the existing lanes. Could you please provide details regarding the intended storage length and taper length for this lane (highlighted in the attached snap), if available?



We reached out to City staff, and they recommended contacting the Region of Peel for more detailed information regarding changes to Dixie Road. If you are not the appropriate person to contact, could you please provide the contact information for the appropriate individual?

Kind regards,  
Aarzo

**Aarzo Dhanani**, M.Eng., EIT  
Engineering Intern, Transportation  
Office: 416.842.0020  
Collingwood | Milton | Toronto | Bradford | Guelph

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---

**From:** Cynthia Urdaneta <[Cynthia.Urdaneta@mississauga.ca](mailto:Cynthia.Urdaneta@mississauga.ca)>  
**Sent:** Wednesday, May 22, 2024 2:59 PM  
**To:** Aarzo Dhanani <[adhanani@cfcrozier.ca](mailto:adhanani@cfcrozier.ca)>  
**Cc:** Cyrus Hiranandani <[Cyrus.Hiranandani@mississauga.ca](mailto:Cyrus.Hiranandani@mississauga.ca)>; Brandon Bradt <[bbradt@cfcrozier.ca](mailto:bbradt@cfcrozier.ca)>; Kenneth Truong <[Kenneth.Truong@mississauga.ca](mailto:Kenneth.Truong@mississauga.ca)>; Marcela Colangelo <[Marcela.Colangelo@mississauga.ca](mailto:Marcela.Colangelo@mississauga.ca)>; John Magno <[John.Magno@mississauga.ca](mailto:John.Magno@mississauga.ca)>; Michael Turco <[Michael.Turco@mississauga.ca](mailto:Michael.Turco@mississauga.ca)>  
**Subject:** RE: Inquiry Regarding Preliminary Design - Bloor Street and Dixie Road Intersection

Hi Aarzo,

I trust that you are doing well.

Please note that the 60% draft of Bloor Street is currently in review before circulating to the Region of Peel for comments. This draft still considers the elimination of the NB channel but does not incorporate an exclusive right turn. However, please confirm directly with the Region of Peel their future plans for Dixie Road so the most updated information is available for your assessment.

Kind Regards,  
Cynthia



**Cynthia Urdaneta (She/Her), P.Eng., Cert.APM**  
Supervisor Design and Contract Administration  
Capital Works Delivery Section  
[cynthia.urdaneta@mississauga.ca](mailto:cynthia.urdaneta@mississauga.ca)

T 905-615-3200 ext.3128 / M (437) 233-5810  
[City of Mississauga](http://City of Mississauga) | Transportation & Works Department,  
Infrastructure Planning & Engineering Services Division

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**From:** Aarzo Dhanani <[adhanani@cfcrozier.ca](mailto:adhanani@cfcrozier.ca)>

**Sent:** Friday, May 17, 2024 2:11 PM

**To:** Marcela Colangelo <[Marcela.Colangelo@mississauga.ca](mailto:Marcela.Colangelo@mississauga.ca)>

**Cc:** Cyrus Hiranandani <[Cyrus.Hiranandani@mississauga.ca](mailto:Cyrus.Hiranandani@mississauga.ca)>; Brandon Bradt <[bbradt@cfcrozier.ca](mailto:bbradt@cfcrozier.ca)>; Cynthia Urdaneta <[Cynthia.Urdaneta@mississauga.ca](mailto:Cynthia.Urdaneta@mississauga.ca)>

**Subject:** [EXTERNAL] RE: Inquiry Regarding Preliminary Design - Bloor Street and Dixie Road Intersection

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Thanks Marcela!

Cynthia, I appreciate your help with this and look forward to receiving the details.

Kind Regards,  
Aarzo

**Aarzo Dhanani**, M.Eng., EIT  
Engineering Intern, Transportation  
Office: 416.842.0020  
Collingwood | Milton | Toronto | Bradford | Guelph

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---

**From:** Marcela Colangelo <[Marcela.Colangelo@mississauga.ca](mailto:Marcela.Colangelo@mississauga.ca)>

**Sent:** Friday, May 17, 2024 1:52 PM

**To:** Aarzo Dhanani <[adhanani@cfcrozier.ca](mailto:adhanani@cfcrozier.ca)>

**Cc:** Cyrus Hiranandani <[Cyrus.Hiranandani@mississauga.ca](mailto:Cyrus.Hiranandani@mississauga.ca)>; Brandon Bradt <[bbradt@cfcrozier.ca](mailto:bbradt@cfcrozier.ca)>; Cynthia Urdaneta <[cynthia.urdaneta@mississauga.ca](mailto:cynthia.urdaneta@mississauga.ca)>

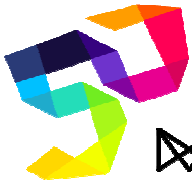
**Subject:** RE: Inquiry Regarding Preliminary Design - Bloor Street and Dixie Road Intersection

Good Afternoon Mr. Dhanani,

I have Cc'd Cynthia Urdaneta -Supervisor, Design & Contract Administration -to this email and she will be able to advise as soon as possible.

Thank you.

Best Regards,



1974 - 2024



MISSISSAUGA

**Marcela Colangelo**

Field Ambassador - Community Liaison

Capital Works Delivery Section

T 905-615-3200 ext.4847

M 905-330-2913

[marcela.colangelo@mississauga.ca](mailto:marcela.colangelo@mississauga.ca)

[City of Mississauga](#) | Transportation & Works Department,  
Infrastructure Planning & Engineering Services Division

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**From:** Aarzo Dhanani <[adhanani@cfcrozier.ca](mailto:adhanani@cfcrozier.ca)>

**Sent:** Thursday, May 16, 2024 12:10 PM

**To:** Capital Field Ambassador <[Capital.FieldAmbassador@mississauga.ca](mailto:Capital.FieldAmbassador@mississauga.ca)>

**Cc:** Cyrus Hiranandani <[Cyrus.Hiranandani@mississauga.ca](mailto:Cyrus.Hiranandani@mississauga.ca)>; Brandon Bradt <[bbradt@cfcrozier.ca](mailto:bbradt@cfcrozier.ca)>

**Subject:** [EXTERNAL] Inquiry Regarding Preliminary Design - Bloor Street and Dixie Road Intersection

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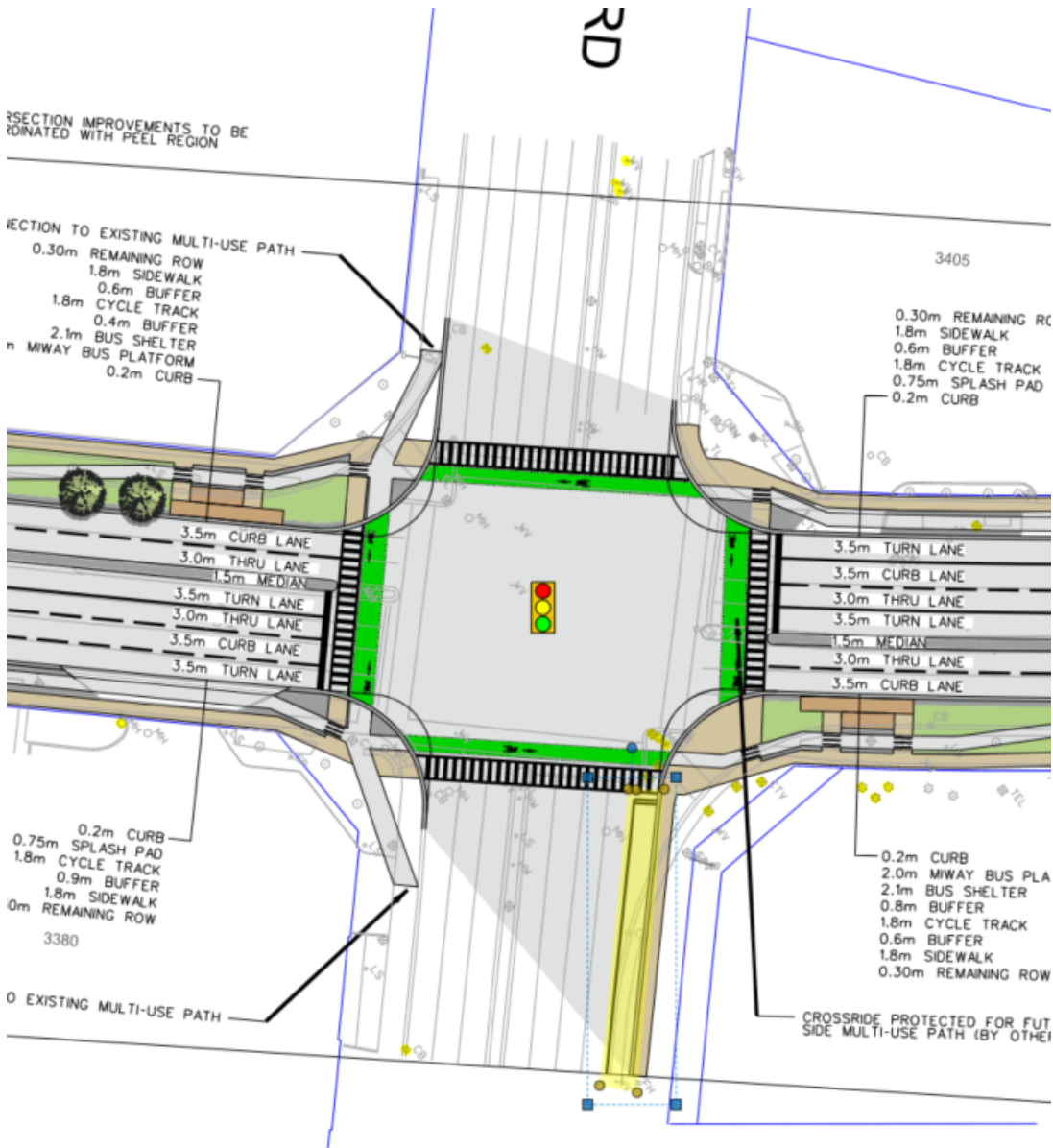
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Good afternoon Marcela,

C.F. Crozier and Associates (Crozier) has been preparing a Transportation Impact Study for a site located at 3403-3445 Fieldgate Drive in Mississauga. As part of our study, we will be analyzing the intersection of Bloor Street and Dixie Road.

We have reviewed the preliminary design for Bloor Street and Dixie Road, and it appears that a dedicated right-turn lane will be introduced to the northbound approach on Dixie Road, in addition to the existing lanes. Could you please provide details regarding the intended storage length and taper length for this lane (highlighted in the snap below), if available?



If you are not the appropriate person to contact, could you please provide the contact details of the person who can provide this information? I have also cc'd Cyrus from the Transportation & Works Department, who will be assisting with this file.

Kind Regards,  
Aarzo

**Aarzo Dhanani**, M.Eng., EIT  
Engineering Intern, Transportation  
Office: 416.842.0020

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## Aarzo Dhanani

---

**From:** Aarzo Dhanani  
**Sent:** Friday, June 14, 2024 8:41 AM  
**To:** Evan Pu  
**Cc:** Brandon Bradt; Parkingstudy Review  
**Subject:** RE: Parking Justification Study Terms of Reference for 3403-3445 Fieldgate Drive

Thanks for confirming.

**Aarzo Dhanani**, M.Eng., EIT  
Engineering Intern, Transportation  
Office: 416.842.0020  
Collingwood | Milton | Toronto | Bradford | Guelph

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**From:** Evan Pu <Evan.Pu@mississauga.ca>  
**Sent:** Thursday, June 13, 2024 1:47 PM  
**To:** Aarzo Dhanani <adhanani@cfcrozier.ca>  
**Cc:** Brandon Bradt <bbradt@cfcrozier.ca>; Parkingstudy Review <Parkingstudy.Review@mississauga.ca>  
**Subject:** RE: Parking Justification Study Terms of Reference for 3403-3445 Fieldgate Drive

Hi Aarzo,

Given the timing, scale, and use of the apartment building surveyed at 4095 Tomken Rd, unfortunately staff will not be able to accept the parking study conducted for this property for the proposed development at 3043-3445 Fieldgate Dr.

Thanks,



**Evan Pu**  
Transportation Planner, Municipal Parking  
T 905-615-3200 ext. 4705  
[evan.pu@mississauga.ca](mailto:evan.pu@mississauga.ca)

[City of Mississauga](#) | Transportation and Works Department,  
Traffic Management and Municipal Parking Division | Municipal Parking Section

---

**From:** Aarzoo Dhanani <[adhanani@cfcrozier.ca](mailto:adhanani@cfcrozier.ca)>  
**Sent:** Wednesday, June 12, 2024 15:41  
**To:** Evan Pu <[Evan.Pu@mississauga.ca](mailto:Evan.Pu@mississauga.ca)>  
**Cc:** Brandon Bradt <[bbradt@cfcrozier.ca](mailto:bbradt@cfcrozier.ca)>; Parkingstudy Review <[Parkingstudy.Review@mississauga.ca](mailto:Parkingstudy.Review@mississauga.ca)>  
**Subject:** [EXTERNAL] RE: Parking Justification Study Terms of Reference for 3403-3445 Fieldgate Drive

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Hi Evan,

Thank you for the response. Due to the tight timeline, we won't be able to conduct any surveys. Instead, we plan to conduct a Parking Justification Study with available surveys to support the proposed parking ratio.

Could you please confirm if the available survey from the 4095 Tomken Road TIS, for the existing residential building (rental apartment) with 68 units, would be acceptable? The peak residential parking demand observed was 0.63 spaces per unit, with surveys conducted over a four-month period. On-site parking was counted on the following dates in 2022: Tuesday, March 22; Wednesday, March 23; Thursday, March 24; Sunday, March 27; Monday, June 27; Tuesday, June 28; Wednesday, July 6; and Thursday, July 7.

Please let me know if this is something we can include as the proxy site is only approximately 3.5 km from the subject site and is within the same precinct.

Kind Regards,

Aarzoo

**Aarzoo Dhanani**, M.Eng., EIT  
Engineering Intern, Transportation  
Office: 416.842.0020  
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**From:** Evan Pu <[Evan.Pu@mississauga.ca](mailto:Evan.Pu@mississauga.ca)>  
**Sent:** Wednesday, June 12, 2024 11:28 AM  
**To:** Aarzoo Dhanani <[adhanani@cfcrozier.ca](mailto:adhanani@cfcrozier.ca)>  
**Cc:** Brandon Bradt <[bbradt@cfcrozier.ca](mailto:bbradt@cfcrozier.ca)>; Parkingstudy Review <[Parkingstudy.Review@mississauga.ca](mailto:Parkingstudy.Review@mississauga.ca)>  
**Subject:** RE: Parking Justification Study Terms of Reference for 3403-3445 Fieldgate Drive

Hi Aarzoo,

Thanks for reaching out to Municipal Parking regarding the parking study proposal.

Please note that applicants are strongly advised to contact the Zoning Department for a zoning review to conclude the minimum parking requirements and parking deficiency based on the proposed uses.

Given the scale and the non-residential component of the proposed development, staff require additional information on the proposed **proxy sites**:

- Their building tenure (condominium or rental);
- Whether there are any non-residential uses on-site;
- The GFAs of the non-residential uses.

Selected proxy sites should generally have similar scale, use, building tenure, and context to the proposed development. In addition, previous survey data can not be accepted if they are more than 2 years old.

Please let us know if you have further questions.

Thank you,



**Evan Pu**

Transportation Planner, Municipal Parking  
T 905-615-3200 ext. 4705  
[evan.pu@mississauga.ca](mailto:evan.pu@mississauga.ca)

[City of Mississauga](#) | Transportation and Works Department,  
Traffic Management and Municipal Parking Division | Municipal Parking Section

---

**From:** Aarzo Dhanani <[adhanani@cfcrozier.ca](mailto:adhanani@cfcrozier.ca)>  
**Sent:** Thursday, June 6, 2024 9:17  
**To:** Parkingstudy Review <[Parkingstudy.Review@mississauga.ca](mailto:Parkingstudy.Review@mississauga.ca)>; Evan Pu <[Evan.Pu@mississauga.ca](mailto:Evan.Pu@mississauga.ca)>  
**Cc:** Brandon Bradt <[bbradt@cfcrozier.ca](mailto:bbradt@cfcrozier.ca)>  
**Subject:** [EXTERNAL] Parking Justification Study Terms of Reference for 3403-3445 Fieldgate Drive

---

**[CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.]**

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Hello Evan,

We are kindly requesting you to review the following Terms of Reference for our Parking Justification Study in support of the mixed-use residential development located at 3403-3445 Fieldgate Drive, Mississauga, Region of Peel.

**Site Description**

The subject lands consist of one-storey commercial plaza and standalone commercial building with surface parking. The proposed mixed-use development is bounded by Bloor Street to the south, Fieldgate Drive to the west, Ponytrail Drive to the north, an adjacent apartment building to the east and gas station to the south on Bloor Street. The subject site is located approximately 1.20 kilometers from the proposed Dundas BRT stop at Wharton Drive and Dundas Street East and is 2.70 kilometer from the Dixie GO Station.

The existing surface parking will eventually be eliminated as part of the proposed development, but the parking will be provided within underground parking levels.

Please see the attached concept plan for proposed development.

**The development site includes:**

- A total of approximately 540 residential units in high-rise towers containing approximately 2,806 square metres of gross commercial area on the ground floor.
- A total of 13 stacked townhouse units as part of the residential tower.
- Parking Spaces in two underground parking levels with a proposed parking ratio of 0.75 spaces/unit for resident and 0.25 spaces/unit for shared visitor/commercial uses.
- The site proposes accesses via Fieldgate Drive and Ponytrail Drive. The access via Bloor Street, southern access via Fieldgate Drive and western access via Ponytrail Drive will be removed.

**Parking Requirements and Proposed Supply for Entire Development**

<i>It is noted that the shared parking provision within the City's By-law allows for providing the greater of either the visitor requirement or the combined requirement for other non-residential uses (retail in this case)</i>	<b>Use</b>	<b>Required Parking Ratio (Precinct 4 Rates)</b>	<b>Proposed Parking Ratio</b>	<b>Surplus/Deficit</b>
<b>Zoning By-Law 0225-2007</b>	Condominium Apartment Units	Resident: 1.1 spaces/unit (594 Spaces)	Resident: 0.75 spaces/unit (~405 Spaces)	<b>405 + 10 + 140 = 555 (Shared commercial/visitor parking)</b>
		Visitor: 0.2 spaces/unit (108 Spaces)	Visitor: 0.10 spaces/unit (~54 Spaces)	
	Stacked Townhouse Units	Resident: 2.0 spaces/unit (26 Spaces)	Resident: 0.75 spaces/unit (~10 Spaces)	
		Visitor: 0.25 spaces/unit (3 Spaces)	Visitor: 0.10 spaces/unit (~1 Space)	
	Retail: 5.0 spaces/100 m <sup>2</sup> GFA (140 spaces)		~140 Spaces	
<b>Total</b>		<b>594 + 26 + 140<sup>1</sup> 760 spaces</b>	<b>~555 spaces</b>	<b>-205 spaces (~26% reduction)</b>

Comparing the existing By-law requirements and the proposed parking supply rates, the proposed site is expected to be approximately ~26% deficient to the zoning by-law requirements and therefore a Parking Justification Study is expected to be required.

### **Parking Justification Study (PJS)**

The parking justification will be prepared in accordance with the City of Mississauga Parking Utilization Studies for Site Specific Applications Terms of Reference and following methodology is proposed to be used as part of the study:

- Review the minimum vehicle and bicycle parking requirements for the residential, commercial space proposed at the site per the City of Mississauga's Zoning By-Law and compare the requirements with the proposed supply. The vehicle review will be done according to the shared parking arrangement for shared Residential Visitor and Non-Residential Parking uses.
- Estimate the peak parking demand at the site based on the ITE Parking Generation Manual 6<sup>th</sup> Edition, which acts as a North American benchmark.
- Identify and compare the site to any recently proposed developments within Mississauga that include a similar land use context such as:
  1. **1785 Bloor Street Infill Building** (~200 metres from subject site) consisting of approximately 76 units. The site is located just east of subject site on Bloor Street. The development proposes **0.77** resident spaces/unit and **0.15** visitor spaces/unit.
  2. **3480 Havenwood Drive and 1450 Williamsport Drive Infill Building** (~650 metres from subject site) consisting of approximately 202 units in addition to the existing apartment buildings. The development proposed a resident parking rates of **0.56** spaces/unit and visitor parking rate of **0.10** space/unit.
- Identify previous conducted parking utilization surveys for residential developments within Mississauga and the GTA to determine peak parking demand on the subject site. We recommend using proxy surveys conducted by BA Group for their respective parking justification studies at sites with similar conditions as shown below:
  1. **1750 Bloor Street and 3315 Fieldgate Drive** consisting of approximately 302 units. The site is located opposite to the subject site at southeast corner of Bloor Street and Fieldgate Drive. The peak residential parking rate observed at site was **0.81** and visitor parking rates observed at **0.09** on Thursday, Friday, Saturday and Sunday in February/March 2019 between 6:00 PM and 1:00 AM.

2. **1785 Bloor Street** consisting of approximately 76 units. The site is located just east of subject site on Bloor Street. The peak residential parking rate observed at site was **0.77** and visitor parking rates observed at **0.15** on Thursday, November 25, 2021 for 24 hours.
3. **3480 Havenwood Drive & 1485 Williamsport Drive** consist of two nine-story residential apartments having a total of 132 units. Based on the rental information from 2018, the residential parking demand was **0.56** spaces per unit, and based on surveys from 2017 the visitor parking demand is observed at **0.04** spaces/unit.

Please confirm if these previously conducted parking surveys are sufficient for use within the parking study.

- Identify Transportation Demand Management (TDM) opportunities available at the site to assess potential site-specific measures that may be used to further support the proposed parking supply.
- Based on the findings, confirm the adequacy of the proposed parking supply to support the development.
- Document all analysis and recommendations in a Parking Justification for submission to the City of Mississauga.

I hope the proposed scope and workplan are acceptable. Should you have any questions of concerns, please feel free to let me know.

Kind regards,

Aarzo Dhanani

**Aarzo Dhanani**, M.Eng., EIT  
Engineering Intern, Transportation  
Office: 416.842.0020

Collingwood | Milton | Toronto | Bradford | Guelph

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# APPENDIX B

## Road Map Excerpts



# Schedule Long Term Road

- Provincial Highway
- Regional Arterial
- Arterial
- Future Arterial
- Major Collector
- Future Major Collector
- Major Collector
- Regional Major Collector
- Minor Collector
- Future Minor Collector
- Minor Collector
- Future Road Link

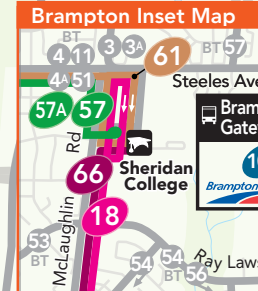
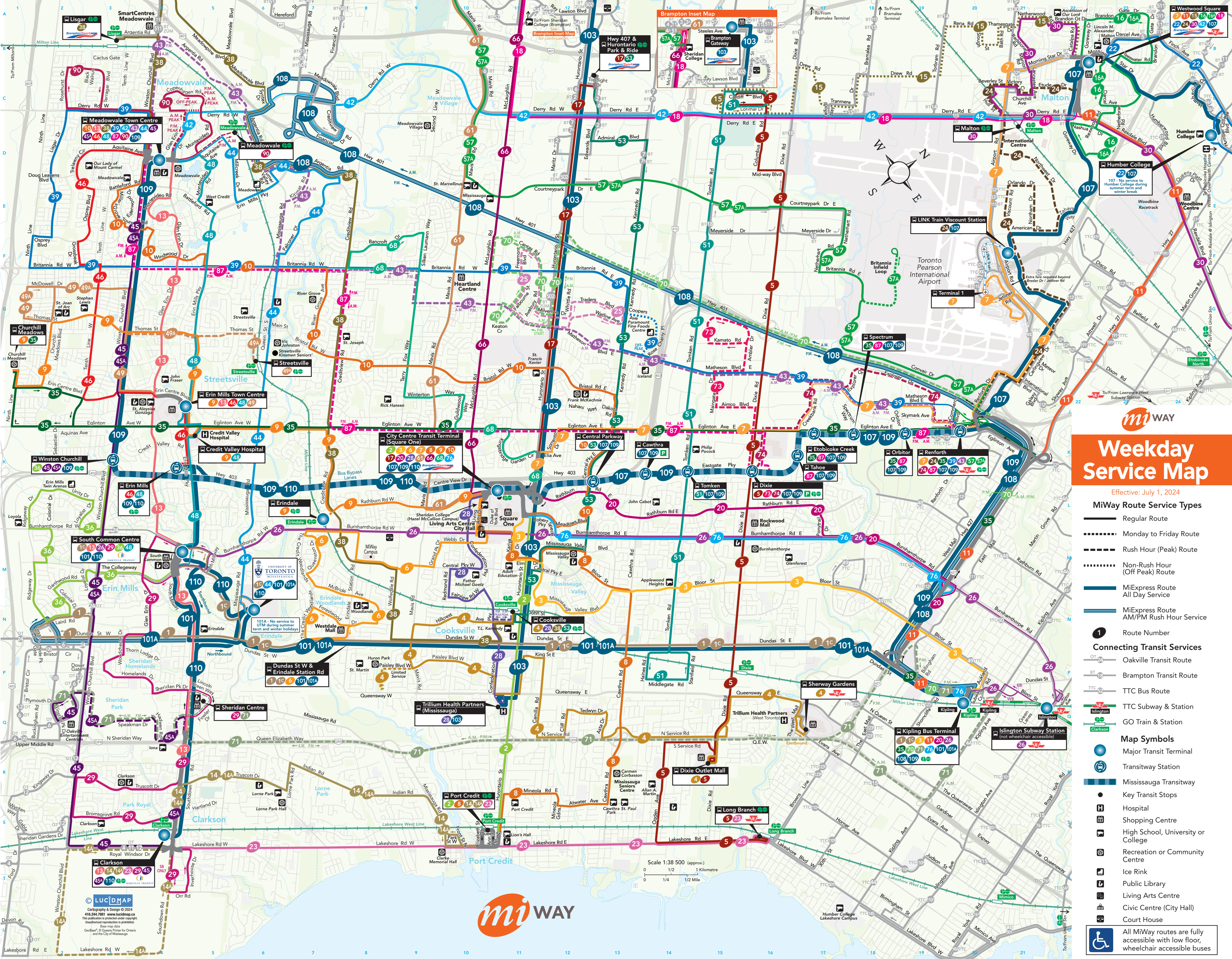
**Notes:**

1. The Britannia Road East link from Tomken Road subject to further study.
2. Roads shown on the map are not all under Mississauga jurisdiction.
3. All lines shown are conceptual.
4. Any part of the road network shown outside Mississauga is conceptual.



# APPENDIX C

## Transit Maps



# miWAY Weekday Service Map

Effective: July 1, 2024

## MiWay Route Service Types

- Regular Route
- Monday to Friday Route
- Rush Hour (Peak) Route
- Non-Rush Hour (Off Peak) Route
- MiExpress Route All Day Service
- MiExpress Route AM/PM Rush Hour Service

Route Number

## Connecting Transit Services

- TTC Bus Route
- GO Train & Station
- TTC Subway & Station
- GO Train & Station
- Clarkson

## Map Symbols

- Major Transit Terminal
- Transitway Station
- Mississauga Transitway
- Key Transit Stops
- Hospital
- Shopping Centre
- High School, University or College
- Recreation or Community Centre
- Ice Rink
- Public Library
- Living Arts Centre
- Civic Centre (City Hall)
- Court House

All MiWay routes are fully accessible with low floor, wheelchair accessible buses

Scale 1:38 500 (approx.)  
 0 1/2 1 Kilometre  
 0 1/4 1/2 Mile



**LUCIDMAP**  
 Cartography & Design © 2024  
 416.244.7881 www.lucidmap.ca  
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 Base map data: GeoBase © Queen's Printer for Ontario and the City of Mississauga



**miWAY**

**Saturday Service**

Effective: July 1, 2024

**MiWay Route Service Types**

- Regular Route
- MiExpress Route  
All Day Service

**Route Number**

**Connecting Transit Services**

- Oakville Transit Route
- Brampton Transit Route
- TTC Bus Route
- GO Train & Station
- Clarkson

**Map Symbols**

- Transitway Station
- Mississauga Transitway
- Key Transit Stops

All MiWay routes are fully accessible with low floor, wheelchair accessible buses





**miWAY**

**Saturday Service**

Effective: July 1, 2024

**MiWay Route Service Types**

- Regular Route
- MiExpress Route  
All Day Service
- Route Number

**Connecting Transit Services**

- Oakville Transit Route
- Brampton Transit Route
- TTC Bus Route
- GO Train & Station
- Clarkson

**Map Symbols**

- Transitway Station
- Mississauga Transitway
- Key Transit Stops

All MiWay routes are fully accessible with low floor, wheelchair accessible buses



# APPENDIX D

## Traffic Data



**Turning Movement Count (12 . BLOOR ST & 3404-3445 FIELDGATE DR ACCESS)**

Start Time	N Approach 3404-3445 FIELDGATE DR ACCESS					E Approach BLOOR ST					W Approach BLOOR ST					Int. Total (15 min)	Int. Total (1 hr)
	Right N:W	Left N:E	UTurn N:N	Peds N:	Approach Total	Right E:N	Thru E:W	UTurn E:E	Peds E:	Approach Total	Thru W:E	Left W:N	UTurn W:W	Peds W:	Approach Total		
07:00:00	0	0	0	3	0	1	77	0	1	78	165	0	0	0	165	243	
07:15:00	1	0	0	5	1	0	89	0	0	89	169	1	0	0	170	260	
07:30:00	0	0	0	10	0	0	114	0	1	114	167	0	0	0	167	281	
07:45:00	0	0	0	14	0	2	132	0	2	134	195	0	1	0	196	330	1114
08:00:00	1	1	0	9	2	1	137	1	1	139	192	0	0	0	192	333	1204
08:15:00	2	0	0	21	2	7	149	0	0	156	218	0	0	0	218	376	1320
08:30:00	1	0	0	8	1	0	149	0	0	149	207	1	1	0	209	359	1398
08:45:00	1	0	0	15	1	2	155	0	1	157	216	0	0	1	216	374	1442
09:00:00	2	1	0	6	3	3	114	0	1	117	170	1	0	0	171	291	1400
09:15:00	0	1	0	2	1	5	137	0	0	142	146	1	0	0	147	290	1314
09:30:00	1	1	0	7	2	2	115	0	0	117	132	1	0	0	133	252	1207
09:45:00	2	1	0	9	3	4	105	0	0	109	119	0	0	0	119	231	1064
***BREAK***																	
16:00:00	0	1	0	13	1	1	254	0	1	255	171	0	0	0	171	427	
16:15:00	1	1	0	14	2	5	244	0	1	249	177	0	1	0	178	429	
16:30:00	2	2	0	14	4	6	251	0	0	257	205	1	0	0	206	467	
16:45:00	4	0	0	19	4	4	253	0	0	257	181	1	0	0	182	443	1766
17:00:00	2	2	0	16	4	3	274	0	2	277	203	0	0	1	203	484	1823
17:15:00	0	2	0	27	2	6	254	0	0	260	240	0	0	1	240	502	1896
17:30:00	1	2	0	25	3	5	285	0	0	290	182	0	0	0	182	475	1904
17:45:00	2	1	0	25	3	4	266	0	1	270	229	1	0	1	230	503	1964
18:00:00	1	1	0	30	2	3	238	0	0	241	199	1	0	0	200	443	1923
18:15:00	3	0	0	25	3	6	225	0	0	231	173	1	1	0	175	409	1830
18:30:00	0	1	0	26	1	1	184	0	3	185	169	1	0	0	170	356	1711
18:45:00	3	0	0	15	3	8	174	0	3	182	181	0	0	0	181	366	1574
<b>Grand Total</b>	<b>30</b>	<b>18</b>	<b>0</b>	<b>358</b>	<b>48</b>	<b>79</b>	<b>4375</b>	<b>1</b>	<b>18</b>	<b>4455</b>	<b>4406</b>	<b>11</b>	<b>4</b>	<b>4</b>	<b>4421</b>	<b>8924</b>	<b>-</b>
<b>Approach%</b>	62.5%	37.5%	0%	-	-	1.8%	98.2%	0%	-	-	99.7%	0.2%	0.1%	-	-	-	-
<b>Totals %</b>	0.3%	0.2%	0%	0.5%	0.9%	49%	0%	49.9%	49.4%	0.1%	0%	49.5%	-	-	-	-	-
<b>Heavy</b>	1	0	0	-	1	82	0	-	101	1	0	-	-	-	-	-	-
<b>Heavy %</b>	3.3%	0%	0%	-	1.3%	1.9%	0%	-	2.3%	9.1%	0%	-	-	-	-	-	-
<b>Bicycles</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Bicycle %</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Peak Hour: 08:00 AM - 09:00 AM Weather: Scattered Clouds (8.33 °C)**

Start Time	N Approach 3404-3445 FIELDGATE DR ACCESS					E Approach BLOOR ST					W Approach BLOOR ST					Int. Total (15 min)
	Right	Left	UTurn	Peds	Approach Total	Right	Thru	UTurn	Peds	Approach Total	Thru	Left	UTurn	Peds	Approach Total	
08:00:00	1	1	0	9	2	1	137	1	1	139	192	0	0	0	192	333
08:15:00	2	0	0	21	2	7	149	0	0	156	218	0	0	0	218	376
08:30:00	1	0	0	8	1	0	149	0	0	149	207	1	1	0	209	359
08:45:00	1	0	0	15	1	2	155	0	1	157	216	0	0	1	216	374
<b>Grand Total</b>	<b>5</b>	<b>1</b>	<b>0</b>	<b>53</b>	<b>6</b>	<b>10</b>	<b>590</b>	<b>1</b>	<b>2</b>	<b>601</b>	<b>833</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>835</b>	<b>1442</b>
<b>Approach%</b>	83.3%	16.7%	0%	-	-	1.7%	98.2%	0.2%	-	-	99.8%	0.1%	0.1%	-	-	-
<b>Totals %</b>	0.3%	0.1%	0%	0.4%	0.4%	0.7%	40.9%	0.1%	41.7%	41.7%	57.8%	0.1%	0.1%	57.9%	57.9%	-
<b>PHF</b>	0.63	0.25	0	0.75	0.75	0.36	0.95	0.25	0.96	0.96	0.96	0.25	0.25	0.96	0.96	-
<b>Heavy</b>	0	0	0	0	0	0	19	0	19	19	29	0	0	29	29	-
<b>Heavy %</b>	0%	0%	0%	0%	0%	0%	3.2%	0%	3.2%	3.2%	3.5%	0%	0%	3.5%	3.5%	-
<b>Lights</b>	5	1	0	6	6	6	571	1	578	578	804	1	1	806	806	-
<b>Lights %</b>	100%	100%	0%	100%	100%	60%	96.8%	100%	96.2%	96.2%	96.5%	100%	100%	96.5%	96.5%	-
<b>Single-Unit Trucks</b>	0	0	0	0	0	0	5	0	5	5	13	0	0	13	13	-
<b>Single-Unit Trucks %</b>	0%	0%	0%	0%	0%	0%	0.8%	0%	0.8%	0.8%	1.6%	0%	0%	1.6%	1.6%	-
<b>Buses</b>	0	0	0	0	0	0	14	0	14	14	15	0	0	15	15	-
<b>Buses %</b>	0%	0%	0%	0%	0%	0%	2.4%	0%	2.3%	2.3%	1.8%	0%	0%	1.8%	1.8%	-
<b>Articulated Trucks</b>	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	-
<b>Articulated Trucks %</b>	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0.1%	0%	0%	0.1%	0.1%	-
<b>Bicycles on Road</b>	0	0	0	0	0	4	0	0	4	4	0	0	0	0	0	-
<b>Bicycles on Road %</b>	0%	0%	0%	0%	0%	40%	0%	0%	0.7%	0.7%	0%	0%	0%	0%	0%	-
<b>Pedestrians</b>	-	-	-	50	-	-	-	2	-	-	-	-	-	1	-	-
<b>Pedestrians%</b>	-	-	-	89.3%	-	-	-	3.6%	-	-	-	-	-	1.8%	-	-
<b>Bicycles on Crosswalk</b>	-	-	-	3	-	-	-	0	-	-	-	-	-	0	-	-
<b>Bicycles on Crosswalk%</b>	-	-	-	5.4%	-	-	-	0%	-	-	-	-	-	0%	-	-

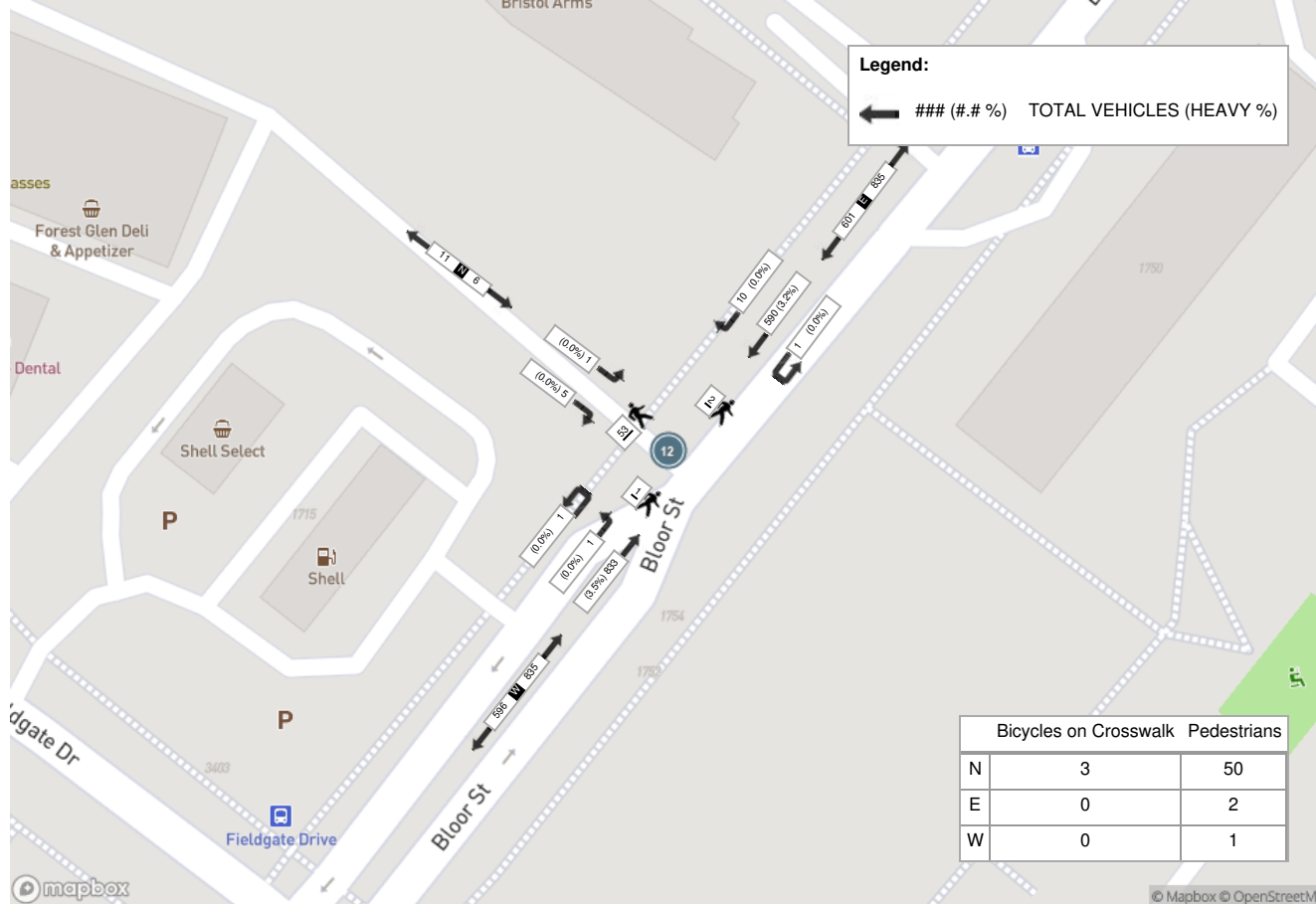


**Peak Hour: 05:00 PM - 06:00 PM Weather: Broken Clouds (14.49 °C)**

Start Time	N Approach 3404-3445 FIELDGATE DR ACCESS					E Approach BLOOR ST					W Approach BLOOR ST					Int. Total (15 min)
	Right	Left	UTurn	Peds	Approach Total	Right	Thru	UTurn	Peds	Approach Total	Thru	Left	UTurn	Peds	Approach Total	
17:00:00	2	2	0	16	4	3	274	0	2	277	203	0	0	1	203	484
17:15:00	0	2	0	27	2	6	254	0	0	260	240	0	0	1	240	502
17:30:00	1	2	0	25	3	5	285	0	0	290	182	0	0	0	182	475
17:45:00	2	1	0	25	3	4	266	0	1	270	229	1	0	1	230	503
<b>Grand Total</b>	<b>5</b>	<b>7</b>	<b>0</b>	<b>93</b>	<b>12</b>	<b>18</b>	<b>1079</b>	<b>0</b>	<b>3</b>	<b>1097</b>	<b>854</b>	<b>1</b>	<b>0</b>	<b>3</b>	<b>855</b>	<b>1964</b>
<b>Approach%</b>	41.7%	58.3%	0%	-	-	1.6%	98.4%	0%	-	-	99.9%	0.1%	0%	-	-	-
<b>Totals %</b>	0.3%	0.4%	0%	0.6%	0.6%	0.9%	54.9%	0%	55.9%	55.9%	43.5%	0.1%	0%	43.5%	43.5%	-
<b>PHF</b>	0.63	0.88	0	0.75	0.75	0.75	0.95	0	0.95	0.95	0.89	0.25	0	0.89	0.89	-
<b>Heavy</b>	0	0	0	0	0	0	11	0	11	11	13	0	0	13	13	-
<b>Heavy %</b>	0%	0%	0%	0%	0%	0%	1%	0%	1%	1%	1.5%	0%	0%	1.5%	1.5%	-
<b>Lights</b>	5	7	0	12	12	18	1067	0	1085	1085	840	1	0	841	841	-
<b>Lights %</b>	100%	100%	0%	100%	100%	100%	98.9%	0%	98.9%	98.9%	98.4%	100%	0%	98.4%	98.4%	-
<b>Single-Unit Trucks</b>	0	0	0	0	0	0	3	0	3	3	9	0	0	9	9	-
<b>Single-Unit Trucks %</b>	0%	0%	0%	0%	0%	0%	0.3%	0%	0.3%	0.3%	1.1%	0%	0%	1.1%	1.1%	-
<b>Buses</b>	0	0	0	0	0	0	8	0	8	8	4	0	0	4	4	-
<b>Buses %</b>	0%	0%	0%	0%	0%	0%	0.7%	0%	0.7%	0.7%	0.5%	0%	0%	0.5%	0.5%	-
<b>Articulated Trucks</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
<b>Articulated Trucks %</b>	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-
<b>Bicycles on Road</b>	0	0	0	0	0	0	1	0	1	1	1	0	0	1	1	-
<b>Bicycles on Road %</b>	0%	0%	0%	0%	0%	0%	0.1%	0%	0.1%	0.1%	0.1%	0%	0%	0.1%	0.1%	-
<b>Pedestrians</b>	-	-	-	89	-	-	-	-	3	-	-	-	-	3	-	-
<b>Pedestrians%</b>	-	-	-	89.9%	-	-	-	-	3%	-	-	-	-	3%	-	-
<b>Bicycles on Crosswalk</b>	-	-	-	4	-	-	-	-	0	-	-	-	-	0	-	-
<b>Bicycles on Crosswalk%</b>	-	-	-	4%	-	-	-	-	0%	-	-	-	-	0%	-	-



Peak Hour: 08:00 AM - 09:00 AM Weather: Scattered Clouds (8.33 °C)



Peak Hour: 05:00 PM - 06:00 PM Weather: Broken Clouds (14.49 °C)





**Turning Movement Count (12 . BLOOR ST & 3404-3445 FIELDGATE DR ACCESS)**

Start Time	N Approach 3404-3445 FIELDGATE DR ACCESS					E Approach BLOOR ST					W Approach BLOOR ST					Int. Total (15 min)	Int. Total (1 hr)
	Right N:W	Left N:E	UTurn N:N	Peds N:	Approach Total	Right E:N	Thru E:W	UTurn E:E	Peds E:	Approach Total	Thru W:E	Left W:N	UTurn W:W	Peds W:	Approach Total		
10:00:00	0	0	0	6	0	4	138	0	1	142	162	2	0	1	164	306	
10:15:00	4	0	0	8	4	3	164	1	3	168	154	0	0	0	154	326	
10:30:00	0	3	0	10	3	5	165	0	3	170	159	0	0	0	159	332	
10:45:00	1	0	0	11	1	2	147	0	0	149	159	0	0	1	159	309	1273
11:00:00	1	0	0	10	1	2	152	0	1	154	152	0	1	2	153	308	1275
11:15:00	3	2	0	14	5	7	157	0	0	164	163	0	0	0	163	332	1281
11:30:00	3	1	0	3	4	3	175	0	0	178	159	0	0	0	159	341	1290
11:45:00	2	2	0	7	4	5	170	0	4	175	149	0	0	0	149	328	1309
12:00:00	1	1	0	6	2	4	157	0	3	161	175	0	0	0	175	338	1339
12:15:00	2	1	0	6	3	8	167	0	0	175	188	0	1	2	189	367	1374
12:30:00	1	0	0	19	1	6	153	0	3	159	204	0	0	0	204	364	1397
12:45:00	4	1	0	4	5	8	212	0	4	220	187	0	0	0	187	412	1481
13:00:00	4	2	0	7	6	6	155	0	1	161	174	0	0	1	174	341	1484
13:15:00	2	2	0	6	4	1	164	0	1	165	189	0	0	0	189	358	1475
13:30:00	2	2	0	4	4	6	175	0	1	181	227	0	2	0	229	414	1525
13:45:00	3	1	0	10	4	4	174	0	0	178	214	0	0	0	214	396	1509
<b>Grand Total</b>	<b>33</b>	<b>18</b>	<b>0</b>	<b>131</b>	<b>51</b>	<b>74</b>	<b>2625</b>	<b>1</b>	<b>25</b>	<b>2700</b>	<b>2815</b>	<b>2</b>	<b>4</b>	<b>7</b>	<b>2821</b>	<b>5572</b>	<b>-</b>
<b>Approach%</b>	64.7%	35.3%	0%	-	-	2.7%	97.2%	0%	-	-	99.8%	0.1%	0.1%	-	-	-	-
<b>Totals %</b>	0.6%	0.3%	0%	0.9%	0.9%	1.3%	47.1%	0%	48.5%	48.5%	50.5%	0%	0.1%	50.6%	-	-	-
<b>Heavy</b>	0	0	0	-	-	0	22	0	-	-	21	0	0	-	-	-	-
<b>Heavy %</b>	0%	0%	0%	-	-	0%	0.8%	0%	-	-	0.7%	0%	0%	-	-	-	-
<b>Bicycles</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Bicycle %</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Peak Hour: 12:45 PM - 01:45 PM Weather: Broken Clouds (12.83 °C)**

Start Time	N Approach 3404-3445 FIELDGATE DR ACCESS					E Approach BLOOR ST					W Approach BLOOR ST					Int. Total (15 min)
	Right	Left	UTurn	Peds	Approach Total	Right	Thru	UTurn	Peds	Approach Total	Thru	Left	UTurn	Peds	Approach Total	
12:45:00	4	1	0	4	5	8	212	0	4	220	187	0	0	0	187	412
13:00:00	4	2	0	7	6	6	155	0	1	161	174	0	0	1	174	341
13:15:00	2	2	0	6	4	1	164	0	1	165	189	0	0	0	189	358
13:30:00	2	2	0	4	4	6	175	0	1	181	227	0	2	0	229	414
<b>Grand Total</b>	<b>12</b>	<b>7</b>	<b>0</b>	<b>21</b>	<b>19</b>	<b>21</b>	<b>706</b>	<b>0</b>	<b>7</b>	<b>727</b>	<b>777</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>779</b>	<b>1525</b>
<b>Approach%</b>	63.2%	36.8%	0%	-	-	2.9%	97.1%	0%	-	-	99.7%	0%	0.3%	-	-	-
<b>Totals %</b>	0.8%	0.5%	0%	1.2%	1.2%	1.4%	46.3%	0%	47.7%	47.7%	51%	0%	0.1%	51.1%	51.1%	-
<b>PHF</b>	0.75	0.88	0	0.79	0.79	0.66	0.83	0	0.83	0.83	0.86	0	0.25	0.85	0.85	-
<b>Heavy</b>	0	0	0	0	0	0	5	0	5	5	2	0	0	2	2	-
<b>Heavy %</b>	0%	0%	0%	0%	0%	0%	0.7%	0%	0.7%	0.7%	0.3%	0%	0%	0.3%	0.3%	-
<b>Lights</b>	12	7	0	19	19	21	701	0	722	722	773	0	2	775	775	-
<b>Lights %</b>	100%	100%	0%	100%	100%	100%	99.3%	0%	99.3%	99.3%	99.5%	0%	100%	99.5%	99.5%	-
<b>Single-Unit Trucks</b>	0	0	0	0	0	0	3	0	3	3	1	0	0	1	1	-
<b>Single-Unit Trucks %</b>	0%	0%	0%	0%	0%	0%	0.4%	0%	0.4%	0.4%	0.1%	0%	0%	0.1%	0.1%	-
<b>Buses</b>	0	0	0	0	0	0	2	0	2	2	1	0	0	1	1	-
<b>Buses %</b>	0%	0%	0%	0%	0%	0%	0.3%	0%	0.3%	0.3%	0.1%	0%	0%	0.1%	0.1%	-
<b>Bicycles on Road</b>	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2	-
<b>Bicycles on Road %</b>	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0.3%	0%	0%	0.3%	0.3%	-
<b>Pedestrians</b>	-	-	-	21	-	-	-	-	6	-	-	-	-	1	-	-
<b>Pedestrians%</b>	-	-	-	72.4%	-	-	-	-	20.7%	-	-	-	-	3.4%	-	-
<b>Bicycles on Crosswalk</b>	-	-	-	0	-	-	-	-	1	-	-	-	-	0	-	-
<b>Bicycles on Crosswalk%</b>	-	-	-	0%	-	-	-	-	3.4%	-	-	-	-	0%	-	-

Peak Hour: 12:45 PM - 01:45 PM Weather: Broken Clouds (12.83 °C)





Turning Movement Count (8 . BLOOR ST & DIXIE RD) CustID: 00404934

Start Time	N Approach DIXIE RD						E Approach BLOOR ST					S Approach DIXIE RD					W Approach BLOOR ST					Int. Total (15 min)	Int. Total (1 hr)			
	Right N:W	Thru N:S	Left N:E	UTurn N:N	Peds N:	Approach Total	Right E:N	Thru E:W	Left E:S	UTurn E:E	Peds E:	Approach Total	Right S:E	Thru S:N	Left S:W	UTurn S:S	Peds S:	Approach Total	Right W:S	Thru W:E	Left W:N			UTurn W:W	Peds W:	Approach Total
07:00:00	8	202	40	1	8	251	42	48	35	0	4	125	24	135	7	0	4	166	14	79	13	0	5	106	648	
07:15:00	10	231	49	0	6	290	56	35	46	0	3	137	26	158	10	0	0	194	33	77	21	0	3	131	752	
07:30:00	12	282	48	0	2	342	66	62	62	0	2	190	21	173	17	0	3	211	34	79	16	0	6	129	872	
07:45:00	12	270	43	0	6	325	60	73	64	0	2	197	27	164	23	0	0	214	41	86	37	0	2	164	900	3172
08:00:00	21	335	52	0	7	408	53	80	58	0	4	191	44	261	12	0	2	317	45	114	27	0	3	186	1102	3626
08:15:00	22	284	44	1	9	351	65	91	69	0	2	225	47	197	8	1	1	253	42	115	34	0	17	191	1020	3894
08:30:00	17	270	46	0	11	333	62	73	60	0	4	195	45	228	13	1	3	287	36	97	39	0	0	172	987	4009
08:45:00	37	266	43	0	18	346	61	107	59	1	4	228	43	263	20	0	2	326	50	123	37	0	15	210	1110	4219
09:00:00	20	235	49	2	13	306	46	97	74	0	4	217	39	216	22	0	4	277	52	102	33	0	2	187	987	4104
09:15:00	25	241	44	0	6	310	41	68	53	1	5	163	31	184	24	0	3	239	38	71	21	0	19	130	842	3926
09:30:00	25	271	27	0	11	323	44	59	63	0	5	166	32	184	14	0	4	230	31	59	25	0	6	115	834	3773
09:45:00	19	179	24	1	7	223	41	47	65	0	6	153	45	169	15	2	1	231	30	68	40	0	7	138	745	3408
***BREAK***																										
16:00:00	48	351	37	0	15	436	37	152	71	0	14	260	65	344	56	3	12	468	29	103	41	0	5	173	1337	
16:15:00	54	309	27	0	18	390	57	150	79	0	11	286	81	282	36	1	10	400	41	132	32	1	12	206	1282	
16:30:00	63	371	33	0	15	467	59	135	73	0	6	267	86	288	64	1	3	439	35	82	24	1	8	142	1315	
16:45:00	55	347	35	0	20	437	55	166	75	0	2	296	72	292	62	0	4	426	31	90	30	0	12	151	1310	5244
17:00:00	53	290	26	0	18	369	49	178	74	0	11	301	75	216	57	1	14	349	32	116	33	2	21	183	1202	5109
17:15:00	63	386	29	0	17	478	32	189	67	0	10	288	101	354	68	0	10	523	51	122	36	0	13	209	1498	5325
17:30:00	56	339	28	1	12	424	61	178	76	0	3	315	76	296	57	1	6	430	45	106	31	0	12	182	1351	5361
17:45:00	59	374	31	0	23	464	53	155	70	1	6	279	79	268	73	3	6	423	46	112	32	1	14	191	1357	5408
18:00:00	35	300	34	0	23	369	49	152	69	0	5	270	92	354	63	0	5	509	37	81	32	0	11	150	1298	5504
18:15:00	37	299	30	0	18	366	63	120	82	1	8	266	72	256	48	1	11	377	46	95	39	0	6	180	1189	5195
18:30:00	37	261	30	0	12	328	58	105	65	0	5	228	82	285	52	0	3	419	33	80	39	0	8	152	1127	4971
18:45:00	44	230	30	2	14	306	46	105	79	0	8	230	83	231	37	0	7	351	29	106	25	0	6	160	1047	4661
<b>Grand Total</b>	<b>832</b>	<b>6923</b>	<b>879</b>	<b>8</b>	<b>309</b>	<b>8642</b>	<b>1256</b>	<b>2625</b>	<b>1588</b>	<b>4</b>	<b>134</b>	<b>5473</b>	<b>1388</b>	<b>5798</b>	<b>858</b>	<b>15</b>	<b>118</b>	<b>8059</b>	<b>901</b>	<b>2295</b>	<b>737</b>	<b>5</b>	<b>213</b>	<b>3938</b>	<b>26112</b>	<b>-</b>
<b>Approach%</b>	9.6%	80.1%	10.2%	0.1%	-	-	22.9%	48%	29%	0.1%	-	-	17.2%	71.9%	10.6%	0.2%	-	22.9%	58.3%	18.7%	0.1%	-	-	-	-	-
<b>Totals %</b>	3.2%	26.5%	3.4%	0%	-	33.1%	4.8%	10.1%	6.1%	0%	21%	-	5.3%	22.2%	3.3%	0.1%	30.9%	3.5%	8.8%	2.8%	0%	15.1%	-	-	-	-
<b>Heavy</b>	15	279	31	0	-	-	23	80	23	1	-	-	25	277	7	0	-	13	68	14	0	-	-	-	-	-
<b>Heavy %</b>	1.8%	4%	3.5%	0%	-	-	1.8%	3%	1.4%	25%	-	-	1.8%	4.8%	0.8%	0%	-	1.4%	3%	1.9%	0%	-	-	-	-	-
<b>Bicycles</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Bicycle %</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Peak Hour: 08:00 AM - 09:00 AM Weather: Scattered Clouds (8.33 °C)**

Start Time	N Approach DIXIE RD						E Approach BLOOR ST						S Approach DIXIE RD						W Approach BLOOR ST						Int. Total (15 min)
	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	
08:00:00	21	335	52	0	7	408	53	80	58	0	4	191	44	261	12	0	2	317	45	114	27	0	3	186	1102
08:15:00	22	284	44	1	9	351	65	91	69	0	2	225	47	197	8	1	1	253	42	115	34	0	17	191	1020
08:30:00	17	270	46	0	11	333	62	73	60	0	4	195	45	228	13	1	3	287	36	97	39	0	0	172	987
08:45:00	37	266	43	0	18	346	61	107	59	1	4	228	43	263	20	0	2	326	50	123	37	0	15	210	1110
<b>Grand Total</b>	<b>97</b>	<b>1155</b>	<b>185</b>	<b>1</b>	<b>45</b>	<b>1438</b>	<b>241</b>	<b>351</b>	<b>246</b>	<b>1</b>	<b>14</b>	<b>839</b>	<b>179</b>	<b>949</b>	<b>53</b>	<b>2</b>	<b>8</b>	<b>1183</b>	<b>173</b>	<b>449</b>	<b>137</b>	<b>0</b>	<b>35</b>	<b>759</b>	<b>4219</b>
<b>Approach%</b>	6.7%	80.3%	12.9%	0.1%	-	-	28.7%	41.8%	29.3%	0.1%	-	-	15.1%	80.2%	4.5%	0.2%	-	-	22.8%	59.2%	18.1%	0%	-	-	-
<b>Totals %</b>	2.3%	27.4%	4.4%	0%	34.1%	5.7%	8.3%	5.8%	0%	19.9%	4.2%	22.5%	1.3%	0%	28%	4.1%	10.6%	3.2%	0%	18%	-	-	-	-	-
<b>PHF</b>	0.66	0.86	0.89	0.25	0.88	0.93	0.82	0.89	0.25	0.92	0.88	0.95	0.9	0.66	0.5	0.91	0.87	0.91	0.88	0	0.9	-	-	-	-
<b>Heavy</b>	4	64	11	0	79	10	19	6	1	36	8	81	3	0	92	1	12	6	0	19	-	-	-	-	-
<b>Heavy %</b>	4.1%	5.5%	5.9%	0%	5.5%	4.1%	5.4%	2.4%	100%	4.3%	4.5%	8.5%	5.7%	0%	7.8%	0.6%	2.7%	4.4%	0%	2.5%	-	-	-	-	-
<b>Lights</b>	93	1091	174	1	1359	231	332	240	0	803	171	868	50	2	1091	172	437	131	0	740	-	-	-	-	-
<b>Lights %</b>	95.9%	94.5%	94.1%	100%	94.5%	95.9%	94.6%	97.6%	0%	95.7%	95.5%	91.5%	94.3%	100%	92.2%	99.4%	97.3%	95.6%	0%	97.5%	-	-	-	-	-
<b>Single-Unit Trucks</b>	1	40	9	0	50	5	3	3	1	12	0	48	3	0	51	1	4	4	0	9	-	-	-	-	-
<b>Single-Unit Trucks %</b>	1%	3.5%	4.9%	0%	3.5%	2.1%	0.9%	1.2%	100%	1.4%	0%	5.1%	5.7%	0%	4.3%	0.6%	0.9%	2.9%	0%	1.2%	-	-	-	-	-
<b>Buses</b>	3	8	2	0	13	4	16	3	0	23	8	12	0	0	20	0	8	1	0	9	-	-	-	-	-
<b>Buses %</b>	3.1%	0.7%	1.1%	0%	0.9%	1.7%	4.6%	1.2%	0%	2.7%	4.5%	1.3%	0%	0%	1.7%	0%	1.8%	0.7%	0%	1.2%	-	-	-	-	-
<b>Articulated Trucks</b>	0	16	0	0	16	1	0	0	0	1	0	21	0	0	21	0	0	1	0	1	-	-	-	-	-
<b>Articulated Trucks %</b>	0%	1.4%	0%	0%	1.1%	0.4%	0%	0%	0%	0.1%	0%	2.2%	0%	0%	1.8%	0%	0%	0.7%	0%	0.1%	-	-	-	-	-
<b>Bicycles on Road</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-
<b>Bicycles on Road %</b>	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-	-	-	-	-
<b>Pedestrians</b>	-	-	-	-	42	-	-	-	-	12	-	-	-	-	5	-	-	-	-	34	-	-	-	-	-
<b>Pedestrians %</b>	-	-	-	-	41.2%	-	-	-	-	11.8%	-	-	-	-	4.9%	-	-	-	-	33.3%	-	-	-	-	-
<b>Bicycles on Crosswalk</b>	-	-	-	-	3	-	-	-	-	2	-	-	-	-	3	-	-	-	-	1	-	-	-	-	-
<b>Bicycles on Crosswalk %</b>	-	-	-	-	2.9%	-	-	-	-	2%	-	-	-	-	2.9%	-	-	-	-	1%	-	-	-	-	-

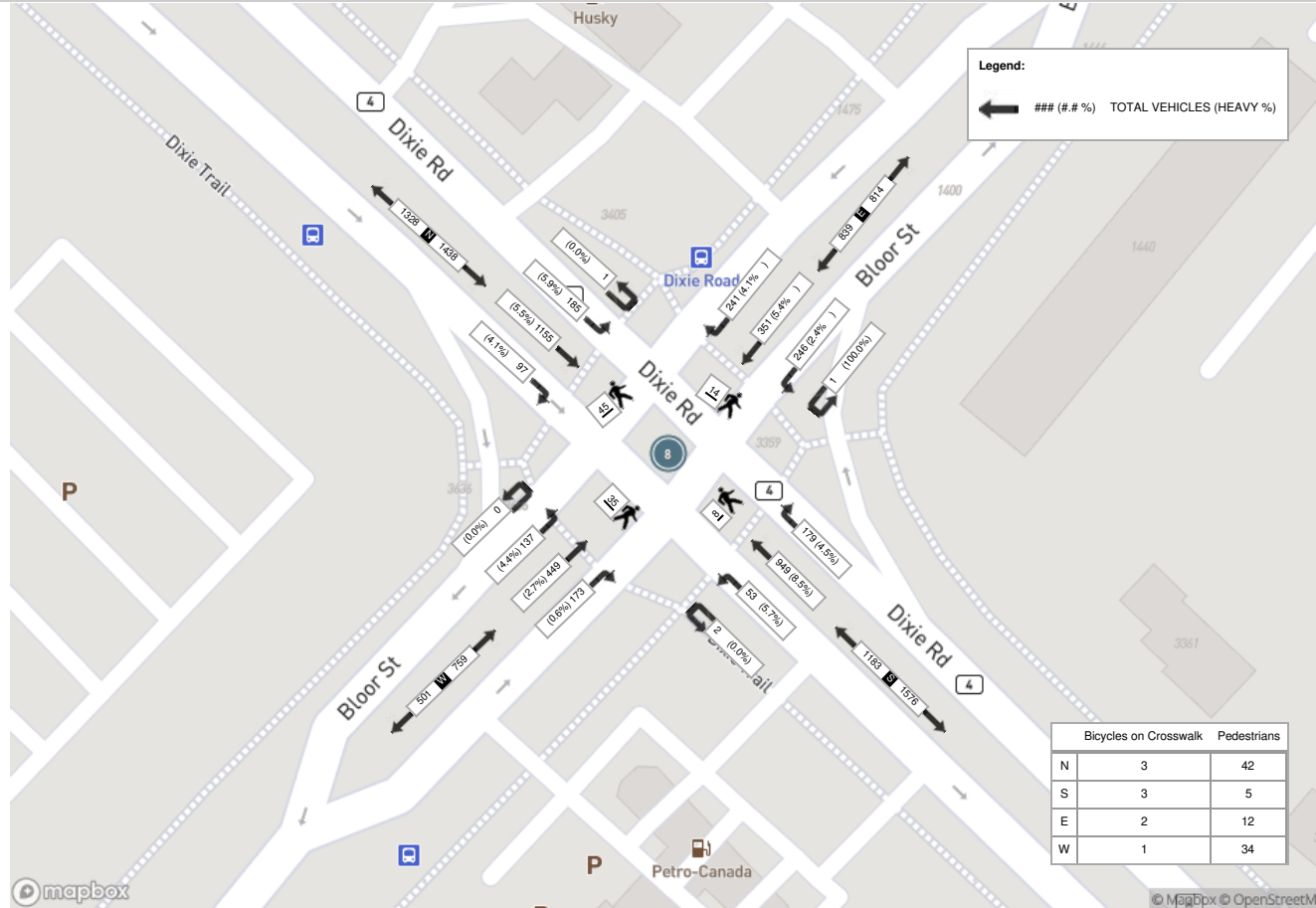


**Peak Hour: 05:15 PM - 06:15 PM Weather: Broken Clouds (14.49 °C)**

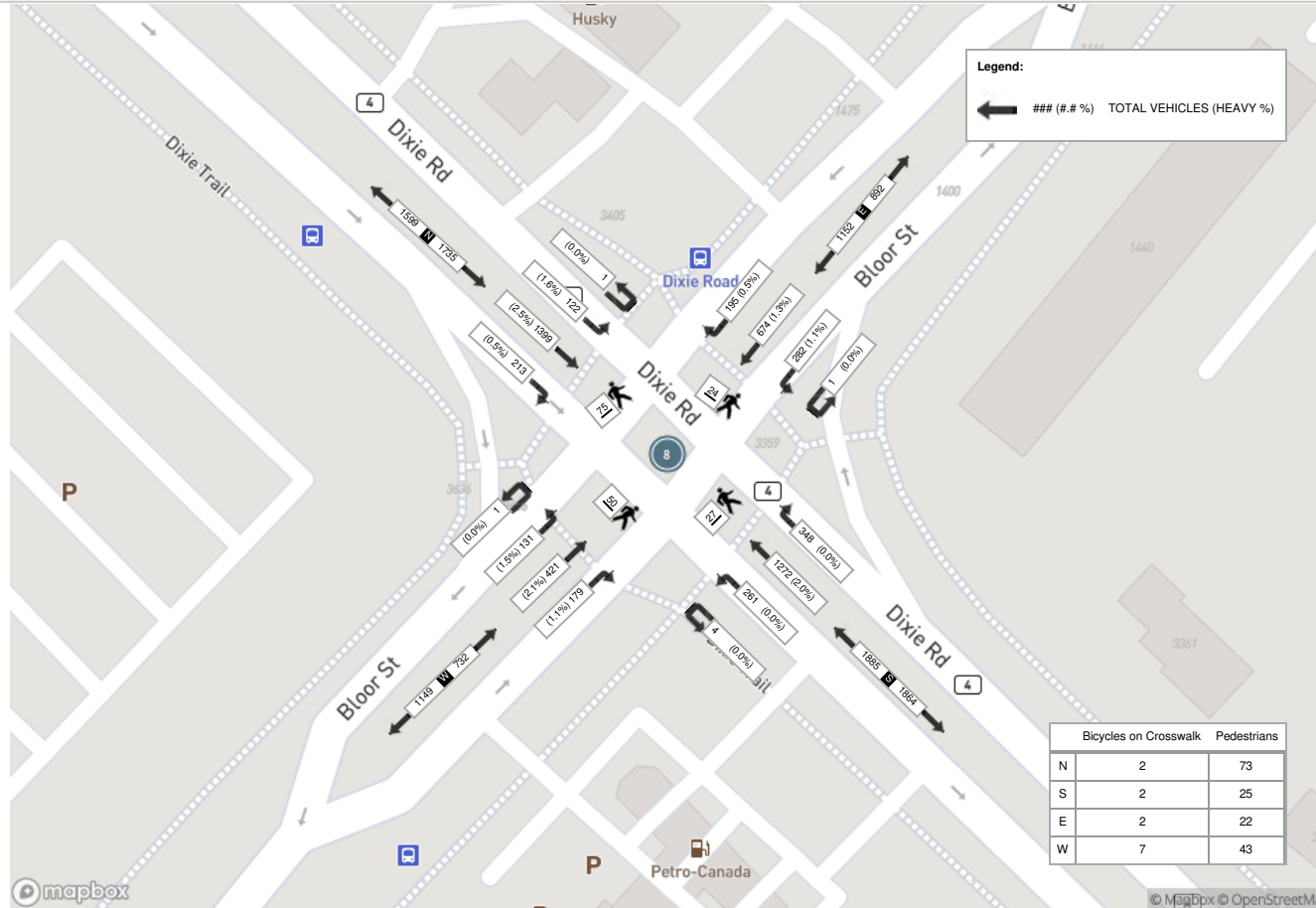
Start Time	N Approach DIXIE RD						E Approach BLOOR ST						S Approach DIXIE RD						W Approach BLOOR ST						Int. Total (15 min)
	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	
17:15:00	63	386	29	0	17	478	32	189	67	0	10	288	101	354	68	0	10	523	51	122	36	0	13	209	1498
17:30:00	56	339	28	1	12	424	61	178	76	0	3	315	76	296	57	1	6	430	45	106	31	0	12	182	1351
17:45:00	59	374	31	0	23	464	53	155	70	1	6	279	79	268	73	3	6	423	46	112	32	1	14	191	1357
18:00:00	35	300	34	0	23	369	49	152	69	0	5	270	92	354	63	0	5	509	37	81	32	0	11	150	1298
<b>Grand Total</b>	<b>213</b>	<b>1399</b>	<b>122</b>	<b>1</b>	<b>75</b>	<b>1735</b>	<b>195</b>	<b>674</b>	<b>282</b>	<b>1</b>	<b>24</b>	<b>1152</b>	<b>348</b>	<b>1272</b>	<b>261</b>	<b>4</b>	<b>27</b>	<b>1885</b>	<b>179</b>	<b>421</b>	<b>131</b>	<b>1</b>	<b>50</b>	<b>732</b>	<b>5504</b>
<b>Approach%</b>	12.3%	80.6%	7%	0.1%	-	-	16.9%	58.5%	24.5%	0.1%	-	-	18.5%	67.5%	13.8%	0.2%	-	-	24.5%	57.5%	17.9%	0.1%	-	-	-
<b>Totals %</b>	3.9%	25.4%	2.2%	0%	31.5%	3.5%	12.2%	5.1%	0%	20.9%	6.3%	23.1%	4.7%	0.1%	34.2%	3.3%	7.6%	2.4%	0%	13.3%	-	-	-	-	-
<b>PHF</b>	0.85	0.91	0.9	0.25	0.91	0.8	0.89	0.93	0.25	0.91	0.86	0.9	0.89	0.33	0.9	0.88	0.86	0.91	0.25	0.88	-	-	-	-	-
<b>Heavy</b>	1	35	2	0	38	1	9	3	0	13	0	26	0	0	26	2	9	2	0	13	-	-	-	-	-
<b>Heavy %</b>	0.5%	2.5%	1.6%	0%	2.2%	0.5%	1.3%	1.1%	0%	1.1%	0%	2%	0%	0%	1.4%	1.1%	2.1%	1.5%	0%	1.8%	-	-	-	-	-
<b>Lights</b>	211	1364	120	1	1696	194	665	279	1	1139	348	1246	261	4	1859	177	412	129	1	719	-	-	-	-	-
<b>Lights %</b>	99.1%	97.5%	98.4%	100%	97.8%	99.5%	98.7%	98.9%	100%	98.9%	100%	98%	100%	100%	98.6%	98.9%	97.9%	98.5%	100%	98.2%	-	-	-	-	-
<b>Single-Unit Trucks</b>	1	23	2	0	26	1	1	2	0	4	0	17	0	0	17	1	3	2	0	6	-	-	-	-	-
<b>Single-Unit Trucks %</b>	0.5%	1.6%	1.6%	0%	1.5%	0.5%	0.1%	0.7%	0%	0.3%	0%	1.3%	0%	0%	0.9%	0.6%	0.7%	1.5%	0%	0.8%	-	-	-	-	-
<b>Buses</b>	0	4	0	0	4	0	8	1	0	9	0	5	0	0	5	0	6	0	0	6	-	-	-	-	-
<b>Buses %</b>	0%	0.3%	0%	0%	0.2%	0%	1.2%	0.4%	0%	0.8%	0%	0.4%	0%	0%	0.3%	0%	1.4%	0%	0%	0.8%	-	-	-	-	-
<b>Articulated Trucks</b>	0	8	0	0	8	0	0	0	0	0	0	4	0	0	4	1	0	0	0	1	-	-	-	-	-
<b>Articulated Trucks %</b>	0%	0.6%	0%	0%	0.5%	0%	0%	0%	0%	0%	0%	0.3%	0%	0%	0.2%	0.6%	0%	0%	0%	0.1%	-	-	-	-	-
<b>Bicycles on Road</b>	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-
<b>Bicycles on Road %</b>	0.5%	0%	0%	0%	0.1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-	-	-	-	-
<b>Pedestrians</b>	-	-	-	-	73	-	-	-	-	22	-	-	-	-	25	-	-	-	-	43	-	-	-	-	-
<b>Pedestrians %</b>	-	-	-	-	41.5%	-	-	-	-	12.5%	-	-	-	-	14.2%	-	-	-	-	24.4%	-	-	-	-	-
<b>Bicycles on Crosswalk</b>	-	-	-	-	2	-	-	-	-	2	-	-	-	-	2	-	-	-	-	7	-	-	-	-	-
<b>Bicycles on Crosswalk %</b>	-	-	-	-	1.1%	-	-	-	-	1.1%	-	-	-	-	1.1%	-	-	-	-	4%	-	-	-	-	-



Peak Hour: 08:00 AM - 09:00 AM Weather: Scattered Clouds (8.33 °C)



Peak Hour: 05:15 PM - 06:15 PM Weather: Broken Clouds (14.49 °C)





Turning Movement Count (8 . BLOOR ST & DIXIE RD) CustID: 00404934

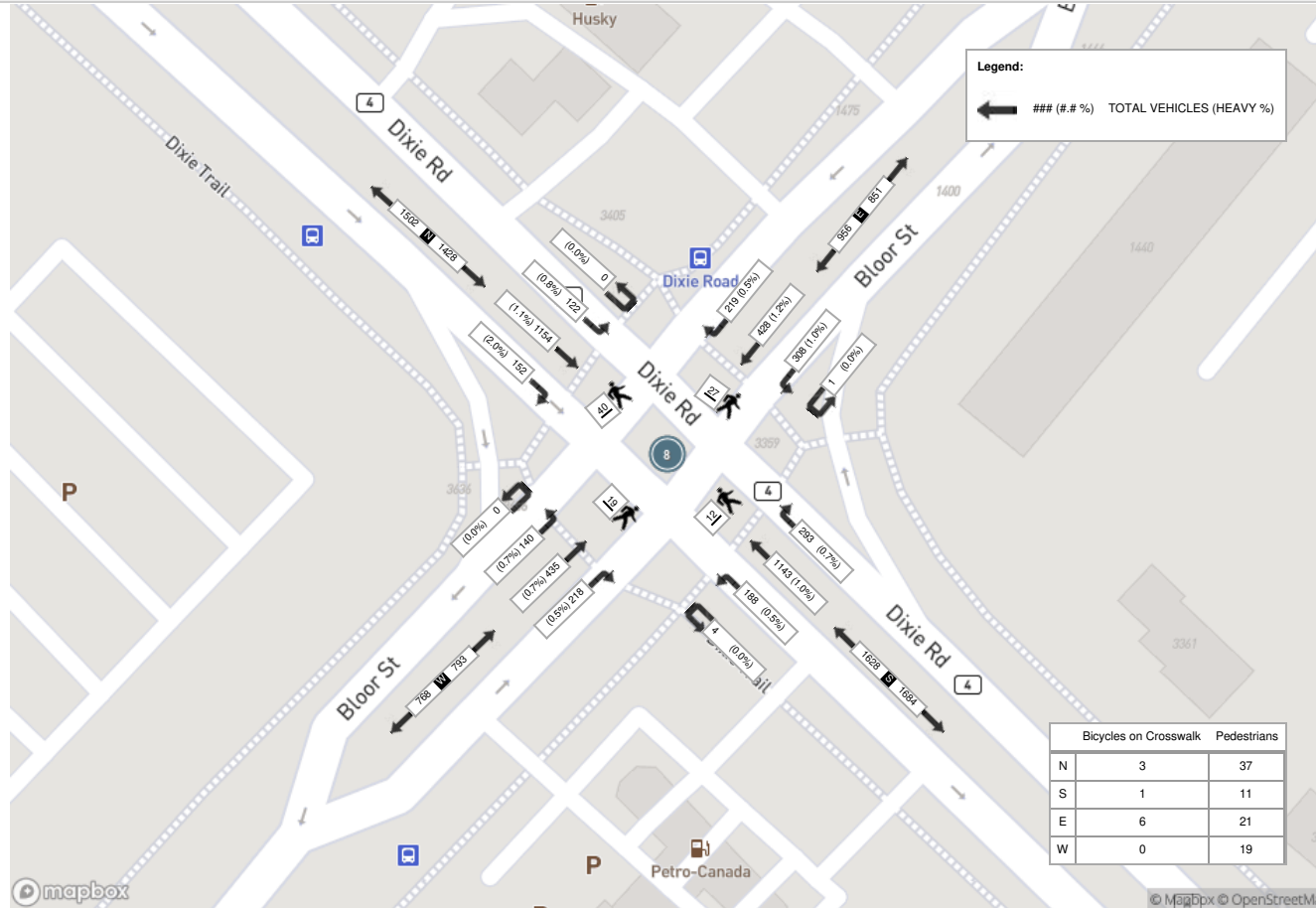
Start Time	N Approach DIXIE RD						E Approach BLOOR ST					S Approach DIXIE RD					W Approach BLOOR ST					Int. Total (15 min)	Int. Total (1 hr)				
	Right N:W	Thru N:S	Left N:E	UTurn N:N	Peds N:	Approach Total	Right E:N	Thru E:W	Left E:S	UTurn E:E	Peds E:	Approach Total	Right S:E	Thru S:N	Left S:W	UTurn S:S	Peds S:	Approach Total	Right W:S	Thru W:E	Left W:N			UTurn W:W	Peds W:	Approach Total	
10:00:00	23	242	22	1	16	288	57	65	61	0	14	183	62	226	30	0	4	318	39	64	28	0	8	131	920		
10:15:00	24	236	18	0	15	278	54	99	73	0	13	226	45	210	27	0	9	282	58	75	35	0	12	168	954		
10:30:00	42	246	28	0	10	316	65	92	67	0	11	224	64	236	23	1	5	324	37	73	35	0	7	145	1009		
10:45:00	33	277	31	0	11	341	47	103	77	0	14	227	46	233	20	0	5	299	48	91	29	0	11	168	1035	3918	
11:00:00	38	252	19	0	20	309	51	89	78	0	10	218	65	233	30	0	5	328	35	82	41	0	5	158	1013	4011	
11:15:00	33	285	29	0	18	347	50	93	72	0	2	215	52	242	33	0	8	327	46	83	32	0	5	161	1050	4107	
11:30:00	26	290	26	0	18	342	52	95	75	0	8	222	61	277	48	0	5	386	34	92	38	0	11	164	1114	4212	
11:45:00	42	259	24	0	14	325	51	115	78	0	7	244	70	247	42	0	6	359	49	87	38	0	6	174	1102	4279	
12:00:00	32	284	27	0	10	343	68	102	76	0	17	246	66	282	39	1	11	388	42	87	27	0	7	156	1133	4399	
12:15:00	34	262	29	0	14	325	46	94	63	0	9	203	70	247	44	1	1	362	57	99	39	0	1	195	1085	4434	
12:30:00	34	294	29	0	16	357	64	88	77	0	8	229	91	243	46	0	10	380	57	88	37	1	16	183	1149	4469	
12:45:00	32	295	34	0	3	361	55	113	65	0	14	233	70	306	40	0	5	416	55	97	30	0	8	182	1192	4559	
13:00:00	38	263	23	0	9	324	49	128	96	0	7	273	61	252	55	3	1	371	69	112	35	0	3	216	1184	4610	
13:15:00	46	313	32	0	13	391	58	87	68	0	5	213	85	283	45	1	0	414	46	90	38	0	3	174	1192	4717	
13:30:00	36	283	33	0	15	352	57	100	79	1	1	237	77	302	48	0	6	427	48	136	37	0	5	221	1237	4805	
13:45:00	43	312	24	1	5	380	57	98	74	1	12	230	70	202	40	0	9	312	41	118	36	0	3	195	1117	4730	
<b>Grand Total</b>	<b>556</b>	<b>4393</b>	<b>428</b>	<b>2</b>	<b>207</b>	<b>5379</b>	<b>881</b>	<b>1561</b>	<b>1179</b>	<b>2</b>	<b>152</b>	<b>3623</b>	<b>1055</b>	<b>4021</b>	<b>610</b>	<b>7</b>	<b>90</b>	<b>5693</b>	<b>761</b>	<b>1474</b>	<b>555</b>	<b>1</b>	<b>111</b>	<b>2791</b>	<b>17486</b>	<b>-</b>	
<b>Approach%</b>	10.3%	81.7%	8%	0%	-	-	24.3%	43.1%	32.5%	0.1%	-	-	18.5%	70.6%	10.7%	0.1%	-	-	27.3%	52.8%	19.9%	0%	-	-	-	-	
<b>Totals %</b>	3.2%	25.1%	2.4%	0%	-	30.8%	5%	8.9%	6.7%	0%	-	20.7%	6%	23%	3.5%	0%	-	32.6%	4.4%	8.4%	3.2%	0%	-	16%	-	-	
<b>Heavy</b>	5	62	5	0	-	-	6	19	5	0	-	-	2	65	2	0	-	-	4	15	3	0	-	-	-	-	
<b>Heavy %</b>	0.9%	1.4%	1.2%	0%	-	-	0.7%	1.2%	0.4%	0%	-	-	0.2%	1.6%	0.3%	0%	-	-	0.5%	1%	0.5%	0%	-	-	-	-	
<b>Bicycles</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Bicycle %</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Peak Hour: 12:45 PM - 01:45 PM Weather: Broken Clouds (12.83 °C)**

Start Time	N Approach DIXIE RD						E Approach BLOOR ST						S Approach DIXIE RD						W Approach BLOOR ST						Int. Total (15 min)
	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	
12:45:00	32	295	34	0	3	361	55	113	65	0	14	233	70	306	40	0	5	416	55	97	30	0	8	182	1192
13:00:00	38	263	23	0	9	324	49	128	96	0	7	273	61	252	55	3	1	371	69	112	35	0	3	216	1184
13:15:00	46	313	32	0	13	391	58	87	68	0	5	213	85	283	45	1	0	414	46	90	38	0	3	174	1192
13:30:00	36	283	33	0	15	352	57	100	79	1	1	237	77	302	48	0	6	427	48	136	37	0	5	221	1237
<b>Grand Total</b>	<b>152</b>	<b>1154</b>	<b>122</b>	<b>0</b>	<b>40</b>	<b>1428</b>	<b>219</b>	<b>428</b>	<b>308</b>	<b>1</b>	<b>27</b>	<b>956</b>	<b>293</b>	<b>1143</b>	<b>188</b>	<b>4</b>	<b>12</b>	<b>1628</b>	<b>218</b>	<b>435</b>	<b>140</b>	<b>0</b>	<b>19</b>	<b>793</b>	<b>4805</b>
<b>Approach%</b>	10.6%	80.8%	8.5%	0%	-	-	22.9%	44.8%	32.2%	0.1%	-	-	18%	70.2%	11.5%	0.2%	-	27.5%	54.9%	17.7%	0%	-	-	-	
<b>Totals %</b>	3.2%	24%	2.5%	0%	29.7%	4.6%	8.9%	6.4%	0%	19.9%	6.1%	23.8%	3.9%	0.1%	33.9%	4.5%	9.1%	2.9%	0%	16.5%	-				
<b>PHF</b>	0.83	0.92	0.9	0	0.91	0.94	0.84	0.8	0.25	0.88	0.86	0.93	0.85	0.33	0.95	0.79	0.8	0.92	0	0.9	-				
<b>Heavy</b>	3	13	1	0	17	1	5	3	0	9	2	11	1	0	14	1	3	1	0	5	-				
<b>Heavy %</b>	2%	1.1%	0.8%	0%	1.2%	0.5%	1.2%	1%	0%	0.9%	0.7%	1%	0.5%	0%	0.9%	0.5%	0.7%	0.7%	0%	0.6%	-				
<b>Lights</b>	149	1141	121	0	1411	218	423	304	1	946	291	1132	187	4	1614	217	432	139	0	788	-				
<b>Lights %</b>	98%	98.9%	99.2%	0%	98.8%	99.5%	98.8%	98.7%	100%	99%	99.3%	99%	99.5%	100%	99.1%	99.5%	99.3%	99.3%	0%	99.4%	-				
<b>Single-Unit Trucks</b>	2	10	1	0	13	1	2	3	0	6	2	8	1	0	11	1	1	1	0	3	-				
<b>Single-Unit Trucks %</b>	1.3%	0.9%	0.8%	0%	0.9%	0.5%	0.5%	1%	0%	0.6%	0.7%	0.7%	0.5%	0%	0.7%	0.5%	0.2%	0.7%	0%	0.4%	-				
<b>Buses</b>	1	2	0	0	3	0	3	0	0	3	0	2	0	0	2	0	2	0	0	2	-				
<b>Buses %</b>	0.7%	0.2%	0%	0%	0.2%	0%	0.7%	0%	0%	0.3%	0%	0.2%	0%	0%	0.1%	0%	0.5%	0%	0%	0.3%	-				
<b>Articulated Trucks</b>	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	-				
<b>Articulated Trucks %</b>	0%	0.1%	0%	0%	0.1%	0%	0%	0%	0%	0%	0%	0.1%	0%	0%	0.1%	0%	0%	0%	0%	0%	-				
<b>Bicycles on Road</b>	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	-				
<b>Bicycles on Road %</b>	0%	0%	0%	0%	0%	0%	0%	0.3%	0%	0.1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-				
<b>Pedestrians</b>	-	-	-	-	37	-	-	-	-	21	-	-	-	-	11	-	-	-	-	19	-				
<b>Pedestrians %</b>	-	-	-	-	37.8%	-	-	-	-	21.4%	-	-	-	-	11.2%	-	-	-	-	19.4%	-				
<b>Bicycles on Crosswalk</b>	-	-	-	-	3	-	-	-	-	6	-	-	-	-	1	-	-	-	-	0	-				
<b>Bicycles on Crosswalk %</b>	-	-	-	-	3.1%	-	-	-	-	6.1%	-	-	-	-	1%	-	-	-	-	0%	-				

Peak Hour: 12:45 PM - 01:45 PM Weather: Broken Clouds (12.83 °C)





Turning Movement Count (1 . BLOOR ST & FIELDGATE DR)

Start Time	N Approach FIELDGATE DR						E Approach BLOOR ST					S Approach FIELDGATE DR					W Approach BLOOR ST					Int. Total (15 min)	Int. Total (1 hr)			
	Right N-W	Thru N-S	Left N-E	UTurn N-N	Peds N:	Approach Total	Right E-N	Thru E-W	Left E-S	UTurn E-E	Peds E:	Approach Total	Right S-E	Thru S-N	Left S-W	UTurn S-S	Peds S:	Approach Total	Right W-S	Thru W-E	Left W-N			UTurn W-W	Peds W:	Approach Total
07:00:00	21	3	33	0	5	57	2	63	2	0	5	67	14	12	7	0	2	33	4	116	16	0	2	136	293	
07:15:00	23	7	36	0	0	66	3	73	3	0	3	79	15	10	17	0	7	42	4	118	18	0	3	140	327	
07:30:00	26	6	26	0	11	58	7	80	8	0	6	95	13	14	18	0	3	45	9	129	18	0	9	156	354	
07:45:00	41	6	25	0	4	72	4	93	7	0	13	104	22	8	14	0	7	44	3	148	25	0	4	176	396	1370
08:00:00	44	4	28	0	8	76	9	100	6	0	20	115	18	8	17	0	8	43	2	144	40	0	15	186	420	1497
08:15:00	50	8	49	0	6	107	26	110	4	0	36	140	8	16	14	0	21	38	13	159	65	0	9	237	522	1692
08:30:00	54	17	45	0	13	116	17	114	9	0	19	140	22	13	14	0	6	49	12	142	38	0	13	192	497	1835
08:45:00	35	14	30	0	10	79	9	109	7	0	9	125	24	19	18	0	12	61	11	161	29	0	17	201	466	1905
09:00:00	29	9	38	0	16	76	11	99	7	0	11	117	3	10	11	0	7	24	6	132	24	0	3	162	379	1864
09:15:00	26	6	29	0	8	61	9	96	7	0	14	112	7	7	12	0	6	26	9	106	16	1	6	132	331	1673
09:30:00	16	11	32	0	4	59	8	94	4	0	6	106	9	9	11	0	4	29	5	90	25	0	4	120	314	1490
09:45:00	22	10	21	0	8	53	9	86	4	1	12	100	7	11	8	0	5	26	12	90	19	0	4	121	300	1324
***BREAK***																										
16:00:00	25	17	21	0	16	63	31	200	14	1	10	246	12	9	13	0	6	34	9	137	29	1	13	176	519	
16:15:00	31	23	25	0	8	79	24	181	21	0	21	226	5	7	8	0	8	20	15	145	22	0	5	182	507	
16:30:00	29	11	34	0	13	74	10	206	18	0	15	234	11	7	20	0	4	38	12	161	22	1	10	196	542	
16:45:00	26	20	38	0	11	84	13	213	17	0	10	243	9	10	7	0	8	26	9	136	25	0	2	170	523	2091
17:00:00	26	22	38	0	13	86	14	229	21	0	11	264	11	5	17	0	8	33	7	151	25	0	8	183	566	2138
17:15:00	34	18	39	0	19	91	20	208	15	0	22	243	15	12	9	0	15	36	19	179	29	0	12	227	597	2228
17:30:00	33	20	30	0	18	83	23	233	17	0	17	273	20	14	18	0	10	52	21	131	34	0	8	186	594	2280
17:45:00	23	21	39	0	15	83	13	226	17	0	23	256	9	7	16	0	23	32	11	176	25	0	6	212	583	2340
18:00:00	22	15	31	0	22	68	19	195	17	0	20	231	13	10	11	0	13	34	12	155	27	0	9	194	527	2301
18:15:00	34	12	27	0	13	73	17	189	13	1	14	220	16	11	21	0	11	48	15	132	28	0	6	175	516	2220
18:30:00	24	13	30	0	21	67	15	136	24	0	28	175	11	7	16	0	11	34	6	131	40	0	5	177	453	2079
18:45:00	34	9	23	0	11	66	16	143	8	0	8	167	8	11	13	0	9	32	29	151	24	0	2	204	469	1965
<b>Grand Total</b>	<b>728</b>	<b>302</b>	<b>767</b>	<b>0</b>	<b>273</b>	<b>1797</b>	<b>329</b>	<b>3476</b>	<b>270</b>	<b>3</b>	<b>353</b>	<b>4078</b>	<b>302</b>	<b>247</b>	<b>330</b>	<b>0</b>	<b>214</b>	<b>879</b>	<b>255</b>	<b>3320</b>	<b>663</b>	<b>3</b>	<b>175</b>	<b>4241</b>	<b>10995</b>	<b>-</b>
<b>Approach%</b>	40.5%	16.8%	42.7%	0%	-	-	8.1%	85.2%	6.6%	0.1%	-	-	34.4%	28.1%	37.5%	0%	-	-	6%	78.3%	15.6%	0.1%	-	-	-	-
<b>Totals %</b>	6.6%	2.7%	7%	0%	16.3%	-	3%	31.6%	2.5%	0%	37.1%	-	2.7%	2.2%	3%	0%	8%	-	2.3%	30.2%	6%	0%	38.6%	-	-	-
<b>Heavy</b>	22	2	10	0	-	-	10	68	4	0	-	-	4	6	8	0	-	-	8	88	15	0	-	-	-	-
<b>Heavy %</b>	3%	0.7%	1.3%	0%	-	-	3%	2%	1.5%	0%	-	-	1.3%	2.4%	2.4%	0%	-	-	3.1%	2.7%	2.3%	0%	-	-	-	-
<b>Bicycles</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Bicycle %</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Peak Hour: 08:00 AM - 09:00 AM Weather: Scattered Clouds (8.33 °C)**

Start Time	N Approach FIELDGATE DR						E Approach BLOOR ST						S Approach FIELDGATE DR						W Approach BLOOR ST						Int. Total (15 min)
	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	
08:00:00	44	4	28	0	8	76	9	100	6	0	20	115	18	8	17	0	8	43	2	144	40	0	15	186	420
08:15:00	50	8	49	0	6	107	26	110	4	0	36	140	8	16	14	0	21	38	13	159	65	0	9	237	522
08:30:00	54	17	45	0	13	116	17	114	9	0	19	140	22	13	14	0	6	49	12	142	38	0	13	192	497
08:45:00	35	14	30	0	10	79	9	109	7	0	9	125	24	19	18	0	12	61	11	161	29	0	17	201	466
<b>Grand Total</b>	<b>183</b>	<b>43</b>	<b>152</b>	<b>0</b>	<b>37</b>	<b>378</b>	<b>61</b>	<b>433</b>	<b>26</b>	<b>0</b>	<b>84</b>	<b>520</b>	<b>72</b>	<b>56</b>	<b>63</b>	<b>0</b>	<b>47</b>	<b>191</b>	<b>38</b>	<b>606</b>	<b>172</b>	<b>0</b>	<b>54</b>	<b>816</b>	<b>1905</b>
<b>Approach%</b>	48.4%	11.4%	40.2%	0%	-	-	11.7%	83.3%	5%	0%	-	-	37.7%	29.3%	33%	0%	-	-	4.7%	74.3%	21.1%	0%	-	-	-
<b>Totals %</b>	9.6%	2.3%	8%	0%	19.8%	3.2%	22.7%	1.4%	0%	27.3%	3.8%	2.9%	3.3%	0%	10%	2%	31.8%	9%	0%	42.8%	-	-	-	-	-
<b>PHF</b>	0.85	0.63	0.78	0	0.81	0.59	0.95	0.72	0	0.93	0.75	0.74	0.88	0	0.78	0.73	0.94	0.66	0	0.86	-	-	-	-	-
<b>Heavy</b>	11	1	2	0	14	5	14	0	0	19	3	1	3	0	7	1	24	4	0	29	-	-	-	-	-
<b>Heavy %</b>	6%	2.3%	1.3%	0%	3.7%	8.2%	3.2%	0%	0%	3.7%	4.2%	1.8%	4.8%	0%	3.7%	2.6%	4%	2.3%	0%	3.6%	-	-	-	-	-
<b>Lights</b>	172	42	150	0	364	56	419	26	0	501	69	55	60	0	184	37	582	168	0	787	-	-	-	-	-
<b>Lights %</b>	94%	97.7%	98.7%	0%	96.3%	91.8%	96.8%	100%	0%	96.3%	95.8%	98.2%	95.2%	0%	96.3%	97.4%	96%	97.7%	0%	96.4%	-	-	-	-	-
<b>Single-Unit Trucks</b>	5	1	0	0	6	0	4	0	0	4	2	0	1	0	3	0	11	2	0	13	-	-	-	-	-
<b>Single-Unit Trucks %</b>	2.7%	2.3%	0%	0%	1.6%	0%	0.9%	0%	0%	0.8%	2.8%	0%	1.6%	0%	1.6%	0%	1.8%	1.2%	0%	1.6%	-	-	-	-	-
<b>Buses</b>	6	0	1	0	7	5	10	0	0	15	1	1	2	0	4	1	13	2	0	16	-	-	-	-	-
<b>Buses %</b>	3.3%	0%	0.7%	0%	1.9%	8.2%	2.3%	0%	0%	2.9%	1.4%	1.8%	3.2%	0%	2.1%	2.6%	2.1%	1.2%	0%	2%	-	-	-	-	-
<b>Articulated Trucks</b>	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-
<b>Articulated Trucks %</b>	0%	0%	0.7%	0%	0.3%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-	-	-	-	-
<b>Bicycles on Road</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-
<b>Bicycles on Road %</b>	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-	-	-	-	-
<b>Pedestrians</b>	-	-	-	-	35	-	-	-	-	82	-	-	-	-	44	-	-	-	-	52	-	-	-	-	-
<b>Pedestrians %</b>	-	-	-	-	15.8%	-	-	-	-	36.9%	-	-	-	-	19.8%	-	-	-	-	23.4%	-	-	-	-	-
<b>Bicycles on Crosswalk</b>	-	-	-	-	2	-	-	-	-	2	-	-	-	-	3	-	-	-	-	2	-	-	-	-	-
<b>Bicycles on Crosswalk %</b>	-	-	-	-	0.9%	-	-	-	-	0.9%	-	-	-	-	1.4%	-	-	-	-	0.9%	-	-	-	-	-



Peak Hour: 05:00 PM - 06:00 PM Weather: Broken Clouds (14.49 °C)

Start Time	N Approach FIELDGATE DR						E Approach BLOOR ST						S Approach FIELDGATE DR						W Approach BLOOR ST						Int. Total (15 min)	
	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total		
17:00:00	26	22	38	0	13	86	14	229	21	0	11	264	11	5	17	0	8	33	7	151	25	0	8	183	566	
17:15:00	34	18	39	0	19	91	20	208	15	0	22	243	15	12	9	0	15	36	19	179	29	0	12	227	597	
17:30:00	33	20	30	0	18	83	23	233	17	0	17	273	20	14	18	0	10	52	21	131	34	0	8	186	594	
17:45:00	23	21	39	0	15	83	13	226	17	0	23	256	9	7	16	0	23	32	11	176	25	0	6	212	583	
<b>Grand Total</b>	<b>116</b>	<b>81</b>	<b>146</b>	<b>0</b>	<b>65</b>	<b>343</b>	<b>70</b>	<b>896</b>	<b>70</b>	<b>0</b>	<b>73</b>	<b>1036</b>	<b>55</b>	<b>38</b>	<b>60</b>	<b>0</b>	<b>56</b>	<b>153</b>	<b>58</b>	<b>637</b>	<b>113</b>	<b>0</b>	<b>34</b>	<b>808</b>	<b>2340</b>	
<b>Approach%</b>	33.8%	23.6%	42.6%	0%	-	-	6.8%	86.5%	6.8%	0%	-	-	35.9%	24.8%	39.2%	0%	-	-	7.2%	78.8%	14%	0%	-	-	-	
<b>Totals %</b>	5%	3.5%	6.2%	0%	14.7%	14.7%	3%	38.3%	3%	0%	44.3%	44.3%	2.4%	1.6%	2.6%	0%	6.5%	6.5%	2.5%	27.2%	4.8%	0%	34.5%	34.5%	-	
<b>PHF</b>	0.85	0.92	0.94	0	0.94	0.94	0.76	0.96	0.83	0	0.95	0.95	0.69	0.68	0.83	0	0.74	0.74	0.69	0.89	0.83	0	0.89	0.89	-	
<b>Heavy</b>	0	0	1	0	1	1	0	11	0	0	11	11	0	0	1	0	1	1	1	11	0	0	12	12	-	
<b>Heavy %</b>	0%	0%	0.7%	0%	0.3%	0.3%	0%	1.2%	0%	0%	1.1%	1.1%	0%	0%	1.7%	0%	0.7%	0.7%	1.7%	1.7%	0%	0%	1.5%	1.5%	-	
<b>Lights</b>	116	80	145	0	341	341	69	885	69	0	1023	1023	55	37	59	0	151	151	57	626	113	0	796	796	-	
<b>Lights %</b>	100%	98.8%	99.3%	0%	99.4%	99.4%	98.6%	98.8%	98.6%	0%	98.7%	98.7%	100%	97.4%	98.3%	0%	98.7%	98.7%	98.3%	98.3%	100%	0%	98.5%	98.5%	-	
<b>Single-Unit Trucks</b>	0	0	1	0	1	1	0	3	0	0	3	3	0	0	0	0	0	0	1	7	0	0	8	8	-	
<b>Single-Unit Trucks %</b>	0%	0%	0.7%	0%	0.3%	0.3%	0%	0.3%	0%	0%	0.3%	0.3%	0%	0%	0%	0%	0%	0%	1.7%	1.1%	0%	0%	1%	1%	-	
<b>Buses</b>	0	0	0	0	0	0	0	8	0	0	8	8	0	0	1	0	1	1	0	4	0	0	4	4	-	
<b>Buses %</b>	0%	0%	0%	0%	0%	0%	0%	0.9%	0%	0%	0.8%	0.8%	0%	0%	1.7%	0%	0.7%	0.7%	0%	0.6%	0%	0%	0.5%	0.5%	-	
<b>Articulated Trucks</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	
<b>Articulated Trucks %</b>	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%	-
<b>Bicycles on Road</b>	0	1	0	0	1	1	1	0	1	0	2	2	0	1	0	0	1	1	0	0	0	0	0	0	-	
<b>Bicycles on Road %</b>	0%	1.2%	0%	0%	0.3%	0.3%	1.4%	0%	1.4%	0%	0.2%	0.2%	0%	2.6%	0%	0%	0.7%	0.7%	0%	0%	0%	0%	0%	0%	-	
<b>Pedestrians</b>	-	-	-	-	64	64	-	-	-	-	73	73	-	-	-	-	53	53	-	-	-	-	34	34	-	
<b>Pedestrians %</b>	-	-	-	-	28.1%	28.1%	-	-	-	-	32%	32%	-	-	-	-	23.2%	23.2%	-	-	-	-	14.9%	14.9%	-	
<b>Bicycles on Crosswalk</b>	-	-	-	-	1	1	-	-	-	-	0	0	-	-	-	-	3	3	-	-	-	-	0	0	-	
<b>Bicycles on Crosswalk %</b>	-	-	-	-	0.4%	0.4%	-	-	-	-	0%	0%	-	-	-	-	1.3%	1.3%	-	-	-	-	0%	0%	-	



Peak Hour: 08:00 AM - 09:00 AM Weather: Scattered Clouds (8.33 °C)



Peak Hour: 05:00 PM - 06:00 PM Weather: Broken Clouds (14.49 °C)





Turning Movement Count (1 . BLOOR ST & FIELDGATE DR)

Start Time	N Approach FIELDGATE DR						E Approach BLOOR ST						S Approach FIELDGATE DR						W Approach BLOOR ST						Int. Total (15 min)	Int. Total (1 hr)
	Right N:W	Thru N:S	Left N:E	UTurn N:N	Peds N:	Approach Total	Right E:N	Thru E:W	Left E:S	UTurn E:E	Peds E:	Approach Total	Right S:E	Thru S:N	Left S:W	UTurn S:S	Peds S:	Approach Total	Right W:S	Thru W:E	Left W:N	UTurn W:W	Peds W:	Approach Total		
10:00:00	29	6	19	0	5	54	6	108	10	0	9	124	21	13	8	0	9	42	3	115	21	1	4	140	360	
10:15:00	25	9	19	0	12	53	15	125	12	0	5	152	15	5	11	0	3	31	9	113	28	0	2	150	386	
10:30:00	29	10	38	0	5	77	11	126	14	1	5	152	11	10	12	0	2	33	8	116	14	0	4	138	400	
10:45:00	31	8	25	0	10	64	7	126	5	0	7	138	13	12	11	0	9	36	7	120	23	0	7	150	388	1534
11:00:00	18	11	28	0	7	57	17	131	6	0	2	154	14	12	16	0	4	42	4	115	21	0	6	140	393	1567
11:15:00	27	21	34	0	8	82	7	128	7	0	18	142	9	11	17	0	6	37	4	110	23	0	3	137	398	1579
11:30:00	42	12	27	0	6	81	12	143	8	0	6	163	13	12	12	0	5	37	6	121	34	0	9	161	442	1621
11:45:00	23	13	26	0	6	62	11	144	6	0	5	161	8	17	7	0	5	32	14	127	12	0	3	153	408	1641
12:00:00	36	15	32	0	19	83	8	134	7	0	11	149	12	11	9	0	11	32	16	134	17	0	5	167	431	1679
12:15:00	18	17	24	0	9	59	19	128	8	0	4	155	10	13	12	0	5	35	10	139	30	0	7	179	428	1709
12:30:00	32	15	37	0	7	84	10	122	10	0	4	142	19	16	22	0	4	57	10	148	17	0	6	175	458	1725
12:45:00	33	13	30	0	7	76	16	157	20	0	10	193	14	9	11	1	7	35	19	156	28	1	12	204	508	1825
13:00:00	40	13	27	0	20	80	13	141	9	0	15	163	9	7	19	0	18	35	13	141	27	0	17	181	459	1853
13:15:00	32	13	26	0	8	71	15	124	16	0	7	155	15	6	14	0	8	35	16	143	28	0	7	187	448	1873
13:30:00	30	14	41	0	7	85	18	137	15	1	2	171	12	10	15	0	1	37	15	157	24	0	2	196	489	1904
13:45:00	30	8	35	0	11	73	15	128	14	1	2	158	16	12	12	0	8	40	13	171	14	0	10	198	469	1865
<b>Grand Total</b>	<b>475</b>	<b>198</b>	<b>468</b>	<b>0</b>	<b>147</b>	<b>1141</b>	<b>200</b>	<b>2102</b>	<b>167</b>	<b>3</b>	<b>112</b>	<b>2472</b>	<b>211</b>	<b>176</b>	<b>208</b>	<b>1</b>	<b>105</b>	<b>596</b>	<b>167</b>	<b>2126</b>	<b>361</b>	<b>2</b>	<b>104</b>	<b>2656</b>	<b>6865</b>	<b>-</b>
<b>Approach%</b>	41.6%	17.4%	41%	0%	-	-	8.1%	85%	6.8%	0.1%	-	-	35.4%	29.5%	34.9%	0.2%	-	-	6.3%	80%	13.6%	0.1%	-	-	-	-
<b>Totals %</b>	6.9%	2.9%	6.8%	0%	16.6%	2.9%	30.6%	2.4%	0%	36%	3.1%	2.6%	3%	0%	8.7%	2.4%	31%	5.3%	0%	38.7%	-	-	-	-	-	-
<b>Heavy</b>	2	1	1	0	-	1	22	0	0	-	4	0	4	0	-	5	17	0	0	-	-	-	-	-	-	-
<b>Heavy %</b>	0.4%	0.5%	0.2%	0%	-	0.5%	1%	0%	0%	-	1.9%	0%	1.9%	0%	-	3%	0.8%	0%	0%	-	-	-	-	-	-	-
<b>Bicycles</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Bicycle %</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Peak Hour: 12:45 PM - 01:45 PM Weather: Broken Clouds (12.83 °C)**

Start Time	N Approach FIELDGATE DR						E Approach BLOOR ST						S Approach FIELDGATE DR						W Approach BLOOR ST						Int. Total (15 min)
	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	
12:45:00	33	13	30	0	7	76	16	157	20	0	10	193	14	9	11	1	7	35	19	156	28	1	12	204	508
13:00:00	40	13	27	0	20	80	13	141	9	0	15	163	9	7	19	0	18	35	13	141	27	0	17	181	459
13:15:00	32	13	26	0	8	71	15	124	16	0	7	155	15	6	14	0	8	35	16	143	28	0	7	187	448
13:30:00	30	14	41	0	7	85	18	137	15	1	2	171	12	10	15	0	1	37	15	157	24	0	2	196	489
<b>Grand Total</b>	<b>135</b>	<b>53</b>	<b>124</b>	<b>0</b>	<b>42</b>	<b>312</b>	<b>62</b>	<b>559</b>	<b>60</b>	<b>1</b>	<b>34</b>	<b>682</b>	<b>50</b>	<b>32</b>	<b>59</b>	<b>1</b>	<b>34</b>	<b>142</b>	<b>63</b>	<b>597</b>	<b>107</b>	<b>1</b>	<b>38</b>	<b>768</b>	<b>1904</b>
<b>Approach%</b>	43.3%	17%	39.7%	0%	-	-	9.1%	82%	8.8%	0.1%	-	-	35.2%	22.5%	41.5%	0.7%	-	-	8.2%	77.7%	13.9%	0.1%	-	-	
<b>Totals %</b>	7.1%	2.8%	6.5%	0%	16.4%	-	3.3%	29.4%	3.2%	0.1%	35.8%	-	2.6%	1.7%	3.1%	0.1%	7.5%	-	3.3%	31.4%	5.6%	0.1%	40.3%	-	
<b>PHF</b>	0.84	0.95	0.76	0	0.92	-	0.86	0.89	0.75	0.25	0.88	-	0.83	0.8	0.78	0.25	0.96	-	0.83	0.95	0.96	0.25	0.94	-	
<b>Heavy</b>	0	0	0	0	0	-	1	5	0	0	6	-	0	0	2	0	2	-	1	3	0	0	4	-	
<b>Heavy %</b>	0%	0%	0%	0%	0%	-	1.6%	0.9%	0%	0%	0.9%	-	0%	0%	3.4%	0%	1.4%	-	1.6%	0.5%	0%	0%	0.5%	-	
<b>Lights</b>	135	52	124	0	311	-	61	554	60	1	676	-	50	31	57	1	139	-	62	593	107	1	763	-	
<b>Lights %</b>	100%	98.1%	100%	0%	99.7%	-	98.4%	99.1%	100%	100%	99.1%	-	100%	96.9%	96.6%	100%	97.9%	-	98.4%	99.3%	100%	100%	99.3%	-	
<b>Single-Unit Trucks</b>	0	0	0	0	0	-	1	3	0	0	4	-	0	0	2	0	2	-	1	1	0	0	2	-	
<b>Single-Unit Trucks %</b>	0%	0%	0%	0%	0%	-	1.6%	0.5%	0%	0%	0.6%	-	0%	0%	3.4%	0%	1.4%	-	1.6%	0.2%	0%	0%	0.3%	-	
<b>Buses</b>	0	0	0	0	0	-	0	2	0	0	2	-	0	0	0	0	0	-	0	2	0	0	2	-	
<b>Buses %</b>	0%	0%	0%	0%	0%	-	0%	0.4%	0%	0%	0.3%	-	0%	0%	0%	0%	0%	-	0%	0.3%	0%	0%	0.3%	-	
<b>Bicycles on Road</b>	0	1	0	0	1	-	0	0	0	0	0	-	0	1	0	0	1	-	0	1	0	0	1	-	
<b>Bicycles on Road %</b>	0%	1.9%	0%	0%	0.3%	-	0%	0%	0%	0%	0%	-	0%	3.1%	0%	0%	0.7%	-	0%	0.2%	0%	0%	0.1%	-	
<b>Pedestrians</b>	-	-	-	-	41	-	-	-	-	-	34	-	-	-	-	-	29	-	-	-	-	-	37	-	
<b>Pedestrians%</b>	-	-	-	-	27.7%	-	-	-	-	-	23%	-	-	-	-	-	19.6%	-	-	-	-	-	25%	-	
<b>Bicycles on Crosswalk</b>	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	5	-	-	-	-	-	1	-	
<b>Bicycles on Crosswalk%</b>	-	-	-	-	0.7%	-	-	-	-	-	0%	-	-	-	-	-	3.4%	-	-	-	-	-	0.7%	-	

Peak Hour: 12:45 PM - 01:45 PM Weather: Broken Clouds (12.83 °C)





Turning Movement Count (7 . BLOOR ST & HAVENWOOD DR)

Start Time	N Approach HAVENWOOD DR						E Approach BLOOR ST					S Approach HAVENWOOD DR					W Approach BLOOR ST					Int. Total (15 min)	Int. Total (1 hr)				
	Right N:W	Thru N:S	Left N:E	UTurn N:N	Peds N:	Approach Total	Right E:N	Thru E:W	Left E:S	UTurn E:E	Peds E:	Approach Total	Right S:E	Thru S:N	Left S:W	UTurn S:S	Peds S:	Approach Total	Right W:S	Thru W:E	Left W:N			UTurn W:W	Peds W:	Approach Total	
07:00:00	8	1	3	0	6	12	4	91	3	0	2	98	4	2	9	0	1	15	7	122	8	0	2	137	262		
07:15:00	10	1	6	0	4	17	4	104	2	0	3	110	8	3	13	0	4	24	8	135	10	0	4	153	304		
07:30:00	27	5	9	0	3	41	8	149	5	0	3	162	9	3	11	0	2	23	2	133	5	0	4	140	366		
07:45:00	20	5	10	0	2	35	1	146	8	0	2	155	9	2	14	0	3	25	9	136	9	0	1	154	369	1301	
08:00:00	29	9	9	0	8	47	5	149	11	0	8	165	11	7	12	0	4	30	12	183	22	0	20	217	459	1498	
08:15:00	23	14	13	0	9	50	9	163	11	0	34	183	6	12	8	0	2	26	15	186	14	1	24	216	475	1669	
08:30:00	30	41	7	0	25	78	3	155	24	1	84	183	17	21	22	0	11	60	19	164	8	0	45	191	512	1815	
08:45:00	24	21	9	0	28	54	9	160	11	0	52	180	26	20	26	0	8	72	16	177	17	1	38	211	517	1963	
09:00:00	35	12	15	0	9	62	9	135	2	0	18	146	9	20	22	0	3	51	16	122	20	0	30	158	417	1921	
09:15:00	18	8	10	0	5	36	4	141	4	0	9	149	4	7	12	0	3	23	6	120	15	0	12	141	349	1795	
09:30:00	22	5	6	0	7	33	9	117	4	0	3	130	8	2	12	0	3	22	5	95	9	0	8	109	294	1577	
09:45:00	3	2	9	0	4	14	2	113	3	1	3	119	0	8	8	0	7	16	2	110	9	0	11	121	270	1330	
***BREAK***																											
16:00:00	35	9	23	0	13	67	16	224	4	0	15	244	6	11	9	0	8	26	11	168	13	0	13	192	529		
16:15:00	41	16	15	0	10	72	8	210	11	0	21	229	11	4	8	0	17	23	19	167	19	0	10	205	529		
16:30:00	20	7	10	0	14	37	9	238	5	0	12	252	6	7	13	0	9	26	13	202	17	0	9	232	547		
16:45:00	21	9	14	0	15	44	13	228	11	1	13	253	3	3	9	0	6	15	9	164	21	0	5	194	506	2111	
17:00:00	28	12	15	0	14	55	4	265	11	0	8	280	10	9	14	0	8	33	15	176	18	0	7	209	577	2159	
17:15:00	33	10	18	0	10	61	15	234	7	0	6	256	7	7	6	0	3	20	21	225	25	0	5	271	608	2238	
17:30:00	23	7	15	0	7	45	8	269	15	3	6	295	14	4	7	0	6	25	9	169	30	0	4	208	573	2264	
17:45:00	24	14	15	0	5	53	10	252	11	0	34	273	8	11	11	0	13	30	13	195	16	0	19	224	580	2338	
18:00:00	27	13	16	0	14	56	5	207	11	0	55	223	11	6	15	0	17	32	11	176	21	0	31	208	519	2280	
18:15:00	23	11	11	0	14	45	10	209	14	0	29	233	8	6	17	0	5	31	9	168	21	0	1	198	507	2179	
18:30:00	27	3	21	0	7	51	6	174	4	0	10	184	17	7	10	1	0	35	7	158	20	0	10	185	455	2061	
18:45:00	21	7	14	0	12	42	2	172	6	0	5	180	6	3	10	0	5	19	6	193	24	0	9	223	464	1945	
<b>Grand Total</b>	<b>572</b>	<b>242</b>	<b>293</b>	<b>0</b>	<b>245</b>	<b>1107</b>	<b>173</b>	<b>4305</b>	<b>198</b>	<b>6</b>	<b>435</b>	<b>4682</b>	<b>218</b>	<b>185</b>	<b>298</b>	<b>1</b>	<b>148</b>	<b>702</b>	<b>260</b>	<b>3844</b>	<b>391</b>	<b>2</b>	<b>322</b>	<b>4497</b>	<b>10988</b>	<b>-</b>	
<b>Approach%</b>	51.7%	21.9%	26.5%	0%	-	-	3.7%	91.9%	4.2%	0.1%	-	-	31.1%	26.4%	42.5%	0.1%	-	-	5.8%	85.5%	8.7%	0%	-	-	-	-	
<b>Totals %</b>	5.2%	2.2%	2.7%	0%	10.1%	-	1.6%	39.2%	1.8%	0.1%	42.6%	-	2%	1.7%	2.7%	0%	6.4%	-	2.4%	35%	3.6%	0%	40.9%	-	-	-	
<b>Heavy</b>	19	7	6	0	-	-	4	92	5	0	-	-	4	5	8	0	-	-	4	104	13	0	-	-	-	-	
<b>Heavy %</b>	3.3%	2.9%	2%	0%	-	-	2.3%	2.1%	2.5%	0%	-	-	1.8%	2.7%	2.7%	0%	-	-	1.5%	2.7%	3.3%	0%	-	-	-	-	
<b>Bicycles</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Bicycle %</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Peak Hour: 08:00 AM - 09:00 AM Weather: Scattered Clouds (8.33 °C)**

Start Time	N Approach HAVENWOOD DR						E Approach BLOOR ST						S Approach HAVENWOOD DR						W Approach BLOOR ST						Int. Total (15 min)	
	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total		
08:00:00	29	9	9	0	8	47	5	149	11	0	8	165	11	7	12	0	4	30	12	183	22	0	20	217	459	
08:15:00	23	14	13	0	9	50	9	163	11	0	34	183	6	12	8	0	2	26	15	186	14	1	24	216	475	
08:30:00	30	41	7	0	25	78	3	155	24	1	84	183	17	21	22	0	11	60	19	164	8	0	45	191	512	
08:45:00	24	21	9	0	28	54	9	160	11	0	52	180	26	20	26	0	8	72	16	177	17	1	38	211	517	
<b>Grand Total</b>	<b>106</b>	<b>85</b>	<b>38</b>	<b>0</b>	<b>70</b>	<b>229</b>	<b>26</b>	<b>627</b>	<b>57</b>	<b>1</b>	<b>178</b>	<b>711</b>	<b>60</b>	<b>60</b>	<b>68</b>	<b>0</b>	<b>25</b>	<b>188</b>	<b>62</b>	<b>710</b>	<b>61</b>	<b>2</b>	<b>127</b>	<b>835</b>	<b>1963</b>	
<b>Approach%</b>	46.3%	37.1%	16.6%	0%	-	-	3.7%	88.2%	8%	0.1%	-	-	31.9%	31.9%	36.2%	0%	-	-	7.4%	85%	7.3%	0.2%	-	-	-	
<b>Totals %</b>	5.4%	4.3%	1.9%	0%	11.7%	11.7%	1.3%	31.9%	2.9%	0.1%	36.2%	36.2%	3.1%	3.1%	3.5%	0%	9.6%	9.6%	3.2%	36.2%	3.1%	0.1%	42.5%	42.5%	-	
<b>PHF</b>	0.88	0.52	0.73	0	0.73	0.73	0.72	0.96	0.59	0.25	0.97	0.97	0.58	0.71	0.65	0	0.65	0.65	0.82	0.95	0.69	0.5	0.96	0.96	-	
<b>Heavy</b>	5	5	2	0	12	12	1	25	3	0	29	29	1	1	5	0	7	7	2	28	1	0	31	31	-	
<b>Heavy %</b>	4.7%	5.9%	5.3%	0%	5.2%	5.2%	3.8%	4%	5.3%	0%	4.1%	4.1%	1.7%	1.7%	7.4%	0%	3.7%	3.7%	3.2%	3.9%	1.6%	0%	3.7%	3.7%	-	
<b>Lights</b>	101	80	36	0	217	217	25	602	54	1	682	682	59	59	63	0	181	181	60	682	60	2	804	804	-	
<b>Lights %</b>	95.3%	94.1%	94.7%	0%	94.8%	94.8%	96.2%	96%	94.7%	100%	95.9%	95.9%	98.3%	98.3%	92.6%	0%	96.3%	96.3%	96.8%	96.1%	98.4%	100%	96.3%	96.3%	-	
<b>Single-Unit Trucks</b>	0	3	0	0	3	3	0	10	0	0	10	10	1	0	1	0	2	2	1	13	0	0	14	14	-	
<b>Single-Unit Trucks %</b>	0%	3.5%	0%	0%	1.3%	1.3%	0%	1.6%	0%	0%	1.4%	1.4%	1.7%	0%	1.5%	0%	1.1%	1.1%	1.6%	1.8%	0%	0%	1.7%	1.7%	-	
<b>Buses</b>	5	2	2	0	9	9	1	15	3	0	19	19	0	1	4	0	5	5	1	15	1	0	17	17	-	
<b>Buses %</b>	4.7%	2.4%	5.3%	0%	3.9%	3.9%	3.8%	2.4%	5.3%	0%	2.7%	2.7%	0%	1.7%	5.9%	0%	2.7%	2.7%	1.6%	2.1%	1.6%	0%	2%	2%	-	
<b>Articulated Trucks</b>	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	-
<b>Articulated Trucks %</b>	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%	-
<b>Bicycles on Road</b>	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	-
<b>Bicycles on Road %</b>	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%	-
<b>Pedestrians</b>	-	-	-	-	69	69	-	-	-	-	177	177	-	-	-	-	23	23	-	-	-	-	123	123	-	
<b>Pedestrians %</b>	-	-	-	-	17.3%	17.3%	-	-	-	-	44.3%	44.3%	-	-	-	-	5.8%	5.8%	-	-	-	-	30.8%	30.8%	-	
<b>Bicycles on Crosswalk</b>	-	-	-	-	1	1	-	-	-	-	1	1	-	-	-	-	2	2	-	-	-	-	4	4	-	
<b>Bicycles on Crosswalk %</b>	-	-	-	-	0.3%	0.3%	-	-	-	-	0.3%	0.3%	-	-	-	-	0.5%	0.5%	-	-	-	-	1%	1%	-	

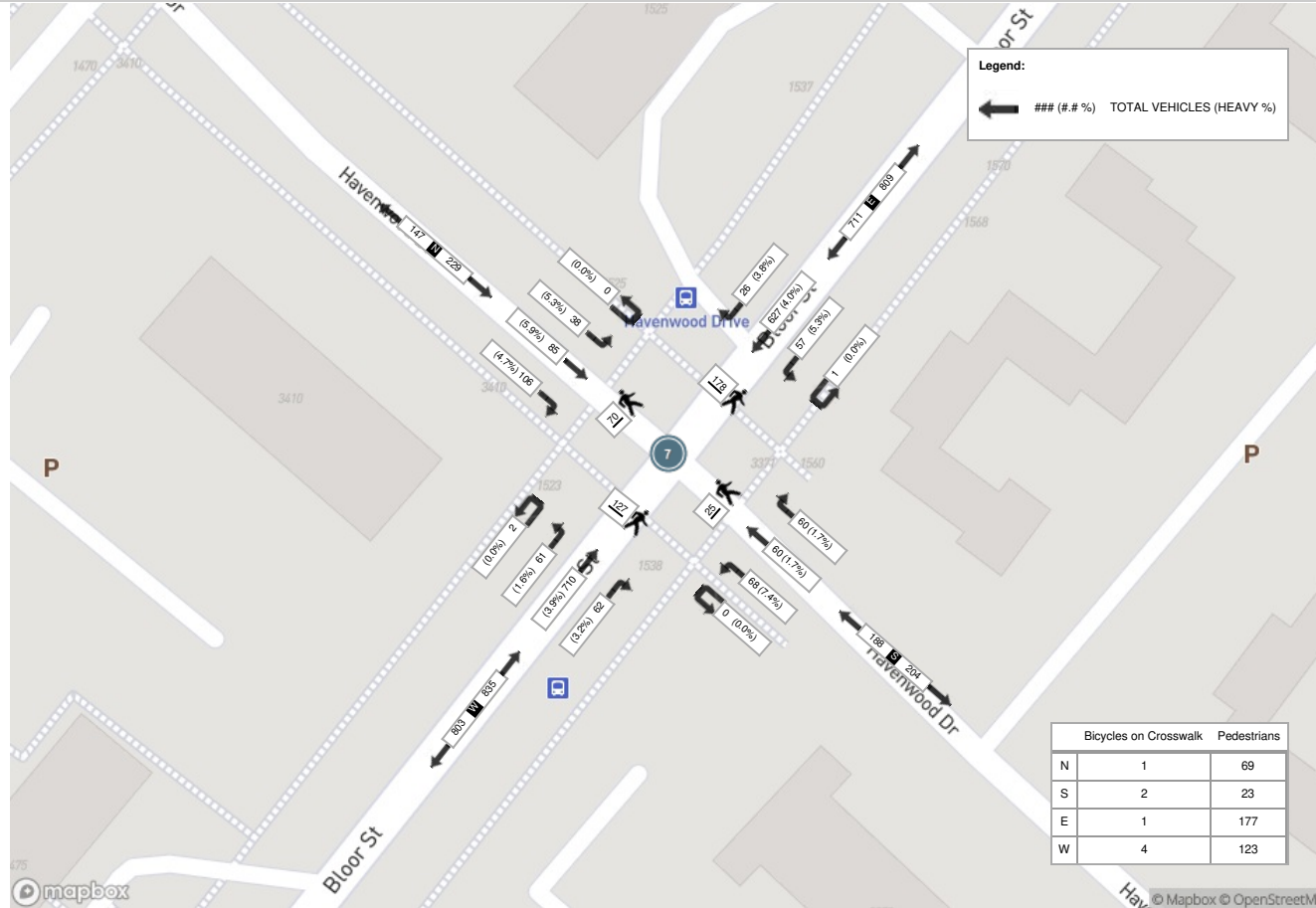


Peak Hour: 05:00 PM - 06:00 PM Weather: Broken Clouds (14.49 °C)

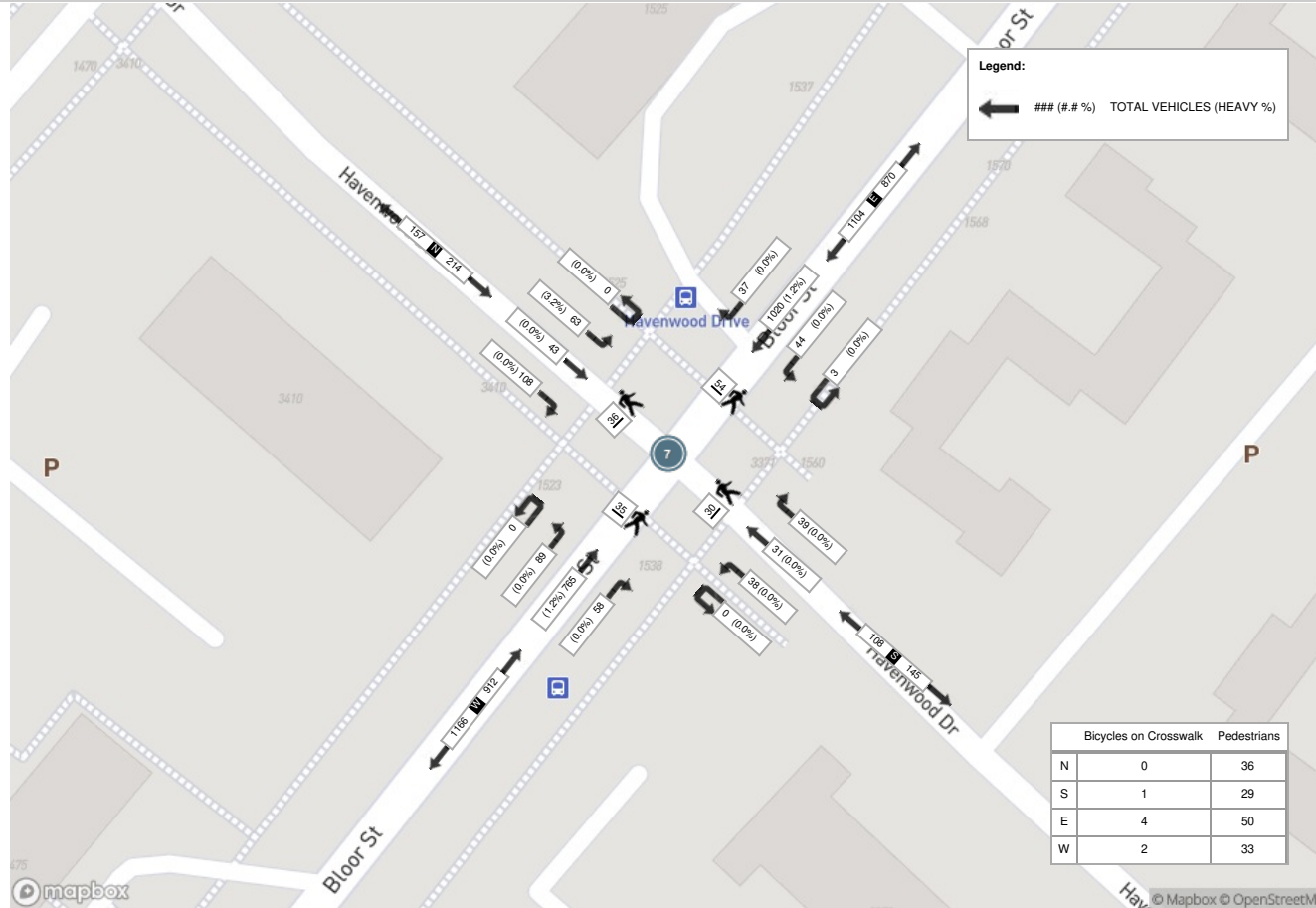
Start Time	N Approach HAVENWOOD DR						E Approach BLOOR ST						S Approach HAVENWOOD DR						W Approach BLOOR ST						Int. Total (15 min)
	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	
17:00:00	28	12	15	0	14	55	4	265	11	0	8	280	10	9	14	0	8	33	15	176	18	0	7	209	577
17:15:00	33	10	18	0	10	61	15	234	7	0	6	256	7	7	6	0	3	20	21	225	25	0	5	271	608
17:30:00	23	7	15	0	7	45	8	269	15	3	6	295	14	4	7	0	6	25	9	169	30	0	4	208	573
17:45:00	24	14	15	0	5	53	10	252	11	0	34	273	8	11	11	0	13	30	13	195	16	0	19	224	580
<b>Grand Total</b>	<b>108</b>	<b>43</b>	<b>63</b>	<b>0</b>	<b>36</b>	<b>214</b>	<b>37</b>	<b>1020</b>	<b>44</b>	<b>3</b>	<b>54</b>	<b>1104</b>	<b>39</b>	<b>31</b>	<b>38</b>	<b>0</b>	<b>30</b>	<b>108</b>	<b>58</b>	<b>765</b>	<b>89</b>	<b>0</b>	<b>35</b>	<b>912</b>	<b>2338</b>
<b>Approach%</b>	50.5%	20.1%	29.4%	0%	-	-	3.4%	92.4%	4%	0.3%	-	-	36.1%	28.7%	35.2%	0%	-	-	6.4%	83.9%	9.8%	0%	-	-	-
<b>Totals %</b>	4.6%	1.8%	2.7%	0%	9.2%	9.2%	1.6%	43.6%	1.9%	0.1%	47.2%	47.2%	1.7%	1.3%	1.6%	0%	4.6%	4.6%	2.5%	32.7%	3.8%	0%	39%	39%	-
<b>PHF</b>	0.82	0.77	0.88	0	0.88	0.88	0.62	0.95	0.73	0.25	0.94	0.94	0.7	0.7	0.68	0	0.82	0.82	0.69	0.85	0.74	0	0.84	0.84	-
<b>Heavy</b>	0	0	2	0	2	2	0	12	0	0	12	12	0	0	0	0	0	0	0	9	0	0	9	9	-
<b>Heavy %</b>	0%	0%	3.2%	0%	0.9%	0.9%	0%	1.2%	0%	0%	1.1%	1.1%	0%	0%	0%	0%	0%	0%	0%	1.2%	0%	0%	1%	1%	-
<b>Lights</b>	108	40	61	0	209	209	37	1008	44	3	1092	1092	39	31	38	0	108	108	58	756	89	0	903	903	-
<b>Lights %</b>	100%	93%	96.8%	0%	97.7%	97.7%	100%	98.8%	100%	100%	98.9%	98.9%	100%	100%	100%	0%	100%	100%	100%	98.8%	100%	0%	99%	99%	-
<b>Single-Unit Trucks</b>	0	0	2	0	2	2	0	3	0	0	3	3	0	0	0	0	0	0	0	4	0	0	4	4	-
<b>Single-Unit Trucks %</b>	0%	0%	3.2%	0%	0.9%	0.9%	0%	0.3%	0%	0%	0.3%	0.3%	0%	0%	0%	0%	0%	0%	0%	0.5%	0%	0%	0.4%	0.4%	-
<b>Buses</b>	0	0	0	0	0	0	0	9	0	0	9	9	0	0	0	0	0	0	0	5	0	0	5	5	-
<b>Buses %</b>	0%	0%	0%	0%	0%	0%	0%	0.9%	0%	0%	0.8%	0.8%	0%	0%	0%	0%	0%	0%	0%	0.7%	0%	0%	0.5%	0.5%	-
<b>Articulated Trucks</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
<b>Articulated Trucks %</b>	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-
<b>Bicycles on Road</b>	0	3	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
<b>Bicycles on Road %</b>	0%	7%	0%	0%	1.4%	1.4%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-
<b>Pedestrians</b>	-	-	-	-	36	36	-	-	-	-	50	50	-	-	-	-	29	29	-	-	-	-	33	33	-
<b>Pedestrians %</b>	-	-	-	-	23.2%	23.2%	-	-	-	-	32.3%	32.3%	-	-	-	-	18.7%	18.7%	-	-	-	-	21.3%	21.3%	-
<b>Bicycles on Crosswalk</b>	-	-	-	-	0	0	-	-	-	-	4	4	-	-	-	-	1	1	-	-	-	-	2	2	-
<b>Bicycles on Crosswalk %</b>	-	-	-	-	0%	0%	-	-	-	-	2.6%	2.6%	-	-	-	-	0.6%	0.6%	-	-	-	-	1.3%	1.3%	-



Peak Hour: 08:00 AM - 09:00 AM Weather: Scattered Clouds (8.33 °C)



Peak Hour: 05:00 PM - 06:00 PM Weather: Broken Clouds (14.49 °C)





Turning Movement Count (7 . BLOOR ST & HAVENWOOD DR)

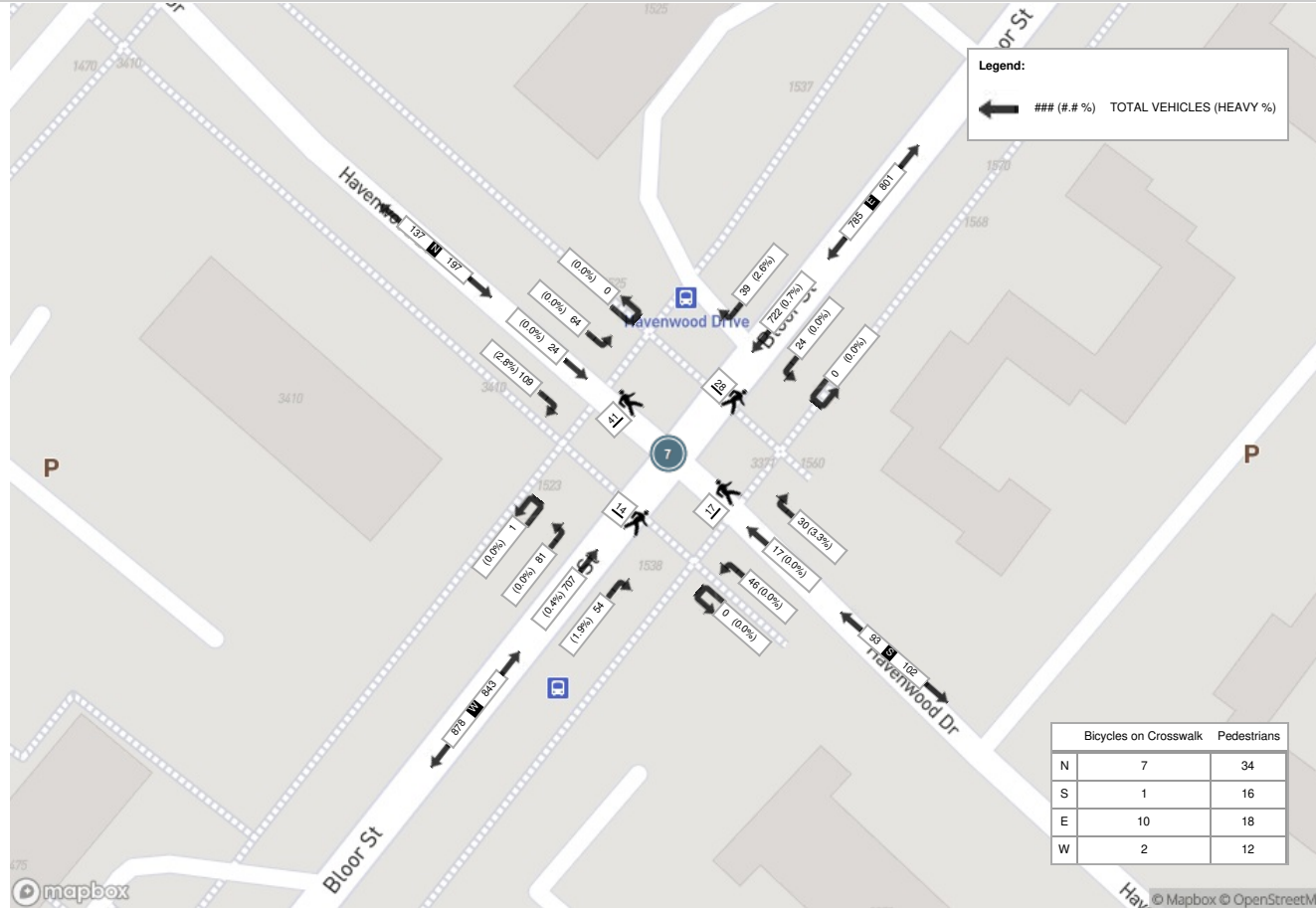
Start Time	N Approach HAVENWOOD DR						E Approach BLOOR ST					S Approach HAVENWOOD DR					W Approach BLOOR ST					Int. Total (15 min)	Int. Total (1 hr)			
	Right N:W	Thru N:S	Left N:E	UTurn N:N	Peds N:	Approach Total	Right E:N	Thru E:W	Left E:S	UTurn E:E	Peds E:	Approach Total	Right S:E	Thru S:N	Left S:W	UTurn S:S	Peds S:	Approach Total	Right W:S	Thru W:E	Left W:N			UTurn W:W	Peds W:	Approach Total
10:00:00	24	5	11	0	4	40	4	153	6	2	2	165	11	2	8	0	4	21	2	121	13	0	5	136	362	
10:15:00	24	1	12	0	13	37	3	164	3	0	3	170	9	4	8	0	2	21	6	133	12	0	5	151	379	
10:30:00	25	5	11	0	6	41	4	175	0	0	4	179	5	1	13	0	2	19	7	126	16	0	5	149	388	
10:45:00	21	8	20	0	7	49	2	188	3	0	6	193	4	7	8	0	1	19	8	123	23	0	3	154	415	1544
11:00:00	24	4	15	0	8	43	5	162	4	0	0	171	6	5	5	0	9	16	4	138	17	0	17	159	389	1571
11:15:00	29	2	10	0	8	41	8	166	5	0	4	179	7	1	8	0	2	16	11	140	11	0	3	162	398	1590
11:30:00	23	6	10	0	4	39	5	188	2	0	0	195	8	2	11	0	4	21	4	138	18	0	4	160	415	1617
11:45:00	24	5	9	0	2	38	7	184	5	0	3	196	4	7	6	0	6	17	11	139	18	0	7	168	419	1621
12:00:00	24	8	15	0	5	47	4	179	3	0	2	186	10	4	19	0	1	33	9	150	16	0	6	175	441	1673
12:15:00	25	2	18	0	11	45	13	151	2	0	2	166	3	5	14	0	2	22	11	160	18	0	5	189	422	1697
12:30:00	22	5	17	0	7	44	7	180	4	0	3	191	7	5	6	0	2	18	7	173	20	0	5	200	453	1735
12:45:00	24	6	19	0	4	49	13	185	7	0	4	205	7	5	12	0	8	24	18	172	19	1	8	210	488	1804
13:00:00	30	6	11	0	14	47	8	193	7	0	10	208	5	5	9	0	7	19	15	163	15	0	5	193	467	1830
13:15:00	30	5	14	0	18	49	6	170	3	0	13	179	10	7	15	0	0	32	12	179	22	0	0	213	473	1881
13:30:00	25	7	20	0	5	52	12	174	7	0	1	193	8	0	10	0	2	18	9	193	25	0	1	227	490	1918
13:45:00	18	4	23	0	13	45	9	175	1	0	4	185	3	0	7	0	6	10	5	190	16	0	7	211	451	1881
<b>Grand Total</b>	<b>392</b>	<b>79</b>	<b>235</b>	<b>0</b>	<b>129</b>	<b>706</b>	<b>110</b>	<b>2787</b>	<b>62</b>	<b>2</b>	<b>61</b>	<b>2961</b>	<b>107</b>	<b>60</b>	<b>159</b>	<b>0</b>	<b>58</b>	<b>326</b>	<b>139</b>	<b>2438</b>	<b>279</b>	<b>1</b>	<b>86</b>	<b>2857</b>	<b>6850</b>	<b>-</b>
<b>Approach%</b>	55.5%	11.2%	33.3%	0%	-	-	3.7%	94.1%	2.1%	0.1%	-	-	32.8%	18.4%	48.8%	0%	-	-	4.9%	85.3%	9.8%	0%	-	-	-	
<b>Totals %</b>	5.7%	1.2%	3.4%	0%	10.3%	-	1.6%	40.7%	0.9%	0%	43.2%	-	1.6%	0.9%	2.3%	0%	4.8%	-	2%	35.6%	4.1%	0%	41.7%	-	-	
<b>Heavy</b>	5	1	4	0	-	-	1	23	1	0	-	-	1	0	1	0	-	-	1	20	1	0	-	-	-	
<b>Heavy %</b>	1.3%	1.3%	1.7%	0%	-	-	0.9%	0.8%	1.6%	0%	-	-	0.9%	0%	0.6%	0%	-	-	0.7%	0.8%	0.4%	0%	-	-	-	
<b>Bicycles</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Bicycle %</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Peak Hour: 12:45 PM - 01:45 PM Weather: Broken Clouds (12.83 °C)**

Start Time	N Approach HAVENWOOD DR						E Approach BLOOR ST						S Approach HAVENWOOD DR						W Approach BLOOR ST						Int. Total (15 min)
	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	
12:45:00	24	6	19	0	4	49	13	185	7	0	4	205	7	5	12	0	8	24	18	172	19	1	8	210	488
13:00:00	30	6	11	0	14	47	8	193	7	0	10	208	5	5	9	0	7	19	15	163	15	0	5	193	467
13:15:00	30	5	14	0	18	49	6	170	3	0	13	179	10	7	15	0	0	32	12	179	22	0	0	213	473
13:30:00	25	7	20	0	5	52	12	174	7	0	1	193	8	0	10	0	2	18	9	193	25	0	1	227	490
<b>Grand Total</b>	<b>109</b>	<b>24</b>	<b>64</b>	<b>0</b>	<b>41</b>	<b>197</b>	<b>39</b>	<b>722</b>	<b>24</b>	<b>0</b>	<b>28</b>	<b>785</b>	<b>30</b>	<b>17</b>	<b>46</b>	<b>0</b>	<b>17</b>	<b>93</b>	<b>54</b>	<b>707</b>	<b>81</b>	<b>1</b>	<b>14</b>	<b>843</b>	<b>1918</b>
<b>Approach%</b>	55.3%	12.2%	32.5%	0%	-	-	5%	92%	3.1%	0%	-	-	32.3%	18.3%	49.5%	0%	-	-	6.4%	83.9%	9.6%	0.1%	-	-	-
<b>Totals %</b>	5.7%	1.3%	3.3%	0%	10.3%	10.3%	2%	37.6%	1.3%	0%	40.9%	40.9%	1.6%	0.9%	2.4%	0%	4.8%	4.8%	2.8%	36.9%	4.2%	0.1%	44%	44%	-
<b>PHF</b>	0.91	0.86	0.8	0	0.95	0.95	0.75	0.94	0.86	0	0.94	0.94	0.75	0.61	0.77	0	0.73	0.73	0.75	0.92	0.81	0.25	0.93	0.93	-
<b>Heavy</b>	3	0	0	0	3	3	1	5	0	0	6	6	1	0	0	0	1	1	3	0	0	0	4	4	-
<b>Heavy %</b>	2.8%	0%	0%	0%	1.5%	1.5%	2.6%	0.7%	0%	0%	0.8%	0.8%	3.3%	0%	0%	0%	1.1%	1.1%	0.4%	0%	0%	0%	0.5%	0.5%	-
<b>Lights</b>	106	22	64	0	192	192	37	717	24	0	778	778	29	16	46	0	91	91	53	703	81	1	838	838	-
<b>Lights %</b>	97.2%	91.7%	100%	0%	97.5%	97.5%	94.9%	99.3%	100%	0%	99.1%	99.1%	96.7%	94.1%	100%	0%	97.8%	97.8%	98.1%	99.4%	100%	100%	99.4%	99.4%	-
<b>Single-Unit Trucks</b>	3	0	0	0	3	3	1	3	0	0	4	4	1	0	0	0	1	1	1	1	0	0	2	2	-
<b>Single-Unit Trucks %</b>	2.8%	0%	0%	0%	1.5%	1.5%	2.6%	0.4%	0%	0%	0.5%	0.5%	3.3%	0%	0%	0%	1.1%	1.1%	1.9%	0.1%	0%	0%	0.2%	0.2%	-
<b>Buses</b>	0	0	0	0	0	0	0	2	0	0	2	2	0	0	0	0	0	0	0	2	0	0	2	2	-
<b>Buses %</b>	0%	0%	0%	0%	0%	0%	0%	0.3%	0%	0%	0.3%	0.3%	0%	0%	0%	0%	0%	0%	0%	0.3%	0%	0%	0.2%	0.2%	-
<b>Bicycles on Road</b>	0	2	0	0	2	2	1	0	0	0	1	1	0	1	0	0	1	1	0	1	0	0	1	1	-
<b>Bicycles on Road %</b>	0%	8.3%	0%	0%	1%	1%	2.6%	0%	0%	0%	0.1%	0.1%	0%	5.9%	0%	0%	1.1%	1.1%	0%	0.1%	0%	0%	0.1%	0.1%	-
<b>Pedestrians</b>	-	-	-	-	34	34	-	-	-	-	18	18	-	-	-	-	16	16	-	-	-	-	12	12	-
<b>Pedestrians%</b>	-	-	-	-	34%	34%	-	-	-	-	18%	18%	-	-	-	-	16%	16%	-	-	-	-	12%	12%	-
<b>Bicycles on Crosswalk</b>	-	-	-	-	7	7	-	-	-	-	10	10	-	-	-	-	1	1	-	-	-	-	2	2	-
<b>Bicycles on Crosswalk%</b>	-	-	-	-	7%	7%	-	-	-	-	10%	10%	-	-	-	-	1%	1%	-	-	-	-	2%	2%	-

Peak Hour: 12:45 PM - 01:45 PM Weather: Broken Clouds (12.83 °C)





Turning Movement Count (6 . BURNHAMTHORPE RD E & PONYTRAIL DR)

Start Time	N Approach PONYTRAIL DR						E Approach BURNHAMTHORPE RD E						S Approach PONYTRAIL DR						W Approach BURNHAMTHORPE RD E						Int. Total (15 min)	Int. Total (1 hr)
	Right N:W	Thru N:S	Left N:E	UTurn N:N	Peds N:	Approach Total	Right E:N	Thru E:W	Left E:S	UTurn E:E	Peds E:	Approach Total	Right S:E	Thru S:N	Left S:W	UTurn S:S	Peds S:	Approach Total	Right W:S	Thru W:E	Left W:N	UTurn W:W	Peds W:	Approach Total		
07:00:00	0	3	73	1	4	77	40	74	2	0	2	116	7	3	2	0	0	12	0	227	4	0	0	231	436	
07:15:00	9	3	53	0	4	65	40	89	4	0	0	133	16	2	3	0	1	21	2	256	5	0	1	263	482	
07:30:00	15	7	90	1	3	113	67	100	6	0	0	173	16	5	3	0	1	24	2	279	6	0	0	287	597	
07:45:00	13	8	72	0	4	93	73	129	11	0	3	213	11	7	3	0	3	21	3	301	7	0	0	311	638	2153
08:00:00	21	3	92	0	6	116	75	164	2	0	1	241	18	3	5	0	0	26	3	260	10	0	2	273	656	2373
08:15:00	20	13	91	0	3	124	55	147	12	0	2	214	13	15	7	0	2	35	6	293	7	0	0	306	679	2570
08:30:00	11	13	57	0	6	81	79	160	14	0	6	253	18	11	8	0	3	37	15	276	11	0	0	302	673	2646
08:45:00	21	9	71	0	5	101	94	160	5	0	8	259	18	17	9	0	2	44	13	227	7	0	1	247	651	2659
09:00:00	17	10	81	0	0	108	79	157	4	0	0	240	10	7	6	0	0	23	7	251	17	0	0	275	646	2649
09:15:00	12	4	62	0	0	78	75	144	5	0	4	224	12	4	2	0	0	18	5	201	8	0	0	214	534	2504
09:30:00	15	5	64	0	6	84	49	133	4	1	2	187	12	5	1	0	1	18	2	152	16	0	0	170	459	2290
09:45:00	19	5	67	0	1	91	63	108	3	0	1	174	12	12	0	0	0	24	4	161	10	0	1	175	464	2103
***BREAK***																										
16:00:00	19	7	66	0	6	92	118	252	10	0	6	380	7	11	5	0	0	23	4	220	14	0	0	238	733	
16:15:00	21	11	78	0	4	110	130	243	10	0	8	383	6	4	7	0	2	17	9	229	15	0	0	253	763	
16:30:00	17	11	95	0	5	123	108	239	10	0	4	357	7	13	3	0	0	23	6	250	10	0	1	266	769	
16:45:00	10	8	102	0	9	120	110	268	10	0	4	388	8	8	7	0	0	23	10	218	13	0	0	241	772	3037
17:00:00	13	10	105	0	6	128	122	251	7	0	6	380	7	9	4	0	6	20	8	228	14	0	0	250	778	3082
17:15:00	15	14	79	0	6	108	143	240	14	0	3	397	4	10	7	0	0	21	10	223	16	1	0	250	776	3095
17:30:00	20	10	82	0	10	112	138	275	16	0	0	429	15	9	3	0	0	27	5	242	10	0	0	257	825	3151
17:45:00	14	12	105	0	6	131	157	249	16	0	1	422	7	13	5	0	3	25	6	231	14	0	1	251	829	3208
18:00:00	19	12	81	0	7	112	123	226	18	0	6	367	6	7	3	0	1	16	5	230	16	0	1	251	746	3176
18:15:00	21	7	58	0	6	86	100	234	13	0	2	347	11	5	2	0	1	18	12	219	11	0	1	242	693	3093
18:30:00	8	5	77	0	5	90	102	182	14	0	0	298	13	7	6	0	0	26	7	164	11	0	1	182	596	2864
18:45:00	9	9	78	0	1	96	80	141	13	1	0	235	8	8	3	0	4	19	5	167	15	0	0	187	537	2572
<b>Grand Total</b>	<b>359</b>	<b>199</b>	<b>1879</b>	<b>2</b>	<b>113</b>	<b>2439</b>	<b>2220</b>	<b>4365</b>	<b>223</b>	<b>2</b>	<b>69</b>	<b>6810</b>	<b>262</b>	<b>195</b>	<b>104</b>	<b>0</b>	<b>30</b>	<b>561</b>	<b>149</b>	<b>5505</b>	<b>267</b>	<b>1</b>	<b>10</b>	<b>5922</b>	<b>15732</b>	<b>-</b>
<b>Approach%</b>	14.7%	8.2%	77%	0.1%	-	-	32.6%	64.1%	3.3%	0%	-	-	46.7%	34.8%	18.5%	0%	-	-	2.5%	93%	4.5%	0%	-	-	-	
<b>Totals %</b>	2.3%	1.3%	11.9%	0%	-	15.5%	14.1%	27.7%	1.4%	0%	-	43.3%	1.7%	1.2%	0.7%	0%	-	3.6%	0.9%	35%	1.7%	0%	-	37.6%	-	
<b>Heavy</b>	8	7	38	0	-	-	38	111	5	0	-	-	7	3	4	0	-	-	10	107	7	0	-	-	-	
<b>Heavy %</b>	2.2%	3.5%	2%	0%	-	-	1.7%	2.5%	2.2%	0%	-	-	2.7%	1.5%	3.8%	0%	-	-	6.7%	1.9%	2.6%	0%	-	-	-	
<b>Bicycles</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Bicycle %</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Peak Hour: 08:00 AM - 09:00 AM Weather: Scattered Clouds (8.33 °C)**

Start Time	N Approach PONYTRAIL DR						E Approach BURNHAMTHORPE RD E						S Approach PONYTRAIL DR						W Approach BURNHAMTHORPE RD E						Int. Total (15 min)
	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	
08:00:00	21	3	92	0	6	116	75	164	2	0	1	241	18	3	5	0	0	26	3	260	10	0	2	273	656
08:15:00	20	13	91	0	3	124	55	147	12	0	2	214	13	15	7	0	2	35	6	293	7	0	0	306	679
08:30:00	11	13	57	0	6	81	79	160	14	0	6	253	18	11	8	0	3	37	15	276	11	0	0	302	673
08:45:00	21	9	71	0	5	101	94	160	5	0	8	259	18	17	9	0	2	44	13	227	7	0	1	247	651
<b>Grand Total</b>	<b>73</b>	<b>38</b>	<b>311</b>	<b>0</b>	<b>20</b>	<b>422</b>	<b>303</b>	<b>631</b>	<b>33</b>	<b>0</b>	<b>17</b>	<b>967</b>	<b>67</b>	<b>46</b>	<b>29</b>	<b>0</b>	<b>7</b>	<b>142</b>	<b>37</b>	<b>1056</b>	<b>35</b>	<b>0</b>	<b>3</b>	<b>1128</b>	<b>2659</b>
<b>Approach%</b>	17.3%	9%	73.7%	0%	-	-	31.3%	65.3%	3.4%	0%	-	-	47.2%	32.4%	20.4%	0%	-	-	3.3%	93.6%	3.1%	0%	-	-	-
<b>Totals %</b>	2.7%	1.4%	11.7%	0%	15.9%	11.4%	23.7%	1.2%	0%	36.4%	2.5%	1.7%	1.1%	0%	5.3%	1.4%	39.7%	1.3%	0%	42.4%	-	-	-	-	-
<b>PHF</b>	0.87	0.73	0.85	0	0.85	0.81	0.96	0.59	0	0.93	0.93	0.68	0.81	0	0.81	0.62	0.9	0.8	0	0.92	-	-	-	-	-
<b>Heavy</b>	3	3	6	0	12	8	26	0	0	34	1	1	1	0	3	4	17	4	0	25	-	-	-	-	-
<b>Heavy %</b>	4.1%	7.9%	1.9%	0%	2.8%	2.6%	4.1%	0%	0%	3.5%	1.5%	2.2%	3.4%	0%	2.1%	10.8%	1.6%	11.4%	0%	2.2%	-	-	-	-	-
<b>Lights</b>	70	35	305	0	410	295	605	33	0	933	66	45	28	0	139	33	1039	31	0	1103	-	-	-	-	-
<b>Lights %</b>	95.9%	92.1%	98.1%	0%	97.2%	97.4%	95.9%	100%	0%	96.5%	98.5%	97.8%	96.6%	0%	97.9%	89.2%	98.4%	88.6%	0%	97.8%	-	-	-	-	-
<b>Single-Unit Trucks</b>	1	2	2	0	5	4	16	0	0	20	1	1	0	0	2	1	9	1	0	11	-	-	-	-	-
<b>Single-Unit Trucks %</b>	1.4%	5.3%	0.6%	0%	1.2%	1.3%	2.5%	0%	0%	2.1%	1.5%	2.2%	0%	0%	1.4%	2.7%	0.9%	2.9%	0%	1%	-	-	-	-	-
<b>Buses</b>	2	1	4	0	7	3	8	0	0	11	0	0	1	0	1	3	7	3	0	13	-	-	-	-	-
<b>Buses %</b>	2.7%	2.6%	1.3%	0%	1.7%	1%	1.3%	0%	0%	1.1%	0%	0%	3.4%	0%	0.7%	8.1%	0.7%	8.6%	0%	1.2%	-	-	-	-	-
<b>Articulated Trucks</b>	0	0	0	0	0	1	2	0	0	3	0	0	0	0	0	0	1	0	0	1	-	-	-	-	-
<b>Articulated Trucks %</b>	0%	0%	0%	0%	0%	0.3%	0.3%	0%	0%	0.3%	0%	0%	0%	0%	0%	0%	0.1%	0%	0%	0.1%	-	-	-	-	-
<b>Bicycles on Road</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-
<b>Bicycles on Road %</b>	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-	-	-	-	-
<b>Pedestrians</b>	-	-	-	-	13	-	-	-	-	17	-	-	-	-	7	-	-	-	-	3	-	-	-	-	-
<b>Pedestrians %</b>	-	-	-	-	27.7%	-	-	-	-	36.2%	-	-	-	-	14.9%	-	-	-	-	6.4%	-	-	-	-	-
<b>Bicycles on Crosswalk</b>	-	-	-	-	7	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-
<b>Bicycles on Crosswalk %</b>	-	-	-	-	14.9%	-	-	-	-	0%	-	-	-	-	0%	-	-	-	-	0%	-	-	-	-	-

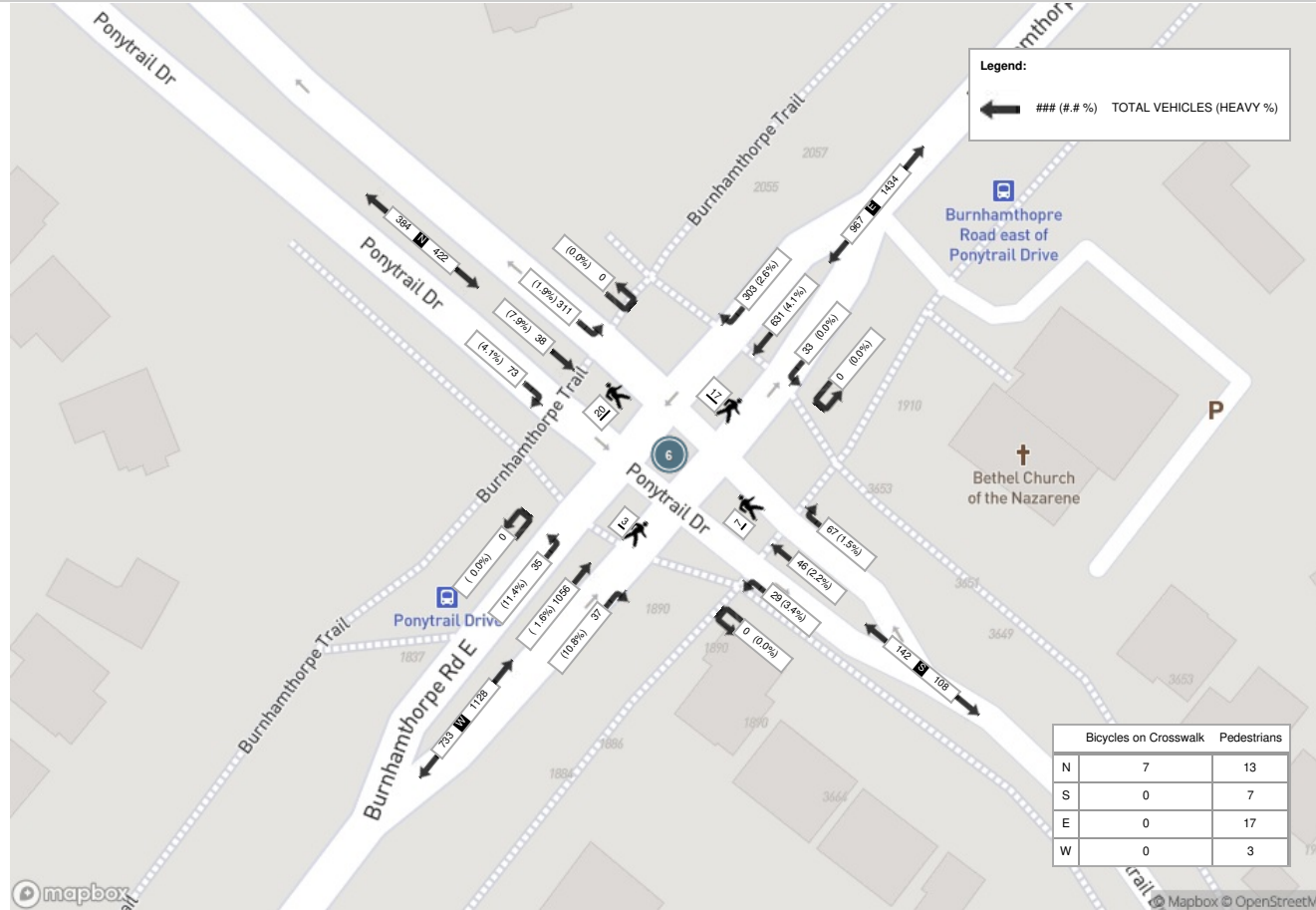


**Peak Hour: 05:00 PM - 06:00 PM Weather: Broken Clouds (14.49 °C)**

Start Time	N Approach PONYTRAIL DR						E Approach BURNHAMTHORPE RD E						S Approach PONYTRAIL DR						W Approach BURNHAMTHORPE RD E						Int. Total (15 min)
	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	
17:00:00	13	10	105	0	6	128	122	251	7	0	6	380	7	9	4	0	6	20	8	228	14	0	0	250	778
17:15:00	15	14	79	0	6	108	143	240	14	0	3	397	4	10	7	0	0	21	10	223	16	1	0	250	776
17:30:00	20	10	82	0	10	112	138	275	16	0	0	429	15	9	3	0	0	27	5	242	10	0	0	257	825
17:45:00	14	12	105	0	6	131	157	249	16	0	1	422	7	13	5	0	3	25	6	231	14	0	1	251	829
<b>Grand Total</b>	<b>62</b>	<b>46</b>	<b>371</b>	<b>0</b>	<b>28</b>	<b>479</b>	<b>560</b>	<b>1015</b>	<b>53</b>	<b>0</b>	<b>10</b>	<b>1628</b>	<b>33</b>	<b>41</b>	<b>19</b>	<b>0</b>	<b>9</b>	<b>93</b>	<b>29</b>	<b>924</b>	<b>54</b>	<b>1</b>	<b>1</b>	<b>1008</b>	<b>3208</b>
<b>Approach%</b>	12.9%	9.6%	77.5%	0%	-	-	34.4%	62.3%	3.3%	0%	-	-	35.5%	44.1%	20.4%	0%	-	-	2.9%	91.7%	5.4%	0.1%	-	-	-
<b>Totals %</b>	1.9%	1.4%	11.6%	0%	14.9%	14.9%	17.5%	31.6%	1.7%	0%	50.7%	50.7%	1%	1.3%	0.6%	0%	2.9%	2.9%	0.9%	28.8%	1.7%	0%	31.4%	31.4%	-
<b>PHF</b>	0.78	0.82	0.88	0	0.91	0.91	0.89	0.92	0.83	0	0.95	0.95	0.55	0.79	0.68	0	0.86	0.86	0.73	0.95	0.84	0.25	0.98	0.98	-
<b>Heavy</b>	1	0	6	0	7	7	6	11	3	0	20	20	0	0	1	0	1	1	0	12	1	0	13	13	-
<b>Heavy %</b>	1.6%	0%	1.6%	0%	1.5%	1.5%	1.1%	1.1%	5.7%	0%	1.2%	1.2%	0%	0%	5.3%	0%	1.1%	1.1%	0%	1.3%	1.9%	0%	1.3%	1.3%	-
<b>Lights</b>	61	46	365	0	472	472	554	1004	50	0	1608	1608	33	41	18	0	92	92	29	912	53	1	995	995	-
<b>Lights %</b>	98.4%	100%	98.4%	0%	98.5%	98.5%	98.9%	98.9%	94.3%	0%	98.8%	98.8%	100%	100%	94.7%	0%	98.9%	98.9%	100%	98.7%	98.1%	100%	98.7%	98.7%	-
<b>Single-Unit Trucks</b>	1	0	3	0	4	4	3	4	3	0	10	10	0	0	1	0	1	1	0	7	1	0	8	8	-
<b>Single-Unit Trucks %</b>	1.6%	0%	0.8%	0%	0.8%	0.8%	0.5%	0.4%	5.7%	0%	0.6%	0.6%	0%	0%	5.3%	0%	1.1%	1.1%	0%	0.8%	1.9%	0%	0.8%	0.8%	-
<b>Buses</b>	0	0	3	0	3	3	3	7	0	0	10	10	0	0	0	0	0	0	0	5	0	0	5	5	-
<b>Buses %</b>	0%	0%	0.8%	0%	0.6%	0.6%	0.5%	0.7%	0%	0%	0.6%	0.6%	0%	0%	0%	0%	0%	0%	0%	0.5%	0%	0%	0.5%	0.5%	-
<b>Articulated Trucks</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
<b>Articulated Trucks %</b>	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-
<b>Bicycles on Road</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
<b>Bicycles on Road %</b>	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-
<b>Pedestrians</b>	-	-	-	-	16	16	-	-	-	-	10	10	-	-	-	-	7	7	-	-	-	-	1	1	-
<b>Pedestrians %</b>	-	-	-	-	33.3%	33.3%	-	-	-	-	20.8%	20.8%	-	-	-	-	14.6%	14.6%	-	-	-	-	2.1%	2.1%	-
<b>Bicycles on Crosswalk</b>	-	-	-	-	12	12	-	-	-	-	0	0	-	-	-	-	2	2	-	-	-	-	0	0	-
<b>Bicycles on Crosswalk %</b>	-	-	-	-	25%	25%	-	-	-	-	0%	0%	-	-	-	-	4.2%	4.2%	-	-	-	-	0%	0%	-



Peak Hour: 08:00 AM - 09:00 AM Weather: Scattered Clouds (8.33 °C)



Peak Hour: 05:00 PM - 06:00 PM Weather: Broken Clouds (14.49 °C)





Turning Movement Count (6 . BURNHAMTHORPE RD E & PONYTRAIL DR)

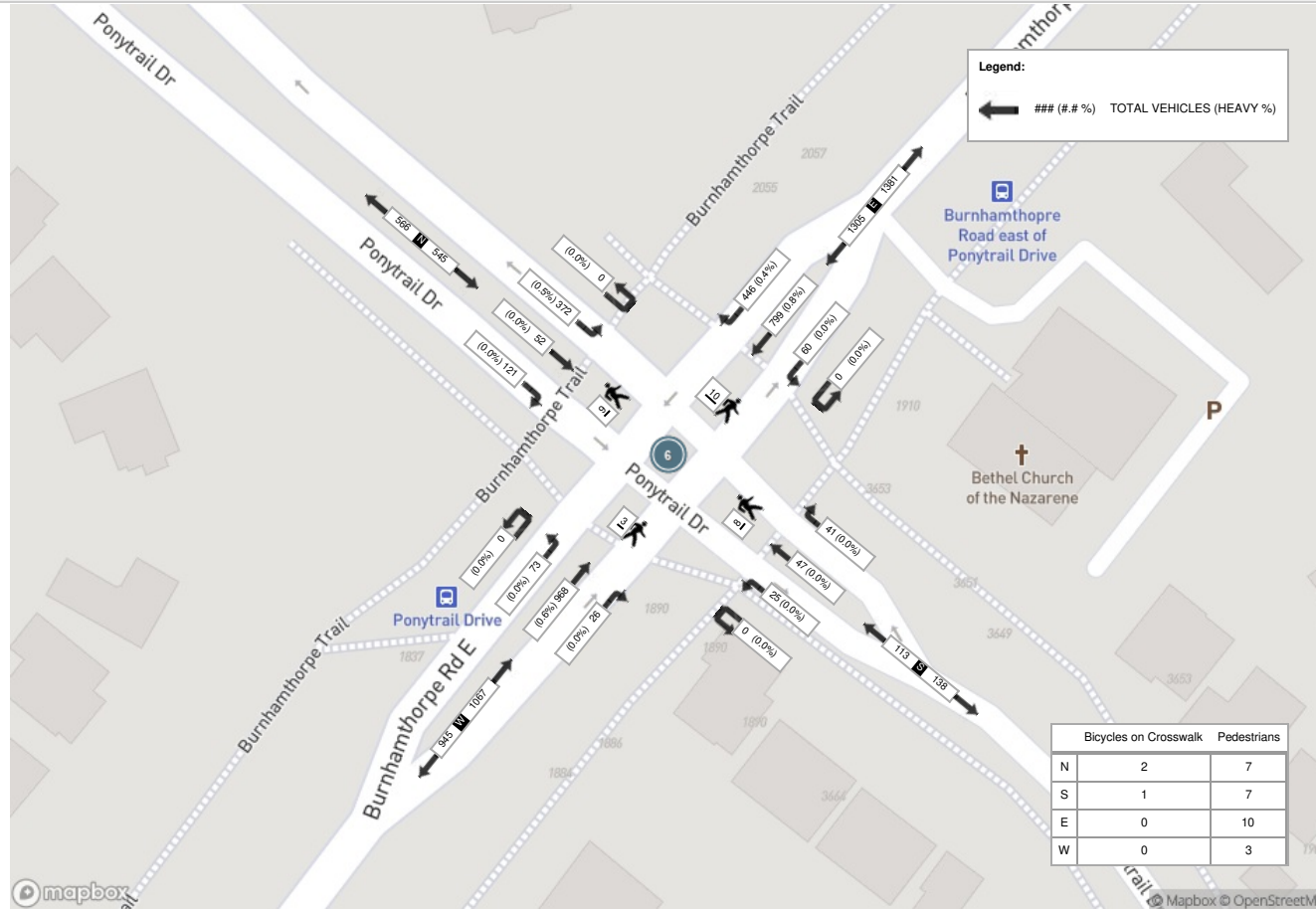
Start Time	N Approach PONYTRAIL DR						E Approach BURNHAMTHORPE RD E						S Approach PONYTRAIL DR						W Approach BURNHAMTHORPE RD E						Int. Total (15 min)	Int. Total (1 hr)
	Right N:W	Thru N:S	Left N:E	UTurn N:N	Peds N:	Approach Total	Right E:N	Thru E:W	Left E:S	UTurn E:E	Peds E:	Approach Total	Right S:E	Thru S:N	Left S:W	UTurn S:S	Peds S:	Approach Total	Right W:S	Thru W:E	Left W:N	UTurn W:W	Peds W:	Approach Total		
10:00:00	25	7	67	0	15	99	91	144	4	0	4	239	15	5	8	0	1	28	9	142	24	0	1	175	541	
10:15:00	23	3	78	0	10	104	91	138	5	0	2	234	9	6	1	0	1	16	8	171	20	0	2	199	553	
10:30:00	20	3	80	0	6	103	85	133	7	0	3	225	11	7	2	0	0	20	10	158	19	0	0	187	535	
10:45:00	28	3	87	0	10	118	105	161	6	0	2	272	10	4	4	0	0	18	7	143	27	0	0	177	585	2214
11:00:00	29	0	98	0	10	127	91	156	4	0	1	251	16	9	3	0	0	28	5	181	19	0	0	205	611	2284
11:15:00	20	8	102	0	6	130	104	154	10	0	1	268	10	10	3	0	3	23	9	182	22	0	1	213	634	2365
11:30:00	22	3	100	0	2	125	109	168	9	0	3	286	13	3	2	0	2	18	5	170	18	0	0	193	622	2452
11:45:00	17	7	83	0	4	107	114	155	6	0	0	275	11	5	4	0	5	20	6	182	19	0	4	207	609	2476
12:00:00	20	5	69	0	3	94	81	158	9	0	2	248	11	10	9	0	3	30	6	207	14	0	1	227	599	2464
12:15:00	23	8	115	0	1	146	103	156	11	0	1	270	15	5	5	0	0	25	3	152	24	0	2	179	620	2450
12:30:00	18	5	75	0	5	98	101	182	13	0	0	296	12	5	7	0	9	24	9	211	23	0	0	243	661	2489
12:45:00	21	9	100	0	3	130	115	163	11	0	2	289	16	9	5	0	0	30	10	192	18	0	2	220	669	2549
13:00:00	32	7	96	0	2	135	105	195	14	0	1	314	12	9	6	0	1	27	8	229	18	0	0	255	731	2681
13:15:00	34	12	104	0	3	150	107	214	10	0	4	331	12	7	4	0	1	23	5	255	14	0	0	274	778	2839
13:30:00	33	13	84	0	3	130	122	211	18	0	1	351	7	20	6	0	3	33	7	245	20	0	3	272	786	2964
13:45:00	22	20	88	0	1	130	112	179	18	0	4	309	10	11	9	0	3	30	6	239	21	0	0	266	735	3030
<b>Grand Total</b>	<b>387</b>	<b>113</b>	<b>1426</b>	<b>0</b>	<b>84</b>	<b>1926</b>	<b>1636</b>	<b>2667</b>	<b>155</b>	<b>0</b>	<b>31</b>	<b>4458</b>	<b>190</b>	<b>125</b>	<b>78</b>	<b>0</b>	<b>32</b>	<b>393</b>	<b>113</b>	<b>3059</b>	<b>320</b>	<b>0</b>	<b>16</b>	<b>3492</b>	<b>10269</b>	<b>-</b>
<b>Approach%</b>	20.1%	5.9%	74%	0%	-	-	36.7%	59.8%	3.5%	0%	-	-	48.3%	31.8%	19.8%	0%	-	-	3.2%	87.6%	9.2%	0%	-	-	-	-
<b>Totals %</b>	3.8%	1.1%	13.9%	0%	-	18.8%	15.9%	26%	1.5%	0%	-	43.4%	1.9%	1.2%	0.8%	1.5%	0%	-	3.8%	1.1%	29.8%	3.1%	0%	-	34%	-
<b>Heavy</b>	1	0	11	0	-	-	17	25	1	0	-	-	1	0	1	0	-	-	0	26	1	0	-	-	-	-
<b>Heavy %</b>	0.3%	0%	0.8%	0%	-	-	1%	0.9%	0.6%	0%	-	-	0.5%	0%	1.3%	0%	-	-	0%	0.8%	0.3%	0%	-	-	-	-
<b>Bicycles</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Bicycle %</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Peak Hour: 01:00 PM - 02:00 PM Weather: Broken Clouds (12.83 °C)**

Start Time	N Approach PONYTRAIL DR						E Approach BURNHAMTHORPE RD E						S Approach PONYTRAIL DR						W Approach BURNHAMTHORPE RD E						Int. Total (15 min)
	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	
13:00:00	32	7	96	0	2	135	105	195	14	0	1	314	12	9	6	0	1	27	8	229	18	0	0	255	731
13:15:00	34	12	104	0	3	150	107	214	10	0	4	331	12	7	4	0	1	23	5	255	14	0	0	274	778
13:30:00	33	13	84	0	3	130	122	211	18	0	1	351	7	20	6	0	3	33	7	245	20	0	3	272	786
13:45:00	22	20	88	0	1	130	112	179	18	0	4	309	10	11	9	0	3	30	6	239	21	0	0	266	735
<b>Grand Total</b>	<b>121</b>	<b>52</b>	<b>372</b>	<b>0</b>	<b>9</b>	<b>545</b>	<b>446</b>	<b>799</b>	<b>60</b>	<b>0</b>	<b>10</b>	<b>1305</b>	<b>41</b>	<b>47</b>	<b>25</b>	<b>0</b>	<b>8</b>	<b>113</b>	<b>26</b>	<b>968</b>	<b>73</b>	<b>0</b>	<b>3</b>	<b>1067</b>	<b>3030</b>
<b>Approach%</b>	22.2%	9.5%	68.3%	0%	-	-	34.2%	61.2%	4.6%	0%	-	-	36.3%	41.6%	22.1%	0%	-	-	2.4%	90.7%	6.8%	0%	-	-	-
<b>Totals %</b>	4%	1.7%	12.3%	0%	18%	18%	14.7%	26.4%	2%	0%	43.1%	43.1%	1.4%	1.6%	0.8%	0%	3.7%	3.7%	0.9%	31.9%	2.4%	0%	35.2%	35.2%	-
<b>PHF</b>	0.89	0.65	0.89	0	0.91	0.91	0.91	0.93	0.83	0	0.93	0.93	0.85	0.59	0.69	0	0.86	0.86	0.81	0.95	0.87	0	0.97	0.97	-
<b>Heavy</b>	0	0	2	0	2	2	2	6	0	0	8	8	0	0	0	0	0	0	0	6	0	0	6	6	-
<b>Heavy %</b>	0%	0%	0.5%	0%	0.4%	0.4%	0.4%	0.8%	0%	0%	0.6%	0.6%	0%	0%	0%	0%	0%	0%	0%	0.6%	0%	0%	0.6%	0.6%	-
<b>Lights</b>	121	52	370	0	543	444	790	60	0	1294	41	47	25	0	113	26	962	73	0	1061	-	-	-		
<b>Lights %</b>	100%	100%	99.5%	0%	99.6%	99.6%	98.9%	100%	0%	99.2%	100%	100%	100%	0%	100%	100%	99.4%	100%	0%	99.4%	-	-	-		
<b>Single-Unit Trucks</b>	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	3	0	0	3	0	0	3	-	
<b>Single-Unit Trucks %</b>	0%	0%	0%	0%	0%	0%	0.4%	0%	0%	0.2%	0%	0%	0%	0%	0%	0%	0.3%	0%	0%	0.3%	-	-	0.3%	-	
<b>Buses</b>	0	0	2	0	2	2	3	0	0	5	0	0	0	0	0	0	3	0	0	3	0	0	3	-	
<b>Buses %</b>	0%	0%	0.5%	0%	0.4%	0.4%	0.4%	0%	0%	0.4%	0%	0%	0%	0%	0%	0%	0.3%	0%	0%	0.3%	-	-	0.3%	-	
<b>Articulated Trucks</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	
<b>Articulated Trucks %</b>	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-	-	0%	-	
<b>Bicycles on Road</b>	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	-	
<b>Bicycles on Road %</b>	0%	0%	0%	0%	0%	0%	0.4%	0%	0%	0.2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-	-	0%	-	
<b>Pedestrians</b>	-	-	-	-	7	-	-	-	-	10	-	-	-	-	7	-	-	-	-	-	3	-	-	-	
<b>Pedestrians %</b>	-	-	-	-	23.3%	-	-	-	-	33.3%	-	-	-	-	23.3%	-	-	-	-	-	10%	-	-	-	
<b>Bicycles on Crosswalk</b>	-	-	-	-	2	-	-	-	-	0	-	-	-	-	1	-	-	-	-	-	0	-	-	-	
<b>Bicycles on Crosswalk %</b>	-	-	-	-	6.7%	-	-	-	-	0%	-	-	-	-	3.3%	-	-	-	-	-	0%	-	-	-	

Peak Hour: 01:00 PM - 02:00 PM Weather: Broken Clouds (12.83 °C)





**Turning Movement Count (9 . FIELDGATE DR & 3403-3445 FIELDGATE DR (ACCESS))**

Start Time	N Approach FIELDGATE DR					E Approach 3403-3445 FIELDGATE DR (ACCESS)					S Approach FIELDGATE DR					Int. Total (15 min)	Int. Total (1 hr)
	Thru N:S	Left N:E	UTurn N:N	Peds N:	Approach Total	Right E:N	Left E:S	UTurn E:E	Peds E:	Approach Total	Right S:E	Thru S:N	UTurn S:S	Peds S:	Approach Total		
07:00:00	42	0	0	2	42	1	5	0	7	6	5	20	0	0	25	73	
07:15:00	41	0	0	1	41	2	1	0	4	3	5	22	1	1	28	72	
07:30:00	43	1	0	0	44	0	5	0	7	5	2	36	0	0	38	87	
07:45:00	49	1	0	0	50	3	3	0	13	6	6	28	0	0	34	90	322
08:00:00	49	3	0	0	52	1	9	0	20	10	8	55	0	0	63	125	374
08:15:00	90	7	1	1	98	2	5	0	61	7	10	100	0	0	110	215	517
08:30:00	95	1	0	1	96	1	8	0	74	9	10	66	1	1	77	182	612
08:45:00	46	0	0	0	46	4	12	0	17	16	13	50	0	0	63	125	647
09:00:00	55	3	0	0	58	5	5	0	27	10	11	37	0	0	48	116	638
09:15:00	42	1	0	0	43	5	9	0	13	14	9	30	0	0	39	96	519
09:30:00	46	1	0	2	47	2	5	0	14	7	9	32	0	0	41	95	432
09:45:00	43	3	0	0	46	3	10	0	8	13	15	30	0	1	45	104	411
***BREAK***																	
16:00:00	55	5	0	0	60	5	5	0	10	10	9	60	0	0	69	139	
16:15:00	58	5	0	0	63	2	12	0	24	14	12	48	0	0	60	137	
16:30:00	59	3	0	2	62	5	8	0	19	13	5	46	0	0	51	126	
16:45:00	64	4	0	1	68	1	13	0	6	14	12	41	0	0	53	135	537
17:00:00	67	2	0	0	69	4	13	0	11	17	15	39	0	0	54	140	538
17:15:00	65	5	0	0	70	2	11	0	18	13	16	57	0	1	73	156	557
17:30:00	72	1	0	2	73	3	14	0	11	17	18	54	0	1	72	162	593
17:45:00	57	6	0	1	63	3	13	0	13	16	9	32	0	0	41	120	578
18:00:00	55	4	0	1	59	3	9	0	30	12	17	48	0	1	65	136	574
18:15:00	56	4	0	0	60	1	10	0	10	11	13	47	0	0	60	131	549
18:30:00	46	1	0	2	47	4	13	0	22	17	27	41	0	1	68	132	519
18:45:00	44	4	0	1	48	2	17	0	7	19	11	45	0	1	56	123	522
<b>Grand Total</b>	<b>1339</b>	<b>65</b>	<b>1</b>	<b>17</b>	<b>1405</b>	<b>64</b>	<b>215</b>	<b>0</b>	<b>446</b>	<b>279</b>	<b>267</b>	<b>1064</b>	<b>2</b>	<b>8</b>	<b>1333</b>	<b>3017</b>	<b>-</b>
<b>Approach%</b>	95.3%	4.6%	0.1%	-	-	22.9%	77.1%	0%	-	-	20%	79.8%	0.2%	-	-	-	-
<b>Totals %</b>	44.4%	2.2%	0%	-	46.6%	2.1%	7.1%	0%	-	9.2%	8.8%	35.3%	0.1%	-	44.2%	-	-
<b>Heavy</b>	27	0	0	-	-	0	6	0	-	-	4	27	0	-	-	-	-
<b>Heavy %</b>	2%	0%	0%	-	-	0%	2.8%	0%	-	-	1.5%	2.5%	0%	-	-	-	-
<b>Bicycles</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Bicycle %</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Peak Hour: 08:00 AM - 09:00 AM Weather: Scattered Clouds (8.33 °C)**

Start Time	N Approach FIELDGATE DR					E Approach 3403-3445 FIELDGATE DR (ACCESS)					S Approach FIELDGATE DR				Int. Total (15 min)	
	Thru	Left	UTurn	Peds	Approach Total	Right	Left	UTurn	Peds	Approach Total	Right	Thru	UTurn	Peds		Approach Total
08:00:00	49	3	0	0	52	1	9	0	20	10	8	55	0	0	63	125
08:15:00	90	7	1	1	98	2	5	0	61	7	10	100	0	0	110	215
08:30:00	95	1	0	1	96	1	8	0	74	9	10	66	1	1	77	182
08:45:00	46	0	0	0	46	4	12	0	17	16	13	50	0	0	63	125
<b>Grand Total</b>	<b>280</b>	<b>11</b>	<b>1</b>	<b>2</b>	<b>292</b>	<b>8</b>	<b>34</b>	<b>0</b>	<b>172</b>	<b>42</b>	<b>41</b>	<b>271</b>	<b>1</b>	<b>1</b>	<b>313</b>	<b>647</b>
<b>Approach%</b>	95.9%	3.8%	0.3%	-	-	19%	81%	0%	-	-	13.1%	86.6%	0.3%	-	-	-
<b>Totals %</b>	43.3%	1.7%	0.2%	-	45.1%	1.2%	5.3%	0%	-	6.5%	6.3%	41.9%	0.2%	-	48.4%	-
<b>PHF</b>	0.74	0.39	0.25	-	0.74	0.5	0.71	0	-	0.66	0.79	0.68	0.25	-	0.71	-
<b>Heavy</b>	10	0	0	-	10	0	3	0	-	3	1	9	0	-	10	-
<b>Heavy %</b>	3.6%	0%	0%	-	3.4%	0%	8.8%	0%	-	7.1%	2.4%	3.3%	0%	-	3.2%	-
<b>Lights</b>	270	11	1	-	282	8	31	0	-	39	40	260	1	-	301	-
<b>Lights %</b>	96.4%	100%	100%	-	96.6%	100%	91.2%	0%	-	92.9%	97.6%	95.9%	100%	-	96.2%	-
<b>Single-Unit Trucks</b>	3	0	0	-	3	0	2	0	-	2	1	1	0	-	2	-
<b>Single-Unit Trucks %</b>	1.1%	0%	0%	-	1%	0%	5.9%	0%	-	4.8%	2.4%	0.4%	0%	-	0.6%	-
<b>Buses</b>	7	0	0	-	7	0	0	0	-	0	0	8	0	-	8	-
<b>Buses %</b>	2.5%	0%	0%	-	2.4%	0%	0%	0%	-	0%	0%	3%	0%	-	2.6%	-
<b>Articulated Trucks</b>	0	0	0	-	0	0	1	0	-	1	0	0	0	-	0	-
<b>Articulated Trucks %</b>	0%	0%	0%	-	0%	0%	2.9%	0%	-	2.4%	0%	0%	0%	-	0%	-
<b>Bicycles on Road</b>	0	0	0	-	0	0	0	0	-	0	0	2	0	-	2	-
<b>Bicycles on Road %</b>	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0%	0.7%	0%	-	0.6%	-
<b>Pedestrians</b>	-	-	-	2	-	-	-	171	-	-	-	-	-	1	-	-
<b>Pedestrians%</b>	-	-	-	1.1%	-	-	-	97.7%	-	-	-	-	-	0.6%	-	-
<b>Bicycles on Crosswalk</b>	-	-	-	0	-	-	-	1	-	-	-	-	-	0	-	-
<b>Bicycles on Crosswalk%</b>	-	-	-	0%	-	-	-	0.6%	-	-	-	-	-	0%	-	-

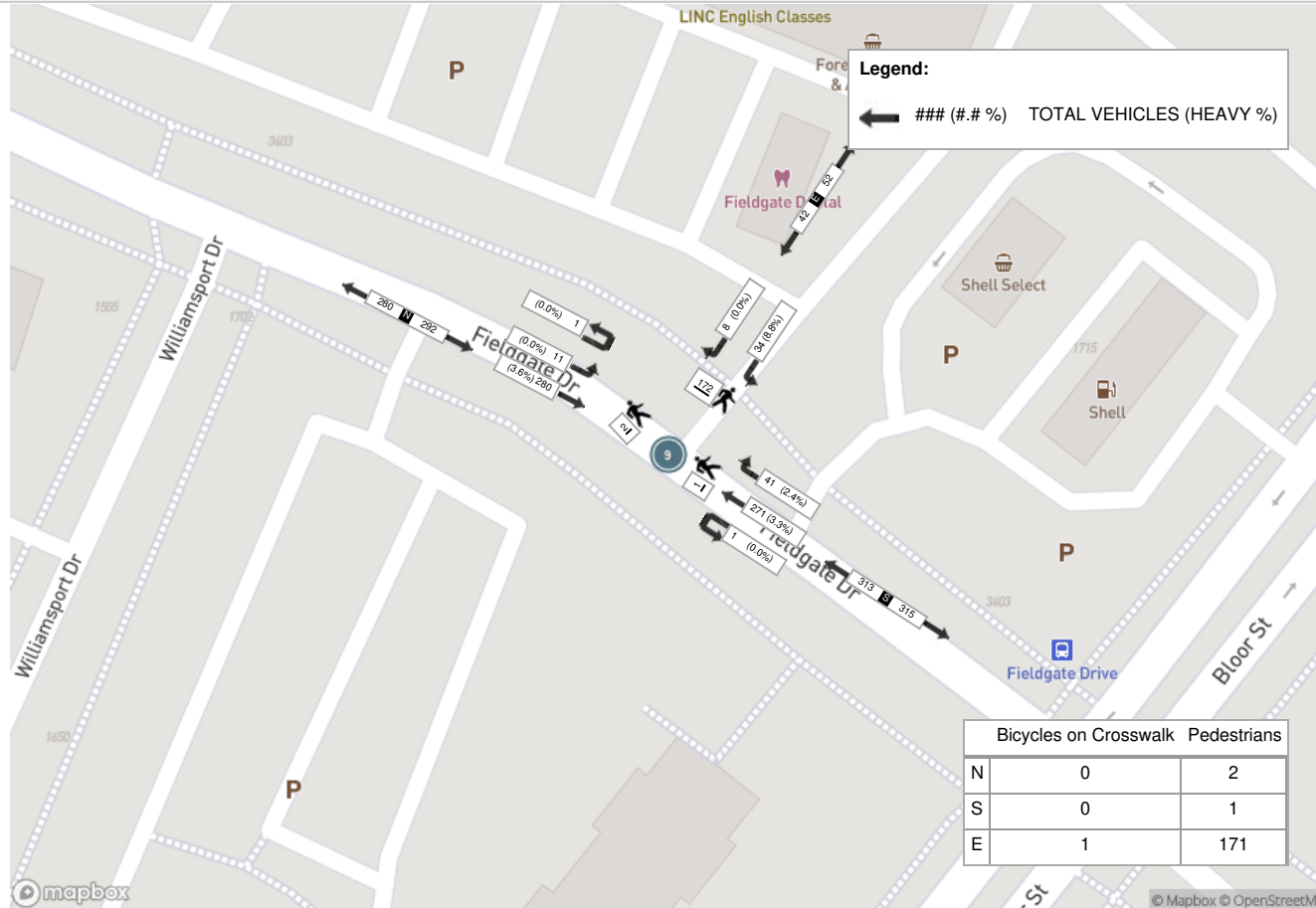


**Peak Hour: 04:45 PM - 05:45 PM Weather: Broken Clouds (14.49 °C)**

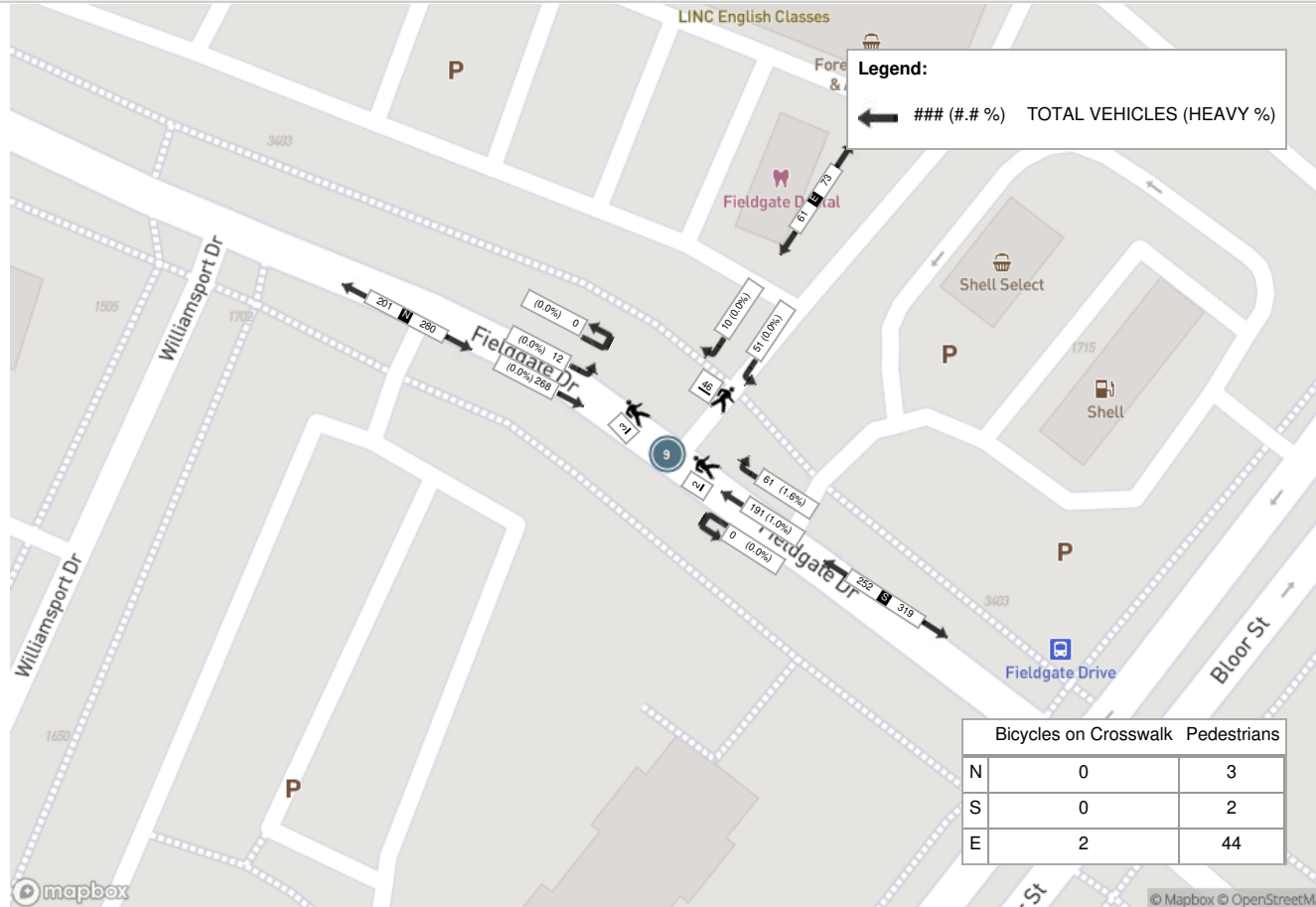
Start Time	N Approach FIELDGATE DR					E Approach 3403-3445 FIELDGATE DR (ACCESS)					S Approach FIELDGATE DR				Int. Total (15 min)	
	Thru	Left	UTurn	Peds	Approach Total	Right	Left	UTurn	Peds	Approach Total	Right	Thru	UTurn	Peds		Approach Total
16:45:00	64	4	0	1	68	1	13	0	6	14	12	41	0	0	53	135
17:00:00	67	2	0	0	69	4	13	0	11	17	15	39	0	0	54	140
17:15:00	65	5	0	0	70	2	11	0	18	13	16	57	0	1	73	156
17:30:00	72	1	0	2	73	3	14	0	11	17	18	54	0	1	72	162
<b>Grand Total</b>	<b>268</b>	<b>12</b>	<b>0</b>	<b>3</b>	<b>280</b>	<b>10</b>	<b>51</b>	<b>0</b>	<b>46</b>	<b>61</b>	<b>61</b>	<b>191</b>	<b>0</b>	<b>2</b>	<b>252</b>	<b>593</b>
<b>Approach%</b>	95.7%	4.3%	0%	-	-	16.4%	83.6%	0%	-	-	24.2%	75.8%	0%	-	-	-
<b>Totals %</b>	45.2%	2%	0%	47.2%	1.7%	8.6%	0%	10.3%	10.3%	32.2%	0%	42.5%	-	-	-	-
<b>PHF</b>	0.93	0.6	0	0.96	0.63	0.91	0	0.9	0.85	0.84	0	0.86	-	-	-	-
<b>Heavy</b>	0	0	0	0	0	0	0	0	0	1	2	0	3	-	-	-
<b>Heavy %</b>	0%	0%	0%	0%	0%	0%	0%	0%	0%	1.6%	1%	0%	1.2%	-	-	-
<b>Lights</b>	268	12	0	280	10	51	0	61	59	187	0	246	-	-	-	-
<b>Lights %</b>	100%	100%	0%	100%	100%	100%	0%	100%	96.7%	97.9%	0%	97.6%	-	-	-	-
<b>Single-Unit Trucks</b>	0	0	0	0	0	0	0	0	1	2	0	3	-	-	-	-
<b>Single-Unit Trucks %</b>	0%	0%	0%	0%	0%	0%	0%	0%	1.6%	1%	0%	1.2%	-	-	-	-
<b>Buses</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Buses %</b>	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
<b>Articulated Trucks</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Articulated Trucks %</b>	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
<b>Bicycles on Road</b>	0	0	0	0	0	0	0	0	1	2	0	3	-	-	-	-
<b>Bicycles on Road %</b>	0%	0%	0%	0%	0%	0%	0%	0%	1.6%	1%	0%	1.2%	-	-	-	-
<b>Pedestrians</b>	-	-	-	3	-	-	-	44	-	-	-	2	-	-	-	-
<b>Pedestrians%</b>	-	-	-	5.9%	-	-	-	86.3%	-	-	-	3.9%	-	-	-	-
<b>Bicycles on Crosswalk</b>	-	-	-	0	-	-	-	2	-	-	-	0	-	-	-	-
<b>Bicycles on Crosswalk%</b>	-	-	-	0%	-	-	-	3.9%	-	-	-	0%	-	-	-	-



Peak Hour: 08:00 AM - 09:00 AM Weather: Scattered Clouds (8.33 °C)



Peak Hour: 04:45 PM - 05:45 PM Weather: Broken Clouds (14.49 °C)





**Turning Movement Count (9 . FIELDGATE DR & 3403-3445 FIELDGATE DR (ACCESS))**

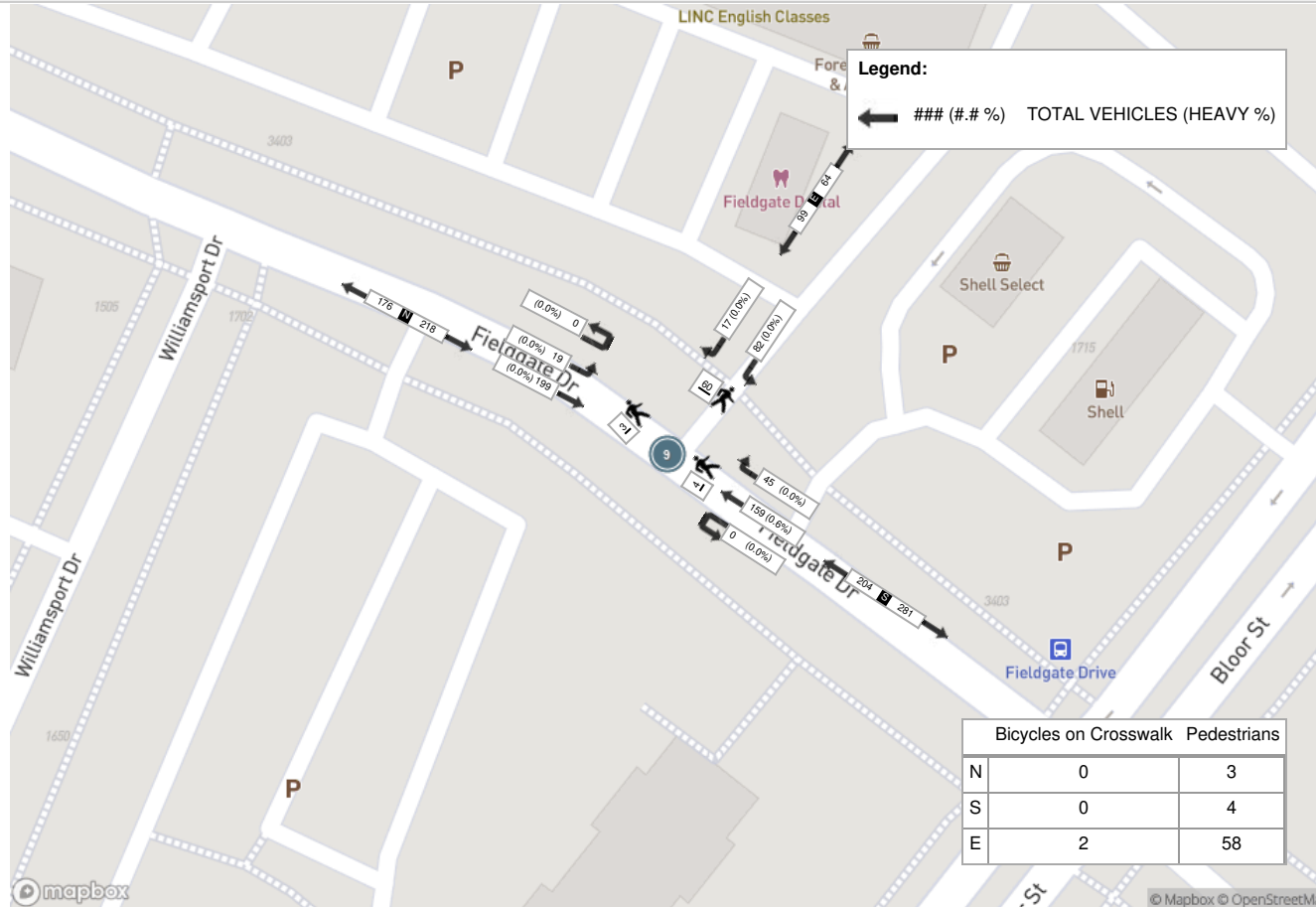
Start Time	N Approach FIELDGATE DR					E Approach 3403-3445 FIELDGATE DR (ACCESS)					S Approach FIELDGATE DR					Int. Total (15 min)	Int. Total (1 hr)
	Thru N:S	Left N:E	UTurn N:N	Peds N:	Approach Total	Right E:N	Left E:S	UTurn E:E	Peds E:	Approach Total	Right S:E	Thru S:N	UTurn S:S	Peds S:	Approach Total		
10:00:00	37	5	0	1	42	3	7	0	10	10	6	35	0	0	41	93	
10:15:00	48	0	0	0	48	2	4	0	12	6	6	35	0	1	41	95	
10:30:00	46	3	0	0	49	3	13	0	5	16	6	33	0	1	39	104	
10:45:00	42	2	0	0	44	3	8	0	8	11	11	29	0	0	40	95	387
11:00:00	43	1	0	0	44	5	7	0	6	12	15	42	0	2	57	113	407
11:15:00	60	6	0	1	66	2	14	0	7	16	13	28	0	2	41	123	435
11:30:00	46	4	0	2	50	2	17	0	4	19	16	32	0	1	48	117	448
11:45:00	38	3	0	0	41	3	11	0	8	14	6	39	0	2	45	100	453
12:00:00	54	2	0	0	56	4	17	0	22	21	8	35	0	2	43	120	460
12:15:00	46	3	0	0	49	7	10	0	8	17	12	49	0	0	61	127	464
12:30:00	54	6	0	1	60	5	19	0	9	24	11	38	0	0	49	133	480
12:45:00	44	4	0	0	48	3	17	0	20	20	10	44	0	0	54	122	502
13:00:00	46	6	0	2	52	6	31	0	25	37	11	29	0	3	40	129	511
13:15:00	55	3	0	0	58	3	15	0	6	18	13	48	0	1	61	137	521
13:30:00	51	1	0	1	52	5	16	0	9	21	14	39	0	1	53	126	514
13:45:00	45	2	0	2	47	1	11	0	10	12	12	32	0	2	44	103	495
<b>Grand Total</b>	<b>755</b>	<b>51</b>	<b>0</b>	<b>10</b>	<b>806</b>	<b>57</b>	<b>217</b>	<b>0</b>	<b>169</b>	<b>274</b>	<b>170</b>	<b>587</b>	<b>0</b>	<b>18</b>	<b>757</b>	<b>1837</b>	<b>-</b>
<b>Approach%</b>	93.7%	6.3%	0%		-	20.8%	79.2%	0%		-	22.5%	77.5%	0%		-	-	-
<b>Totals %</b>	41.1%	2.8%	0%		43.9%	3.1%	11.8%	0%		14.9%	9.3%	32%	0%		41.2%	-	-
<b>Heavy</b>	3	0	0		-	1	1	0		-	0	1	0		-	-	-
<b>Heavy %</b>	0.4%	0%	0%		-	1.8%	0.5%	0%		-	0%	0.2%	0%		-	-	-
<b>Bicycles</b>	-	-	-		-	-	-	-		-	-	-	-		-	-	-
<b>Bicycle %</b>	-	-	-		-	-	-	-		-	-	-	-		-	-	-



**Peak Hour: 12:30 PM - 01:30 PM Weather: Broken Clouds (12.83 °C)**

Start Time	N Approach FIELDGATE DR					E Approach 3403-3445 FIELDGATE DR (ACCESS)					S Approach FIELDGATE DR				Int. Total (15 min)	
	Thru	Left	UTurn	Peds	Approach Total	Right	Left	UTurn	Peds	Approach Total	Right	Thru	UTurn	Peds		Approach Total
12:30:00	54	6	0	1	60	5	19	0	9	24	11	38	0	0	49	133
12:45:00	44	4	0	0	48	3	17	0	20	20	10	44	0	0	54	122
13:00:00	46	6	0	2	52	6	31	0	25	37	11	29	0	3	40	129
13:15:00	55	3	0	0	58	3	15	0	6	18	13	48	0	1	61	137
<b>Grand Total</b>	<b>199</b>	<b>19</b>	<b>0</b>	<b>3</b>	<b>218</b>	<b>17</b>	<b>82</b>	<b>0</b>	<b>60</b>	<b>99</b>	<b>45</b>	<b>159</b>	<b>0</b>	<b>4</b>	<b>204</b>	<b>521</b>
<b>Approach%</b>	91.3%	8.7%	0%	-	-	17.2%	82.8%	0%	-	-	22.1%	77.9%	0%	-	-	-
<b>Totals %</b>	38.2%	3.6%	0%	-	41.8%	3.3%	15.7%	0%	-	19%	8.6%	30.5%	0%	-	39.2%	-
<b>PHF</b>	0.9	0.79	0	-	0.91	0.71	0.66	0	-	0.67	0.87	0.83	0	-	0.84	-
<b>Heavy</b>	0	0	0	-	0	0	0	0	-	0	0	1	0	-	1	-
<b>Heavy %</b>	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0%	0.6%	0%	-	0.5%	-
<b>Lights</b>	199	17	0	-	216	17	82	0	-	99	45	156	0	-	201	-
<b>Lights %</b>	100%	89.5%	0%	-	99.1%	100%	100%	0%	-	100%	100%	98.1%	0%	-	98.5%	-
<b>Single-Unit Trucks</b>	0	0	0	-	0	0	0	0	-	0	0	1	0	-	1	-
<b>Single-Unit Trucks %</b>	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0%	0.6%	0%	-	0.5%	-
<b>Bicycles on Road</b>	0	2	0	-	2	0	0	0	-	0	0	2	0	-	2	-
<b>Bicycles on Road %</b>	0%	10.5%	0%	-	0.9%	0%	0%	0%	-	0%	0%	1.3%	0%	-	1%	-
<b>Pedestrians</b>	-	-	-	3	-	-	-	-	58	-	-	-	-	4	-	-
<b>Pedestrians%</b>	-	-	-	4.5%	-	-	-	-	86.6%	-	-	-	-	6%	-	-
<b>Bicycles on Crosswalk</b>	-	-	-	0	-	-	-	-	2	-	-	-	-	0	-	-
<b>Bicycles on Crosswalk%</b>	-	-	-	0%	-	-	-	-	3%	-	-	-	-	0%	-	-

Peak Hour: 12:30 PM - 01:30 PM Weather: Broken Clouds (12.83 °C)





Turning Movement Count (5 . FIELDGATE DR & BURNHAMTHORPE RD E)

Start Time	N Approach FIELDGATE DR						E Approach BURNHAMTHORPE RD E						S Approach FIELDGATE DR						W Approach BURNHAMTHORPE RD E						Int. Total (15 min)	Int. Total (1 hr)
	Right N:W	Thru N:S	Left N:E	UTurn N:N	Peds N:	Approach Total	Right E:N	Thru E:W	Left E:S	UTurn E:E	Peds E:	Approach Total	Right S:E	Thru S:N	Left S:W	UTurn S:S	Peds S:	Approach Total	Right W:S	Thru W:E	Left W:N	UTurn W:W	Peds W:	Approach Total		
07:00:00	13	6	10	0	4	29	4	66	2	0	1	72	11	8	15	0	0	34	17	196	4	0	0	217	352	
07:15:00	6	7	15	0	3	28	5	89	8	0	0	102	19	7	10	0	0	36	11	228	2	0	1	241	407	
07:30:00	11	3	19	0	6	33	5	120	2	0	2	127	13	13	15	0	1	41	6	269	6	0	1	281	482	
07:45:00	19	8	11	0	4	38	6	123	5	0	2	134	14	14	12	0	3	40	18	266	7	0	2	291	503	1744
08:00:00	18	14	14	0	8	46	8	167	9	0	5	184	16	11	34	0	3	61	57	262	5	0	4	324	615	2007
08:15:00	13	33	15	0	9	61	8	162	25	0	19	195	21	39	45	0	9	105	87	237	8	0	15	332	693	2293
08:30:00	12	15	10	0	12	37	6	174	9	0	7	189	25	29	40	0	4	94	25	275	13	0	2	313	633	2444
08:45:00	15	13	26	0	2	54	8	144	8	0	3	160	17	18	21	0	1	56	17	221	11	0	1	249	519	2460
09:00:00	13	12	19	0	8	44	11	178	11	0	5	200	21	8	22	0	1	51	20	222	8	0	3	250	545	2390
09:15:00	7	10	10	0	2	27	6	138	4	0	2	148	10	11	13	0	3	34	13	198	6	0	3	217	426	2123
09:30:00	9	14	9	0	6	32	7	145	10	0	3	162	8	10	15	0	1	33	11	146	9	0	0	166	393	1883
09:45:00	4	4	18	0	3	26	11	130	4	0	1	145	6	5	10	0	1	21	18	158	5	0	2	181	373	1737
***BREAK***																										
16:00:00	13	20	13	0	6	46	11	239	17	0	4	267	12	18	24	0	6	54	32	188	13	0	8	233	600	
16:15:00	10	17	14	0	7	41	10	243	18	0	1	271	14	14	22	0	4	50	29	239	17	0	3	285	647	
16:30:00	13	18	18	0	12	49	10	224	14	0	9	248	12	13	23	0	2	48	30	229	7	0	6	266	611	
16:45:00	8	18	12	0	8	38	16	264	21	0	0	301	13	7	10	0	3	30	30	207	10	0	3	247	616	2474
17:00:00	9	25	18	0	6	52	11	249	14	0	0	274	9	8	15	0	9	32	26	262	18	0	5	306	664	2538
17:15:00	16	29	13	0	6	58	10	232	16	0	2	258	12	15	14	0	2	41	23	211	11	0	2	245	602	2493
17:30:00	15	23	9	0	6	47	16	296	11	0	6	323	8	12	11	0	3	31	29	229	19	0	5	277	678	2560
17:45:00	9	27	12	0	3	48	10	265	14	0	2	289	9	8	7	0	5	24	27	254	13	0	5	294	655	2599
18:00:00	16	22	10	0	8	48	16	232	10	0	3	258	15	11	21	0	1	47	27	206	12	0	3	245	598	2533
18:15:00	16	11	8	0	7	35	6	218	20	0	3	244	11	11	17	0	5	39	21	219	12	0	3	252	570	2501
18:30:00	7	12	8	0	8	27	6	175	10	0	5	191	8	12	24	0	1	44	27	177	12	1	2	217	479	2302
18:45:00	13	10	6	0	1	29	5	162	9	0	3	176	8	6	14	0	2	28	16	157	10	0	3	183	416	2063
<b>Grand Total</b>	<b>285</b>	<b>371</b>	<b>317</b>	<b>0</b>	<b>145</b>	<b>973</b>	<b>212</b>	<b>4435</b>	<b>271</b>	<b>0</b>	<b>88</b>	<b>4918</b>	<b>312</b>	<b>308</b>	<b>454</b>	<b>0</b>	<b>70</b>	<b>1074</b>	<b>617</b>	<b>5256</b>	<b>238</b>	<b>1</b>	<b>82</b>	<b>6112</b>	<b>13077</b>	<b>-</b>
<b>Approach%</b>	29.3%	38.1%	32.6%	0%	-	-	4.3%	90.2%	5.5%	0%	-	-	29.1%	28.7%	42.3%	0%	-	-	10.1%	86%	3.9%	0%	-	-	-	
<b>Totals %</b>	2.2%	2.8%	2.4%	0%	-	7.4%	1.6%	33.9%	2.1%	0%	37.6%	2.4%	2.4%	3.5%	0%	8.2%	4.7%	40.2%	1.8%	0%	46.7%	-	-	-	-	
<b>Heavy</b>	8	6	4	0	-	3	118	3	0	-	5	5	8	0	-	9	113	6	0	-	-	-	-	-	-	
<b>Heavy %</b>	2.8%	1.6%	1.3%	0%	-	1.4%	2.7%	1.1%	0%	-	1.6%	1.6%	1.8%	0%	-	1.5%	2.1%	2.5%	0%	-	-	-	-	-	-	
<b>Bicycles</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Bicycle %</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	



**Peak Hour: 08:00 AM - 09:00 AM Weather: Scattered Clouds (8.33 °C)**

Start Time	N Approach FIELDGATE DR						E Approach BURNHAMTHORPE RD E						S Approach FIELDGATE DR						W Approach BURNHAMTHORPE RD E						Int. Total (15 min)	
	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total		
08:00:00	18	14	14	0	8	46	8	167	9	0	5	184	16	11	34	0	3	61	57	262	5	0	4	324	615	
08:15:00	13	33	15	0	9	61	8	162	25	0	19	195	21	39	45	0	9	105	87	237	8	0	15	332	693	
08:30:00	12	15	10	0	12	37	6	174	9	0	7	189	25	29	40	0	4	94	25	275	13	0	2	313	633	
08:45:00	15	13	26	0	2	54	8	144	8	0	3	160	17	18	21	0	1	56	17	221	11	0	1	249	519	
<b>Grand Total</b>	<b>58</b>	<b>75</b>	<b>65</b>	<b>0</b>	<b>31</b>	<b>198</b>	<b>30</b>	<b>647</b>	<b>51</b>	<b>0</b>	<b>34</b>	<b>728</b>	<b>79</b>	<b>97</b>	<b>140</b>	<b>0</b>	<b>17</b>	<b>316</b>	<b>186</b>	<b>995</b>	<b>37</b>	<b>0</b>	<b>22</b>	<b>1218</b>	<b>2460</b>	
<b>Approach%</b>	29.3%	37.9%	32.8%	0%	-	-	4.1%	88.9%	7%	0%	-	-	25%	30.7%	44.3%	0%	-	-	15.3%	81.7%	3%	0%	-	-	-	
<b>Totals %</b>	2.4%	3%	2.6%	0%	8%	8%	1.2%	26.3%	2.1%	0%	29.6%	29.6%	3.2%	3.9%	5.7%	0%	12.8%	12.8%	7.6%	40.4%	1.5%	0%	49.5%	49.5%	-	
<b>PHF</b>	0.81	0.57	0.63	0	0.81	0.81	0.94	0.93	0.51	0	0.93	0.93	0.79	0.62	0.78	0	0.75	0.75	0.53	0.9	0.71	0	0.92	0.92	-	
<b>Heavy</b>	4	3	1	0	8	8	0	25	2	0	27	27	1	2	1	0	4	4	4	22	4	0	30	30	-	
<b>Heavy %</b>	6.9%	4%	1.5%	0%	4%	4%	0%	3.9%	3.9%	0%	3.7%	3.7%	1.3%	2.1%	0.7%	0%	1.3%	1.3%	2.2%	2.2%	10.8%	0%	2.5%	2.5%	-	
<b>Lights</b>	54	72	64	0	190	190	30	622	49	0	701	701	78	95	139	0	312	312	182	973	33	0	1188	1188	-	
<b>Lights %</b>	93.1%	96%	98.5%	0%	96%	96%	100%	96.1%	96.1%	0%	96.3%	96.3%	98.7%	97.9%	99.3%	0%	98.7%	98.7%	97.8%	97.8%	89.2%	0%	97.5%	97.5%	-	
<b>Single-Unit Trucks</b>	0	1	1	0	2	2	0	15	2	0	17	17	0	0	0	0	0	0	0	11	2	0	13	13	-	
<b>Single-Unit Trucks %</b>	0%	1.3%	1.5%	0%	1%	1%	0%	2.3%	3.9%	0%	2.3%	2.3%	0%	0%	0%	0%	0%	0%	1.1%	5.4%	0%	0%	1.1%	1.1%	-	
<b>Buses</b>	3	2	0	0	5	5	0	8	0	0	8	8	1	2	1	0	4	4	4	10	2	0	16	16	-	
<b>Buses %</b>	5.2%	2.7%	0%	0%	2.5%	2.5%	0%	1.2%	0%	0%	1.1%	1.1%	1.3%	2.1%	0.7%	0%	1.3%	1.3%	2.2%	1%	5.4%	0%	1.3%	1.3%	-	
<b>Articulated Trucks</b>	1	0	0	0	1	1	0	2	0	0	2	2	0	0	0	0	0	0	0	1	0	0	1	1	-	
<b>Articulated Trucks %</b>	1.7%	0%	0%	0%	0.5%	0.5%	0%	0.3%	0%	0%	0.3%	0.3%	0%	0%	0%	0%	0%	0%	0%	0.1%	0%	0%	0.1%	0.1%	-	
<b>Bicycles on Road</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	
<b>Bicycles on Road %</b>	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%	-
<b>Pedestrians</b>	-	-	-	-	22	-	-	-	-	-	32	-	-	-	-	-	15	-	-	-	-	-	19	-	-	
<b>Pedestrians %</b>	-	-	-	-	21.2%	-	-	-	-	-	30.8%	-	-	-	-	-	14.4%	-	-	-	-	-	18.3%	-	-	
<b>Bicycles on Crosswalk</b>	-	-	-	-	9	-	-	-	-	-	2	-	-	-	-	-	2	-	-	-	-	-	3	-	-	
<b>Bicycles on Crosswalk %</b>	-	-	-	-	8.7%	-	-	-	-	-	1.9%	-	-	-	-	-	1.9%	-	-	-	-	-	2.9%	-	-	

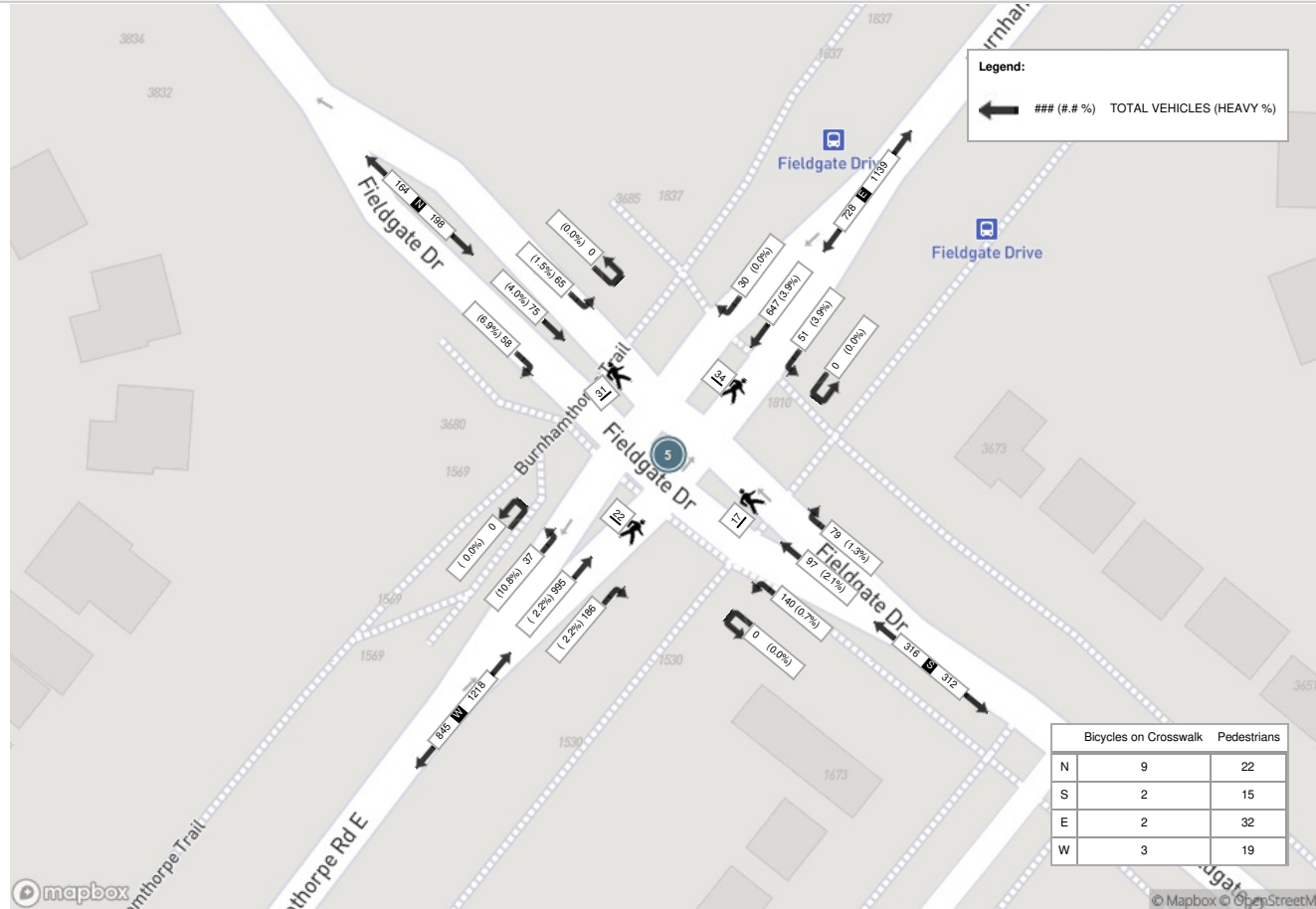


**Peak Hour: 05:00 PM - 06:00 PM Weather: Broken Clouds (14.49 °C)**

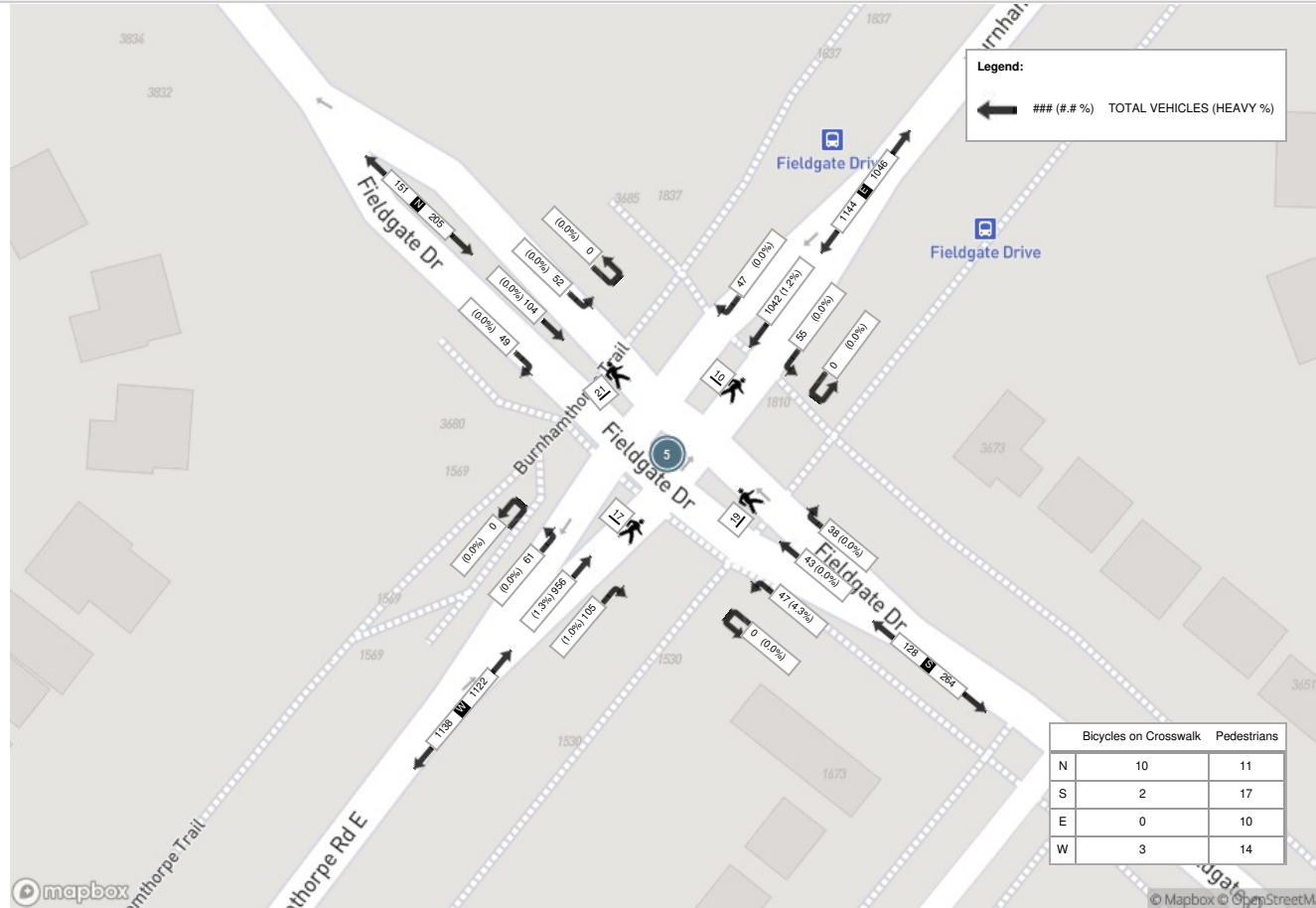
Start Time	N Approach FIELDGATE DR						E Approach BURNHAMTHORPE RD E						S Approach FIELDGATE DR						W Approach BURNHAMTHORPE RD E						Int. Total (15 min)
	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	
17:00:00	9	25	18	0	6	52	11	249	14	0	0	274	9	8	15	0	9	32	26	262	18	0	5	306	664
17:15:00	16	29	13	0	6	58	10	232	16	0	2	258	12	15	14	0	2	41	23	211	11	0	2	245	602
17:30:00	15	23	9	0	6	47	16	296	11	0	6	323	8	12	11	0	3	31	29	229	19	0	5	277	678
17:45:00	9	27	12	0	3	48	10	265	14	0	2	289	9	8	7	0	5	24	27	254	13	0	5	294	655
<b>Grand Total</b>	<b>49</b>	<b>104</b>	<b>52</b>	<b>0</b>	<b>21</b>	<b>205</b>	<b>47</b>	<b>1042</b>	<b>55</b>	<b>0</b>	<b>10</b>	<b>1144</b>	<b>38</b>	<b>43</b>	<b>47</b>	<b>0</b>	<b>19</b>	<b>128</b>	<b>105</b>	<b>956</b>	<b>61</b>	<b>0</b>	<b>17</b>	<b>1122</b>	<b>2599</b>
<b>Approach%</b>	23.9%	50.7%	25.4%	0%	-	-	4.1%	91.1%	4.8%	0%	-	-	29.7%	33.6%	36.7%	0%	-	-	9.4%	85.2%	5.4%	0%	-	-	-
<b>Totals %</b>	1.9%	4%	2%	0%	7.9%	1.8%	40.1%	2.1%	0%	44%	1.5%	1.7%	1.8%	0%	4.9%	4%	36.8%	2.3%	0%	43.2%	-	-	-	-	-
<b>PHF</b>	0.77	0.9	0.72	0	0.88	0.73	0.88	0.86	0	0.89	0.79	0.72	0.78	0	0.78	0.91	0.91	0.8	0	0.92	-	-	-	-	-
<b>Heavy</b>	0	0	0	0	0	0	0	13	0	0	13	0	0	2	0	2	1	12	0	0	13	-	-	-	-
<b>Heavy %</b>	0%	0%	0%	0%	0%	0%	0%	1.2%	0%	0%	1.1%	0%	0%	4.3%	0%	1.6%	1%	1.3%	0%	0%	1.2%	-	-	-	-
<b>Lights</b>	49	104	52	0	205	47	1029	55	0	1131	38	43	45	0	126	104	944	61	0	1109	-	-	-	-	
<b>Lights %</b>	100%	100%	100%	0%	100%	100%	98.8%	100%	0%	98.9%	100%	100%	95.7%	0%	98.4%	99%	98.7%	100%	0%	98.8%	-	-	-	-	
<b>Single-Unit Trucks</b>	0	0	0	0	0	0	0	6	0	0	6	0	0	2	0	2	1	7	0	0	8	-	-	-	-
<b>Single-Unit Trucks %</b>	0%	0%	0%	0%	0%	0%	0%	0.6%	0%	0%	0.5%	0%	0%	4.3%	0%	1.6%	1%	0.7%	0%	0%	0.7%	-	-	-	-
<b>Buses</b>	0	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	0	5	0	0	5	-	-	-	-
<b>Buses %</b>	0%	0%	0%	0%	0%	0%	0%	0.7%	0%	0%	0.6%	0%	0%	0%	0%	0%	0%	0.5%	0%	0%	0.4%	-	-	-	-
<b>Articulated Trucks</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
<b>Articulated Trucks %</b>	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-	-	-	-
<b>Bicycles on Road</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
<b>Bicycles on Road %</b>	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-	-	-	-
<b>Pedestrians</b>	-	-	-	-	11	-	-	-	-	10	-	-	-	-	17	-	-	-	-	14	-	-	-	-	-
<b>Pedestrians%</b>	-	-	-	-	16.4%	-	-	-	-	14.9%	-	-	-	-	25.4%	-	-	-	-	20.9%	-	-	-	-	-
<b>Bicycles on Crosswalk</b>	-	-	-	-	10	-	-	-	-	0	-	-	-	-	2	-	-	-	-	3	-	-	-	-	-
<b>Bicycles on Crosswalk%</b>	-	-	-	-	14.9%	-	-	-	-	0%	-	-	-	-	3%	-	-	-	-	4.5%	-	-	-	-	-



Peak Hour: 08:00 AM - 09:00 AM Weather: Scattered Clouds (8.33 °C)



Peak Hour: 05:00 PM - 06:00 PM Weather: Broken Clouds (14.49 °C)





Turning Movement Count (5 . FIELDGATE DR & BURNHAMTHORPE RD E)

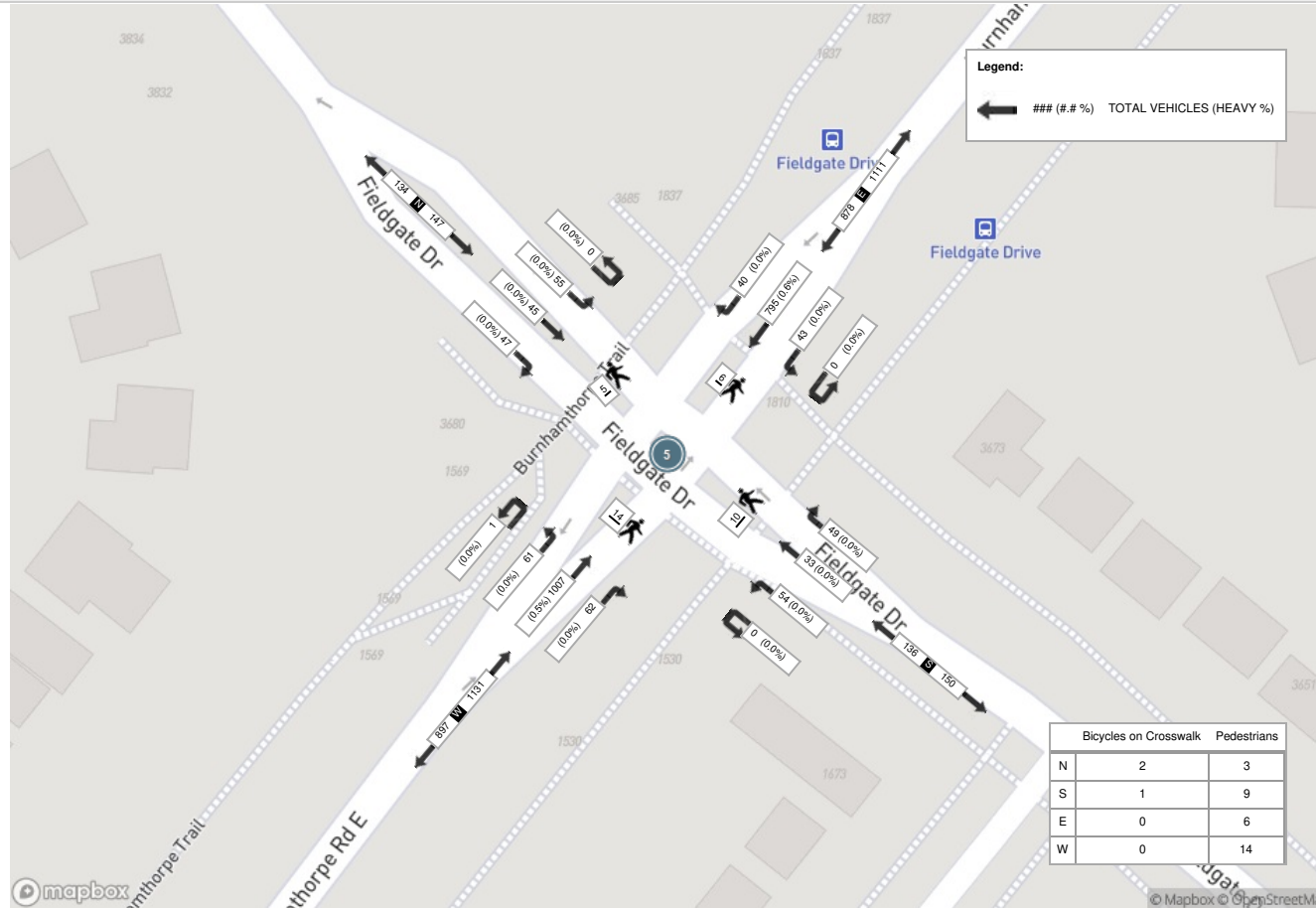
Start Time	N Approach FIELDGATE DR						E Approach BURNHAMTHORPE RD E						S Approach FIELDGATE DR						W Approach BURNHAMTHORPE RD E						Int. Total (15 min)	Int. Total (1 hr)	
	Right N:W	Thru N:S	Left N:E	UTurn N:N	Peds N:	Approach Total	Right E:N	Thru E:W	Left E:S	UTurn E:E	Peds E:	Approach Total	Right S:E	Thru S:N	Left S:W	UTurn S:S	Peds S:	Approach Total	Right W:S	Thru W:E	Left W:N	UTurn W:W	Peds W:	Approach Total			
10:00:00	13	8	9	0	13	30	6	164	10	0	3	180	12	6	12	0	2	30	8	147	7	0	2	162	402		
10:15:00	5	10	8	0	8	23	5	156	8	0	3	169	10	7	7	0	0	24	11	175	7	0	0	193	409		
10:30:00	7	11	5	0	3	23	5	137	11	0	2	153	13	5	8	0	1	26	13	166	8	0	1	187	389		
10:45:00	10	8	10	0	12	28	9	182	7	0	3	198	24	8	24	0	3	56	8	156	9	0	11	173	455	1655	
11:00:00	13	9	12	0	11	34	9	172	10	0	2	191	14	8	14	0	2	36	12	178	8	0	1	198	459	1712	
11:15:00	13	12	13	0	2	38	8	176	6	0	3	190	10	10	17	0	2	37	25	194	15	1	0	235	500	1803	
11:30:00	16	13	14	0	1	43	7	172	10	0	3	189	10	11	15	0	0	36	19	163	10	0	1	192	460	1874	
11:45:00	13	15	11	0	8	39	11	153	8	0	1	172	12	11	25	0	0	48	10	175	7	0	1	192	451	1870	
12:00:00	11	13	18	0	4	42	7	172	9	0	0	188	13	8	13	0	2	34	16	202	12	1	1	231	495	1906	
12:15:00	15	10	4	0	6	29	9	191	7	0	1	207	8	9	18	0	2	35	22	186	15	1	2	224	495	1901	
12:30:00	22	17	15	0	6	54	11	154	16	0	1	181	8	11	17	0	1	36	12	203	15	0	0	230	501	1942	
12:45:00	10	11	18	0	7	39	8	190	16	0	3	214	15	14	20	0	3	49	26	219	17	0	0	262	564	2055	
13:00:00	15	7	12	0	2	34	10	185	13	0	5	208	15	13	21	0	5	49	12	227	15	1	5	255	546	2106	
13:15:00	7	10	14	0	1	31	9	224	12	0	0	245	12	5	14	0	3	31	20	251	18	0	2	289	596	2207	
13:30:00	11	15	16	0	1	42	8	194	9	0	0	211	12	6	9	0	1	27	19	258	19	0	5	296	576	2282	
13:45:00	14	13	13	0	1	40	13	192	9	0	1	214	10	9	10	0	1	29	11	271	9	0	2	291	574	2292	
<b>Grand Total</b>	<b>195</b>	<b>182</b>	<b>192</b>	<b>0</b>	<b>86</b>	<b>569</b>	<b>135</b>	<b>2814</b>	<b>161</b>	<b>0</b>	<b>31</b>	<b>3110</b>	<b>198</b>	<b>141</b>	<b>244</b>	<b>0</b>	<b>28</b>	<b>583</b>	<b>244</b>	<b>3171</b>	<b>191</b>	<b>4</b>	<b>34</b>	<b>3610</b>	<b>7872</b>	<b>-</b>	
<b>Approach%</b>	34.3%	32%	33.7%	0%	-	-	4.3%	90.5%	5.2%	0%	-	-	34%	24.2%	41.9%	0%	-	-	6.8%	87.8%	5.3%	0.1%	-	-	-	-	
<b>Totals %</b>	2.5%	2.3%	2.4%	0%	7.2%	-	1.7%	35.7%	2%	0%	39.5%	-	2.5%	1.8%	3.1%	0%	7.4%	-	3.1%	40.3%	2.4%	0.1%	45.9%	-	-	-	
<b>Heavy</b>	0	1	3	0	-	-	2	25	0	0	-	-	0	1	1	0	-	-	2	23	1	0	-	-	-	-	
<b>Heavy %</b>	0%	0.5%	1.6%	0%	-	-	1.5%	0.9%	0%	0%	-	-	0%	0.7%	0.4%	0%	-	-	0.8%	0.7%	0.5%	0%	-	-	-	-	
<b>Bicycles</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Bicycle %</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Peak Hour: 01:00 PM - 02:00 PM Weather: Broken Clouds (12.83 °C)**

Start Time	N Approach FIELDGATE DR						E Approach BURNHAMTHORPE RD E						S Approach FIELDGATE DR						W Approach BURNHAMTHORPE RD E						Int. Total (15 min)
	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	
13:00:00	15	7	12	0	2	34	10	185	13	0	5	208	15	13	21	0	5	49	12	227	15	1	5	255	546
13:15:00	7	10	14	0	1	31	9	224	12	0	0	245	12	5	14	0	3	31	20	251	18	0	2	289	596
13:30:00	11	15	16	0	1	42	8	194	9	0	0	211	12	6	9	0	1	27	19	258	19	0	5	296	576
13:45:00	14	13	13	0	1	40	13	192	9	0	1	214	10	9	10	0	1	29	11	271	9	0	2	291	574
<b>Grand Total</b>	<b>47</b>	<b>45</b>	<b>55</b>	<b>0</b>	<b>5</b>	<b>147</b>	<b>40</b>	<b>795</b>	<b>43</b>	<b>0</b>	<b>6</b>	<b>878</b>	<b>49</b>	<b>33</b>	<b>54</b>	<b>0</b>	<b>10</b>	<b>136</b>	<b>62</b>	<b>1007</b>	<b>61</b>	<b>1</b>	<b>14</b>	<b>1131</b>	<b>2292</b>
<b>Approach%</b>	32%	30.6%	37.4%	0%	-	-	4.6%	90.5%	4.9%	0%	-	-	36%	24.3%	39.7%	0%	-	-	5.5%	89%	5.4%	0.1%	-	-	-
<b>Totals %</b>	2.1%	2%	2.4%	0%	6.4%	1.7%	34.7%	1.9%	0%	38.3%	2.1%	1.4%	2.4%	0%	5.9%	2.7%	43.9%	2.7%	0%	49.3%	-	-	-		
<b>PHF</b>	0.78	0.75	0.86	0	0.88	0.77	0.89	0.83	0	0.9	0.82	0.63	0.64	0	0.69	0.78	0.93	0.8	0.25	0.96	-	-	-		
<b>Heavy</b>	0	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	0	5	0	0	5	-	-	
<b>Heavy %</b>	0%	0%	0%	0%	0%	0%	0%	0.6%	0%	0%	0.6%	0%	0%	0%	0%	0%	0%	0%	0.5%	0%	0%	0.4%	-	-	
<b>Lights</b>	47	44	55	0	146	40	787	43	0	870	49	33	54	0	136	62	1002	61	1	1126	-	-	-		
<b>Lights %</b>	100%	97.8%	100%	0%	99.3%	100%	99%	100%	0%	99.1%	100%	100%	100%	0%	100%	100%	99.5%	100%	100%	99.6%	-	-	-		
<b>Single-Unit Trucks</b>	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	3	0	0	3	-	-	
<b>Single-Unit Trucks %</b>	0%	0%	0%	0%	0%	0%	0%	0.3%	0%	0%	0.2%	0%	0%	0%	0%	0%	0%	0%	0.3%	0%	0%	0.3%	-	-	
<b>Buses</b>	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	2	0	0	2	-	-	
<b>Buses %</b>	0%	0%	0%	0%	0%	0%	0%	0.4%	0%	0%	0.3%	0%	0%	0%	0%	0%	0%	0%	0.2%	0%	0%	0.2%	-	-	
<b>Bicycles on Road</b>	0	1	0	0	1	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	-	-	
<b>Bicycles on Road %</b>	0%	2.2%	0%	0%	0.7%	0%	0.4%	0%	0%	0.3%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-	-	
<b>Pedestrians</b>	-	-	-	-	3	-	-	-	-	6	-	-	-	-	9	-	-	-	-	-	14	-	-	-	
<b>Pedestrians%</b>	-	-	-	-	8.6%	-	-	-	-	17.1%	-	-	-	-	25.7%	-	-	-	-	-	40%	-	-	-	
<b>Bicycles on Crosswalk</b>	-	-	-	-	2	-	-	-	-	0	-	-	-	-	1	-	-	-	-	-	0	-	-	-	
<b>Bicycles on Crosswalk%</b>	-	-	-	-	5.7%	-	-	-	-	0%	-	-	-	-	2.9%	-	-	-	-	-	0%	-	-	-	

Peak Hour: 01:00 PM - 02:00 PM Weather: Broken Clouds (12.83 °C)





**Turning Movement Count (4 . FIELDGATE DR & HAVEN GLENN)**

Start Time	N Approach FIELDGATE DR					S Approach FIELDGATE DR					W Approach HAVEN GLENN					Int. Total (15 min)	Int. Total (1 hr)
	Right N:W	Thru N:S	UTurn N:N	Peds N:	Approach Total	Thru S:N	Left S:W	UTurn S:S	Peds S:	Approach Total	Right W:S	Left W:N	UTurn W:W	Peds W:	Approach Total		
07:00:00	1	16	0	1	17	23	3	1	0	27	2	2	0	0	4	48	
07:15:00	2	16	0	0	18	18	2	0	0	20	2	3	0	1	5	43	
07:30:00	0	8	0	0	8	31	3	0	1	34	3	2	0	3	5	47	
07:45:00	3	21	0	3	24	22	7	0	1	29	5	6	0	4	11	64	202
08:00:00	4	32	0	6	36	47	7	0	14	54	6	11	0	4	17	107	261
08:15:00	10	60	0	29	70	65	9	0	65	74	18	23	0	10	41	185	403
08:30:00	19	48	0	5	67	49	10	0	22	59	14	13	0	4	27	153	509
08:45:00	9	23	0	3	32	39	11	0	3	50	7	2	0	2	9	91	536
09:00:00	9	30	0	0	39	34	4	0	5	38	8	5	0	0	13	90	519
09:15:00	5	20	0	0	25	30	1	0	4	31	8	6	0	3	14	70	404
09:30:00	3	31	0	2	34	24	3	0	2	27	7	1	0	7	8	69	320
09:45:00	0	25	0	0	25	27	5	0	6	32	7	3	0	1	10	67	296
***BREAK***																	
16:00:00	6	44	0	0	50	38	8	0	11	46	12	5	0	2	17	113	
16:15:00	4	47	0	2	51	35	13	0	5	48	7	2	0	1	9	108	
16:30:00	5	49	0	0	54	31	9	0	8	40	6	1	0	0	7	101	
16:45:00	1	54	0	0	55	18	2	0	4	20	2	4	0	1	6	81	403
17:00:00	4	49	0	0	53	29	7	0	4	36	7	3	0	2	10	99	389
17:15:00	6	51	0	0	57	34	6	0	2	40	2	4	0	5	6	103	384
17:30:00	2	56	0	3	58	33	9	0	4	42	10	2	0	5	12	112	395
17:45:00	4	57	0	1	61	18	4	0	3	22	5	0	0	2	5	88	402
18:00:00	7	38	0	1	45	37	5	0	2	42	5	3	0	8	8	95	398
18:15:00	9	35	0	0	44	34	10	0	3	44	7	3	0	9	10	98	393
18:30:00	4	40	0	0	44	30	2	0	2	32	3	2	0	4	5	81	362
18:45:00	3	27	0	5	30	26	5	0	1	31	5	0	0	0	5	66	340
<b>Grand Total</b>	<b>120</b>	<b>877</b>	<b>0</b>	<b>61</b>	<b>997</b>	<b>772</b>	<b>145</b>	<b>1</b>	<b>172</b>	<b>918</b>	<b>158</b>	<b>106</b>	<b>0</b>	<b>78</b>	<b>264</b>	<b>2179</b>	<b>-</b>
<b>Approach%</b>	12%	88%	0%	-	-	84.1%	15.8%	0.1%	-	-	59.8%	40.2%	0%	-	-	-	-
<b>Totals %</b>	5.5%	40.2%	0%	-	45.8%	35.4%	6.7%	0%	-	42.1%	7.3%	4.9%	0%	-	12.1%	-	-
<b>Heavy</b>	2	17	0	-	-	11	8	0	-	-	2	4	0	-	-	-	-
<b>Heavy %</b>	1.7%	1.9%	0%	-	-	1.4%	5.5%	0%	-	-	1.3%	3.8%	0%	-	-	-	-
<b>Bicycles</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Bicycle %</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Peak Hour: 08:00 AM - 09:00 AM Weather: Scattered Clouds (8.33 °C)**

Start Time	N Approach FIELDGATE DR					S Approach FIELDGATE DR					W Approach HAVEN GLENN					Int. Total (15 min)
	Right	Thru	UTurn	Peds	Approach Total	Thru	Left	UTurn	Peds	Approach Total	Right	Left	UTurn	Peds	Approach Total	
08:00:00	4	32	0	6	36	47	7	0	14	54	6	11	0	4	17	107
08:15:00	10	60	0	29	70	65	9	0	65	74	18	23	0	10	41	185
08:30:00	19	48	0	5	67	49	10	0	22	59	14	13	0	4	27	153
08:45:00	9	23	0	3	32	39	11	0	3	50	7	2	0	2	9	91
<b>Grand Total</b>	<b>42</b>	<b>163</b>	<b>0</b>	<b>43</b>	<b>205</b>	<b>200</b>	<b>37</b>	<b>0</b>	<b>104</b>	<b>237</b>	<b>45</b>	<b>49</b>	<b>0</b>	<b>20</b>	<b>94</b>	<b>536</b>
<b>Approach%</b>	20.5%	79.5%	0%	-	-	84.4%	15.6%	0%	-	-	47.9%	52.1%	0%	-	-	-
<b>Totals %</b>	7.8%	30.4%	0%	-	38.2%	37.3%	6.9%	0%	-	44.2%	8.4%	9.1%	0%	-	17.5%	-
<b>PHF</b>	0.55	0.68	0	-	0.73	0.77	0.84	0	-	0.8	0.63	0.53	0	-	0.57	-
<b>Heavy</b>	2	8	0	-	10	2	2	0	-	4	0	1	0	-	1	-
<b>Heavy %</b>	4.8%	4.9%	0%	-	4.9%	1%	5.4%	0%	-	1.7%	0%	2%	0%	-	1.1%	-
<b>Lights</b>	40	155	0	-	195	197	35	0	-	232	45	48	0	-	93	-
<b>Lights %</b>	95.2%	95.1%	0%	-	95.1%	98.5%	94.6%	0%	-	97.9%	100%	98%	0%	-	98.9%	-
<b>Single-Unit Trucks</b>	0	2	0	-	2	0	0	0	-	0	0	0	0	-	0	-
<b>Single-Unit Trucks %</b>	0%	1.2%	0%	-	1%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	-
<b>Buses</b>	2	6	0	-	8	2	2	0	-	4	0	1	0	-	1	-
<b>Buses %</b>	4.8%	3.7%	0%	-	3.9%	1%	5.4%	0%	-	1.7%	0%	2%	0%	-	1.1%	-
<b>Bicycles on Road</b>	0	0	0	-	0	1	0	0	-	1	0	0	0	-	0	-
<b>Bicycles on Road %</b>	0%	0%	0%	-	0%	0.5%	0%	0%	-	0.4%	0%	0%	0%	-	0%	-
<b>Pedestrians</b>	-	-	-	43	-	-	-	-	95	-	-	-	-	18	-	-
<b>Pedestrians%</b>	-	-	-	25.7%	-	-	-	-	56.9%	-	-	-	-	10.8%	-	-
<b>Bicycles on Crosswalk</b>	-	-	-	0	-	-	-	-	9	-	-	-	-	2	-	-
<b>Bicycles on Crosswalk%</b>	-	-	-	0%	-	-	-	-	5.4%	-	-	-	-	1.2%	-	-

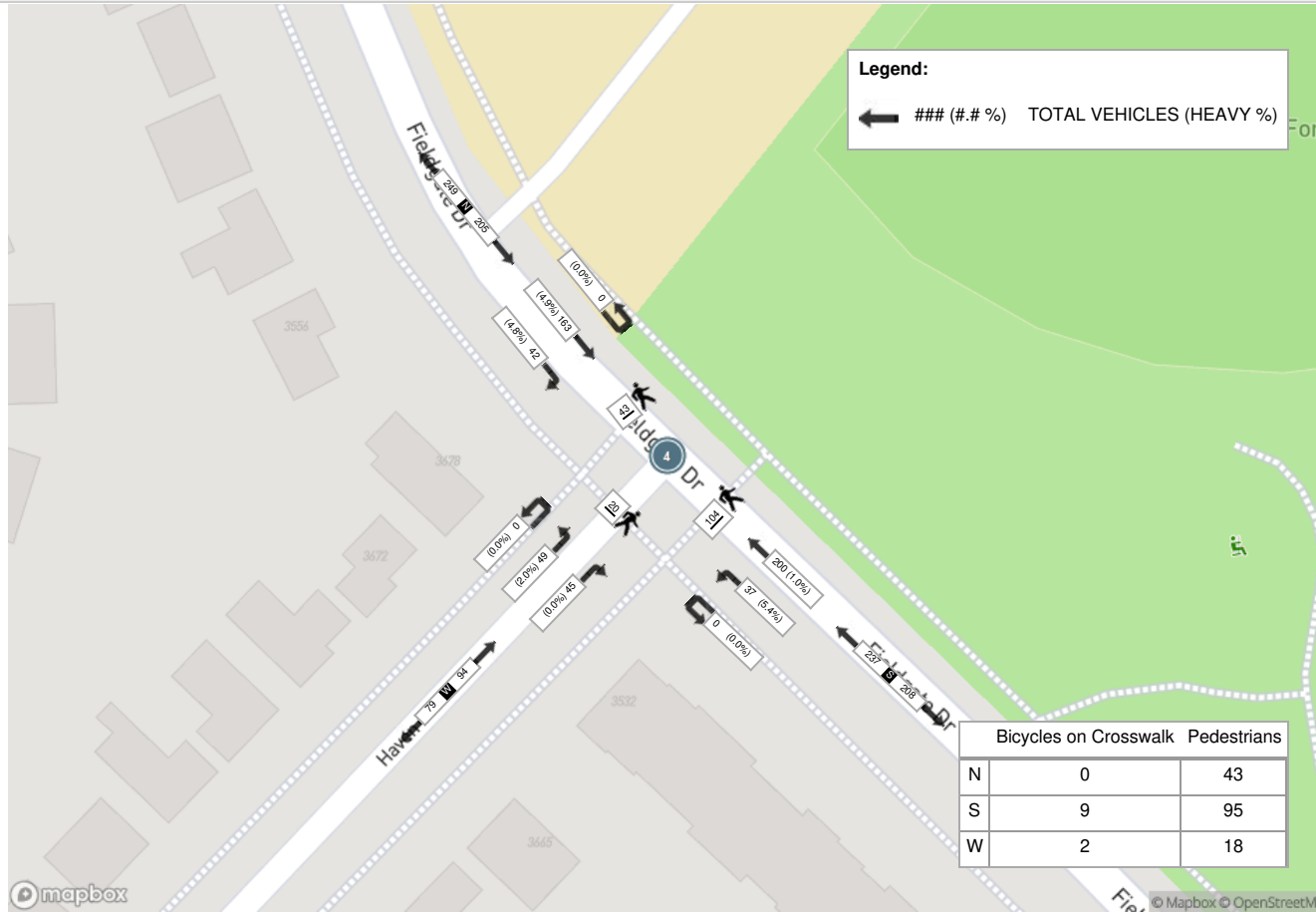


**Peak Hour: 04:00 PM - 05:00 PM Weather: Broken Clouds (14.49 °C)**

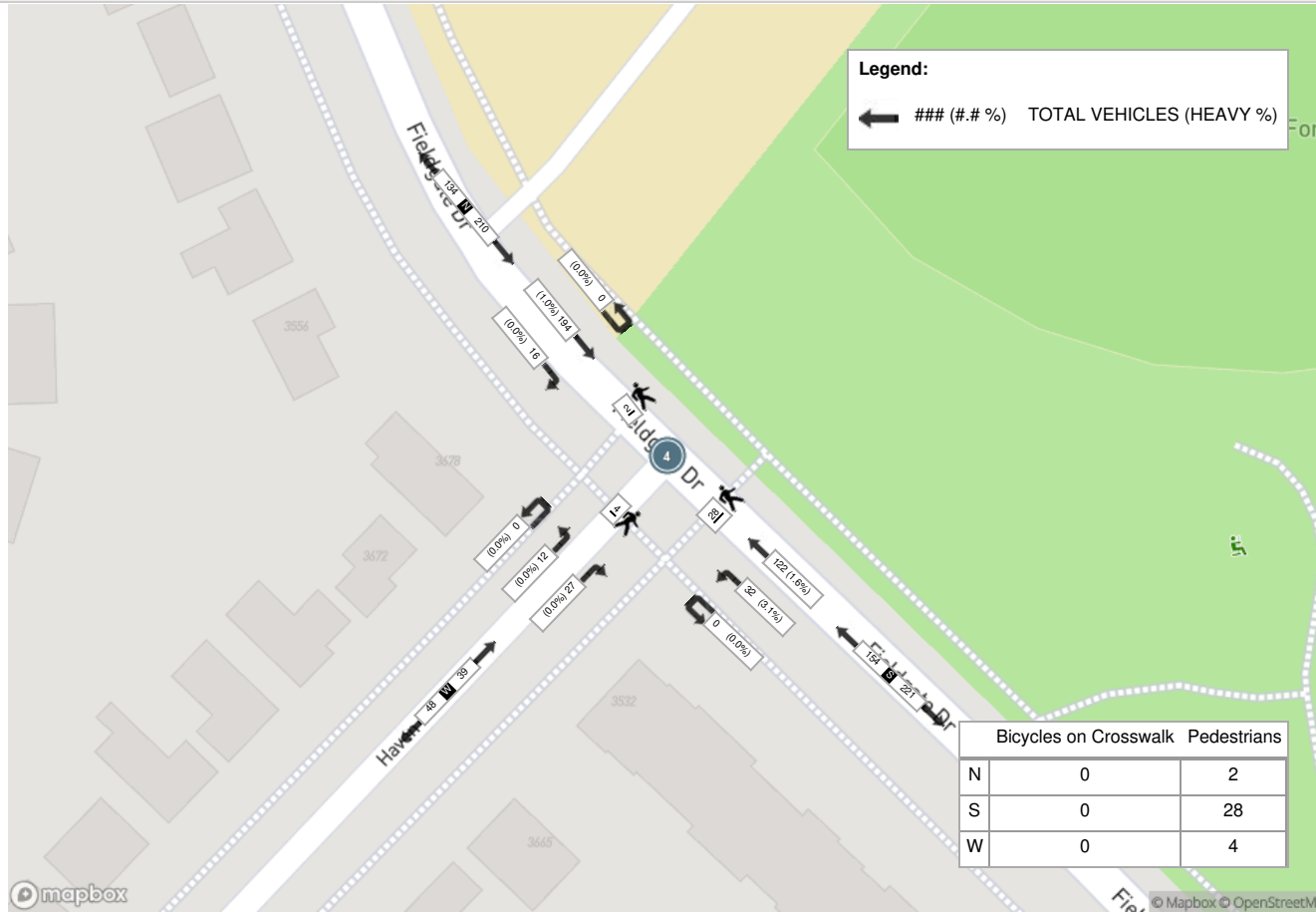
Start Time	N Approach FIELDGATE DR					S Approach FIELDGATE DR					W Approach HAVEN GLENN					Int. Total (15 min)
	Right	Thru	UTurn	Peds	Approach Total	Thru	Left	UTurn	Peds	Approach Total	Right	Left	UTurn	Peds	Approach Total	
16:00:00	6	44	0	0	50	38	8	0	11	46	12	5	0	2	17	113
16:15:00	4	47	0	2	51	35	13	0	5	48	7	2	0	1	9	108
16:30:00	5	49	0	0	54	31	9	0	8	40	6	1	0	0	7	101
16:45:00	1	54	0	0	55	18	2	0	4	20	2	4	0	1	6	81
<b>Grand Total</b>	<b>16</b>	<b>194</b>	<b>0</b>	<b>2</b>	<b>210</b>	<b>122</b>	<b>32</b>	<b>0</b>	<b>28</b>	<b>154</b>	<b>27</b>	<b>12</b>	<b>0</b>	<b>4</b>	<b>39</b>	<b>403</b>
<b>Approach%</b>	7.6%	92.4%	0%	-	-	79.2%	20.8%	0%	-	-	69.2%	30.8%	0%	-	-	-
<b>Totals %</b>	4%	48.1%	0%	-	52.1%	30.3%	7.9%	0%	-	38.2%	6.7%	3%	0%	-	9.7%	-
<b>PHF</b>	0.67	0.9	0	-	0.95	0.8	0.62	0	-	0.8	0.56	0.6	0	-	0.57	-
<b>Heavy</b>	0	2	0	-	2	2	1	0	-	3	0	0	0	-	0	-
<b>Heavy %</b>	0%	1%	0%	-	1%	1.6%	3.1%	0%	-	1.9%	0%	0%	0%	-	0%	-
<b>Lights</b>	16	190	0	-	206	120	31	0	-	151	26	12	0	-	38	-
<b>Lights %</b>	100%	97.9%	0%	-	98.1%	98.4%	96.9%	0%	-	98.1%	96.3%	100%	0%	-	97.4%	-
<b>Single-Unit Trucks</b>	0	0	0	-	0	1	0	0	-	1	0	0	0	-	0	-
<b>Single-Unit Trucks %</b>	0%	0%	0%	-	0%	0.8%	0%	0%	-	0.6%	0%	0%	0%	-	0%	-
<b>Buses</b>	0	2	0	-	2	1	1	0	-	2	0	0	0	-	0	-
<b>Buses %</b>	0%	1%	0%	-	1%	0.8%	3.1%	0%	-	1.3%	0%	0%	0%	-	0%	-
<b>Bicycles on Road</b>	0	2	0	-	2	0	0	0	-	0	1	0	0	-	1	-
<b>Bicycles on Road %</b>	0%	1%	0%	-	1%	0%	0%	0%	-	0%	3.7%	0%	0%	-	2.6%	-
<b>Pedestrians</b>	-	-	-	2	-	-	-	-	28	-	-	-	-	4	-	-
<b>Pedestrians%</b>	-	-	-	5.9%	-	-	-	-	82.4%	-	-	-	-	11.8%	-	-
<b>Bicycles on Crosswalk</b>	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
<b>Bicycles on Crosswalk%</b>	-	-	-	0%	-	-	-	-	0%	-	-	-	-	0%	-	-



Peak Hour: 08:00 AM - 09:00 AM Weather: Scattered Clouds (8.33 °C)



Peak Hour: 04:00 PM - 05:00 PM Weather: Broken Clouds (14.49 °C)





**Turning Movement Count (4 . FIELDGATE DR & HAVEN GLENN)**

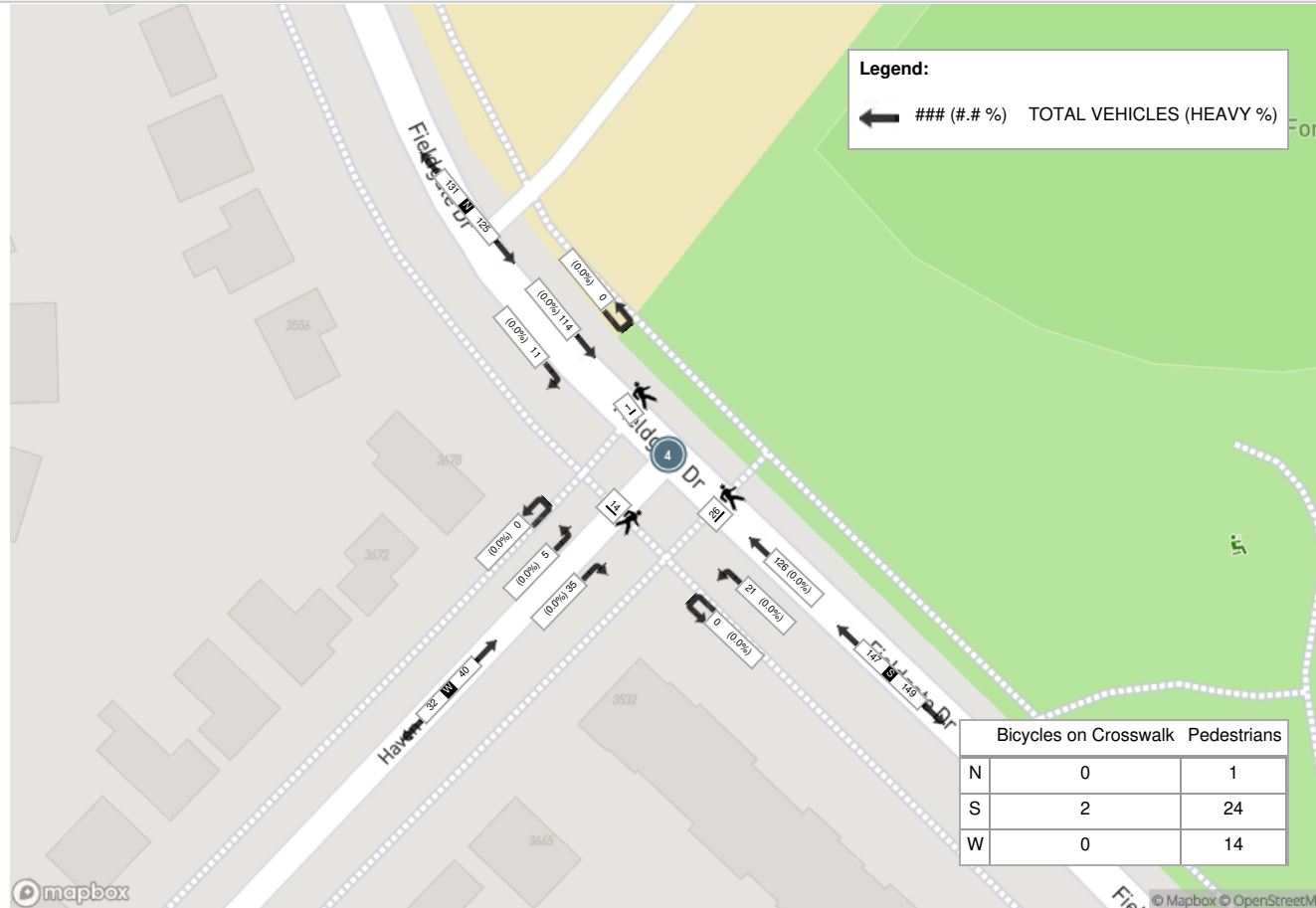
Start Time	N Approach FIELDGATE DR					S Approach FIELDGATE DR					W Approach HAVEN GLENN					Int. Total (15 min)	Int. Total (1 hr)
	Right N:W	Thru N:S	UTurn N:N	Peds N:	Approach Total	Thru S:N	Left S:W	UTurn S:S	Peds S:	Approach Total	Right W:S	Left W:N	UTurn W:W	Peds W:	Approach Total		
10:00:00	3	18	0	0	21	21	3	0	2	24	5	1	0	2	6	51	
10:15:00	1	27	0	0	28	20	7	0	3	27	7	4	0	1	11	66	
10:30:00	2	23	0	0	25	18	4	0	0	22	7	2	0	0	9	56	
10:45:00	1	20	0	0	21	32	8	0	1	40	7	2	0	7	9	70	243
11:00:00	1	28	0	0	29	19	3	0	5	22	6	1	0	3	7	58	250
11:15:00	1	37	0	0	38	20	4	0	2	24	6	1	0	0	7	69	253
11:30:00	2	26	0	0	28	24	4	0	3	28	6	0	0	0	6	62	259
11:45:00	3	25	0	1	28	41	6	0	2	47	2	1	0	2	3	78	267
12:00:00	2	29	0	0	31	20	4	0	1	24	8	1	0	4	9	64	273
12:15:00	3	28	0	0	31	34	4	0	1	38	9	1	0	0	10	79	283
12:30:00	3	29	0	0	32	32	3	0	7	35	6	1	0	4	7	74	295
12:45:00	4	33	0	0	37	33	8	0	5	41	10	0	0	3	10	88	305
13:00:00	1	24	0	1	25	27	6	0	13	33	10	3	0	7	13	71	312
13:15:00	2	29	0	0	31	24	8	0	4	32	6	2	0	0	8	71	304
13:30:00	1	38	0	0	39	25	7	0	2	32	5	4	0	0	9	80	310
13:45:00	5	30	0	0	35	19	6	0	4	25	9	2	0	2	11	71	293
<b>Grand Total</b>	<b>35</b>	<b>444</b>	<b>0</b>	<b>2</b>	<b>479</b>	<b>409</b>	<b>85</b>	<b>0</b>	<b>55</b>	<b>494</b>	<b>109</b>	<b>26</b>	<b>0</b>	<b>35</b>	<b>135</b>	<b>1108</b>	<b>-</b>
<b>Approach%</b>	7.3%	92.7%	0%		-	82.8%	17.2%	0%		-	80.7%	19.3%	0%		-	-	-
<b>Totals %</b>	3.2%	40.1%	0%		43.2%	36.9%	7.7%	0%		44.6%	9.8%	2.3%	0%		12.2%	-	-
<b>Heavy</b>	1	2	0		-	0	0	0		-	0	0	0		-	-	-
<b>Heavy %</b>	2.9%	0.5%	0%		-	0%	0%	0%		-	0%	0%	0%		-	-	-
<b>Bicycles</b>	-	-	-		-	-	-	-		-	-	-	-		-	-	-
<b>Bicycle %</b>	-	-	-		-	-	-	-		-	-	-	-		-	-	-



**Peak Hour: 12:15 PM - 01:15 PM Weather: Broken Clouds (12.83 °C)**

Start Time	N Approach FIELDGATE DR					S Approach FIELDGATE DR					W Approach HAVEN GLENN					Int. Total (15 min)
	Right	Thru	UTurn	Peds	Approach Total	Thru	Left	UTurn	Peds	Approach Total	Right	Left	UTurn	Peds	Approach Total	
12:15:00	3	28	0	0	31	34	4	0	1	38	9	1	0	0	10	79
12:30:00	3	29	0	0	32	32	3	0	7	35	6	1	0	4	7	74
12:45:00	4	33	0	0	37	33	8	0	5	41	10	0	0	3	10	88
13:00:00	1	24	0	1	25	27	6	0	13	33	10	3	0	7	13	71
<b>Grand Total</b>	<b>11</b>	<b>114</b>	<b>0</b>	<b>1</b>	<b>125</b>	<b>126</b>	<b>21</b>	<b>0</b>	<b>26</b>	<b>147</b>	<b>35</b>	<b>5</b>	<b>0</b>	<b>14</b>	<b>40</b>	<b>312</b>
<b>Approach%</b>	8.8%	91.2%	0%	-	-	85.7%	14.3%	0%	-	-	87.5%	12.5%	0%	-	-	-
<b>Totals %</b>	3.5%	36.5%	0%	-	40.1%	40.4%	6.7%	0%	-	47.1%	11.2%	1.6%	0%	-	12.8%	-
<b>PHF</b>	0.69	0.86	0	-	0.84	0.93	0.66	0	-	0.9	0.88	0.42	0	-	0.77	-
<b>Heavy</b>	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	-
<b>Heavy %</b>	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	-
<b>Lights</b>	10	113	0	-	123	125	19	0	-	144	35	5	0	-	40	-
<b>Lights %</b>	90.9%	99.1%	0%	-	98.4%	99.2%	90.5%	0%	-	98%	100%	100%	0%	-	100%	-
<b>Single-Unit Trucks</b>	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	-
<b>Single-Unit Trucks %</b>	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	-
<b>Bicycles on Road</b>	1	1	0	-	2	1	2	0	-	3	0	0	0	-	0	-
<b>Bicycles on Road %</b>	9.1%	0.9%	0%	-	1.6%	0.8%	9.5%	0%	-	2%	0%	0%	0%	-	0%	-
<b>Pedestrians</b>	-	-	-	1	-	-	-	-	24	-	-	-	-	14	-	-
<b>Pedestrians%</b>	-	-	-	2.4%	-	-	-	-	58.5%	-	-	-	-	34.1%	-	-
<b>Bicycles on Crosswalk</b>	-	-	-	0	-	-	-	-	2	-	-	-	-	0	-	-
<b>Bicycles on Crosswalk%</b>	-	-	-	0%	-	-	-	-	4.9%	-	-	-	-	0%	-	-

Peak Hour: 12:15 PM - 01:15 PM Weather: Broken Clouds (12.83 °C)





**Turning Movement Count (3 . FIELDGATE DR & PONYTRAIL DR)**

Start Time	N Approach PONYTRAIL DR					E Approach FIELDGATE DR					W Approach FIELDGATE DR					Int. Total (15 min)	Int. Total (1 hr)
	Right N:W	Left N:E	UTurn N:N	Peds N:	Approach Total	Right E:N	Thru E:W	UTurn E:E	Peds E:	Approach Total	Thru W:E	Left W:N	UTurn W:W	Peds W:	Approach Total		
07:00:00	3	13	0	4	16	3	20	0	1	23	15	6	0	1	21	60	
07:15:00	3	12	0	3	15	7	13	0	0	20	17	3	0	0	20	55	
07:30:00	9	11	0	3	20	12	23	0	0	35	12	5	0	0	17	72	
07:45:00	9	19	0	5	28	3	19	0	0	22	20	7	0	0	27	77	264
08:00:00	13	18	0	20	31	13	40	0	0	53	30	8	0	11	38	122	326
08:15:00	10	16	0	80	26	18	75	0	0	93	66	16	0	30	82	201	472
08:30:00	14	34	0	12	48	25	37	0	1	62	51	15	0	48	66	176	576
08:45:00	15	31	0	5	46	26	32	0	0	58	18	8	0	10	26	130	629
09:00:00	10	16	0	7	26	9	30	0	0	39	33	9	0	6	42	107	614
09:15:00	6	10	0	14	16	8	29	0	1	37	27	6	0	4	33	86	499
09:30:00	7	9	0	9	16	11	20	0	0	31	30	5	0	6	35	82	405
09:45:00	7	11	0	7	18	4	23	0	0	27	25	8	0	5	33	78	353
***BREAK***																	
16:00:00	15	12	0	13	27	20	31	0	0	51	44	10	0	2	54	132	
16:15:00	20	17	0	26	37	10	29	0	0	39	43	14	0	1	57	133	
16:30:00	14	13	0	16	27	16	28	0	0	44	38	9	0	5	47	118	
16:45:00	3	18	0	12	21	18	17	0	0	35	37	18	0	9	55	111	494
17:00:00	11	12	0	4	23	16	25	0	1	41	51	10	0	2	61	125	487
17:15:00	19	15	0	8	34	23	27	0	0	50	42	14	0	6	56	140	494
17:30:00	12	19	0	7	31	21	30	0	0	51	49	11	0	1	60	142	518
17:45:00	10	16	0	8	26	12	16	0	0	28	46	10	0	6	56	110	517
18:00:00	15	18	0	8	33	13	27	0	1	40	29	13	0	8	42	115	507
18:15:00	16	21	0	8	37	19	29	0	2	48	28	14	0	12	42	127	494
18:30:00	11	10	0	6	21	18	24	0	0	42	33	11	0	7	44	107	459
18:45:00	8	17	0	9	25	17	25	0	0	42	27	7	0	4	34	101	450
<b>Grand Total</b>	<b>260</b>	<b>388</b>	<b>0</b>	<b>294</b>	<b>648</b>	<b>342</b>	<b>669</b>	<b>0</b>	<b>7</b>	<b>1011</b>	<b>811</b>	<b>237</b>	<b>0</b>	<b>184</b>	<b>1048</b>	<b>2707</b>	<b>-</b>
<b>Approach%</b>	40.1%	59.9%	0%	-	-	33.8%	66.2%	0%	-	-	77.4%	22.6%	0%	-	-	-	-
<b>Totals %</b>	9.6%	14.3%	0%	-	23.9%	12.6%	24.7%	0%	-	37.3%	30%	8.8%	0%	-	38.7%	-	-
<b>Heavy</b>	6	15	0	-	-	10	12	0	-	-	12	7	0	-	-	-	-
<b>Heavy %</b>	2.3%	3.9%	0%	-	-	2.9%	1.8%	0%	-	-	1.5%	3%	0%	-	-	-	-
<b>Bicycles</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Bicycle %</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Peak Hour: 08:00 AM - 09:00 AM Weather: Scattered Clouds (8.33 °C)**

Start Time	N Approach PONYTRAIL DR					E Approach FIELDGATE DR					W Approach FIELDGATE DR					Int. Total (15 min)
	Right	Left	UTurn	Peds	Approach Total	Right	Thru	UTurn	Peds	Approach Total	Thru	Left	UTurn	Peds	Approach Total	
08:00:00	13	18	0	20	31	13	40	0	0	53	30	8	0	11	38	122
08:15:00	10	16	0	80	26	18	75	0	0	93	66	16	0	30	82	201
08:30:00	14	34	0	12	48	25	37	0	1	62	51	15	0	48	66	176
08:45:00	15	31	0	5	46	26	32	0	0	58	18	8	0	10	26	130
<b>Grand Total</b>	<b>52</b>	<b>99</b>	<b>0</b>	<b>117</b>	<b>151</b>	<b>82</b>	<b>184</b>	<b>0</b>	<b>1</b>	<b>266</b>	<b>165</b>	<b>47</b>	<b>0</b>	<b>99</b>	<b>212</b>	<b>629</b>
<b>Approach%</b>	34.4%	65.6%	0%	-	-	30.8%	69.2%	0%	-	-	77.8%	22.2%	0%	-	-	-
<b>Totals %</b>	8.3%	15.7%	0%	24%	24%	13%	29.3%	0%	42.3%	42.3%	26.2%	7.5%	0%	33.7%	33.7%	-
<b>PHF</b>	0.87	0.73	0	0.79	0.79	0.79	0.61	0	0.72	0.72	0.63	0.73	0	0.65	0.65	-
<b>Heavy</b>	1	8	0	9	9	5	3	0	8	8	3	3	0	6	6	-
<b>Heavy %</b>	1.9%	8.1%	0%	6%	6%	6.1%	1.6%	0%	3%	3%	1.8%	6.4%	0%	2.8%	2.8%	-
<b>Lights</b>	51	91	0	142	142	77	180	0	257	257	162	44	0	206	206	-
<b>Lights %</b>	98.1%	91.9%	0%	94%	94%	93.9%	97.8%	0%	96.6%	96.6%	98.2%	93.6%	0%	97.2%	97.2%	-
<b>Single-Unit Trucks</b>	0	2	0	2	2	1	0	0	1	1	1	0	0	1	1	-
<b>Single-Unit Trucks %</b>	0%	2%	0%	1.3%	1.3%	1.2%	0%	0%	0.4%	0.4%	0.6%	0%	0%	0.5%	0.5%	-
<b>Buses</b>	1	6	0	7	7	4	3	0	7	7	2	3	0	5	5	-
<b>Buses %</b>	1.9%	6.1%	0%	4.6%	4.6%	4.9%	1.6%	0%	2.6%	2.6%	1.2%	6.4%	0%	2.4%	2.4%	-
<b>Bicycles on Road</b>	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	-
<b>Bicycles on Road %</b>	0%	0%	0%	0%	0%	0%	0.5%	0%	0.4%	0.4%	0%	0%	0%	0%	0%	-
<b>Pedestrians</b>	-	-	-	113	113	-	-	-	1	1	-	-	-	99	99	-
<b>Pedestrians%</b>	-	-	-	52.1%	52.1%	-	-	-	0.5%	0.5%	-	-	-	45.6%	45.6%	-
<b>Bicycles on Crosswalk</b>	-	-	-	4	4	-	-	-	0	0	-	-	-	0	0	-
<b>Bicycles on Crosswalk%</b>	-	-	-	1.8%	1.8%	-	-	-	0%	0%	-	-	-	0%	0%	-

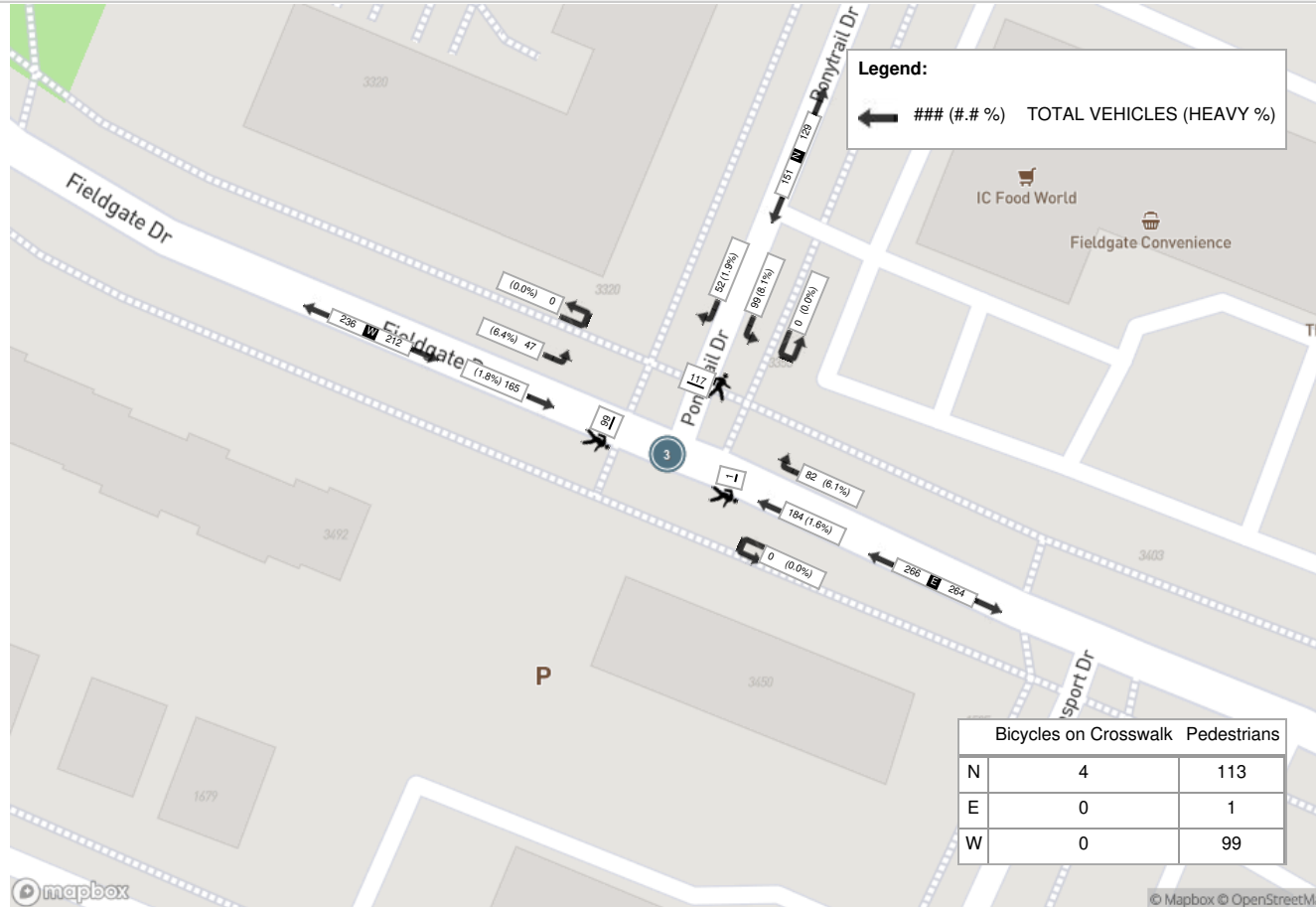


**Peak Hour: 04:45 PM - 05:45 PM Weather: Broken Clouds (14.49 °C)**

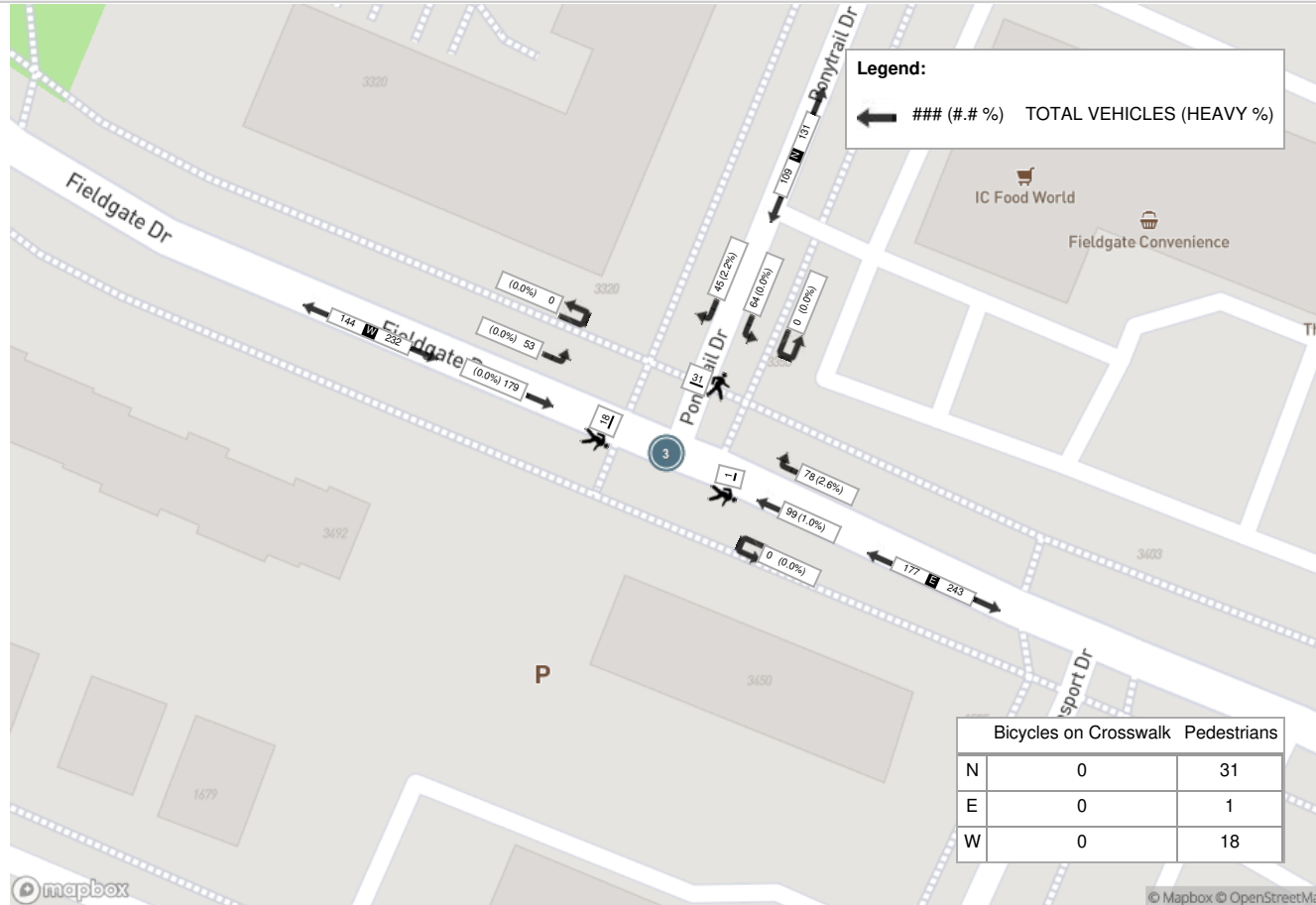
Start Time	N Approach PONYTRAIL DR					E Approach FIELDGATE DR					W Approach FIELDGATE DR					Int. Total (15 min)
	Right	Left	UTurn	Peds	Approach Total	Right	Thru	UTurn	Peds	Approach Total	Thru	Left	UTurn	Peds	Approach Total	
16:45:00	3	18	0	12	21	18	17	0	0	35	37	18	0	9	55	111
17:00:00	11	12	0	4	23	16	25	0	1	41	51	10	0	2	61	125
17:15:00	19	15	0	8	34	23	27	0	0	50	42	14	0	6	56	140
17:30:00	12	19	0	7	31	21	30	0	0	51	49	11	0	1	60	142
<b>Grand Total</b>	<b>45</b>	<b>64</b>	<b>0</b>	<b>31</b>	<b>109</b>	<b>78</b>	<b>99</b>	<b>0</b>	<b>1</b>	<b>177</b>	<b>179</b>	<b>53</b>	<b>0</b>	<b>18</b>	<b>232</b>	<b>518</b>
<b>Approach%</b>	41.3%	58.7%	0%	-	-	44.1%	55.9%	0%	-	-	77.2%	22.8%	0%	-	-	-
<b>Totals %</b>	8.7%	12.4%	0%	21%	21%	15.1%	19.1%	0%	34.2%	34.6%	10.2%	0%	44.8%	44.8%	-	-
<b>PHF</b>	0.59	0.84	0	0.8	0.8	0.85	0.83	0	0.87	0.88	0.74	0	0.95	0.95	-	-
<b>Heavy</b>	1	0	0	1	1	2	1	0	3	3	0	0	0	0	0	-
<b>Heavy %</b>	2.2%	0%	0%	0.9%	0.9%	2.6%	1%	0%	1.7%	1.7%	0%	0%	0%	0%	0%	-
<b>Lights</b>	43	64	0	107	107	75	98	0	173	173	178	53	0	231	231	-
<b>Lights %</b>	95.6%	100%	0%	98.2%	98.2%	96.2%	99%	0%	97.7%	97.7%	99.4%	100%	0%	99.6%	99.6%	-
<b>Single-Unit Trucks</b>	1	0	0	1	1	2	1	0	3	3	0	0	0	0	0	-
<b>Single-Unit Trucks %</b>	2.2%	0%	0%	0.9%	0.9%	2.6%	1%	0%	1.7%	1.7%	0%	0%	0%	0%	0%	-
<b>Buses</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
<b>Buses %</b>	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-
<b>Bicycles on Road</b>	1	0	0	1	1	1	0	0	1	1	1	0	0	1	1	-
<b>Bicycles on Road %</b>	2.2%	0%	0%	0.9%	0.9%	1.3%	0%	0%	0.6%	0.6%	0.6%	0%	0%	0.4%	0.4%	-
<b>Pedestrians</b>	-	-	-	31	31	-	-	-	1	1	-	-	-	18	18	-
<b>Pedestrians%</b>	-	-	-	62%	62%	-	-	-	2%	2%	-	-	-	36%	36%	-
<b>Bicycles on Crosswalk</b>	-	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-
<b>Bicycles on Crosswalk%</b>	-	-	-	0%	0%	-	-	-	0%	0%	-	-	-	0%	0%	-



Peak Hour: 08:00 AM - 09:00 AM Weather: Scattered Clouds (8.33 °C)



Peak Hour: 04:45 PM - 05:45 PM Weather: Broken Clouds (14.49 °C)





**Turning Movement Count (3 . FIELDGATE DR & PONYTRAIL DR)**

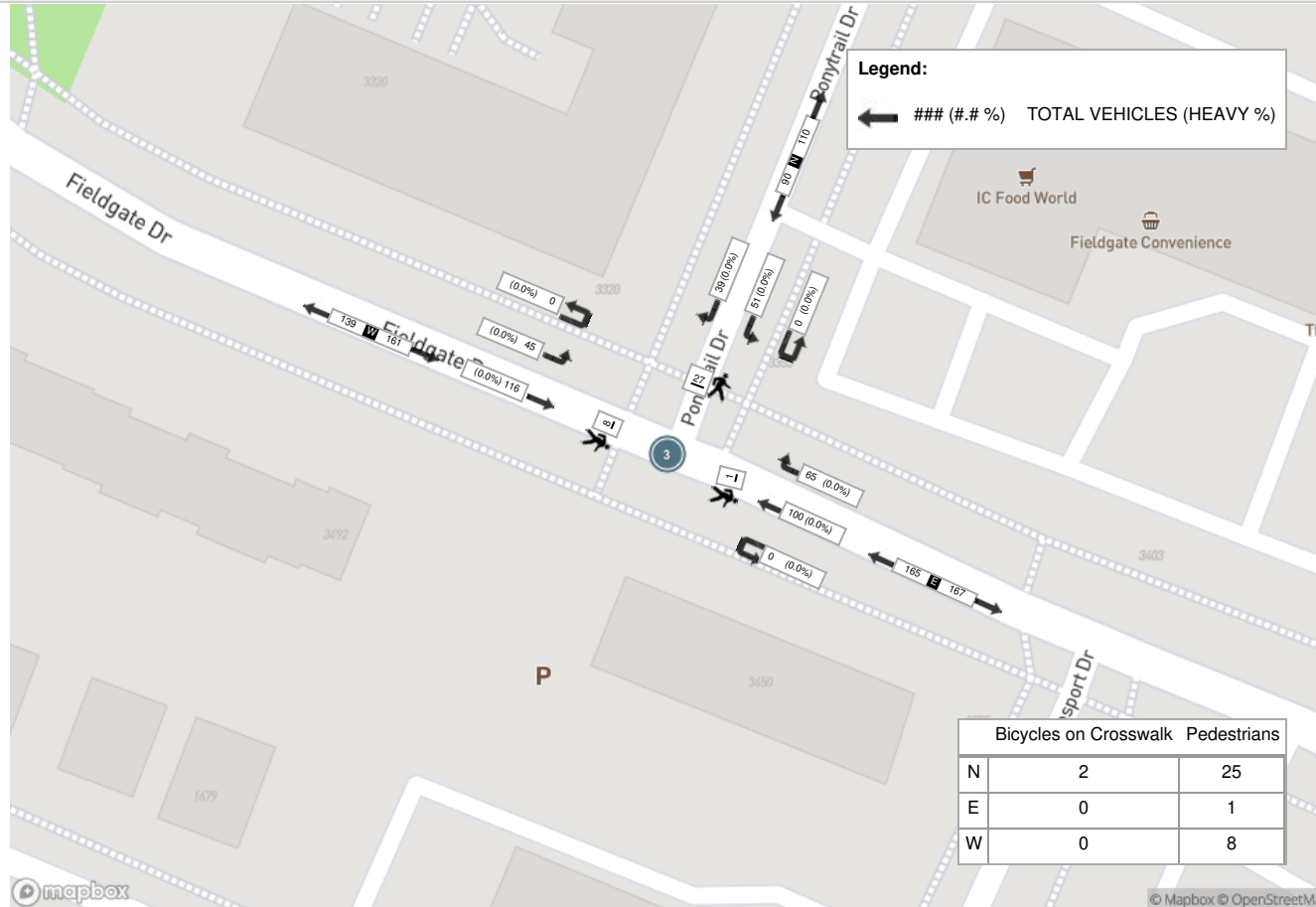
Start Time	N Approach PONYTRAIL DR					E Approach FIELDGATE DR					W Approach FIELDGATE DR					Int. Total (15 min)	Int. Total (1 hr)
	Right N:W	Left N:E	UTurn N:N	Peds N:	Approach Total	Right E:N	Thru E:W	UTurn E:E	Peds E:	Approach Total	Thru W:E	Left W:N	UTurn W:W	Peds W:	Approach Total		
10:00:00	2	13	0	1	15	9	23	0	0	32	23	6	0	0	29	76	
10:15:00	7	14	0	1	21	15	21	0	1	36	25	6	0	0	31	88	
10:30:00	7	15	0	1	22	11	17	0	0	28	23	8	0	1	31	81	
10:45:00	13	12	0	2	25	12	22	0	0	34	24	6	0	3	30	89	334
11:00:00	5	9	0	3	14	18	21	0	0	39	27	8	0	0	35	88	346
11:15:00	7	19	0	5	26	7	15	0	0	22	38	9	0	0	47	95	353
11:30:00	12	14	0	4	26	17	19	0	1	36	23	8	0	1	31	93	365
11:45:00	10	7	0	4	17	12	33	0	0	45	18	7	0	0	25	87	363
12:00:00	8	14	0	4	22	17	18	0	0	35	31	10	0	1	41	98	373
12:15:00	9	11	0	8	20	20	30	0	0	50	30	7	0	3	37	107	385
12:30:00	10	13	0	9	23	9	24	0	1	33	30	6	0	2	36	92	384
12:45:00	12	13	0	6	25	19	28	0	0	47	25	22	0	2	47	119	416
13:00:00	13	7	0	9	20	11	18	0	0	29	31	8	0	4	39	88	406
13:15:00	9	11	0	6	20	12	25	0	0	37	32	6	0	2	38	95	394
13:30:00	8	20	0	3	28	15	22	0	0	37	30	13	0	1	43	108	410
13:45:00	10	15	0	3	25	11	21	0	0	32	27	6	0	0	33	90	381
<b>Grand Total</b>	<b>142</b>	<b>207</b>	<b>0</b>	<b>69</b>	<b>349</b>	<b>215</b>	<b>357</b>	<b>0</b>	<b>3</b>	<b>572</b>	<b>437</b>	<b>136</b>	<b>0</b>	<b>20</b>	<b>573</b>	<b>1494</b>	<b>-</b>
<b>Approach%</b>	40.7%	59.3%	0%	-	-	37.6%	62.4%	0%	-	-	76.3%	23.7%	0%	-	-	-	-
<b>Totals %</b>	9.5%	13.9%	0%	-	23.4%	14.4%	23.9%	0%	-	38.3%	29.3%	9.1%	0%	-	38.4%	-	-
<b>Heavy</b>	0	2	0	-	-	0	0	0	-	-	1	1	0	-	-	-	-
<b>Heavy %</b>	0%	1%	0%	-	-	0%	0%	0%	-	-	0.2%	0.7%	0%	-	-	-	-
<b>Bicycles</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Bicycle %</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Peak Hour: 12:00 PM - 01:00 PM Weather: Broken Clouds (12.83 °C)**

Start Time	N Approach PONYTRAIL DR					E Approach FIELDGATE DR					W Approach FIELDGATE DR					Int. Total (15 min)
	Right	Left	UTurn	Peds	Approach Total	Right	Thru	UTurn	Peds	Approach Total	Thru	Left	UTurn	Peds	Approach Total	
12:00:00	8	14	0	4	22	17	18	0	0	35	31	10	0	1	41	98
12:15:00	9	11	0	8	20	20	30	0	0	50	30	7	0	3	37	107
12:30:00	10	13	0	9	23	9	24	0	1	33	30	6	0	2	36	92
12:45:00	12	13	0	6	25	19	28	0	0	47	25	22	0	2	47	119
<b>Grand Total</b>	<b>39</b>	<b>51</b>	<b>0</b>	<b>27</b>	<b>90</b>	<b>65</b>	<b>100</b>	<b>0</b>	<b>1</b>	<b>165</b>	<b>116</b>	<b>45</b>	<b>0</b>	<b>8</b>	<b>161</b>	<b>416</b>
<b>Approach%</b>	43.3%	56.7%	0%	-	-	39.4%	60.6%	0%	-	-	72%	28%	0%	-	-	-
<b>Totals %</b>	9.4%	12.3%	0%	21.6%	21.6%	15.6%	24%	0%	39.7%	39.7%	27.9%	10.8%	0%	38.7%	38.7%	-
<b>PHF</b>	0.81	0.91	0	0.9	0.9	0.81	0.83	0	0.83	0.83	0.94	0.51	0	0.86	0.86	-
<b>Heavy</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
<b>Heavy %</b>	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-
<b>Lights</b>	38	50	0	88	88	64	99	0	163	163	115	45	0	160	160	-
<b>Lights %</b>	97.4%	98%	0%	97.8%	97.8%	98.5%	99%	0%	98.8%	98.8%	99.1%	100%	0%	99.4%	99.4%	-
<b>Single-Unit Trucks</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
<b>Single-Unit Trucks %</b>	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-
<b>Bicycles on Road</b>	1	1	0	2	2	1	1	0	2	2	1	0	0	1	1	-
<b>Bicycles on Road %</b>	2.6%	2%	0%	2.2%	2.2%	1.5%	1%	0%	1.2%	1.2%	0.9%	0%	0%	0.6%	0.6%	-
<b>Pedestrians</b>	-	-	-	25	-	-	-	-	1	-	-	-	-	8	-	-
<b>Pedestrians%</b>	-	-	-	69.4%	-	-	-	-	2.8%	-	-	-	-	22.2%	-	-
<b>Bicycles on Crosswalk</b>	-	-	-	2	-	-	-	-	0	-	-	-	-	0	-	-
<b>Bicycles on Crosswalk%</b>	-	-	-	5.6%	-	-	-	-	0%	-	-	-	-	0%	-	-

Peak Hour: 12:00 PM - 01:00 PM Weather: Broken Clouds (12.83 °C)





**Turning Movement Count (11 . PONYTRAIL DR & 3403-3445 FIELDGATE DR (NORTH ACCESS))**

Start Time	E Approach PONYTRAIL DR					S Approach 3403-3445 FIELDGATE DR (NORTH ACCESS)					W Approach PONYTRAIL DR					Int. Total (15 min)	Int. Total (1 hr)
	Thru E:W	Left E:S	UTurn E:E	Peds E:	Approach Total	Right S:E	Left S:W	UTurn S:S	Peds S:	Approach Total	Right W:S	Thru W:E	UTurn W:W	Peds W:	Approach Total		
07:00:00	15	0	0	1	15	0	0	0	3	0	0	9	0	0	9	24	
07:15:00	15	0	0	0	15	0	0	0	4	0	0	9	0	0	9	24	
07:30:00	18	0	0	0	18	0	2	0	11	2	0	14	0	0	14	34	
07:45:00	28	0	0	0	28	0	0	0	6	0	0	11	0	0	11	39	121
08:00:00	26	1	0	0	27	0	1	0	7	1	0	17	0	0	17	45	142
08:15:00	23	0	0	0	23	0	1	0	19	1	0	35	0	3	35	59	177
08:30:00	51	1	0	1	52	0	0	0	29	0	0	44	0	0	44	96	239
08:45:00	47	0	0	3	47	0	0	0	46	0	0	31	0	0	31	78	278
09:00:00	28	0	0	0	28	0	0	0	11	0	1	15	0	0	16	44	277
09:15:00	13	0	0	0	13	0	0	0	9	0	0	18	0	0	18	31	249
09:30:00	17	0	0	0	17	0	0	0	9	0	1	14	0	0	15	32	185
09:45:00	13	1	0	2	14	0	0	0	2	0	0	6	0	1	6	20	127
***BREAK***																	
16:00:00	25	0	0	2	25	1	1	0	6	2	0	23	0	0	23	50	
16:15:00	28	0	0	0	28	0	1	0	7	1	0	25	0	0	25	54	
16:30:00	21	0	0	0	21	0	1	0	11	1	0	25	0	4	25	47	
16:45:00	20	1	0	2	21	0	0	0	6	0	0	28	0	0	28	49	200
17:00:00	18	0	0	0	18	0	1	0	8	1	0	27	0	0	27	46	196
17:15:00	26	1	0	0	27	0	0	0	18	0	0	35	0	1	35	62	204
17:30:00	22	0	0	0	22	0	0	0	11	0	1	33	0	0	34	56	213
17:45:00	25	1	0	2	26	0	1	0	16	1	0	21	0	0	21	48	212
18:00:00	26	0	0	0	26	1	0	0	14	1	0	22	0	0	22	49	215
18:15:00	28	1	0	2	29	1	1	0	21	2	0	27	0	5	27	58	211
18:30:00	17	0	0	0	17	0	0	0	16	0	0	24	0	2	24	41	196
18:45:00	25	0	0	0	25	0	0	0	16	0	0	24	0	0	24	49	197
<b>Grand Total</b>	<b>575</b>	<b>7</b>	<b>0</b>	<b>15</b>	<b>582</b>	<b>3</b>	<b>10</b>	<b>0</b>	<b>306</b>	<b>13</b>	<b>3</b>	<b>537</b>	<b>0</b>	<b>16</b>	<b>540</b>	<b>1135</b>	<b>-</b>
<b>Approach%</b>	98.8%	1.2%	0%	-	-	23.1%	76.9%	0%	-	-	0.6%	99.4%	0%	-	-	-	-
<b>Totals %</b>	50.7%	0.6%	0%	-	51.3%	0.3%	0.9%	0%	-	1.1%	0.3%	47.3%	0%	-	47.6%	-	-
<b>Heavy</b>	20	0	0	-	-	0	2	0	-	-	0	17	0	-	-	-	-
<b>Heavy %</b>	3.5%	0%	0%	-	-	0%	20%	0%	-	-	0%	3.2%	0%	-	-	-	-
<b>Bicycles</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Bicycle %</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Peak Hour: 08:00 AM - 09:00 AM Weather: Scattered Clouds (8.33 °C)**

Start Time	E Approach PONYTRAIL DR					S Approach 3403-3445 FIELDGATE DR (NORTH ACCESS)					W Approach PONYTRAIL DR				Int. Total (15 min)	
	Thru	Left	UTurn	Peds	Approach Total	Right	Left	UTurn	Peds	Approach Total	Right	Thru	UTurn	Peds		Approach Total
08:00:00	26	1	0	0	27	0	1	0	7	1	0	17	0	0	17	45
08:15:00	23	0	0	0	23	0	1	0	19	1	0	35	0	3	35	59
08:30:00	51	1	0	1	52	0	0	0	29	0	0	44	0	0	44	96
08:45:00	47	0	0	3	47	0	0	0	46	0	0	31	0	0	31	78
<b>Grand Total</b>	<b>147</b>	<b>2</b>	<b>0</b>	<b>4</b>	<b>149</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>101</b>	<b>2</b>	<b>0</b>	<b>127</b>	<b>0</b>	<b>3</b>	<b>127</b>	<b>278</b>
<b>Approach%</b>	98.7%	1.3%	0%	-	-	0%	100%	0%	-	-	0%	100%	0%	-	-	-
<b>Totals %</b>	52.9%	0.7%	0%	-	53.6%	0%	0.7%	0%	-	0.7%	0%	45.7%	0%	-	45.7%	-
<b>PHF</b>	0.72	0.5	0	-	0.72	0	0.5	0	-	0.5	0	0.72	0	-	0.72	-
<b>Heavy</b>	9	0	0	-	9	0	0	0	-	0	0	8	0	-	8	-
<b>Heavy %</b>	6.1%	0%	0%	-	6%	0%	0%	0%	-	0%	0%	6.3%	0%	-	6.3%	-
<b>Lights</b>	138	1	0	-	139	0	2	0	-	2	0	119	0	-	119	-
<b>Lights %</b>	93.9%	50%	0%	-	93.3%	0%	100%	0%	-	100%	0%	93.7%	0%	-	93.7%	-
<b>Single-Unit Trucks</b>	2	0	0	-	2	0	0	0	-	0	0	1	0	-	1	-
<b>Single-Unit Trucks %</b>	1.4%	0%	0%	-	1.3%	0%	0%	0%	-	0%	0%	0.8%	0%	-	0.8%	-
<b>Buses</b>	7	0	0	-	7	0	0	0	-	0	0	7	0	-	7	-
<b>Buses %</b>	4.8%	0%	0%	-	4.7%	0%	0%	0%	-	0%	0%	5.5%	0%	-	5.5%	-
<b>Bicycles on Road</b>	0	1	0	-	1	0	0	0	-	0	0	0	0	-	0	-
<b>Bicycles on Road %</b>	0%	50%	0%	-	0.7%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	-
<b>Pedestrians</b>	-	-	-	4	-	-	-	-	96	-	-	-	-	3	-	-
<b>Pedestrians%</b>	-	-	-	3.7%	-	-	-	-	88.9%	-	-	-	-	2.8%	-	-
<b>Bicycles on Crosswalk</b>	-	-	-	0	-	-	-	-	5	-	-	-	-	0	-	-
<b>Bicycles on Crosswalk%</b>	-	-	-	0%	-	-	-	-	4.6%	-	-	-	-	0%	-	-

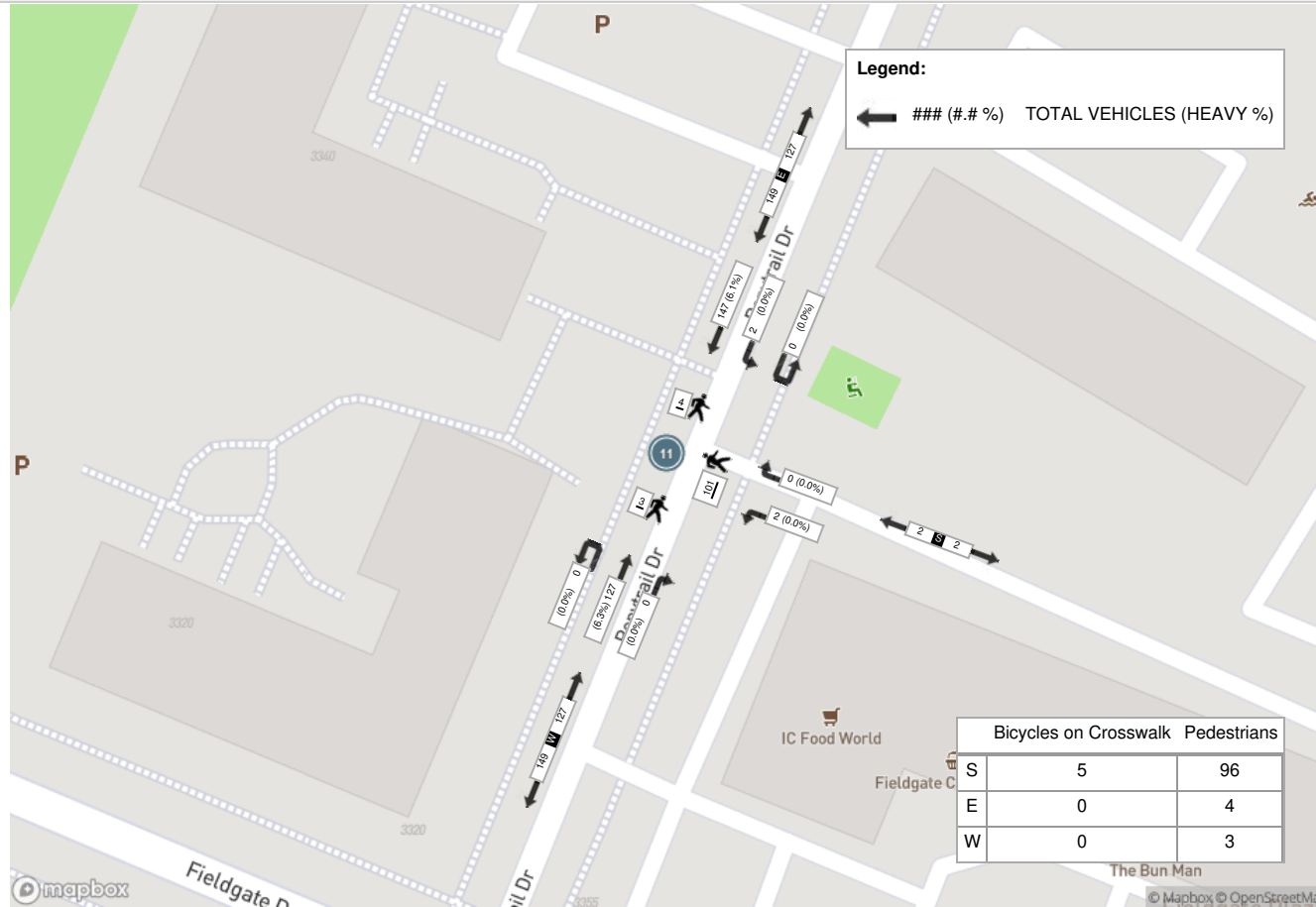


**Peak Hour: 05:15 PM - 06:15 PM Weather: Broken Clouds (14.49 °C)**

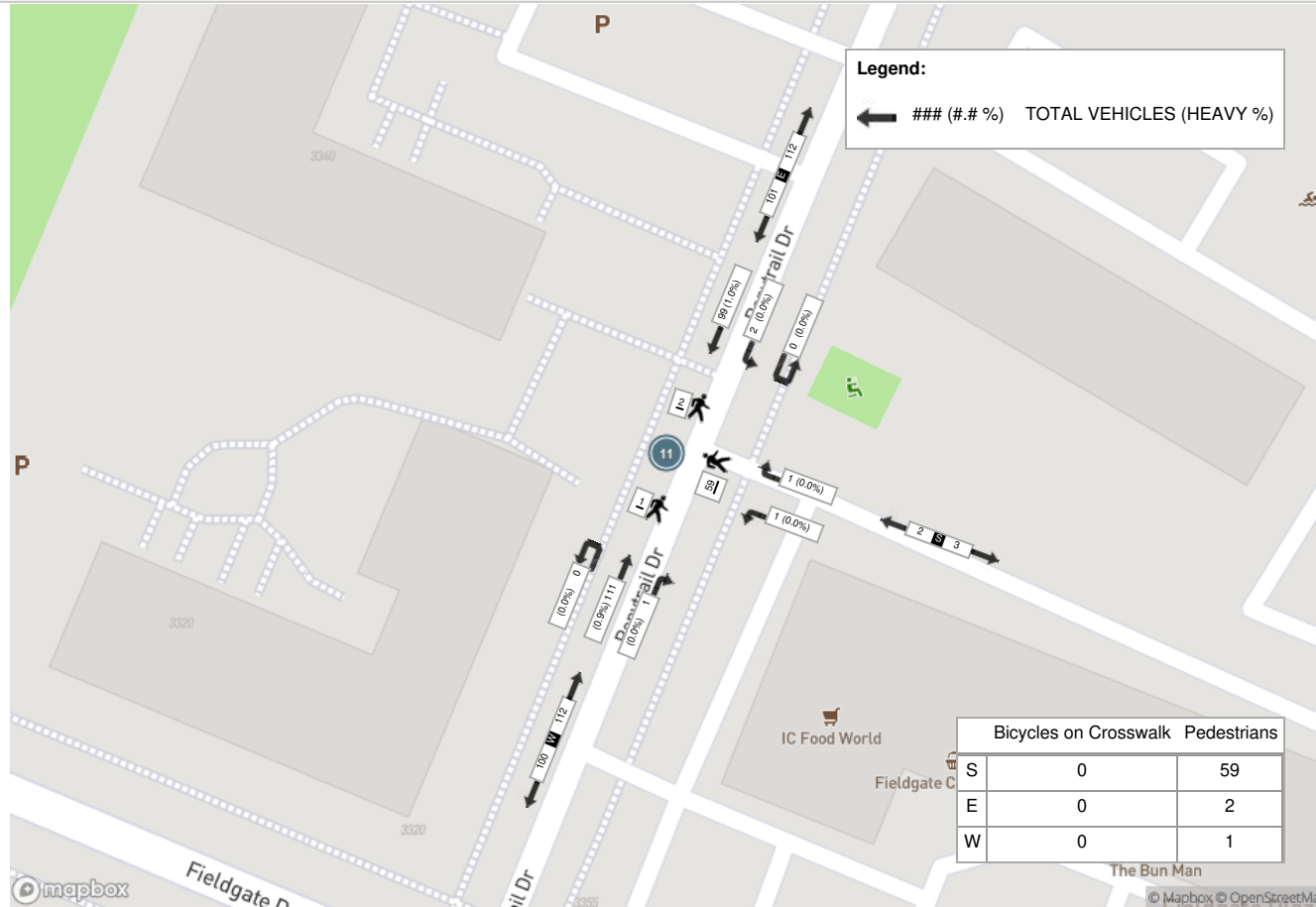
Start Time	E Approach PONYTRAIL DR					S Approach 3403-3445 FIELDGATE DR (NORTH ACCESS)					W Approach PONYTRAIL DR					Int. Total (15 min)
	Thru	Left	UTurn	Peds	Approach Total	Right	Left	UTurn	Peds	Approach Total	Right	Thru	UTurn	Peds	Approach Total	
17:15:00	26	1	0	0	27	0	0	0	18	0	0	35	0	1	35	62
17:30:00	22	0	0	0	22	0	0	0	11	0	1	33	0	0	34	56
17:45:00	25	1	0	2	26	0	1	0	16	1	0	21	0	0	21	48
18:00:00	26	0	0	0	26	1	0	0	14	1	0	22	0	0	22	49
<b>Grand Total</b>	<b>99</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>101</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>59</b>	<b>2</b>	<b>1</b>	<b>111</b>	<b>0</b>	<b>1</b>	<b>112</b>	<b>215</b>
<b>Approach%</b>	98%	2%	0%		-	50%	50%	0%		-	0.9%	99.1%	0%		-	-
<b>Totals %</b>	46%	0.9%	0%		47%	0.5%	0.5%	0%		0.9%	0.5%	51.6%	0%		52.1%	-
<b>PHF</b>	0.95	0.5	0		0.94	0.25	0.25	0		0.5	0.25	0.79	0		0.8	-
<b>Heavy</b>	1	0	0		1	0	0	0		0	0	1	0		1	-
<b>Heavy %</b>	1%	0%	0%		1%	0%	0%	0%		0%	0%	0.9%	0%		0.9%	-
<b>Lights</b>	97	1	0		98	1	1	0		2	1	110	0		111	-
<b>Lights %</b>	98%	50%	0%		97%	100%	100%	0%		100%	100%	99.1%	0%		99.1%	-
<b>Single-Unit Trucks</b>	1	0	0		1	0	0	0		0	0	1	0		1	-
<b>Single-Unit Trucks %</b>	1%	0%	0%		1%	0%	0%	0%		0%	0%	0.9%	0%		0.9%	-
<b>Buses</b>	0	0	0		0	0	0	0		0	0	0	0		0	-
<b>Buses %</b>	0%	0%	0%		0%	0%	0%	0%		0%	0%	0%	0%		0%	-
<b>Bicycles on Road</b>	1	1	0		2	0	0	0		0	0	0	0		0	-
<b>Bicycles on Road %</b>	1%	50%	0%		2%	0%	0%	0%		0%	0%	0%	0%		0%	-
<b>Pedestrians</b>	-	-	-	2	-	-	-	-	59	-	-	-	-	1	-	-
<b>Pedestrians%</b>	-	-	-	3.2%	-	-	-	-	95.2%	-	-	-	-	1.6%	-	-
<b>Bicycles on Crosswalk</b>	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
<b>Bicycles on Crosswalk%</b>	-	-	-	0%	-	-	-	-	0%	-	-	-	-	0%	-	-



Peak Hour: 08:00 AM - 09:00 AM Weather: Scattered Clouds (8.33 °C)



Peak Hour: 05:15 PM - 06:15 PM Weather: Broken Clouds (14.49 °C)





**Turning Movement Count (11 . PONYTRAIL DR & 3403-3445 FIELDGATE DR (NORTH ACCESS))**

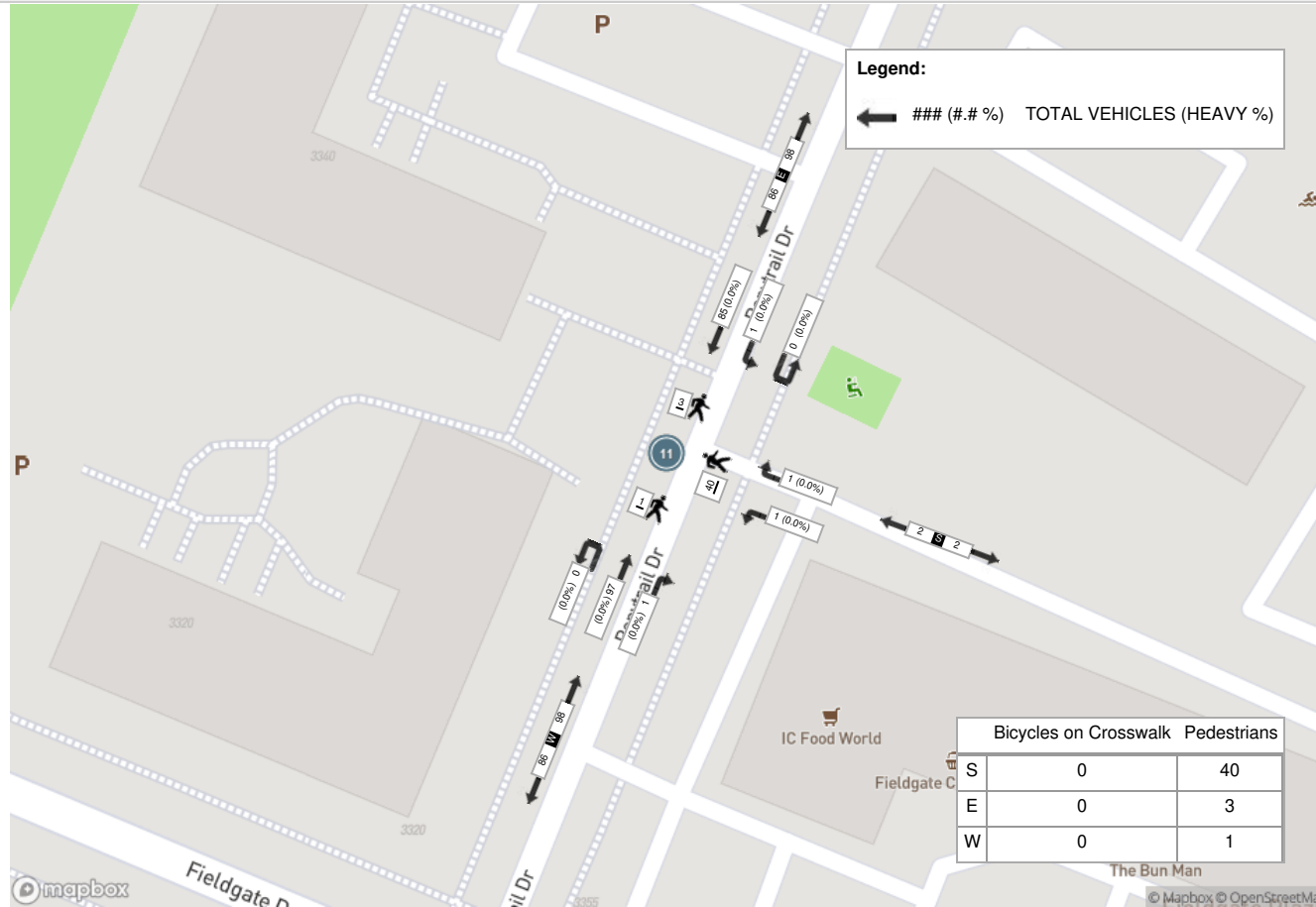
Start Time	E Approach PONYTRAIL DR					S Approach 3403-3445 FIELDGATE DR (NORTH ACCESS)					W Approach PONYTRAIL DR					Int. Total (15 min)	Int. Total (1 hr)
	Thru E:W	Left E:S	UTurn E:E	Peds E:	Approach Total	Right S:E	Left S:W	UTurn S:S	Peds S:	Approach Total	Right W:S	Thru W:E	UTurn W:W	Peds W:	Approach Total		
10:00:00	11	0	0	1	11	1	0	0	10	1	0	11	1	0	12	24	
10:15:00	15	0	0	1	15	0	1	0	5	1	0	14	0	0	14	30	
10:30:00	16	0	0	0	16	0	1	0	8	1	0	16	0	0	16	33	
10:45:00	19	1	0	0	20	0	0	0	13	0	2	19	0	0	21	41	128
11:00:00	14	0	1	0	15	1	1	0	8	2	0	24	0	0	24	41	145
11:15:00	20	0	0	1	20	0	1	0	9	1	0	15	0	0	15	36	151
11:30:00	26	0	0	0	26	0	0	0	6	0	0	24	0	0	24	50	168
11:45:00	16	0	0	0	16	1	1	0	18	2	0	17	0	0	17	35	162
12:00:00	24	1	0	1	25	0	0	0	10	0	1	26	0	1	27	52	173
12:15:00	19	0	0	2	19	0	0	0	6	0	0	30	0	0	30	49	186
12:30:00	16	0	0	1	16	0	2	0	10	2	0	10	0	0	10	28	164
12:45:00	20	0	0	0	20	0	1	0	11	1	0	32	0	0	32	53	182
13:00:00	16	1	0	0	17	0	0	0	6	0	0	20	0	0	20	37	167
13:15:00	15	0	0	0	15	0	0	0	4	0	0	17	0	2	17	32	150
13:30:00	24	1	0	2	25	0	0	0	9	0	1	23	0	0	24	49	171
13:45:00	24	0	0	1	24	0	0	0	5	0	0	18	0	2	18	42	160
<b>Grand Total</b>	<b>295</b>	<b>4</b>	<b>1</b>	<b>10</b>	<b>300</b>	<b>3</b>	<b>8</b>	<b>0</b>	<b>138</b>	<b>11</b>	<b>4</b>	<b>316</b>	<b>1</b>	<b>5</b>	<b>321</b>	<b>632</b>	<b>-</b>
<b>Approach%</b>	98.3%	1.3%	0.3%	-	-	27.3%	72.7%	0%	-	-	1.2%	98.4%	0.3%	-	-	-	-
<b>Totals %</b>	46.7%	0.6%	0.2%	-	47.5%	0.5%	1.3%	0%	-	1.7%	0.6%	50%	0.2%	-	50.8%	-	-
<b>Heavy</b>	1	0	0	-	-	0	1	0	-	-	0	0	0	-	-	-	-
<b>Heavy %</b>	0.3%	0%	0%	-	-	0%	12.5%	0%	-	-	0%	0%	0%	-	-	-	-
<b>Bicycles</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Bicycle %</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Peak Hour: 11:30 AM - 12:30 PM Weather: Broken Clouds (12.83 °C)**

Start Time	E Approach PONYTRAIL DR					S Approach 3403-3445 FIELDGATE DR (NORTH ACCESS)					W Approach PONYTRAIL DR				Int. Total (15 min)	
	Thru	Left	UTurn	Peds	Approach Total	Right	Left	UTurn	Peds	Approach Total	Right	Thru	UTurn	Peds		Approach Total
11:30:00	26	0	0	0	26	0	0	0	6	0	0	24	0	0	24	50
11:45:00	16	0	0	0	16	1	1	0	18	2	0	17	0	0	17	35
12:00:00	24	1	0	1	25	0	0	0	10	0	1	26	0	1	27	52
12:15:00	19	0	0	2	19	0	0	0	6	0	0	30	0	0	30	49
<b>Grand Total</b>	<b>85</b>	<b>1</b>	<b>0</b>	<b>3</b>	<b>86</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>40</b>	<b>2</b>	<b>1</b>	<b>97</b>	<b>0</b>	<b>1</b>	<b>98</b>	<b>186</b>
<b>Approach%</b>	98.8%	1.2%	0%	-	-	50%	50%	0%	-	-	1%	99%	0%	-	-	-
<b>Totals %</b>	45.7%	0.5%	0%	-	46.2%	0.5%	0.5%	0%	-	1.1%	0.5%	52.2%	0%	-	52.7%	-
<b>PHF</b>	0.82	0.25	0	-	0.83	0.25	0.25	0	-	0.25	0.25	0.81	0	-	0.82	-
<b>Heavy</b>	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	-
<b>Heavy %</b>	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	-
<b>Lights</b>	82	1	0	-	83	1	1	0	-	2	1	91	0	-	92	-
<b>Lights %</b>	96.5%	100%	0%	-	96.5%	100%	100%	0%	-	100%	100%	93.8%	0%	-	93.9%	-
<b>Single-Unit Trucks</b>	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	-
<b>Single-Unit Trucks %</b>	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	-
<b>Bicycles on Road</b>	3	0	0	-	3	0	0	0	-	0	0	6	0	-	6	-
<b>Bicycles on Road %</b>	3.5%	0%	0%	-	3.5%	0%	0%	0%	-	0%	0%	6.2%	0%	-	6.1%	-
<b>Pedestrians</b>	-	-	-	3	-	-	-	-	40	-	-	-	-	1	-	-
<b>Pedestrians%</b>	-	-	-	6.8%	-	-	-	-	90.9%	-	-	-	-	2.3%	-	-
<b>Bicycles on Crosswalk</b>	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
<b>Bicycles on Crosswalk%</b>	-	-	-	0%	-	-	-	-	0%	-	-	-	-	0%	-	-

Peak Hour: 11:30 AM - 12:30 PM Weather: Broken Clouds (12.83 °C)





**Turning Movement Count (10 . PONYTRAIL DR & 3403-3445 FIELDGATE DR (SOUTH ACCESS))**

Start Time	E Approach PONYTRAIL DR					S Approach 3403-3445 FIELDGATE DR (SOUTH ACCESS)					W Approach PONYTRAIL DR					Int. Total (15 min)	Int. Total (1 hr)
	Thru E:W	Left E:S	UTurn E:E	Peds E:	Approach Total	Right S:E	Left S:W	UTurn S:S	Peds S:	Approach Total	Right W:S	Thru W:E	UTurn W:W	Peds W:	Approach Total		
07:00:00	15	0	0	0	15	0	1	0	2	1	2	8	0	0	10	26	
07:15:00	14	1	0	0	15	1	0	0	2	1	0	9	0	0	9	25	
07:30:00	20	1	0	1	21	1	1	0	3	2	3	12	0	0	15	38	
07:45:00	26	1	0	0	27	1	2	0	3	3	4	9	0	0	13	43	132
08:00:00	27	2	0	0	29	1	3	0	2	4	3	16	0	0	19	52	158
08:15:00	23	0	0	5	23	6	6	0	10	12	1	34	0	1	35	70	203
08:30:00	47	4	0	4	51	2	0	0	3	2	2	38	0	1	40	93	258
08:45:00	43	5	0	7	48	2	3	0	14	5	5	29	0	2	34	87	302
09:00:00	26	1	1	0	28	2	1	0	1	3	5	14	0	0	19	50	300
09:15:00	11	2	0	0	13	4	3	0	2	7	1	13	0	1	14	34	264
09:30:00	15	1	0	2	16	2	1	0	4	3	2	14	0	0	16	35	206
09:45:00	13	0	0	0	13	0	5	0	0	5	7	5	0	0	12	30	149
***BREAK***																	
16:00:00	21	3	0	2	24	4	7	0	0	11	9	20	0	0	29	64	
16:15:00	27	2	0	0	29	3	9	0	2	12	5	20	0	0	25	66	
16:30:00	21	1	0	0	22	4	5	0	9	9	6	21	0	1	27	58	
16:45:00	18	2	0	0	20	2	4	0	1	6	9	26	0	1	35	61	249
17:00:00	17	2	0	0	19	7	6	0	2	13	6	20	0	5	26	58	243
17:15:00	24	2	0	6	26	4	7	0	10	11	4	32	1	4	37	74	251
17:30:00	22	0	0	0	22	5	11	0	2	16	3	29	0	2	32	70	263
17:45:00	21	4	0	3	25	4	5	0	2	9	5	17	0	0	22	56	258
18:00:00	27	2	0	2	29	4	6	0	5	10	8	18	0	0	26	65	265
18:15:00	28	2	0	1	30	3	10	0	10	13	9	26	0	1	35	78	269
18:30:00	14	3	0	2	17	5	6	0	1	11	10	17	0	1	27	55	254
18:45:00	24	2	0	6	26	5	2	0	7	7	5	18	0	1	23	56	254
<b>Grand Total</b>	<b>544</b>	<b>43</b>	<b>1</b>	<b>41</b>	<b>588</b>	<b>72</b>	<b>104</b>	<b>0</b>	<b>97</b>	<b>176</b>	<b>114</b>	<b>465</b>	<b>1</b>	<b>21</b>	<b>580</b>	<b>1344</b>	<b>-</b>
<b>Approach%</b>	92.5%	7.3%	0.2%	-	-	40.9%	59.1%	0%	-	-	19.7%	80.2%	0.2%	-	-	-	-
<b>Totals %</b>	40.5%	3.2%	0.1%	-	43.8%	5.4%	7.7%	0%	-	13.1%	8.5%	34.6%	0.1%	-	43.2%	-	-
<b>Heavy</b>	21	1	0	-	-	0	1	0	-	-	1	17	0	-	-	-	-
<b>Heavy %</b>	3.9%	2.3%	0%	-	-	0%	1%	0%	-	-	0.9%	3.7%	0%	-	-	-	-
<b>Bicycles</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Bicycle %</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Peak Hour: 08:00 AM - 09:00 AM Weather: Scattered Clouds (8.33 °C)**

Start Time	E Approach PONYTRAIL DR					S Approach 3403-3445 FIELDGATE DR (SOUTH ACCESS)					W Approach PONYTRAIL DR					Int. Total (15 min)
	Thru	Left	UTurn	Peds	Approach Total	Right	Left	UTurn	Peds	Approach Total	Right	Thru	UTurn	Peds	Approach Total	
08:00:00	27	2	0	0	29	1	3	0	2	4	3	16	0	0	19	52
08:15:00	23	0	0	5	23	6	6	0	10	12	1	34	0	1	35	70
08:30:00	47	4	0	4	51	2	0	0	3	2	2	38	0	1	40	93
08:45:00	43	5	0	7	48	2	3	0	14	5	5	29	0	2	34	87
<b>Grand Total</b>	<b>140</b>	<b>11</b>	<b>0</b>	<b>16</b>	<b>151</b>	<b>11</b>	<b>12</b>	<b>0</b>	<b>29</b>	<b>23</b>	<b>11</b>	<b>117</b>	<b>0</b>	<b>4</b>	<b>128</b>	<b>302</b>
<b>Approach%</b>	92.7%	7.3%	0%	-	-	47.8%	52.2%	0%	-	-	8.6%	91.4%	0%	-	-	-
<b>Totals %</b>	46.4%	3.6%	0%	50%	50%	3.6%	4%	0%	7.6%	7.6%	3.6%	38.7%	0%	42.4%	42.4%	-
<b>PHF</b>	0.74	0.55	0	0.74	0.74	0.46	0.5	0	0.48	0.48	0.55	0.77	0	0.8	0.8	-
<b>Heavy</b>	8	1	0	9	9	0	1	0	1	1	0	8	0	8	8	-
<b>Heavy %</b>	5.7%	9.1%	0%	6%	6%	0%	8.3%	0%	4.3%	4.3%	0%	6.8%	0%	6.3%	6.3%	-
<b>Lights</b>	132	9	0	141	141	10	10	0	20	20	11	109	0	120	120	-
<b>Lights %</b>	94.3%	81.8%	0%	93.4%	93.4%	90.9%	83.3%	0%	87%	87%	100%	93.2%	0%	93.8%	93.8%	-
<b>Single-Unit Trucks</b>	1	1	0	2	2	0	1	0	1	1	0	1	0	1	1	-
<b>Single-Unit Trucks %</b>	0.7%	9.1%	0%	1.3%	1.3%	0%	8.3%	0%	4.3%	4.3%	0%	0.9%	0%	0.8%	0.8%	-
<b>Buses</b>	7	0	0	7	7	0	0	0	0	0	0	7	0	7	7	-
<b>Buses %</b>	5%	0%	0%	4.6%	4.6%	0%	0%	0%	0%	0%	0%	6%	0%	5.5%	5.5%	-
<b>Bicycles on Road</b>	0	1	0	1	1	1	1	0	2	2	0	0	0	0	0	-
<b>Bicycles on Road %</b>	0%	9.1%	0%	0.7%	0.7%	9.1%	8.3%	0%	8.7%	8.7%	0%	0%	0%	0%	0%	-
<b>Pedestrians</b>	-	-	-	16	16	-	-	-	28	28	-	-	-	4	4	-
<b>Pedestrians%</b>	-	-	-	32.7%	32.7%	-	-	-	57.1%	57.1%	-	-	-	8.2%	8.2%	-
<b>Bicycles on Crosswalk</b>	-	-	-	0	0	-	-	-	1	1	-	-	-	0	0	-
<b>Bicycles on Crosswalk%</b>	-	-	-	0%	0%	-	-	-	2%	2%	-	-	-	0%	0%	-

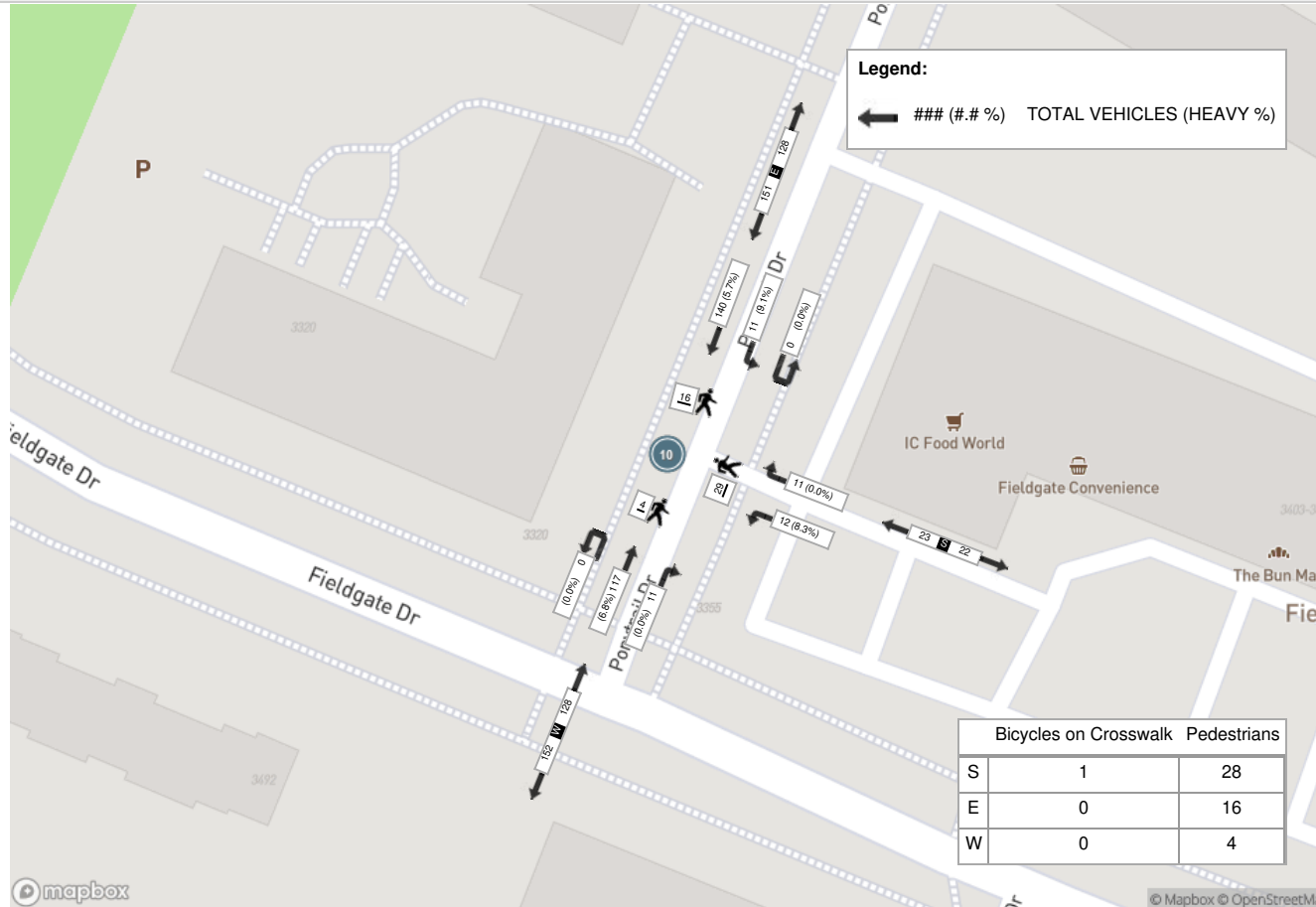


**Peak Hour: 05:30 PM - 06:30 PM Weather: Broken Clouds (14.49 °C)**

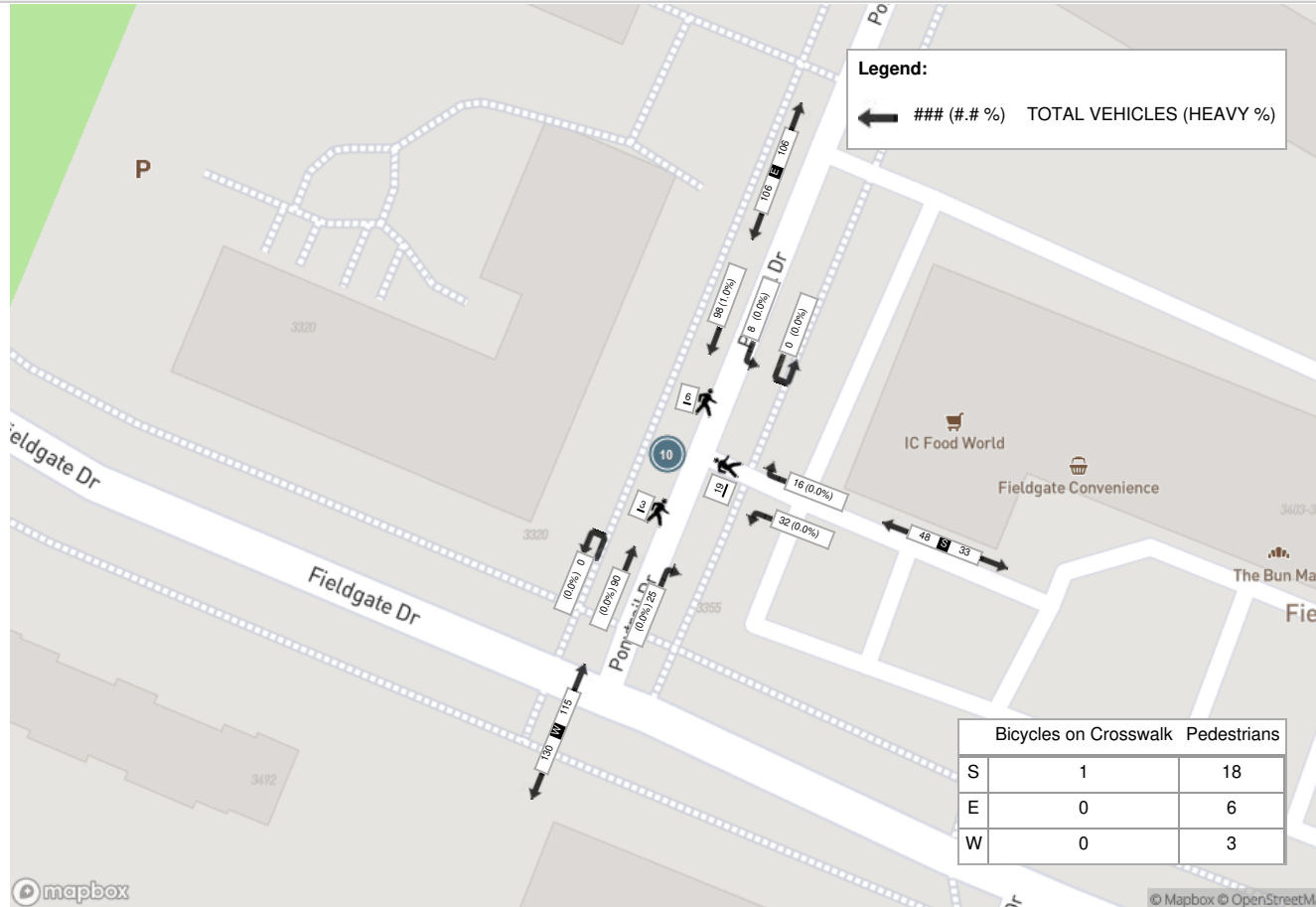
Start Time	E Approach PONYTRAIL DR					S Approach 3403-3445 FIELDGATE DR (SOUTH ACCESS)					W Approach PONYTRAIL DR					Int. Total (15 min)
	Thru	Left	UTurn	Peds	Approach Total	Right	Left	UTurn	Peds	Approach Total	Right	Thru	UTurn	Peds	Approach Total	
17:30:00	22	0	0	0	22	5	11	0	2	16	3	29	0	2	32	70
17:45:00	21	4	0	3	25	4	5	0	2	9	5	17	0	0	22	56
18:00:00	27	2	0	2	29	4	6	0	5	10	8	18	0	0	26	65
18:15:00	28	2	0	1	30	3	10	0	10	13	9	26	0	1	35	78
<b>Grand Total</b>	<b>98</b>	<b>8</b>	<b>0</b>	<b>6</b>	<b>106</b>	<b>16</b>	<b>32</b>	<b>0</b>	<b>19</b>	<b>48</b>	<b>25</b>	<b>90</b>	<b>0</b>	<b>3</b>	<b>115</b>	<b>269</b>
<b>Approach%</b>	92.5%	7.5%	0%	-	-	33.3%	66.7%	0%	-	-	21.7%	78.3%	0%	-	-	-
<b>Totals %</b>	36.4%	3%	0%	39.4%	5.9%	11.9%	0%	17.8%	9.3%	33.5%	0%	42.8%	-	-	-	-
<b>PHF</b>	0.88	0.5	0	0.88	0.8	0.73	0	0.75	0.69	0.78	0	0.82	-	-	-	-
<b>Heavy</b>	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
<b>Heavy %</b>	1%	0%	0%	0.9%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
<b>Lights</b>	96	8	0	104	16	32	0	48	25	89	0	114	-	-	-	-
<b>Lights %</b>	98%	100%	0%	98.1%	100%	100%	0%	100%	100%	98.9%	0%	99.1%	-	-	-	-
<b>Single-Unit Trucks</b>	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
<b>Single-Unit Trucks %</b>	1%	0%	0%	0.9%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
<b>Buses</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Buses %</b>	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
<b>Bicycles on Road</b>	1	0	0	1	0	0	0	0	0	1	0	1	0	1	0	0
<b>Bicycles on Road %</b>	1%	0%	0%	0.9%	0%	0%	0%	0%	0%	1.1%	0%	0.9%	-	-	-	-
<b>Pedestrians</b>	-	-	-	6	-	-	-	18	-	-	-	3	-	-	-	-
<b>Pedestrians%</b>	-	-	-	21.4%	-	-	-	64.3%	-	-	-	10.7%	-	-	-	-
<b>Bicycles on Crosswalk</b>	-	-	-	0	-	-	-	1	-	-	-	0	-	-	-	-
<b>Bicycles on Crosswalk%</b>	-	-	-	0%	-	-	-	3.6%	-	-	-	0%	-	-	-	-



Peak Hour: 08:00 AM - 09:00 AM Weather: Scattered Clouds (8.33 °C)



Peak Hour: 05:30 PM - 06:30 PM Weather: Broken Clouds (14.49 °C)





**Turning Movement Count (10 . PONYTRAIL DR & 3403-3445 FIELDGATE DR (SOUTH ACCESS))**

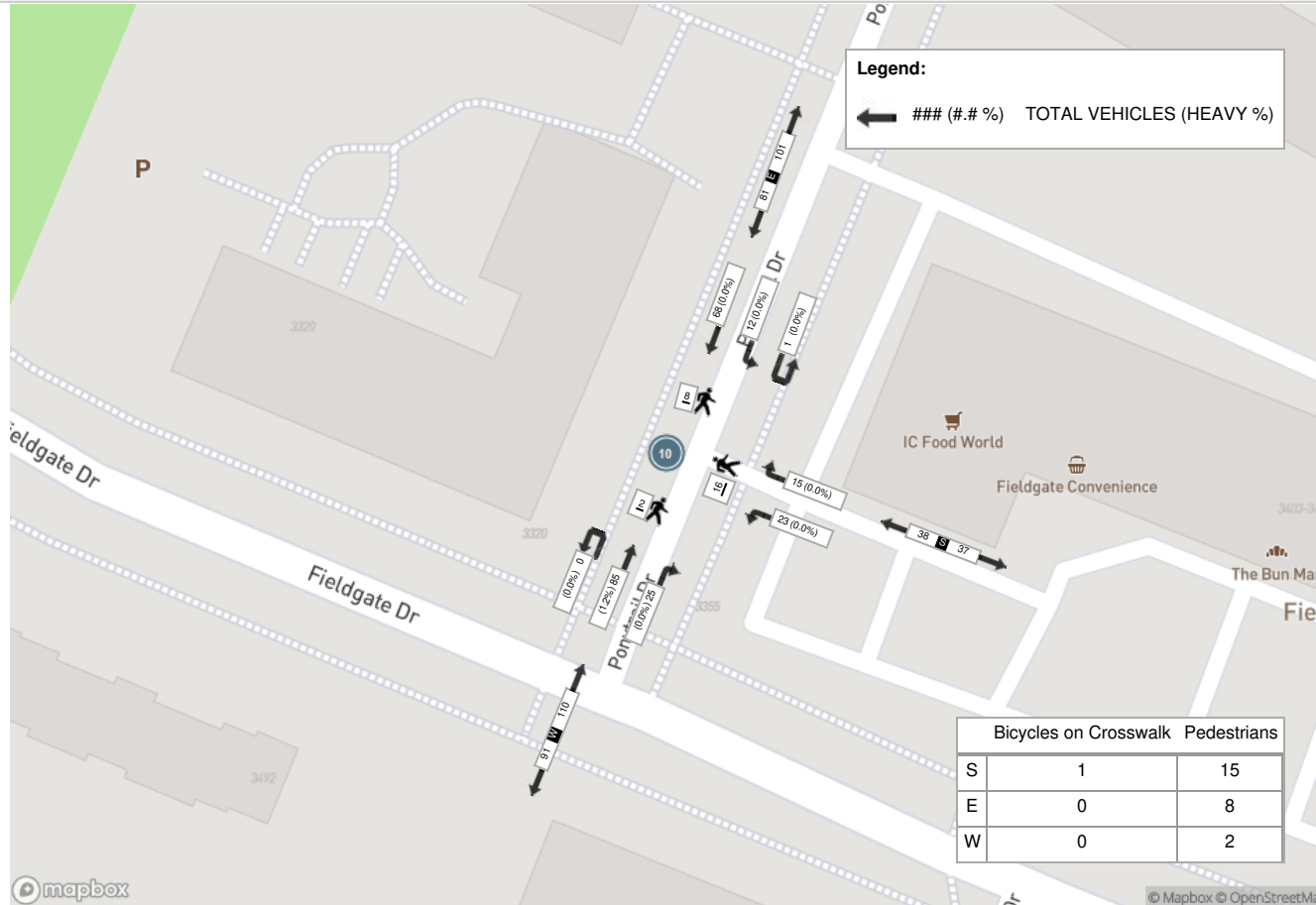
Start Time	E Approach PONYTRAIL DR					S Approach 3403-3445 FIELDGATE DR (SOUTH ACCESS)					W Approach PONYTRAIL DR					Int. Total (15 min)	Int. Total (1 hr)
	Thru E:W	Left E:S	UTurn E:E	Peds E:	Approach Total	Right S:E	Left S:W	UTurn S:S	Peds S:	Approach Total	Right W:S	Thru W:E	UTurn W:W	Peds W:	Approach Total		
10:00:00	11	0	0	0	11	0	4	0	3	4	4	12	0	0	16	31	
10:15:00	17	0	0	0	17	1	4	0	0	5	8	13	0	0	21	43	
10:30:00	18	0	0	0	18	2	2	0	2	4	4	14	0	0	18	40	
10:45:00	18	1	0	1	19	7	9	0	4	16	3	14	0	0	17	52	166
11:00:00	12	2	0	1	14	3	2	0	2	5	5	22	0	0	27	46	181
11:15:00	21	1	0	3	22	1	5	0	4	6	3	14	0	0	17	45	183
11:30:00	25	2	0	2	27	4	2	0	1	6	4	20	0	0	24	57	200
11:45:00	12	4	0	1	16	2	5	0	2	7	3	17	0	0	20	43	191
12:00:00	21	2	1	4	24	6	2	0	4	8	5	22	0	1	27	59	204
12:15:00	14	6	0	2	20	5	5	0	4	10	3	23	0	0	26	56	215
12:30:00	15	1	0	0	16	0	9	0	4	9	6	11	0	0	17	42	200
12:45:00	18	3	0	2	21	4	7	0	4	11	11	29	0	1	40	72	229
13:00:00	12	4	0	2	16	5	5	0	2	10	6	14	0	0	20	46	216
13:15:00	14	1	0	2	15	2	6	0	1	8	2	15	0	0	17	40	200
13:30:00	21	3	0	2	24	3	7	0	0	10	6	24	0	0	30	64	222
13:45:00	9	5	0	3	14	3	6	0	2	9	3	15	0	1	18	41	191
<b>Grand Total</b>	<b>258</b>	<b>35</b>	<b>1</b>	<b>25</b>	<b>294</b>	<b>48</b>	<b>80</b>	<b>0</b>	<b>39</b>	<b>128</b>	<b>76</b>	<b>279</b>	<b>0</b>	<b>3</b>	<b>355</b>	<b>777</b>	<b>-</b>
<b>Approach%</b>	87.8%	11.9%	0.3%	-	-	37.5%	62.5%	0%	-	-	21.4%	78.6%	0%	-	-	-	-
<b>Totals %</b>	33.2%	4.5%	0.1%	-	37.8%	6.2%	10.3%	0%	-	16.5%	9.8%	35.9%	0%	-	45.7%	-	-
<b>Heavy</b>	2	0	0	-	-	0	0	0	-	-	1	1	0	-	-	-	-
<b>Heavy %</b>	0.8%	0%	0%	-	-	0%	0%	0%	-	-	1.3%	0.4%	0%	-	-	-	-
<b>Bicycles</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Bicycle %</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Peak Hour: 12:00 PM - 01:00 PM Weather: Broken Clouds (12.83 °C)**

Start Time	E Approach PONYTRAIL DR					S Approach 3403-3445 FIELDGATE DR (SOUTH ACCESS)					W Approach PONYTRAIL DR					Int. Total (15 min)
	Thru	Left	UTurn	Peds	Approach Total	Right	Left	UTurn	Peds	Approach Total	Right	Thru	UTurn	Peds	Approach Total	
12:00:00	21	2	1	4	24	6	2	0	4	8	5	22	0	1	27	59
12:15:00	14	6	0	2	20	5	5	0	4	10	3	23	0	0	26	56
12:30:00	15	1	0	0	16	0	9	0	4	9	6	11	0	0	17	42
12:45:00	18	3	0	2	21	4	7	0	4	11	11	29	0	1	40	72
<b>Grand Total</b>	<b>68</b>	<b>12</b>	<b>1</b>	<b>8</b>	<b>81</b>	<b>15</b>	<b>23</b>	<b>0</b>	<b>16</b>	<b>38</b>	<b>25</b>	<b>85</b>	<b>0</b>	<b>2</b>	<b>110</b>	<b>229</b>
<b>Approach%</b>	84%	14.8%	1.2%	-	-	39.5%	60.5%	0%	-	-	22.7%	77.3%	0%	-	-	-
<b>Totals %</b>	29.7%	5.2%	0.4%	-	35.4%	6.6%	10%	0%	-	16.6%	10.9%	37.1%	0%	-	48%	-
<b>PHF</b>	0.81	0.5	0.25	-	0.84	0.63	0.64	0	-	0.86	0.57	0.73	0	-	0.69	-
<b>Heavy</b>	0	0	0	-	0	0	0	0	-	0	0	1	0	-	1	-
<b>Heavy %</b>	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0%	1.2%	0%	-	0.9%	-
<b>Lights</b>	67	12	1	-	80	15	23	0	-	38	25	83	0	-	108	-
<b>Lights %</b>	98.5%	100%	100%	-	98.8%	100%	100%	0%	-	100%	100%	97.6%	0%	-	98.2%	-
<b>Single-Unit Trucks</b>	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	-
<b>Single-Unit Trucks %</b>	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	-
<b>Buses</b>	0	0	0	-	0	0	0	0	-	0	0	1	0	-	1	-
<b>Buses %</b>	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0%	1.2%	0%	-	0.9%	-
<b>Bicycles on Road</b>	1	0	0	-	1	0	0	0	-	0	0	1	0	-	1	-
<b>Bicycles on Road %</b>	1.5%	0%	0%	-	1.2%	0%	0%	0%	-	0%	0%	1.2%	0%	-	0.9%	-
<b>Pedestrians</b>	-	-	-	8	-	-	-	-	15	-	-	-	-	2	-	-
<b>Pedestrians%</b>	-	-	-	30.8%	-	-	-	-	57.7%	-	-	-	-	7.7%	-	-
<b>Bicycles on Crosswalk</b>	-	-	-	0	-	-	-	-	1	-	-	-	-	0	-	-
<b>Bicycles on Crosswalk%</b>	-	-	-	0%	-	-	-	-	3.8%	-	-	-	-	0%	-	-

Peak Hour: 12:00 PM - 01:00 PM Weather: Broken Clouds (12.83 °C)





**Turning Movement Count (2 . WILLIAMSPORT DR & FIELDGATE DR)**

Start Time	N Approach FIELDGATE DR					S Approach FIELDGATE DR					W Approach WILLIAMSPORT DR					Int. Total (15 min)	Int. Total (1 hr)
	Right N:W	Thru N:S	UTurn N:N	Peds N:	Approach Total	Thru S:N	Left S:W	UTurn S:S	Peds S:	Approach Total	Right W:S	Left W:N	UTurn W:W	Peds W:	Approach Total		
07:00:00	3	25	0	6	28	22	1	1	0	24	16	1	0	3	17	69	
07:15:00	3	21	0	4	24	16	9	0	2	25	18	4	0	0	22	71	
07:30:00	3	25	0	0	28	30	7	0	1	37	16	2	0	3	18	83	
07:45:00	5	34	0	3	39	25	6	0	0	31	14	1	0	2	15	85	308
08:00:00	8	37	0	1	45	48	7	0	4	55	16	3	0	10	19	119	358
08:15:00	11	68	0	5	79	85	18	0	1	103	28	8	0	29	36	218	505
08:30:00	14	75	0	7	89	52	15	0	0	67	19	11	0	17	30	186	608
08:45:00	11	37	0	10	48	50	10	0	2	60	9	10	0	12	19	127	650
09:00:00	5	45	0	17	50	36	8	0	0	44	11	2	0	6	13	107	638
09:15:00	1	36	0	9	37	29	6	0	1	35	9	7	0	4	16	88	508
09:30:00	7	33	0	2	40	26	8	0	1	34	11	5	0	5	16	90	412
09:45:00	6	27	0	3	33	26	7	0	2	33	16	2	0	5	18	84	369
***BREAK***																	
16:00:00	8	49	0	8	57	44	17	0	2	61	11	10	0	3	21	139	
16:15:00	8	47	0	5	55	33	13	0	2	46	14	5	0	3	19	120	
16:30:00	9	45	0	5	54	37	11	1	2	49	15	7	0	1	22	125	
16:45:00	4	51	0	3	55	31	11	0	0	42	17	5	0	9	22	119	503
17:00:00	5	55	0	12	60	29	8	0	0	37	16	10	0	8	26	123	487
17:15:00	9	52	0	11	61	42	14	0	0	56	21	6	0	7	27	144	511
17:30:00	9	59	0	15	68	43	13	0	0	56	14	8	0	6	22	146	532
17:45:00	7	48	0	15	55	21	14	0	2	35	17	7	0	7	24	114	527
18:00:00	8	46	0	13	54	33	17	0	1	50	12	6	0	11	18	122	526
18:15:00	6	45	0	16	51	44	4	0	2	48	14	5	0	12	19	118	500
18:30:00	7	32	0	8	39	33	8	0	0	41	15	7	0	3	22	102	456
18:45:00	5	39	0	8	44	37	6	0	1	43	8	3	0	5	11	98	440
<b>Grand Total</b>	<b>162</b>	<b>1031</b>	<b>0</b>	<b>186</b>	<b>1193</b>	<b>872</b>	<b>238</b>	<b>2</b>	<b>26</b>	<b>1112</b>	<b>357</b>	<b>135</b>	<b>0</b>	<b>171</b>	<b>492</b>	<b>2797</b>	<b>-</b>
<b>Approach%</b>	13.6%	86.4%	0%	-	-	78.4%	21.4%	0.2%	-	-	72.6%	27.4%	0%	-	-	-	-
<b>Totals %</b>	5.8%	36.9%	0%	-	42.7%	31.2%	8.5%	0.1%	-	39.8%	12.8%	4.8%	0%	-	17.6%	-	-
<b>Heavy</b>	3	24	0	-	-	21	6	0	-	-	2	2	0	-	-	-	-
<b>Heavy %</b>	1.9%	2.3%	0%	-	-	2.4%	2.5%	0%	-	-	0.6%	1.5%	0%	-	-	-	-
<b>Bicycles</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Bicycle %</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Peak Hour: 08:00 AM - 09:00 AM Weather: Scattered Clouds (8.33 °C)**

Start Time	N Approach FIELDGATE DR					S Approach FIELDGATE DR					W Approach WILLIAMSPORT DR					Int. Total (15 min)
	Right	Thru	UTurn	Peds	Approach Total	Thru	Left	UTurn	Peds	Approach Total	Right	Left	UTurn	Peds	Approach Total	
08:00:00	8	37	0	1	45	48	7	0	4	55	16	3	0	10	19	119
08:15:00	11	68	0	5	79	85	18	0	1	103	28	8	0	29	36	218
08:30:00	14	75	0	7	89	52	15	0	0	67	19	11	0	17	30	186
08:45:00	11	37	0	10	48	50	10	0	2	60	9	10	0	12	19	127
<b>Grand Total</b>	<b>44</b>	<b>217</b>	<b>0</b>	<b>23</b>	<b>261</b>	<b>235</b>	<b>50</b>	<b>0</b>	<b>7</b>	<b>285</b>	<b>72</b>	<b>32</b>	<b>0</b>	<b>68</b>	<b>104</b>	<b>650</b>
<b>Approach%</b>	16.9%	83.1%	0%	-	-	82.5%	17.5%	0%	-	-	69.2%	30.8%	0%	-	-	-
<b>Totals %</b>	6.8%	33.4%	0%	-	40.2%	36.2%	7.7%	0%	-	43.8%	11.1%	4.9%	0%	-	16%	-
<b>PHF</b>	0.79	0.72	0	-	0.73	0.69	0.69	0	-	0.69	0.64	0.73	0	-	0.72	-
<b>Heavy</b>	1	10	0	-	11	8	1	0	-	9	0	0	0	-	0	-
<b>Heavy %</b>	2.3%	4.6%	0%	-	4.2%	3.4%	2%	0%	-	3.2%	0%	0%	0%	-	0%	-
<b>Lights</b>	43	207	0	-	250	226	49	0	-	275	72	32	0	-	104	-
<b>Lights %</b>	97.7%	95.4%	0%	-	95.8%	96.2%	98%	0%	-	96.5%	100%	100%	0%	-	100%	-
<b>Single-Unit Trucks</b>	0	3	0	-	3	1	0	0	-	1	0	0	0	-	0	-
<b>Single-Unit Trucks %</b>	0%	1.4%	0%	-	1.1%	0.4%	0%	0%	-	0.4%	0%	0%	0%	-	0%	-
<b>Buses</b>	1	7	0	-	8	7	1	0	-	8	0	0	0	-	0	-
<b>Buses %</b>	2.3%	3.2%	0%	-	3.1%	3%	2%	0%	-	2.8%	0%	0%	0%	-	0%	-
<b>Bicycles on Road</b>	0	0	0	-	0	1	0	0	-	1	0	0	0	-	0	-
<b>Bicycles on Road %</b>	0%	0%	0%	-	0%	0.4%	0%	0%	-	0.4%	0%	0%	0%	-	0%	-
<b>Pedestrians</b>	-	-	-	23	-	-	-	7	-	-	-	-	-	64	-	-
<b>Pedestrians%</b>	-	-	-	23.5%	-	-	-	7.1%	-	-	-	-	-	65.3%	-	-
<b>Bicycles on Crosswalk</b>	-	-	-	0	-	-	-	0	-	-	-	-	-	4	-	-
<b>Bicycles on Crosswalk%</b>	-	-	-	0%	-	-	-	0%	-	-	-	-	-	4.1%	-	-

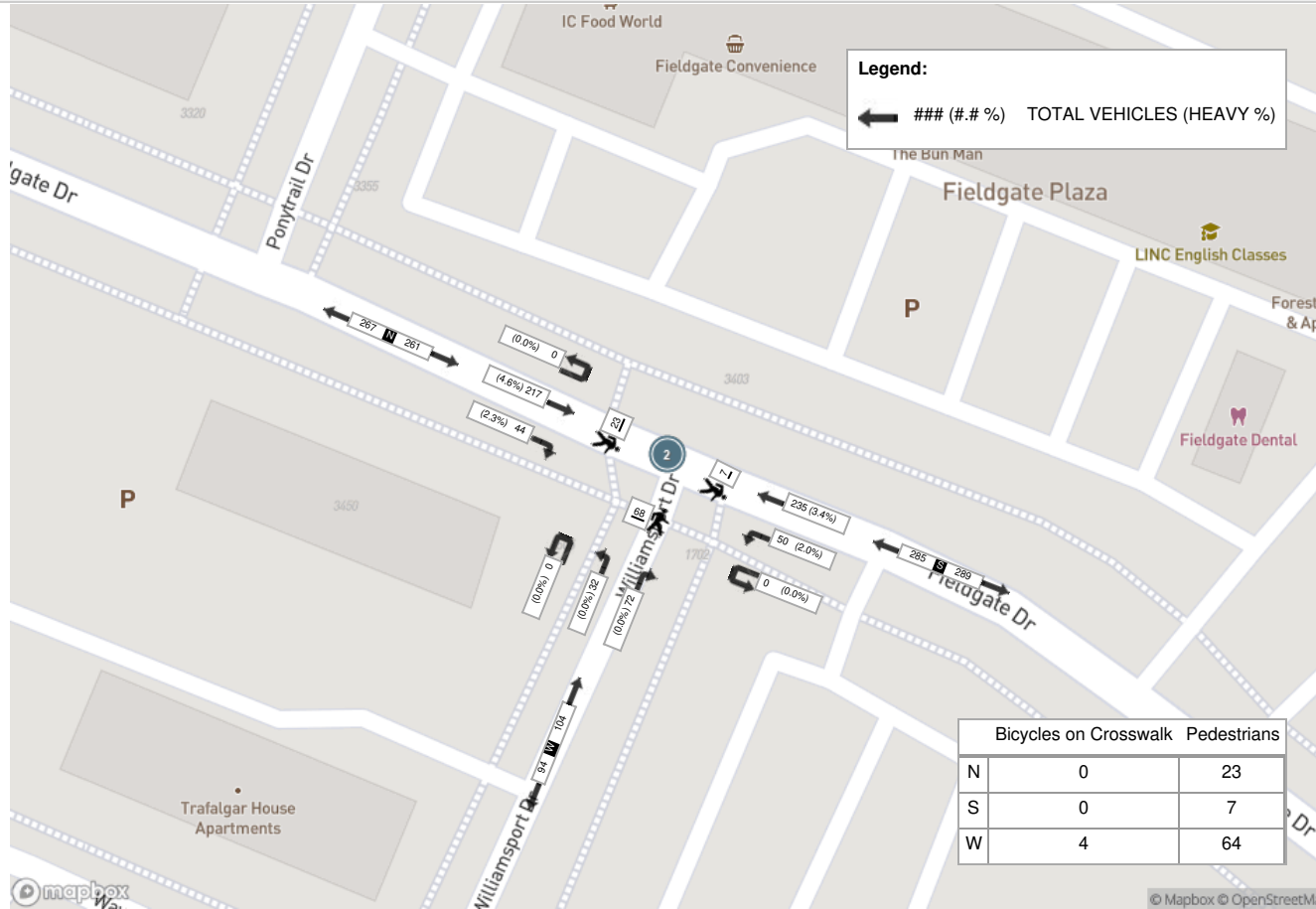


**Peak Hour: 04:45 PM - 05:45 PM Weather: Broken Clouds (14.49 °C)**

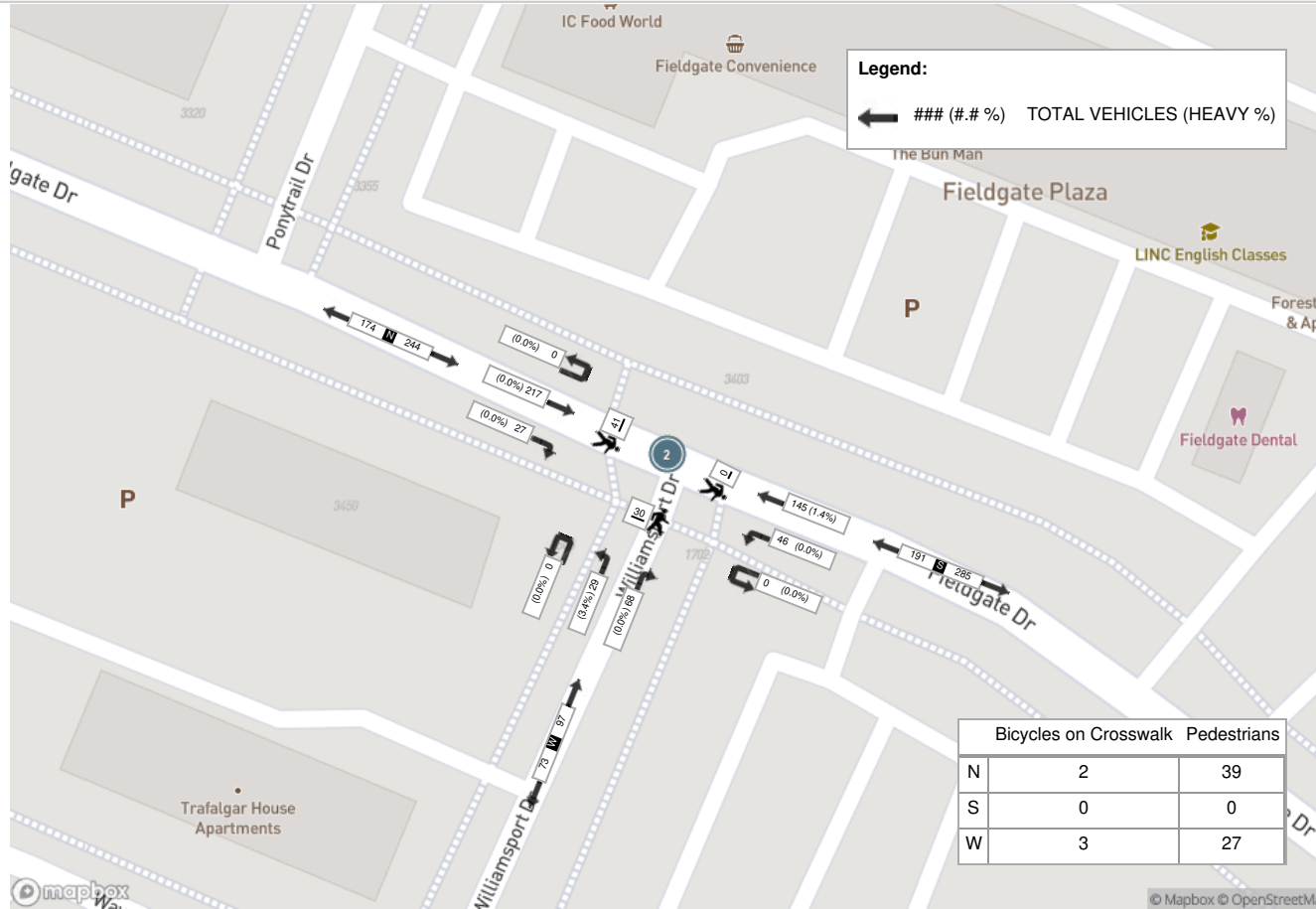
Start Time	N Approach FIELDGATE DR					S Approach FIELDGATE DR					W Approach WILLIAMSPORT DR					Int. Total (15 min)
	Right	Thru	UTurn	Peds	Approach Total	Thru	Left	UTurn	Peds	Approach Total	Right	Left	UTurn	Peds	Approach Total	
16:45:00	4	51	0	3	55	31	11	0	0	42	17	5	0	9	22	119
17:00:00	5	55	0	12	60	29	8	0	0	37	16	10	0	8	26	123
17:15:00	9	52	0	11	61	42	14	0	0	56	21	6	0	7	27	144
17:30:00	9	59	0	15	68	43	13	0	0	56	14	8	0	6	22	146
<b>Grand Total</b>	<b>27</b>	<b>217</b>	<b>0</b>	<b>41</b>	<b>244</b>	<b>145</b>	<b>46</b>	<b>0</b>	<b>0</b>	<b>191</b>	<b>68</b>	<b>29</b>	<b>0</b>	<b>30</b>	<b>97</b>	<b>532</b>
<b>Approach%</b>	11.1%	88.9%	0%	-	-	75.9%	24.1%	0%	-	-	70.1%	29.9%	0%	-	-	-
<b>Totals %</b>	5.1%	40.8%	0%	45.9%	27.3%	8.6%	0%	35.9%	12.8%	5.5%	0%	18.2%	-	-	-	-
<b>PHF</b>	0.75	0.92	0	0.9	0.84	0.82	0	0.85	0.81	0.73	0	0.9	-	-	-	-
<b>Heavy</b>	0	0	0	0	2	0	0	2	0	1	0	1	-	-	-	-
<b>Heavy %</b>	0%	0%	0%	0%	1.4%	0%	0%	1%	0%	3.4%	0%	1%	-	-	-	-
<b>Lights</b>	27	217	0	244	143	44	0	187	68	27	0	95	-	-	-	-
<b>Lights %</b>	100%	100%	0%	100%	98.6%	95.7%	0%	97.9%	100%	93.1%	0%	97.9%	-	-	-	-
<b>Single-Unit Trucks</b>	0	0	0	0	2	0	0	2	0	1	0	1	-	-	-	-
<b>Single-Unit Trucks %</b>	0%	0%	0%	0%	1.4%	0%	0%	1%	0%	3.4%	0%	1%	-	-	-	-
<b>Buses</b>	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
<b>Buses %</b>	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-	-	-	-
<b>Bicycles on Road</b>	0	0	0	0	0	2	0	2	0	1	0	1	-	-	-	-
<b>Bicycles on Road %</b>	0%	0%	0%	0%	0%	4.3%	0%	1%	0%	3.4%	0%	1%	-	-	-	-
<b>Pedestrians</b>	-	-	-	39	-	-	-	0	-	-	-	27	-	-	-	-
<b>Pedestrians%</b>	-	-	-	54.9%	-	-	-	0%	-	-	-	38%	-	-	-	-
<b>Bicycles on Crosswalk</b>	-	-	-	2	-	-	-	0	-	-	-	3	-	-	-	-
<b>Bicycles on Crosswalk%</b>	-	-	-	2.8%	-	-	-	0%	-	-	-	4.2%	-	-	-	-



Peak Hour: 08:00 AM - 09:00 AM Weather: Scattered Clouds (8.33 °C)



Peak Hour: 04:45 PM - 05:45 PM Weather: Broken Clouds (14.49 °C)





**Turning Movement Count (2 . WILLIAMSPORT DR & FIELDGATE DR)**

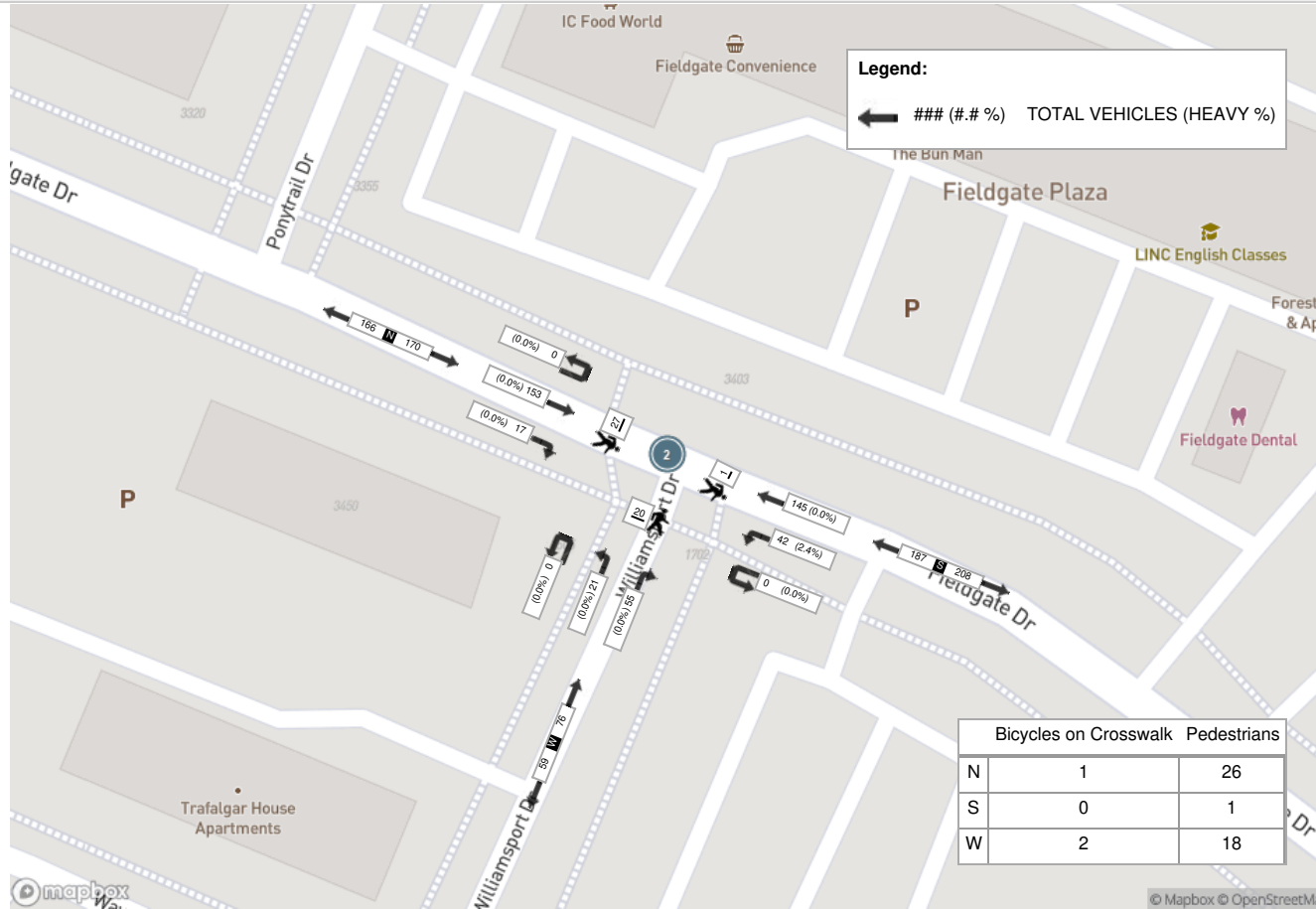
Start Time	N Approach FIELDGATE DR					S Approach FIELDGATE DR					W Approach WILLIAMSPORT DR					Int. Total (15 min)	Int. Total (1 hr)
	Right N:W	Thru N:S	UTurn N:N	Peds N:	Approach Total	Thru S:N	Left S:W	UTurn S:S	Peds S:	Approach Total	Right W:S	Left W:N	UTurn W:W	Peds W:	Approach Total		
10:00:00	6	30	0	8	36	26	10	0	0	36	13	5	0	0	18	90	
10:15:00	4	36	0	4	40	33	4	0	0	37	11	5	0	1	16	93	
10:30:00	1	37	0	4	38	22	12	1	1	35	9	5	0	4	14	87	
10:45:00	3	31	0	5	34	29	3	0	1	32	13	4	0	3	17	83	353
11:00:00	2	35	0	6	37	34	12	0	0	46	8	6	0	1	14	97	360
11:15:00	7	51	0	3	58	22	6	0	0	28	11	2	0	2	13	99	366
11:30:00	1	33	0	8	34	29	4	0	0	33	13	6	0	4	19	86	365
11:45:00	3	22	0	10	25	41	5	0	2	46	17	4	0	3	21	92	374
12:00:00	5	41	0	1	46	33	5	0	0	38	16	2	0	1	18	102	379
12:15:00	4	36	0	3	40	45	12	0	0	57	13	4	0	4	17	114	394
12:30:00	4	41	0	10	45	30	12	0	0	42	14	4	0	6	18	105	413
12:45:00	4	35	0	13	39	37	13	0	1	50	12	11	0	9	23	112	433
13:00:00	5	34	0	8	39	22	12	0	0	34	18	6	0	8	24	97	428
13:15:00	2	42	0	7	44	35	13	0	2	48	13	4	0	4	17	109	423
13:30:00	9	40	0	7	49	32	11	0	0	43	14	5	0	2	19	111	429
13:45:00	1	41	0	9	42	24	9	0	1	33	8	7	0	1	15	90	407
<b>Grand Total</b>	<b>61</b>	<b>585</b>	<b>0</b>	<b>106</b>	<b>646</b>	<b>494</b>	<b>143</b>	<b>1</b>	<b>8</b>	<b>638</b>	<b>203</b>	<b>80</b>	<b>0</b>	<b>53</b>	<b>283</b>	<b>1567</b>	<b>-</b>
<b>Approach%</b>	9.4%	90.6%	0%	-	-	77.4%	22.4%	0.2%	-	-	71.7%	28.3%	0%	-	-	-	-
<b>Totals %</b>	3.9%	37.3%	0%	-	41.2%	31.5%	9.1%	0.1%	-	40.7%	13%	5.1%	0%	-	18.1%	-	-
<b>Heavy</b>	0	3	0	-	-	0	2	0	-	-	0	0	0	-	-	-	-
<b>Heavy %</b>	0%	0.5%	0%	-	-	0%	1.4%	0%	-	-	0%	0%	0%	-	-	-	-
<b>Bicycles</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Bicycle %</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Peak Hour: 12:00 PM - 01:00 PM Weather: Broken Clouds (12.83 °C)**

Start Time	N Approach FIELDGATE DR					S Approach FIELDGATE DR					W Approach WILLIAMSPORT DR					Int. Total (15 min)
	Right	Thru	UTurn	Peds	Approach Total	Thru	Left	UTurn	Peds	Approach Total	Right	Left	UTurn	Peds	Approach Total	
12:00:00	5	41	0	1	46	33	5	0	0	38	16	2	0	1	18	102
12:15:00	4	36	0	3	40	45	12	0	0	57	13	4	0	4	17	114
12:30:00	4	41	0	10	45	30	12	0	0	42	14	4	0	6	18	105
12:45:00	4	35	0	13	39	37	13	0	1	50	12	11	0	9	23	112
<b>Grand Total</b>	<b>17</b>	<b>153</b>	<b>0</b>	<b>27</b>	<b>170</b>	<b>145</b>	<b>42</b>	<b>0</b>	<b>1</b>	<b>187</b>	<b>55</b>	<b>21</b>	<b>0</b>	<b>20</b>	<b>76</b>	<b>433</b>
<b>Approach%</b>	10%	90%	0%	-	-	77.5%	22.5%	0%	-	-	72.4%	27.6%	0%	-	-	-
<b>Totals %</b>	3.9%	35.3%	0%	-	39.3%	33.5%	9.7%	0%	-	43.2%	12.7%	4.8%	0%	-	17.6%	-
<b>PHF</b>	0.85	0.93	0	-	0.92	0.81	0.81	0	-	0.82	0.86	0.48	0	-	0.83	-
<b>Heavy</b>	0	0	0	-	0	0	1	0	-	1	0	0	0	-	0	-
<b>Heavy %</b>	0%	0%	0%	-	0%	0%	2.4%	0%	-	0.5%	0%	0%	0%	-	0%	-
<b>Lights</b>	16	151	0	-	167	143	41	0	-	184	53	21	0	-	74	-
<b>Lights %</b>	94.1%	98.7%	0%	-	98.2%	98.6%	97.6%	0%	-	98.4%	96.4%	100%	0%	-	97.4%	-
<b>Single-Unit Trucks</b>	0	0	0	-	0	0	1	0	-	1	0	0	0	-	0	-
<b>Single-Unit Trucks %</b>	0%	0%	0%	-	0%	0%	2.4%	0%	-	0.5%	0%	0%	0%	-	0%	-
<b>Bicycles on Road</b>	1	2	0	-	3	2	0	0	-	2	2	0	0	-	2	-
<b>Bicycles on Road %</b>	5.9%	1.3%	0%	-	1.8%	1.4%	0%	0%	-	1.1%	3.6%	0%	0%	-	2.6%	-
<b>Pedestrians</b>	-	-	-	26	-	-	-	-	1	-	-	-	-	18	-	-
<b>Pedestrians%</b>	-	-	-	54.2%	-	-	-	-	2.1%	-	-	-	-	37.5%	-	-
<b>Bicycles on Crosswalk</b>	-	-	-	1	-	-	-	-	0	-	-	-	-	2	-	-
<b>Bicycles on Crosswalk%</b>	-	-	-	2.1%	-	-	-	-	0%	-	-	-	-	4.2%	-	-

Peak Hour: 12:00 PM - 01:00 PM Weather: Broken Clouds (12.83 °C)



## REGIONAL MUNICIPALITY OF PEEL

### Traffic Signal Timing Parameters

Database Date	May 2, 2024		Prepared Date	May 2, 2024
Database Rev	iNET		Completed By	S.A
Timing Card / Field rev	-		Checked By	J.V

**Location** **Dixie Road and Bloor Street**

Phase #	Street Name - Direction	Vehicle Minimum (s)	Pedestrian Minimum (s)		Amber (s)	All Red (s)	TIME PERIOD (s) (Green+Amber+All Red)		
			WALK	FDWALK			AM SPLITS	OFF SPLITS	PM SPLITS
			1	Dixie Road - NBLT Prot. Perm.			7	-	-
2	Dixie Road - SB	10	10	30	4	2.9	91	70	61
3	Bloor Street - EBLT Prot. Perm.	7	-	-	3	-	-	-	13
4	Bloor Street - WB	10	10	29	4	3.4	69	77	62
5	Dixie Road - SBLT Prot. Perm.	7	-	-	3	-	19	-	13
6	Dixie Road - NB	10	10	30	4	2.9	72	83	72
7	Bloor Street - WBLT Prot. Perm.	7	-	-	3	-	16	13	13
8	Bloor Street - EB	10	10	29	4	3.4	53	64	62

<b>System Control</b>	<b>TIME (M-F)</b>	<b>PEAK</b>	<b>CYCLE LENGTH (s)</b>	<b>OFFSET (s)</b>
Yes	6:00 - 9:30	AM	160	45
<b>Semi-Actuated Mode</b>	9:30 - 15:00	OFF	160	46
Yes	15:00 - 19:30	PM	160	74

## REGIONAL MUNICIPALITY OF PEEL

### Traffic Signal Timing Parameters

Database Date	May 2, 2024		Prepared Date	May 2, 2024
Database Rev	iNET		Completed By	S.A
Timing Card / Field rev	-		Checked By	J.V

**Location** **Dixie Road and Bloor Street**

Phase #	Street Name - Direction	Vehicle Minimum (s)	Pedestrian Minimum (s)		Amber (s)	All Red (s)	TIME PERIOD (s) (Green+Amber+All Red)		
			WALK	FDWALK			MAX1 SPLITS	MAX1 SPLITS	OFF SPLITS
			1	Dixie Road - NBLT Prot. Perm.			7	-	-
2	Dixie Road - SB	10	10	30	4	2.9	45	45	70
3	Bloor Street - EBLT Prot. Perm.	7	-	-	3	-	15	15	-
4	Bloor Street - WB	10	10	29	4	3.4	35	35	77
5	Dixie Road - SBLT Prot. Perm.	7	-	-	3	-	20	20	-
6	Dixie Road - NB	10	10	30	4	2.9	45	45	83
7	Bloor Street - WBLT Prot. Perm.	7	-	-	3	-	25	25	13
8	Bloor Street - EB	10	10	29	4	3.4	35	35	64

<b>System Control</b>	<b>TIME (M-F)</b>	<b>PEAK</b>	<b>CYCLE LENGTH (s)</b>	<b>OFFSET (s)</b>
Yes	0:00 - 3:00	-	FREE	-
<b>Semi-Actuated Mode</b>	3:00 - 7:00	-	FREE	-
Yes	7:00 - 0:00	OFF	160	74







Intelight		1907			BLOOR STREET E @ Havenwood Drive					
Phase - Parameter 1-16	Units	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	Phase 7	Phase 8	
Phase Description*	String									
Walk	Sec	0	10	0	10	0	0	0	0	
Ped Clear	Sec	0	19	0	24	0	0	0	0	
Min Green	Sec	0	10	0	10	0	0	0	0	
Passage	Sec	0.0	3.0	0.0	3.0	0.0	0.0	0.0	0.0	
Maximum 1	Sec	0	21	0	30	0	0	0	0	
Maximum 2	Sec	0	21	0	30	0	0	0	0	
Yellow Change	Sec	3.0	3.5	3.0	3.0	3.0	4.0	3.0	4.0	
Red Clearance	Sec	0.0	2.5	0.0	4.5	0.0	0.0	0.0	0.0	
Red Revert	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Added Initial	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Max Initial	Sec	0	0	0	0	0	0	0	0	
Time Before Reduction	Sec	0	0	0	0	0	0	0	0	
Cars Before Reduction	Veh	0	0	0	0	0	0	0	0	
Time To Reduce	Sec	0	0	0	0	0	0	0	0	
Reduce By	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Min Gap	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Dynamic Max Limit	Sec	0	0	0	0	0	0	0	0	
Dynamic Max Step	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
[P2] Start Up	Enum	other	redClear	other	phaseNotOn	other	other	other	other	
[P2] Options	Bit		0:Enabled Phase 3:Non-Actuated 1 7:Max Vehicle Recall 8:Ped_Recall 13:Actuated Rest In Walk		0:Enabled Phase 5:Non Lock Detector Memory					
[P2] Ring	Ring	0	1	0	1	0	0	0	0	
[P2] Concurrency	Phase (,)	()	()	()	()	()	()	()	()	
Coordination - Pattern 1-32	Units	1	2	3	4	5	6	7	8	
Cycle Time	Sec	100	80	100	0	0	0	0	0	
Offset	Sec	39	39	77	0	0	0	0	0	
Split	Split	1	2	3	4	5	6	7	8	
Sequence	Sequence	1	1	1	1	1	1	1	1	
Phase Parameter Table*	Number	1	1	1	1	1	1	1	1	
Coord Phase Reference Point*	Enum	green	green	green	green	green	green	green	green	
Coord Mode*	Enum	singlePermissive	singlePermissive	singlePermissive	singlePermissive	singlePermissive	singlePermissive	singlePermissive	singlePermissive	
Coordination - Splits	Units	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	Phase 7	Phase 8	
Split 1 - Mode	Enum	none	none	none	none	none	none	none	none	
Split 1 - Time	Sec	0	59	0	41	0	0	0	0	
Split 1 - Coord	Enum	False	True	False	False	False	False	False	False	
Split 1 - Coord Phase Options*	Bit		0: Reference Point							
Split 2 - Mode	Enum	none	none	none	none	none	none	none	none	
Split 2 - Time	Sec	0	39	0	41	0	0	0	0	
Split 2 - Coord	Enum	False	True	False	False	False	False	False	False	
Split 2 - Coord Phase Options*	Bit		0: Reference Point							
Split 3 - Mode	Enum	none	none	none	none	none	none	none	none	
Split 3 - Time	Sec	0	59	0	41	0	0	0	0	
Split 3 - Coord	Enum	False	True	False	False	False	False	False	False	
Time Base - Schedule 1-16	Units	1	2	3	4	5	6	7	8	
Month	Bit	JFMAMJJASOND	JFMAMJJASOND	JFMAMJJASOND	J-----	-F-----	--M-----	---M-----	----J-----	
Day of Week	Bit	-MTWTF-	S-----	-----S	---W---	-M----	----F-	-M----	-M----	
Day of Month	Bit	1234567890123456789012345678901	1234567890123456789012345678901	1234567890123456789012345678901	1-----	-----9	-----0	-----1	-----	
Day Plan	Number	1	3	2	3	3	3	3	3	
Time Base - Schedule 1-16	Units	9	10	11	12	13	14	15	16	
Month	Bit	-----A----	-----S--	-----O-	-----D	-----D	-----D	-----S--	-----	
Day of Week	Bit	-M----	-M----	-M----	---W---	---T-	--T---	-M----	SMTWTFSS	
Day of Month	Bit	-----5-----	-----2-----	-----4-----	-----5-----	-----6-----	-----4-----	-----	-----	
Day Plan	Number	3	3	3	3	3	3	3	0	
Time Base - Day Plans	Units	Evt 1	Evt 2	Evt 3	Evt 4	Evt 5	Evt 6			
Plan 1 Hour	Hour	0	7	9	16	18	3			
Plan 1 Minute	Min	0	0	0	0	30	0			
Plan 1 Action	Number	8	1	2	3	8	7			
Plan 2 Hour	Hour	0	3	9	18	0	0			
Plan 2 Minute	Min	0	0	0	30	0	0			
Plan 2 Action	Number	8	7	2	8	0	0			
Plan 3 Hour	Hour	0	3	9	18	0	0			
Plan 3 Minute	Min	0	0	0	30	0	0			
Plan 3 Action	Number	8	7	2	8	0	0			
Time Base - Action 1-32	Units	1	2	3	4	5	6	7	8	
Pattern	Enum	Pattern 1	Pattern 2	Pattern 3	Pattern 4	Pattern 5	Pattern 6	Free	Free	
Aux. Functions	Bit									
Spec. Functions	Bit									
Time Base - Action 1-32	Units	9	10							
Pattern	Enum	Pattern 9	Pattern 10							
Aux. Functions	Bit									
Spec. Functions	Bit									



# APPENDIX E

## LOS Definitions

## Level of Service Definitions

### Two-Way Stop Controlled Intersections

<b>Level of Service</b>	<b>Control Delay per Vehicle (seconds)</b>	<b>Interpretation</b>
A	$\leq 10$	EXCELLENT. Large and frequent gaps in traffic on the main roadway. Queuing on the minor street is rare.
B	$> 10$ and $\leq 15$	VERY GOOD. Many gaps exist in traffic on the main roadway. Queuing on the minor street is minimal.
C	$> 15$ and $\leq 25$	GOOD. Fewer gaps exist in traffic on the main roadway. Delay on minor approach becomes more noticeable.
D	$> 25$ and $\leq 35$	FAIR. Infrequent and shorter gaps in traffic on the main roadway. Queue lengths develop on the minor street.
E	$> 35$ and $\leq 50$	POOR. Very infrequent gaps in traffic on the main roadway. Queue lengths become noticeable.
F	$> 50$	UNSATISFACTORY. Very few gaps in traffic on the main roadway. Excessive delay with significant queue lengths on the minor street.

Adapted from Highway Capacity Manual 2000, Transportation Research Board

## Level of Service Definitions

### Signalized Intersections

<b>Level of Service</b>	<b>Control Delay per Vehicle (seconds)</b>	<b>Interpretation</b>
A	$\leq 10$	EXCELLENT. Extremely favourable progression with most vehicles arriving during the green phase. Most vehicles do not stop and short cycle lengths may contribute to low delay.
B	$> 10$ and $\leq 20$	VERY GOOD. Very good progression and/or short cycle lengths with slightly more vehicles stopping than LOS "A" causing slightly higher levels of average delay.
C	$> 20$ and $\leq 35$	GOOD. Fair progression and longer cycle lengths lead to a greater number of vehicles stopping than LOS "B".
D	$> 35$ and $\leq 55$	FAIR. Congestion becomes noticeable with higher average delays resulting from a combination of long cycle lengths, high volume-to-capacity ratios and unfavourable progression.
E	$> 55$ and $\leq 80$	POOR. Lengthy delays values are indicative of poor progression, long cycle lengths and high volume-to-capacity ratios. Individual cycle failures are common with individual movement failures also common.
F	$> 80$	UNSATISFACTORY. Indicative of oversaturated conditions with vehicular demand greater than the capacity of the intersection.






























Adapted from Highway Capacity Manual 2000, Transportation Research Board

# APPENDIX F

## 2024 Detailed Capacity Analysis

Lanes, Volumes, Timings  
1: Dixie Rd & Bloor St

2024 Existing AM  
06/28/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 			  			  	
Traffic Volume (vph)	137	449	173	247	351	241	55	949	179	186	1155	97
Future Volume (vph)	137	449	173	247	351	241	55	949	179	186	1155	97
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		15.0	60.0		1.0	75.0		0.0	100.0		85.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	85.0			60.0			90.0			50.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.91	0.91	1.00	0.91	1.00
Ped Bike Factor	0.97		0.98	1.00		0.93	0.99	1.00		1.00		0.95
Fr <sub>t</sub>			0.850			0.850		0.976				0.850
Fl <sub>t</sub> Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1738	3544	1617	1772	3444	1555	1722	4702	0	1722	4948	1555
Fl <sub>t</sub> Permitted	0.525			0.258			0.210			0.158		
Satd. Flow (perm)	929	3544	1582	479	3444	1452	378	4702	0	286	4948	1473
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			68			54		29				105
Link Speed (k/h)		50			50			60			60	
Link Distance (m)		302.0			339.9			615.3			434.7	
Travel Time (s)		21.7			24.5			36.9			26.1	
Confl. Peds. (#/hr)	45		8	8		45	35		14	14		35
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	5%	3%	1%	3%	6%	5%	6%	9%	5%	6%	6%	5%
Adj. Flow (vph)	149	488	188	268	382	262	60	1032	195	202	1255	105
Shared Lane Traffic (%)												
Lane Group Flow (vph)	149	488	188	268	382	262	60	1227	0	202	1255	105
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane					Yes							
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	2	1	1	1	1	1	1	0		1	0	0
Detector Template								Thru			Thru	Right
Leading Detector (m)	24.0	7.0	7.0	22.0	7.0	7.0	24.0	0.0		24.0	0.0	0.0
Trailing Detector (m)	-2.5	-2.0	-2.0	12.0	-2.0	-2.0	14.0	0.0		14.0	0.0	0.0
Detector 1 Position(m)	-2.5	-2.0	-2.0	12.0	-2.0	-2.0	14.0	0.0		14.0	0.0	0.0
Detector 1 Size(m)	10.0	9.0	9.0	10.0	9.0	9.0	10.0	0.6		10.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)	14.0											
Detector 2 Size(m)	10.0											
Detector 2 Type	Cl+Ex											
Detector 2 Channel												
Detector 2 Extend (s)	0.0											



Lanes, Volumes, Timings  
1: Dixie Rd & Bloor St

2024 Existing AM  
06/28/2024

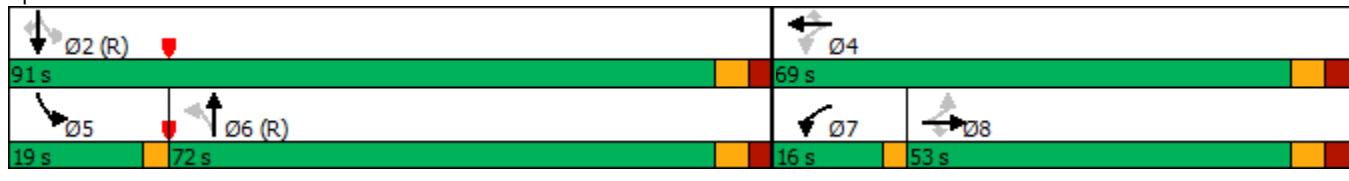


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	Perm	NA		pm+pt	NA	Perm
Protected Phases		8		7	4			6		5	2	
Permitted Phases	8		8	4		4	6			2		2
Detector Phase	8	8	8	7	4	4	6	6		5	2	2
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	7.0	10.0	10.0	10.0	10.0		7.0	10.0	10.0
Minimum Split (s)	46.4	46.4	46.4	10.0	46.4	46.4	46.9	46.9		10.0	46.9	46.9
Total Split (s)	53.0	53.0	53.0	16.0	69.0	69.0	72.0	72.0		19.0	91.0	91.0
Total Split (%)	33.1%	33.1%	33.1%	10.0%	43.1%	43.1%	45.0%	45.0%		11.9%	56.9%	56.9%
Maximum Green (s)	45.6	45.6	45.6	13.0	61.6	61.6	65.1	65.1		16.0	84.1	84.1
Yellow Time (s)	4.0	4.0	4.0	3.0	4.0	4.0	4.0	4.0		3.0	4.0	4.0
All-Red Time (s)	3.4	3.4	3.4	0.0	3.4	3.4	2.9	2.9		0.0	2.9	2.9
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.4	7.4	7.4	3.0	7.4	7.4	6.9	6.9		3.0	6.9	6.9
Lead/Lag	Lag	Lag	Lag	Lead			Lag	Lag		Lead		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	C-Max	C-Max		None	C-Max	C-Max
Walk Time (s)	10.0	10.0	10.0		10.0	10.0	10.0	10.0			10.0	10.0
Flash Dont Walk (s)	29.0	29.0	29.0		29.0	29.0	30.0	30.0			30.0	30.0
Pedestrian Calls (#/hr)	0	0	0		0	0	0	0			0	0
Act Effct Green (s)	33.5	33.5	33.5	53.9	49.5	49.5	80.4	80.4		100.1	96.2	96.2
Actuated g/C Ratio	0.21	0.21	0.21	0.34	0.31	0.31	0.50	0.50		0.63	0.60	0.60
v/c Ratio	0.77	0.66	0.49	1.01	0.36	0.54	0.32	0.52		0.69	0.42	0.11
Control Delay	83.1	61.5	37.6	101.2	42.8	38.8	34.0	28.6		26.9	18.6	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	83.1	61.5	37.6	101.2	42.8	38.8	34.0	28.6		26.9	18.6	3.2
LOS	F	E	D	F	D	D	C	C		C	B	A
Approach Delay		59.9			58.8			28.9			18.6	
Approach LOS		E			E			C			B	

Intersection Summary

Area Type:	Other
Cycle Length:	160
Actuated Cycle Length:	160
Offset:	45 (28%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle:	115
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	1.01
Intersection Signal Delay:	36.9
Intersection LOS:	D
Intersection Capacity Utilization:	101.2%
ICU Level of Service:	G
Analysis Period (min):	15

Splits and Phases: 1: Dixie Rd & Bloor St



Queues  
1: Dixie Rd & Bloor St

2024 Existing AM  
06/28/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	149	488	188	268	382	262	60	1227	202	1255	105
v/c Ratio	0.77	0.66	0.49	1.01	0.36	0.54	0.32	0.52	0.69	0.42	0.11
Control Delay	83.1	61.5	37.6	101.2	42.8	38.8	34.0	28.6	26.9	18.6	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	83.1	61.5	37.6	101.2	42.8	38.8	34.0	28.6	26.9	18.6	3.2
Queue Length 50th (m)	45.3	76.1	33.8	-68.2	50.1	55.5	11.0	91.6	25.8	74.5	0.0
Queue Length 95th (m)	66.0	85.9	53.5	#103.9	57.5	74.9	28.4	127.1	47.0	103.2	9.6
Internal Link Dist (m)		278.0			315.9			591.3		410.7	
Turn Bay Length (m)	40.0		15.0	60.0		1.0	75.0		100.0		85.0
Base Capacity (vph)	264	1010	499	266	1325	592	189	2377	322	2973	927
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.56	0.48	0.38	1.01	0.29	0.44	0.32	0.52	0.63	0.42	0.11

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.





















Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Lanes, Volumes, Timings  
2: Havenwood Dr & Bloor St

2024 Existing AM  
06/28/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	63	710	62	58	627	26	68	60	60	38	85	106
Future Volume (vph)	63	710	62	58	627	26	68	60	60	38	85	106
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0		0.0	50.0		0.0	25.0		0.0	25.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	65.0			80.0			40.0			35.0		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.96	1.00		0.99	0.99		0.92	0.92		0.87	0.93	
Frt		0.988			0.994			0.925			0.917	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1789	3450	0	1722	3470	0	1690	1598	0	1722	1558	0
Flt Permitted	0.373			0.320			0.489			0.674		
Satd. Flow (perm)	674	3450	0	573	3470	0	798	1598	0	1061	1558	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14			6			54			68	
Link Speed (k/h)		50			50			30			40	
Link Distance (m)		339.9			562.7			137.1			118.1	
Travel Time (s)		24.5			40.5			16.5			10.6	
Confl. Peds. (#/hr)	70		25	25		70	127		178	178		127
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	4%	4%	6%	4%	4%	8%	2%	2%	6%	6%	5%
Adj. Flow (vph)	68	772	67	63	682	28	74	65	65	41	92	115
Shared Lane Traffic (%)												
Lane Group Flow (vph)	68	839	0	63	710	0	74	130	0	41	207	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane		Yes										
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	0	0		0	0		1	1		1	1	
Detector Template		Thru		Left	Thru							
Leading Detector (m)	0.0	0.0		0.0	0.0		7.0	7.0		8.0	8.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		-2.0	-2.0		-2.0	-2.0	
Detector 1 Position(m)	11.5	0.0		0.0	0.0		-2.0	-2.0		-2.0	-2.0	
Detector 1 Size(m)	9.0	0.6		2.0	0.6		9.0	9.0		10.0	10.0	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Detector Phase	2	2		2	2		4	4		4	4	
Switch Phase												

Lanes, Volumes, Timings  
2: Havenwood Dr & Bloor St

2024 Existing AM  
06/28/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	35.0	35.0		35.0	35.0		41.5	41.5		41.5	41.5	
Total Split (s)	59.0	59.0		59.0	59.0		41.0	41.0		41.0	41.0	
Total Split (%)	59.0%	59.0%		59.0%	59.0%		41.0%	41.0%		41.0%	41.0%	
Maximum Green (s)	53.0	53.0		53.0	53.0		33.5	33.5		33.5	33.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.5	2.5		2.5	2.5		4.5	4.5		4.5	4.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		7.5	7.5		7.5	7.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	
Walk Time (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Flash Dont Walk (s)	19.0	19.0		19.0	19.0		24.0	24.0		24.0	24.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	70.9	70.9		70.9	70.9		15.6	15.6		15.6	15.6	
Actuated g/C Ratio	0.71	0.71		0.71	0.71		0.16	0.16		0.16	0.16	
v/c Ratio	0.14	0.34		0.16	0.29		0.60	0.44		0.25	0.69	
Control Delay	6.8	6.5		6.1	5.2		57.4	26.2		38.5	37.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	6.8	6.5		6.1	5.2		57.4	26.2		38.5	37.8	
LOS	A	A		A	A		E	C		D	D	
Approach Delay		6.6			5.3			37.5			37.9	
Approach LOS		A			A			D			D	

Intersection Summary

Area Type:	Other
Cycle Length:	100
Actuated Cycle Length:	100
Offset:	39 (39%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle:	80
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.69
Intersection Signal Delay:	12.7
Intersection LOS:	B
Intersection Capacity Utilization:	91.6%
ICU Level of Service:	F
Analysis Period (min):	15

Splits and Phases: 2: Havenwood Dr & Bloor St



Queues  
2: Havenwood Dr & Bloor St

2024 Existing AM  
06/28/2024



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	68	839	63	710	74	130	41	207
v/c Ratio	0.14	0.34	0.16	0.29	0.60	0.44	0.25	0.69
Control Delay	6.8	6.5	6.1	5.2	57.4	26.2	38.5	37.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.8	6.5	6.1	5.2	57.4	26.2	38.5	37.8
Queue Length 50th (m)	3.6	27.2	3.3	21.2	13.6	13.3	7.1	25.8
Queue Length 95th (m)	10.9	48.1	9.1	33.1	26.1	27.8	15.4	45.0
Internal Link Dist (m)		315.9		538.7		113.1		94.1
Turn Bay Length (m)	50.0		50.0		25.0		25.0	
Base Capacity (vph)	477	2448	405	2460	267	571	355	567
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.34	0.16	0.29	0.28	0.23	0.12	0.37

Intersection Summary

Lanes, Volumes, Timings  
3: Fieldgate Dr & Bloor St

2024 Existing AM  
06/28/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	172	606	38	26	433	61	63	56	72	152	43	183
Future Volume (vph)	172	606	38	26	433	61	63	56	72	152	43	183
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0		0.0	45.0		0.0	45.0		0.0	25.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	100.0			100.0			30.0			30.0		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.97	0.99		0.97	0.99		0.97	0.95		0.94	0.95	
Frt		0.991			0.982			0.916			0.879	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1772	3459	0	1825	3390	0	1738	1612	0	1789	1510	0
Flt Permitted	0.416			0.385			0.412			0.660		
Satd. Flow (perm)	754	3459	0	715	3390	0	728	1612	0	1162	1510	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			19			69			199	
Link Speed (k/h)		50			50			40			40	
Link Distance (m)		562.7			97.8			134.2			78.0	
Travel Time (s)		40.5			7.0			12.1			7.0	
Confl. Peds. (#/hr)	37		47	47		37	54		84	84		54
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	4%	3%	0%	4%	9%	5%	2%	5%	2%	3%	7%
Adj. Flow (vph)	187	659	41	28	471	66	68	61	78	165	47	199
Shared Lane Traffic (%)												
Lane Group Flow (vph)	187	700	0	28	537	0	68	139	0	165	246	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	0		0	0		1	1		1	1	
Detector Template		Thru		Left	Thru							
Leading Detector (m)	21.0	0.0		0.0	0.0		6.5	6.5		7.5	6.0	
Trailing Detector (m)	12.0	0.0		0.0	0.0		-2.5	-2.5		-1.5	-3.0	
Detector 1 Position(m)	12.0	0.0		0.0	0.0		-2.5	-2.5		-1.5	-3.0	
Detector 1 Size(m)	9.0	0.6		2.0	0.6		9.0	9.0		9.0	9.0	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	5	2			6			4				8
Permitted Phases	2			6			4			8		
Detector Phase	5	2		6	6		4	4		8	8	
Switch Phase												

Lanes, Volumes, Timings  
3: Fieldgate Dr & Bloor St

2024 Existing AM  
06/28/2024

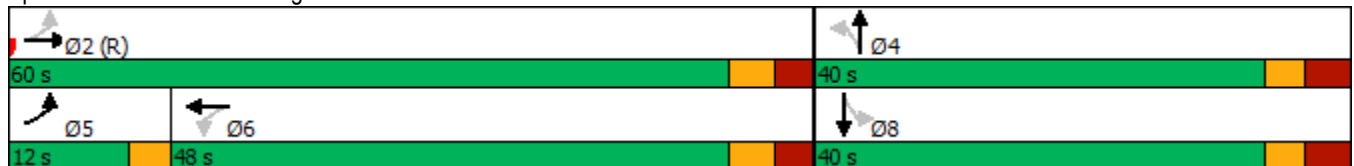


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	7.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	11.5	33.5		33.5	33.5		38.5	38.5		38.5	38.5	
Total Split (s)	12.0	60.0		48.0	48.0		40.0	40.0		40.0	40.0	
Total Split (%)	12.0%	60.0%		48.0%	48.0%		40.0%	40.0%		40.0%	40.0%	
Maximum Green (s)	9.0	53.5		41.5	41.5		33.5	33.5		33.5	33.5	
Yellow Time (s)	3.0	3.5		3.5	3.5		3.0	3.0		3.0	3.0	
All-Red Time (s)	0.0	3.0		3.0	3.0		3.5	3.5		3.5	3.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.0	6.5		6.5	6.5		6.5	6.5		6.5	6.5	
Lead/Lag	Lead			Lag								
Lead-Lag Optimize?	Yes			Yes								
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max		Max	Max		None	None		None	None	
Walk Time (s)		10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Flash Dont Walk (s)		17.0		17.0	17.0		22.0	22.0		22.0	22.0	
Pedestrian Calls (#/hr)		0		0	0		0	0		0	0	
Act Effct Green (s)	71.0	67.5		55.9	55.9		19.5	19.5		19.5	19.5	
Actuated g/C Ratio	0.71	0.68		0.56	0.56		0.20	0.20		0.20	0.20	
v/c Ratio	0.30	0.30		0.07	0.28		0.48	0.38		0.73	0.54	
Control Delay	11.9	13.9		14.1	13.0		45.3	19.7		55.3	12.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	11.9	13.9		14.1	13.0		45.3	19.7		55.3	12.5	
LOS	B	B		B	B		D	B		E	B	
Approach Delay		13.5			13.0			28.1			29.7	
Approach LOS		B			B			C			C	

Intersection Summary

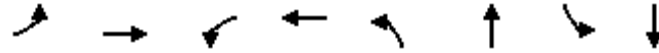
Area Type: Other  
 Cycle Length: 100  
 Actuated Cycle Length: 100  
 Offset: 10 (10%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 85  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.73  
 Intersection Signal Delay: 18.0  
 Intersection LOS: B  
 Intersection Capacity Utilization 86.6%  
 ICU Level of Service E  
 Analysis Period (min) 15

Splits and Phases: 3: Fieldgate Dr & Bloor St



Queues  
3: Fieldgate Dr & Bloor St

2024 Existing AM  
06/28/2024



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	187	700	28	537	68	139	165	246
v/c Ratio	0.30	0.30	0.07	0.28	0.48	0.38	0.73	0.54
Control Delay	11.9	13.9	14.1	13.0	45.3	19.7	55.3	12.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.9	13.9	14.1	13.0	45.3	19.7	55.3	12.5
Queue Length 50th (m)	12.8	39.4	2.3	25.4	11.8	11.5	30.3	7.6
Queue Length 95th (m)	41.4	71.4	8.4	46.3	23.0	25.3	47.6	26.5
Internal Link Dist (m)		538.7		73.8		110.2		54.0
Turn Bay Length (m)	50.0		45.0		45.0		25.0	
Base Capacity (vph)	633	2338	399	1901	243	585	389	638
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.30	0.07	0.28	0.28	0.24	0.42	0.39

Intersection Summary



Lanes, Volumes, Timings  
4: Bloor St & Fieldgate Plaza Access

2024 Existing AM  
06/28/2024



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↕		↕↕	
Traffic Volume (vph)	2	833	590	10	1	5
Future Volume (vph)	2	833	590	10	1	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt			0.997		0.887	
Flt Protected					0.992	
Satd. Flow (prot)	0	3510	3501	0	1690	0
Flt Permitted					0.992	
Satd. Flow (perm)	0	3510	3501	0	1690	0
Link Speed (k/h)		50	50		30	
Link Distance (m)		97.8	226.6		256.1	
Travel Time (s)		7.0	16.3		30.7	
Confl. Peds. (#/hr)	53			53	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	4%	4%	0%	0%	0%
Adj. Flow (vph)	2	905	641	11	1	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	907	652	0	6	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		3.7	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24			14	24	14
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	34.7%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis  
4: Bloor St & Fieldgate Plaza Access

2024 Existing AM  
06/28/2024



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↔		↔↔	
Traffic Volume (veh/h)	2	833	590	10	1	5
Future Volume (Veh/h)	2	833	590	10	1	5
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	905	641	11	1	5
Pedestrians		1	2		53	
Lane Width (m)		3.7	3.7		3.7	
Walking Speed (m/s)		1.1	1.1		1.1	
Percent Blockage		0	0		5	
Right turn flare (veh)						
Median type		None	None			
Median storage veh						
Upstream signal (m)		98				
pX, platoon unblocked					0.92	
vC, conflicting volume	705				1158	380
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	705				1009	380
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	99
cM capacity (veh/h)	856				210	591
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	
Volume Total	304	603	427	225	6	
Volume Left	2	0	0	0	1	
Volume Right	0	0	0	11	5	
cSH	856	1700	1700	1700	453	
Volume to Capacity	0.00	0.35	0.25	0.13	0.01	
Queue Length 95th (m)	0.1	0.0	0.0	0.0	0.3	
Control Delay (s)	0.1	0.0	0.0	0.0	13.0	
Lane LOS	A				B	
Approach Delay (s)	0.0		0.0		13.0	
Approach LOS					B	
Intersection Summary						
Average Delay			0.1			
Intersection Capacity Utilization			34.7%		ICU Level of Service	A
Analysis Period (min)			15			

Lanes, Volumes, Timings  
5: Fieldgate Dr & Fieldgate Plaza Access

2024 Existing AM  
06/28/2024



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	34	8	271	41	11	280
Future Volume (vph)	34	8	271	41	11	280
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	0.974		0.982			
Flt Protected	0.961					0.998
Satd. Flow (prot)	1677	0	1816	0	0	1846
Flt Permitted	0.961					0.998
Satd. Flow (perm)	1677	0	1816	0	0	1846
Link Speed (k/h)	30		40			40
Link Distance (m)	40.2		78.0			83.8
Travel Time (s)	4.8		7.0			7.5
Confl. Peds. (#/hr)	1	2		172	172	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	9%	0%	4%	3%	0%	4%
Adj. Flow (vph)	37	9	295	45	12	304
Shared Lane Traffic (%)						
Lane Group Flow (vph)	46	0	340	0	0	316
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.7		3.7			3.7
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	1.6		1.6			1.6
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24	14		14	24	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	34.3%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis  
5: Fieldgate Dr & Fieldgate Plaza Access

2024 Existing AM  
06/28/2024



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	34	8	271	41	11	280
Future Volume (Veh/h)	34	8	271	41	11	280
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	37	9	295	45	12	304
Pedestrians	172		1		2	
Lane Width (m)	3.7		3.7		3.7	
Walking Speed (m/s)	1.1		1.1		1.1	
Percent Blockage	17		0		0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)	78					
pX, platoon unblocked	0.97	0.97			0.97	
vC, conflicting volume	818	492			512	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	799	463			484	
tC, single (s)	6.5	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.6	3.3			2.2	
p0 queue free %	87	98			99	
cM capacity (veh/h)	275	487			881	
<b>Direction, Lane #</b>	<b>WB 1</b>	<b>NB 1</b>	<b>SB 1</b>			
Volume Total	46	340	316			
Volume Left	37	0	12			
Volume Right	9	45	0			
cSH	301	1700	881			
Volume to Capacity	0.15	0.20	0.01			
Queue Length 95th (m)	4.1	0.0	0.3			
Control Delay (s)	19.1	0.0	0.5			
Lane LOS	C		A			
Approach Delay (s)	19.1	0.0	0.5			
Approach LOS	C					
<b>Intersection Summary</b>						
Average Delay			1.5			
Intersection Capacity Utilization			34.3%	ICU Level of Service		A
Analysis Period (min)	15					

Lanes, Volumes, Timings  
6: Fieldgate Dr & Williamsport Dr

2024 Existing AM  
06/28/2024



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	32	72	50	235	217	44
Future Volume (vph)	32	72	50	235	217	44
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	0.907					0.977
Flt Protected	0.985					0.991
Satd. Flow (prot)	1716	0	0	1837	1793	0
Flt Permitted	0.985					0.991
Satd. Flow (perm)	1716	0	0	1837	1793	0
Link Speed (k/h)	40					40
Link Distance (m)	168.2					83.8
Travel Time (s)	15.1					6.2
Confl. Peds. (#/hr)	23	7	68			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	2%	4%	5%	3%
Adj. Flow (vph)	35	78	54	255	236	48
Shared Lane Traffic (%)						
Lane Group Flow (vph)	113	0	0	309	284	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7					0.0
Link Offset(m)	0.0					0.0
Crosswalk Width(m)	1.6					1.6
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24	14	24			
Sign Control	Stop					Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	48.1%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis  
6: Fieldgate Dr & Williamsport Dr










2024 Existing AM  
06/28/2024



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	32	72	50	235	217	44
Future Volume (Veh/h)	32	72	50	235	217	44
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	35	78	54	255	236	48
Pedestrians	68			7	23	
Lane Width (m)	3.7			3.7	3.7	
Walking Speed (m/s)	1.1			1.1	1.1	
Percent Blockage	7			1	2	
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (m)				162		
pX, platoon unblocked						
vC, conflicting volume	714	335	352			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	714	335	352			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	90	88	95			
cM capacity (veh/h)	348	660	1126			
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>NB 1</b>	<b>SB 1</b>			
Volume Total	113	309	284			
Volume Left	35	54	0			
Volume Right	78	0	48			
cSH	517	1126	1700			
Volume to Capacity	0.22	0.05	0.17			
Queue Length 95th (m)	6.3	1.1	0.0			
Control Delay (s)	13.9	1.8	0.0			
Lane LOS	B	A				
Approach Delay (s)	13.9	1.8	0.0			
Approach LOS	B					
<b>Intersection Summary</b>						
Average Delay	3.0					
Intersection Capacity Utilization	48.1%			ICU Level of Service	A	
Analysis Period (min)	15					










Lanes, Volumes, Timings  
7: Fieldgate Dr & Ponytrail Dr

2024 Existing AM  
06/28/2024

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	99	52	184	82	47	165
Future Volume (vph)	99	52	184	82	47	165
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	0.953		0.958			
Flt Protected	0.968					0.989
Satd. Flow (prot)	1663	0	1778	0	0	1843
Flt Permitted	0.968					0.989
Satd. Flow (perm)	1663	0	1778	0	0	1843
Link Speed (k/h)	30		40			30
Link Distance (m)	39.8		69.3			254.8
Travel Time (s)	4.8		6.2			30.6
Confl. Peds. (#/hr)	1	99		117	117	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	9%	2%	2%	7%	7%	2%
Adj. Flow (vph)	108	57	200	89	51	179
Shared Lane Traffic (%)						
Lane Group Flow (vph)	165	0	289	0	0	230
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.7		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	1.6		1.6			1.6
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24	14		14	24	
Sign Control	Stop		Stop			Stop
<b>Intersection Summary</b>						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	51.2%			ICU Level of Service A		
Analysis Period (min)	15					

HCM Unsignalized Intersection Capacity Analysis  
7: Fieldgate Dr & Ponytrail Dr

2024 Existing AM  
06/28/2024

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Stop			Stop
Traffic Volume (vph)	99	52	184	82	47	165
Future Volume (vph)	99	52	184	82	47	165
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	108	57	200	89	51	179
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total (vph)	165	289	230			
Volume Left (vph)	108	0	51			
Volume Right (vph)	57	89	0			
Hadj (s)	0.04	-0.12	0.10			
Departure Headway (s)	5.1	4.5	4.8			
Degree Utilization, x	0.24	0.36	0.31			
Capacity (veh/h)	643	766	716			
Control Delay (s)	9.7	10.1	9.9			
Approach Delay (s)	9.7	10.1	9.9			
Approach LOS	A	B	A			
Intersection Summary						
Delay			9.9			
Level of Service			A			
Intersection Capacity Utilization			51.2%	ICU Level of Service	A	
Analysis Period (min)			15			



Lanes, Volumes, Timings  
8: Fieldgate Plaza Access & Ponytrail Dr

2024 Existing AM  
06/28/2024



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	117	11	11	140	12	11
Future Volume (vph)	117	11	11	140	12	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
Ped Bike Factor						
Frt	0.988			0.935		
Flt Protected				0.996	0.975	
Satd. Flow (prot)	1784	0	0	1800	1673	0
Flt Permitted				0.996	0.975	
Satd. Flow (perm)	1784	0	0	1800	1673	0
Link Speed (k/h)	30			30	30	
Link Distance (m)	39.8			52.6	38.4	
Travel Time (s)	4.8			6.3	4.6	
Confl. Peds. (#/hr)	29		29	4		16
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	7%	0%	10%	6%	9%	0%
Adj. Flow (vph)	127	12	12	152	13	12
Shared Lane Traffic (%)						
Lane Group Flow (vph)	139	0	0	164	25	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	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	14		24	24		14
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	30.6%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis  
8: Fieldgate Plaza Access & Ponytrail Dr

2024 Existing AM  
06/28/2024



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↻			↻	↻	
Traffic Volume (veh/h)	117	11	11	140	12	11
Future Volume (Veh/h)	117	11	11	140	12	11
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	127	12	12	152	13	12
Pedestrians	4			16	29	
Lane Width (m)	3.7			3.7	3.7	
Walking Speed (m/s)	1.1			1.1	1.1	
Percent Blockage	0			2	3	
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			168		342	178
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			168		342	178
tC, single (s)			4.2		6.5	6.2
tC, 2 stage (s)						
tF (s)			2.3		3.6	3.3
p0 queue free %			99		98	99
cM capacity (veh/h)			1324		614	832
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>WB 1</b>	<b>NB 1</b>			
Volume Total	139	164	25			
Volume Left	0	12	13			
Volume Right	12	0	12			
cSH	1700	1324	702			
Volume to Capacity	0.08	0.01	0.04			
Queue Length 95th (m)	0.0	0.2	0.8			
Control Delay (s)	0.0	0.6	10.3			
Lane LOS		A	B			
Approach Delay (s)	0.0	0.6	10.3			
Approach LOS			B			
<b>Intersection Summary</b>						
Average Delay			1.1			
Intersection Capacity Utilization			30.6%	ICU Level of Service	A	
Analysis Period (min)			15			

Lanes, Volumes, Timings  
 9: Fieldgate Plaza Access & Ponytrail Dr

2024 Existing AM  
 06/28/2024



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	127	0	2	147	2	0
Future Volume (vph)	127	0	2	147	2	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				0.999	0.950	
Satd. Flow (prot)	1795	0	0	1795	1825	0
Flt Permitted				0.999	0.950	
Satd. Flow (perm)	1795	0	0	1795	1825	0
Link Speed (k/h)	30			30	30	
Link Distance (m)	52.6			151.2	256.1	
Travel Time (s)	6.3			18.1	30.7	
Confl. Peds. (#/hr)		101	101		3	4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	7%	2%	0%	7%	0%	2%
Adj. Flow (vph)	138	0	2	160	2	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	138	0	0	162	2	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	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)		14	24		24	14
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	24.4%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis  
 9: Fieldgate Plaza Access & Ponytrail Dr

2024 Existing AM  
 06/28/2024



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	→			←	↘	↙
Traffic Volume (veh/h)	127	0	2	147	2	0
Future Volume (Veh/h)	127	0	2	147	2	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	138	0	2	160	2	0
Pedestrians	3			4	101	
Lane Width (m)	3.7			3.7	3.7	
Walking Speed (m/s)	1.1			1.1	1.1	
Percent Blockage	0			0	10	
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			239		406	243
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			239		406	243
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1207		543	714
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>WB 1</b>	<b>NB 1</b>			
Volume Total	138	162	2			
Volume Left	0	2	2			
Volume Right	0	0	0			
cSH	1700	1207	543			
Volume to Capacity	0.08	0.00	0.00			
Queue Length 95th (m)	0.0	0.0	0.1			
Control Delay (s)	0.0	0.1	11.7			
Lane LOS	A		B			
Approach Delay (s)	0.0	0.1	11.7			
Approach LOS	B					
<b>Intersection Summary</b>						
Average Delay			0.1			
Intersection Capacity Utilization			24.4%	ICU Level of Service	A	
Analysis Period (min)			15			

Lanes, Volumes, Timings  
10: Fieldgate Dr & Haven Glenn

2024 Existing AM  
06/28/2024



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	49	45	37	200	163	42
Future Volume (vph)	49	45	37	200	163	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
Ped Bike Factor						
Frt	0.935				0.972	
Flt Protected	0.975			0.992		
Satd. Flow (prot)	1724	0	0	1872	1778	0
Flt Permitted	0.975			0.992		
Satd. Flow (perm)	1724	0	0	1872	1778	0
Link Speed (k/h)	40			30	30	
Link Distance (m)	258.3			254.8	440.5	
Travel Time (s)	23.2			30.6	52.9	
Confl. Peds. (#/hr)	43	104	20			20
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	0%	6%	1%	5%	5%
Adj. Flow (vph)	53	49	40	217	177	46
Shared Lane Traffic (%)						
Lane Group Flow (vph)	102	0	0	257	223	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24	14	24			14
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	48.2%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis  
 10: Fieldgate Dr & Haven Glenn

2024 Existing AM  
 06/28/2024



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	49	45	37	200	163	42
Future Volume (Veh/h)	49	45	37	200	163	42
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	53	49	40	217	177	46
Pedestrians	20			104	43	
Lane Width (m)	3.7			3.7	3.7	
Walking Speed (m/s)	1.1			1.1	1.1	
Percent Blockage	2			10	4	
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	560	324	243			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	560	324	243			
tC, single (s)	6.4	6.2	4.2			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.3			
p0 queue free %	88	92	97			
cM capacity (veh/h)	444	636	1275			
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>NB 1</b>	<b>SB 1</b>			
Volume Total	102	257	223			
Volume Left	53	40	0			
Volume Right	49	0	46			
cSH	519	1275	1700			
Volume to Capacity	0.20	0.03	0.13			
Queue Length 95th (m)	5.5	0.7	0.0			
Control Delay (s)	13.6	1.5	0.0			
Lane LOS	B	A				
Approach Delay (s)	13.6	1.5	0.0			
Approach LOS	B					
<b>Intersection Summary</b>						
Average Delay			3.0			
Intersection Capacity Utilization			48.2%	ICU Level of Service	A	
Analysis Period (min)			15			

Lanes, Volumes, Timings  
11: Fieldgate Dr & Burnhamthorpe Rd

2024 Existing AM  
06/28/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	37	995	186	51	647	30	140	97	79	65	75	58
Future Volume (vph)	37	995	186	51	647	30	140	97	79	65	75	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	30.0		25.0	30.0		30.0	15.0		0.0	65.0		65.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	30.0			45.0			40.0			75.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.97		0.94	0.99		0.90	0.97	0.97		0.97		0.96
Frt			0.850			0.850		0.932				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1644	3544	1585	1755	3510	1633	1807	1700	0	1789	1847	1526
Flt Permitted	0.374			0.239			0.704			0.437		
Satd. Flow (perm)	631	3544	1486	439	3510	1472	1302	1700	0	795	1847	1461
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			84			65		24				63
Link Speed (k/h)		60			60			40				50
Link Distance (m)		499.8			675.9			440.5				226.9
Travel Time (s)		30.0			40.6			39.6				16.3
Confl. Peds. (#/hr)	31		17	17		31	22		34	34		22
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	11%	3%	3%	4%	4%	0%	1%	3%	2%	2%	4%	7%
Adj. Flow (vph)	40	1082	202	55	703	33	152	105	86	71	82	63
Shared Lane Traffic (%)												
Lane Group Flow (vph)	40	1082	202	55	703	33	152	191	0	71	82	63
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7				3.7
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	0	0	0	0	0	0	1	1		1	1	0
Detector Template												
Leading Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	7.0	7.0		7.0	7.0	0.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	-2.0	-2.0		-2.0	-2.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	-2.0	-2.0		-2.0	-2.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	9.0	9.0		9.0	9.0	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases		2			6			4				8
Permitted Phases	2		2	6		6	4			8		8
Detector Phase	2	2	2	6	6	6	4	4		8	8	8
Switch Phase												

Lane Group	Ø1	Ø3	Ø5	Ø7
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (m)				
Storage Lanes				
Taper Length (m)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (k/h)				
Link Distance (m)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(m)				
Link Offset(m)				
Crosswalk Width(m)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (k/h)				
Number of Detectors				
Detector Template				
Leading Detector (m)				
Trailing Detector (m)				
Detector 1 Position(m)				
Detector 1 Size(m)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Turn Type				
Protected Phases	1	3	5	7
Permitted Phases				
Detector Phase				
Switch Phase				



Lanes, Volumes, Timings  
11: Fieldgate Dr & Burnhamthorpe Rd

2024 Existing AM  
06/28/2024

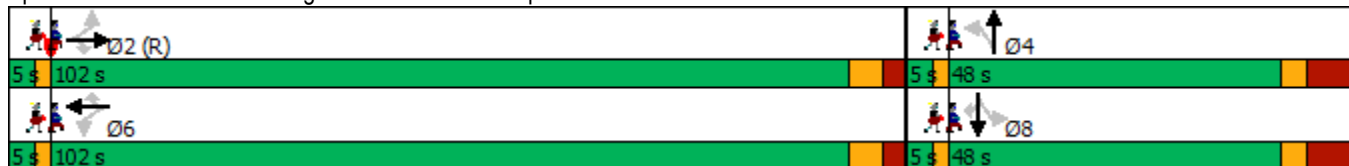


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	38.0	38.0	38.0	38.0	38.0	38.0	42.5	42.5		42.5	42.5	42.5
Total Split (s)	102.0	102.0	102.0	102.0	102.0	102.0	48.0	48.0		48.0	48.0	48.0
Total Split (%)	63.8%	63.8%	63.8%	63.8%	63.8%	63.8%	30.0%	30.0%		30.0%	30.0%	30.0%
Maximum Green (s)	95.0	95.0	95.0	95.0	95.0	95.0	39.5	39.5		39.5	39.5	39.5
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	5.5	5.5		5.5	5.5	5.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	8.5	8.5		8.5	8.5	8.5
Lead/Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lag		Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	C-Max	C-Max	C-Max	Max	Max	Max	None	None		None	None	None
Walk Time (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	10.0
Flash Dont Walk (s)	21.0	21.0	21.0	21.0	21.0	21.0	24.0	24.0		24.0	24.0	24.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	0
Act Effct Green (s)	120.3	120.3	120.3	120.3	120.3	120.3	24.2	24.2		24.2	24.2	24.2
Actuated g/C Ratio	0.75	0.75	0.75	0.75	0.75	0.75	0.15	0.15		0.15	0.15	0.15
v/c Ratio	0.08	0.41	0.18	0.17	0.27	0.03	0.78	0.69		0.59	0.29	0.23
Control Delay	7.1	8.2	4.2	7.4	6.2	0.0	89.5	68.1		81.6	61.1	13.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	7.1	8.2	4.2	7.4	6.2	0.0	89.5	68.1		81.6	61.1	13.4
LOS	A	A	A	A	A	A	F	E		F	E	B
Approach Delay		7.6			6.0			77.6			53.9	
Approach LOS		A			A			E			D	

Intersection Summary

Area Type: Other  
 Cycle Length: 160  
 Actuated Cycle Length: 160  
 Offset: 40 (25%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.78  
 Intersection Signal Delay: 19.8  
 Intersection LOS: B  
 Intersection Capacity Utilization 92.8%  
 ICU Level of Service F  
 Analysis Period (min) 15

Splits and Phases: 11: Fieldgate Dr & Burnhamthorpe Rd



Lane Group	Ø1	Ø3	Ø5	Ø7
Minimum Initial (s)	1.0	1.0	1.0	1.0
Minimum Split (s)	3.0	3.0	3.0	3.0
Total Split (s)	5.0	5.0	5.0	5.0
Total Split (%)	3%	3%	3%	3%
Maximum Green (s)	3.0	3.0	3.0	3.0
Yellow Time (s)	2.0	2.0	2.0	2.0
All-Red Time (s)	0.0	0.0	0.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None
Walk Time (s)				
Flash Dont Walk (s)				
Pedestrian Calls (#/hr)				
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Intersection Summary				

Queues  
11: Fieldgate Dr & Burnhamthorpe Rd

2024 Existing AM  
06/28/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	40	1082	202	55	703	33	152	191	71	82	63
v/c Ratio	0.08	0.41	0.18	0.17	0.27	0.03	0.78	0.69	0.59	0.29	0.23
Control Delay	7.1	8.2	4.2	7.4	6.2	0.0	89.5	68.1	81.6	61.1	13.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.1	8.2	4.2	7.4	6.2	0.0	89.5	68.1	81.6	61.1	13.4
Queue Length 50th (m)	3.0	58.3	9.1	4.2	31.4	0.0	47.2	51.2	21.4	23.5	0.0
Queue Length 95th (m)	8.3	86.9	20.8	8.6	36.2	0.0	68.6	73.8	37.1	38.0	13.2
Internal Link Dist (m)	475.8			651.9			416.5			202.9	
Turn Bay Length (m)	30.0		25.0	30.0		30.0	15.0		65.0		65.0
Base Capacity (vph)	474	2665	1138	330	2639	1122	321	437	196	455	408
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.41	0.18	0.17	0.27	0.03	0.47	0.44	0.36	0.18	0.15

Intersection Summary

Lanes, Volumes, Timings  
12: Ponytrail Dr & Burnhamthorpe Rd

2024 Existing AM  
06/28/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	1056	37	33	631	303	29	46	67	311	38	73
Future Volume (vph)	35	1056	37	33	631	303	29	46	67	311	38	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	35.0		30.0	35.0		30.0	15.0		0.0	40.0		45.0
Storage Lanes	1		1	1		1	1		0	2		1
Taper Length (m)	45.0			65.0			50.0			30.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Ped Bike Factor	0.99		0.96			0.93	1.00	0.98		0.97		0.98
Frt			0.850			0.850		0.911				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1630	3579	1471	1825	3476	1585	1755	1672	0	3471	1779	1555
Flt Permitted	0.243			0.227			0.730			0.950		
Satd. Flow (perm)	411	3579	1417	436	3476	1478	1343	1672	0	3351	1779	1530
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			116			187			43			79
Link Speed (k/h)		60			60			40				50
Link Distance (m)		675.9			242.1			944.6				165.5
Travel Time (s)		40.6			14.5			85.0				11.9
Confl. Peds. (#/hr)	20		7	7		20	3		17	17		3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	12%	2%	11%	0%	5%	3%	4%	3%	2%	2%	8%	5%
Adj. Flow (vph)	38	1148	40	36	686	329	32	50	73	338	41	79
Shared Lane Traffic (%)												
Lane Group Flow (vph)	38	1148	40	36	686	329	32	123	0	338	41	79
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			7.4				7.4
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2	1	1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0		2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6		2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4				9.4
Detector 2 Size(m)		0.6			0.6			0.6				0.6
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				0.0

Lane Group	Ø7	Ø9	Ø10	Ø11
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (m)				
Storage Lanes				
Taper Length (m)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (k/h)				
Link Distance (m)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(m)				
Link Offset(m)				
Crosswalk Width(m)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (k/h)				
Number of Detectors				
Detector Template				
Leading Detector (m)				
Trailing Detector (m)				
Detector 1 Position(m)				
Detector 1 Size(m)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(m)				
Detector 2 Size(m)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				

Lanes, Volumes, Timings  
12: Ponytrail Dr & Burnhamthorpe Rd

2024 Existing AM  
06/28/2024

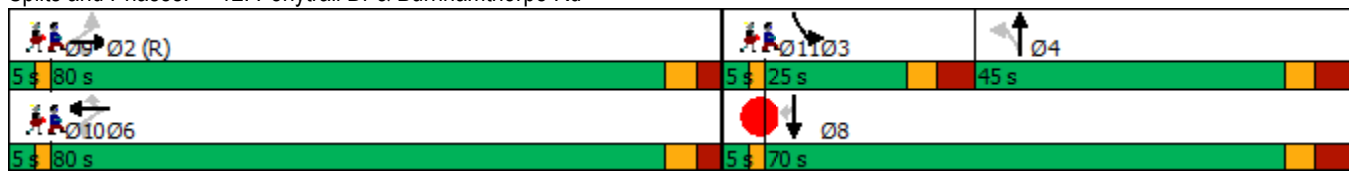


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Prot	NA	Perm
Protected Phases		2			6			4		3	8	
Permitted Phases	2		2	6		6	4					8
Detector Phase	2	2	2	6	6	6	4	4		3	8	8
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	40.0	40.0	40.0	42.0	42.0	42.0	41.0	41.0		18.0	41.0	41.0
Total Split (s)	80.0	80.0	80.0	80.0	80.0	80.0	45.0	45.0		25.0	70.0	70.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	28.1%	28.1%		15.6%	43.8%	43.8%
Maximum Green (s)	73.0	73.0	73.0	73.0	73.0	73.0	37.0	37.0		17.0	62.0	62.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	4.5	4.5		4.5	4.5	4.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	8.0	8.0		8.0	8.0	8.0
Lead/Lag												Lag
Lead-Lag Optimize?												Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	C-Max	C-Max	C-Max	Max	Max	Max	None	None		None	None	None
Walk Time (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0			10.0	10.0
Flash Dont Walk (s)	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0			23.0	23.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0			0	0
Act Effct Green (s)	93.6	93.6	93.6	73.0	73.0	73.0	13.9	13.9		17.0	38.9	38.9
Actuated g/C Ratio	0.58	0.58	0.58	0.46	0.46	0.46	0.09	0.09		0.11	0.24	0.24
v/c Ratio	0.16	0.55	0.05	0.18	0.43	0.42	0.28	0.67		0.92	0.09	0.18
Control Delay	14.8	17.0	0.1	29.0	30.5	13.6	72.6	62.8		100.2	46.0	9.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	14.8	17.0	0.1	29.0	30.5	13.6	72.6	62.8		100.2	46.0	9.3
LOS	B	B	A	C	C	B	E	E		F	D	A
Approach Delay		16.4			25.2			64.9			79.6	
Approach LOS		B			C			E			E	

Intersection Summary

Area Type: Other  
 Cycle Length: 160  
 Actuated Cycle Length: 160  
 Offset: 64 (40%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 110  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.92  
 Intersection Signal Delay: 32.2  
 Intersection LOS: C  
 Intersection Capacity Utilization 70.8%  
 ICU Level of Service C  
 Analysis Period (min) 15

Splits and Phases: 12: Ponytrail Dr & Burnhamthorpe Rd



Lane Group	Ø7	Ø9	Ø10	Ø11
Turn Type				
Protected Phases	7	9	10	11
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	1.0	1.0	1.0	1.0
Minimum Split (s)	3.0	3.0	3.0	3.0
Total Split (s)	5.0	5.0	5.0	5.0
Total Split (%)	3%	3%	3%	3%
Maximum Green (s)	3.0	3.0	3.0	3.0
Yellow Time (s)	2.0	2.0	2.0	2.0
All-Red Time (s)	0.0	0.0	0.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag				Lead
Lead-Lag Optimize?				Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0
Recall Mode	Ped	Ped	Ped	Ped
Walk Time (s)	0.0	0.0	0.0	0.0
Flash Dont Walk (s)	0.0	0.0	0.0	0.0
Pedestrian Calls (#/hr)	0	0	0	0
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Intersection Summary				

Queues  
12: Ponytrail Dr & Burnhamthorpe Rd

2024 Existing AM  
06/28/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	38	1148	40	36	686	329	32	123	338	41	79
v/c Ratio	0.16	0.55	0.05	0.18	0.43	0.42	0.28	0.67	0.92	0.09	0.18
Control Delay	14.8	17.0	0.1	29.0	30.5	13.6	72.6	62.8	100.2	46.0	9.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.8	17.0	0.1	29.0	30.5	13.6	72.6	62.8	100.2	46.0	9.3
Queue Length 50th (m)	4.2	68.1	0.0	6.7	76.9	28.2	9.8	25.1	55.8	10.3	0.0
Queue Length 95th (m)	8.5	75.7	0.0	15.5	93.6	53.5	20.3	46.0	#84.4	19.8	12.9
Internal Link Dist (m)		651.9			218.1			920.6		141.5	
Turn Bay Length (m)	35.0		30.0	35.0		30.0	15.0		40.0		45.0
Base Capacity (vph)	240	2093	877	198	1585	776	310	419	368	689	641
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.55	0.05	0.18	0.43	0.42	0.10	0.29	0.92	0.06	0.12

























Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.



Lanes, Volumes, Timings  
1: Dixie Rd & Bloor St

2024 Existing PM  
06/28/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	132	421	179	283	674	195	265	1272	348	123	1399	213
Future Volume (vph)	132	421	179	283	674	195	265	1272	348	123	1399	213
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		15.0	60.0		1.0	75.0		0.0	100.0		85.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	85.0			60.0			90.0			50.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.91	0.91	1.00	0.91	1.00
Ped Bike Factor	0.98		0.96	0.98		0.90		0.99		1.00		0.93
Fr <sub>t</sub>			0.850			0.850		0.968				0.850
Fl <sub>t</sub> Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1789	3544	1601	1789	3579	1617	1825	4917	0	1789	5092	1617
Fl <sub>t</sub> Permitted	0.136			0.351			0.062			0.075		
Satd. Flow (perm)	250	3544	1530	651	3579	1451	119	4917	0	141	5092	1502
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			88			88			52			173
Link Speed (k/h)		50			50			60			60	
Link Distance (m)		302.0			339.9			615.3			434.7	
Travel Time (s)		21.7			24.5			36.9			26.1	
Confl. Peds. (#/hr)	75		27	27		75	50		24	24		50
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	3%	2%	2%	2%	1%	0%	3%	0%	2%	3%	1%
Adj. Flow (vph)	143	458	195	308	733	212	288	1383	378	134	1521	232
Shared Lane Traffic (%)												
Lane Group Flow (vph)	143	458	195	308	733	212	288	1761	0	134	1521	232
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane					Yes							
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	2	1	1	1	1	1	1	0		1	0	0
Detector Template								Thru			Thru	Right
Leading Detector (m)	24.0	7.0	7.0	22.0	7.0	7.0	24.0	0.0		24.0	0.0	0.0
Trailing Detector (m)	-2.5	-2.0	-2.0	12.0	-2.0	-2.0	14.0	0.0		14.0	0.0	0.0
Detector 1 Position(m)	-2.5	-2.0	-2.0	12.0	-2.0	-2.0	14.0	0.0		14.0	0.0	0.0
Detector 1 Size(m)	10.0	9.0	9.0	10.0	9.0	9.0	10.0	0.6		10.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)	14.0											
Detector 2 Size(m)	10.0											
Detector 2 Type	Cl+Ex											
Detector 2 Channel												
Detector 2 Extend (s)	0.0											

Lanes, Volumes, Timings  
1: Dixie Rd & Bloor St

2024 Existing PM  
06/28/2024

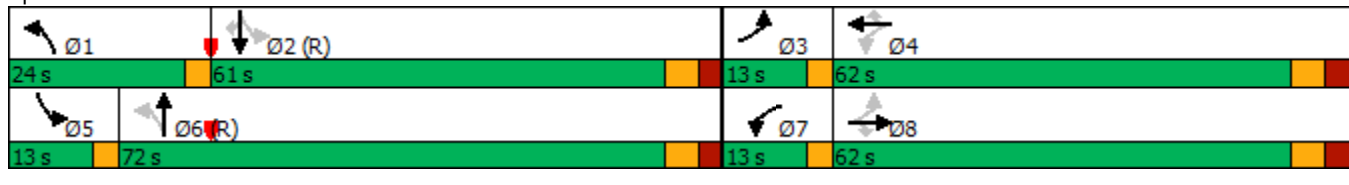


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	Perm
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8		8	4		4	6			2		2
Detector Phase	3	8	8	7	4	4	1	6		5	2	2
Switch Phase												
Minimum Initial (s)	7.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0		7.0	10.0	10.0
Minimum Split (s)	11.5	46.4	46.4	10.0	46.4	46.4	11.5	46.9		11.5	46.9	46.9
Total Split (s)	13.0	62.0	62.0	13.0	62.0	62.0	24.0	72.0		13.0	61.0	61.0
Total Split (%)	8.1%	38.8%	38.8%	8.1%	38.8%	38.8%	15.0%	45.0%		8.1%	38.1%	38.1%
Maximum Green (s)	10.0	54.6	54.6	10.0	54.6	54.6	21.0	65.1		10.0	54.1	54.1
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0		3.0	4.0	4.0
All-Red Time (s)	0.0	3.4	3.4	0.0	3.4	3.4	0.0	2.9		0.0	2.9	2.9
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	3.0	7.4	7.4	3.0	7.4	7.4	3.0	6.9		3.0	6.9	6.9
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	C-Max
Walk Time (s)		10.0	10.0		10.0	10.0		10.0			10.0	10.0
Flash Dont Walk (s)		29.0	29.0		29.0	29.0		30.0			30.0	30.0
Pedestrian Calls (#/hr)		0	0		0	0		0			0	0
Act Effct Green (s)	54.3	39.9	39.9	54.3	39.9	39.9	96.7	77.4		78.7	62.4	62.4
Actuated g/C Ratio	0.34	0.25	0.25	0.34	0.25	0.25	0.60	0.48		0.49	0.39	0.39
v/c Ratio	0.79	0.52	0.44	1.05	0.82	0.50	0.79	0.73		0.68	0.77	0.34
Control Delay	65.6	53.3	29.1	112.1	64.7	32.5	59.9	35.6		49.0	46.7	11.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	65.6	53.3	29.1	112.1	64.7	32.5	59.9	35.6		49.0	46.7	11.6
LOS	E	D	C	F	E	C	E	D		D	D	B
Approach Delay		49.6			70.9			39.0			42.5	
Approach LOS		D			E			D			D	

Intersection Summary

Area Type: Other  
 Cycle Length: 160  
 Actuated Cycle Length: 160  
 Offset: 74 (46%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.05  
 Intersection Signal Delay: 48.2  
 Intersection LOS: D  
 Intersection Capacity Utilization 106.3%  
 ICU Level of Service G  
 Analysis Period (min) 15

Splits and Phases: 1: Dixie Rd & Bloor St



Queues  
1: Dixie Rd & Bloor St

2024 Existing PM  
06/28/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	143	458	195	308	733	212	288	1761	134	1521	232
v/c Ratio	0.79	0.52	0.44	1.05	0.82	0.50	0.79	0.73	0.68	0.77	0.34
Control Delay	65.6	53.3	29.1	112.1	64.7	32.5	59.9	35.6	49.0	46.7	11.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.6	53.3	29.1	112.1	64.7	32.5	59.9	35.6	49.0	46.7	11.6
Queue Length 50th (m)	31.8	66.8	28.3	~82.8	117.2	33.8	70.2	157.1	21.7	154.7	12.0
Queue Length 95th (m)	#48.3	78.8	49.3	#127.6	131.3	56.1	#115.2	202.8	46.6	187.4	35.4
Internal Link Dist (m)		278.0			315.9			591.3		410.7	
Turn Bay Length (m)	40.0		15.0	60.0		1.0	75.0		100.0		85.0
Base Capacity (vph)	180	1209	580	292	1221	553	364	2404	202	1985	691
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.79	0.38	0.34	1.05	0.60	0.38	0.79	0.73	0.66	0.77	0.34

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Lanes, Volumes, Timings  
2: Havenwood Dr & Bloor St

2024 Existing PM  
06/28/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	89	765	58	47	1020	37	38	31	39	63	43	108
Future Volume (vph)	89	765	58	47	1020	37	38	31	39	63	43	108
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0		0.0	50.0		0.0	25.0		0.0	25.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	65.0			80.0			40.0			35.0		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99	1.00		0.99	1.00		0.98	0.97		0.96	0.97	
Frt		0.989			0.995			0.917			0.893	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1825	3526	0	1825	3553	0	1825	1705	0	1755	1664	0
Flt Permitted	0.222			0.303			0.594			0.708		
Satd. Flow (perm)	423	3526	0	575	3553	0	1113	1705	0	1252	1664	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			5			42			55	
Link Speed (k/h)		50			50			30			40	
Link Distance (m)		339.9			562.7			137.1			118.1	
Travel Time (s)		24.5			40.5			16.5			10.6	
Confl. Peds. (#/hr)	36		30	30		36	35		54	54		35
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	0%	0%	2%	0%	0%	0%	0%	4%	0%	0%
Adj. Flow (vph)	97	832	63	51	1109	40	41	34	42	68	47	117
Shared Lane Traffic (%)												
Lane Group Flow (vph)	97	895	0	51	1149	0	41	76	0	68	164	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane		Yes										
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	0	0		0	0		1	1		1	1	
Detector Template		Thru		Left	Thru							
Leading Detector (m)	0.0	0.0		0.0	0.0		7.0	7.0		8.0	8.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		-2.0	-2.0		-2.0	-2.0	
Detector 1 Position(m)	11.5	0.0		0.0	0.0		-2.0	-2.0		-2.0	-2.0	
Detector 1 Size(m)	9.0	0.6		2.0	0.6		9.0	9.0		10.0	10.0	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Detector Phase	2	2		2	2		4	4		4	4	
Switch Phase												

Lanes, Volumes, Timings  
2: Havenwood Dr & Bloor St

2024 Existing PM  
06/28/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	35.0	35.0		35.0	35.0		41.5	41.5		41.5	41.5	
Total Split (s)	59.0	59.0		59.0	59.0		41.0	41.0		41.0	41.0	
Total Split (%)	59.0%	59.0%		59.0%	59.0%		41.0%	41.0%		41.0%	41.0%	
Maximum Green (s)	53.0	53.0		53.0	53.0		33.5	33.5		33.5	33.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.5	2.5		2.5	2.5		4.5	4.5		4.5	4.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		7.5	7.5		7.5	7.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	
Walk Time (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Flash Dont Walk (s)	19.0	19.0		19.0	19.0		24.0	24.0		24.0	24.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	73.3	73.3		73.3	73.3		13.2	13.2		13.2	13.2	
Actuated g/C Ratio	0.73	0.73		0.73	0.73		0.13	0.13		0.13	0.13	
v/c Ratio	0.31	0.35		0.12	0.44		0.28	0.29		0.41	0.62	
Control Delay	8.8	5.5		3.6	3.6		42.6	22.4		46.4	36.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	8.8	5.5		3.6	3.6		42.6	22.4		46.4	36.6	
LOS	A	A		A	A		D	C		D	D	
Approach Delay		5.8			3.6			29.5			39.5	
Approach LOS		A			A			C			D	

Intersection Summary

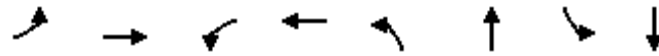
Area Type:	Other
Cycle Length:	100
Actuated Cycle Length:	100
Offset:	77 (77%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle:	90
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.62
Intersection Signal Delay:	8.9
Intersection LOS:	A
Intersection Capacity Utilization	85.6%
ICU Level of Service	E
Analysis Period (min)	15

Splits and Phases: 2: Havenwood Dr & Bloor St



Queues  
2: Havenwood Dr & Bloor St

2024 Existing PM  
06/28/2024



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	97	895	51	1149	41	76	68	164
v/c Ratio	0.31	0.35	0.12	0.44	0.28	0.29	0.41	0.62
Control Delay	8.8	5.5	3.6	3.6	42.6	22.4	46.4	36.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.8	5.5	3.6	3.6	42.6	22.4	46.4	36.6
Queue Length 50th (m)	5.2	25.6	1.8	22.2	7.4	6.0	12.4	20.2
Queue Length 95th (m)	16.8	45.1	m4.0	28.0	16.2	17.5	23.7	37.8
Internal Link Dist (m)		315.9		538.7		113.1		94.1
Turn Bay Length (m)	50.0		50.0		25.0		25.0	
Base Capacity (vph)	310	2588	421	2606	372	599	419	594
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.31	0.35	0.12	0.44	0.11	0.13	0.16	0.28

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lanes, Volumes, Timings  
3: Fieldgate Dr & Bloor St

2024 Existing PM  
06/28/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	113	637	58	70	896	70	60	38	55	146	81	116
Future Volume (vph)	113	637	58	70	896	70	60	38	55	146	81	116
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0		0.0	45.0		0.0	45.0		0.0	25.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	100.0			100.0			30.0			30.0		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.98	0.99		0.96	0.99		0.98	0.95		0.94	0.97	
Frt		0.987			0.989			0.911			0.912	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1825	3496	0	1825	3509	0	1789	1668	0	1807	1707	0
Flt Permitted	0.206			0.365			0.470			0.692		
Satd. Flow (perm)	389	3496	0	676	3509	0	865	1668	0	1238	1707	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		15			10			60			78	
Link Speed (k/h)		50			50			40			40	
Link Distance (m)		562.7			97.8			134.2			78.0	
Travel Time (s)		40.5			7.0			12.1			7.0	
Confl. Peds. (#/hr)	65		56	56		65	34		73	73		34
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	2%	0%	2%	0%	2%	0%	0%	1%	0%	0%
Adj. Flow (vph)	123	692	63	76	974	76	65	41	60	159	88	126
Shared Lane Traffic (%)												
Lane Group Flow (vph)	123	755	0	76	1050	0	65	101	0	159	214	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	0		0	0		1	1		1	1	
Detector Template		Thru		Left	Thru							
Leading Detector (m)	21.0	0.0		0.0	0.0		6.5	6.5		7.5	6.0	
Trailing Detector (m)	12.0	0.0		0.0	0.0		-2.5	-2.5		-1.5	-3.0	
Detector 1 Position(m)	12.0	0.0		0.0	0.0		-2.5	-2.5		-1.5	-3.0	
Detector 1 Size(m)	9.0	0.6		2.0	0.6		9.0	9.0		9.0	9.0	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	5	2			6			4				8
Permitted Phases	2			6			4			8		
Detector Phase	5	2		6	6		4	4		8	8	
Switch Phase												

Lanes, Volumes, Timings  
3: Fieldgate Dr & Bloor St

2024 Existing PM  
06/28/2024

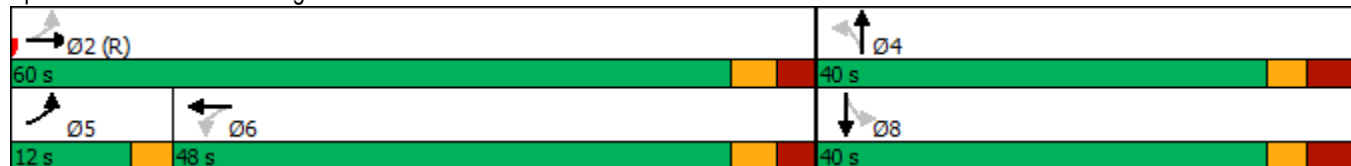


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	7.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	11.5	33.5		33.5	33.5		38.5	38.5		38.5	38.5	
Total Split (s)	12.0	60.0		48.0	48.0		40.0	40.0		40.0	40.0	
Total Split (%)	12.0%	60.0%		48.0%	48.0%		40.0%	40.0%		40.0%	40.0%	
Maximum Green (s)	9.0	53.5		41.5	41.5		33.5	33.5		33.5	33.5	
Yellow Time (s)	3.0	3.5		3.5	3.5		3.0	3.0		3.0	3.0	
All-Red Time (s)	0.0	3.0		3.0	3.0		3.5	3.5		3.5	3.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.0	6.5		6.5	6.5		6.5	6.5		6.5	6.5	
Lead/Lag	Lead			Lag								
Lead-Lag Optimize?	Yes			Yes								
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max		Max	Max		None	None		None	None	
Walk Time (s)		10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Flash Dont Walk (s)		17.0		17.0	17.0		22.0	22.0		22.0	22.0	
Pedestrian Calls (#/hr)		0		0	0		0	0		0	0	
Act Effct Green (s)	72.2	68.7		58.2	58.2		18.3	18.3		18.3	18.3	
Actuated g/C Ratio	0.72	0.69		0.58	0.58		0.18	0.18		0.18	0.18	
v/c Ratio	0.32	0.31		0.19	0.51		0.41	0.29		0.70	0.57	
Control Delay	12.0	13.2		13.7	14.6		42.0	17.0		53.9	28.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	12.0	13.2		13.7	14.6		42.0	17.0		53.9	28.2	
LOS	B	B		B	B		D	B		D	C	
Approach Delay		13.0			14.5			26.8			39.2	
Approach LOS		B			B			C			D	

Intersection Summary

Area Type: Other  
 Cycle Length: 100  
 Actuated Cycle Length: 100  
 Offset: 41 (41%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 85  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.70  
 Intersection Signal Delay: 18.4  
 Intersection LOS: B  
 Intersection Capacity Utilization 86.6%  
 ICU Level of Service E  
 Analysis Period (min) 15

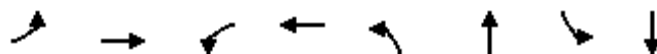
Splits and Phases: 3: Fieldgate Dr & Bloor St





Queues  
3: Fieldgate Dr & Bloor St

2024 Existing PM  
06/28/2024



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	123	755	76	1050	65	101	159	214
v/c Ratio	0.32	0.31	0.19	0.51	0.41	0.29	0.70	0.57
Control Delay	12.0	13.2	13.7	14.6	42.0	17.0	53.9	28.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.0	13.2	13.7	14.6	42.0	17.0	53.9	28.2
Queue Length 50th (m)	10.4	45.0	6.4	58.1	11.3	6.7	29.2	23.8
Queue Length 95th (m)	24.9	67.4	17.8	94.7	22.1	18.5	46.1	41.9
Internal Link Dist (m)		538.7		73.8		110.2		54.0
Turn Bay Length (m)	50.0		45.0		45.0		25.0	
Base Capacity (vph)	410	2406	393	2045	289	598	414	623
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.31	0.19	0.51	0.22	0.17	0.38	0.34

Intersection Summary

Lanes, Volumes, Timings  
4: Bloor St & Fieldgate Plaza Access

2024 Existing PM  
06/28/2024



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↕		↕↕	
Traffic Volume (vph)	1	854	1079	18	7	5
Future Volume (vph)	1	854	1079	18	7	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt			0.997		0.948	
Flt Protected					0.970	
Satd. Flow (prot)	0	3579	3639	0	1767	0
Flt Permitted					0.970	
Satd. Flow (perm)	0	3579	3639	0	1767	0
Link Speed (k/h)		50	50		30	
Link Distance (m)		97.8	226.6		256.1	
Travel Time (s)		7.0	16.3		30.7	
Confl. Peds. (#/hr)	93			93	3	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	0%	0%	0%	0%
Adj. Flow (vph)	1	928	1173	20	8	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	929	1193	0	13	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		3.7	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24			14	24	14
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	41.4%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis  
4: Bloor St & Fieldgate Plaza Access

2024 Existing PM  
06/28/2024



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↔		↔↔	
Traffic Volume (veh/h)	1	854	1079	18	7	5
Future Volume (Veh/h)	1	854	1079	18	7	5
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	928	1173	20	8	5
Pedestrians		3	3		93	
Lane Width (m)		3.7	3.7		3.7	
Walking Speed (m/s)		1.1	1.1		1.1	
Percent Blockage		0	0		9	
Right turn flare (veh)						
Median type		None	None			
Median storage veh						
Upstream signal (m)		98				
pX, platoon unblocked					0.92	
vC, conflicting volume	1286				1745	692
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1286				1639	692
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				90	99
cM capacity (veh/h)	496				78	354
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	
Volume Total	310	619	782	411	13	
Volume Left	1	0	0	0	8	
Volume Right	0	0	0	20	5	
cSH	496	1700	1700	1700	111	
Volume to Capacity	0.00	0.36	0.46	0.24	0.12	
Queue Length 95th (m)	0.0	0.0	0.0	0.0	2.9	
Control Delay (s)	0.1	0.0	0.0	0.0	41.7	
Lane LOS	A				E	
Approach Delay (s)	0.0		0.0		41.7	
Approach LOS					E	
Intersection Summary						
Average Delay			0.3			
Intersection Capacity Utilization			41.4%		ICU Level of Service	A
Analysis Period (min)			15			

Lanes, Volumes, Timings  
5: Fieldgate Dr & Fieldgate Plaza Access

2024 Existing PM  
06/28/2024



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	51	10	191	61	12	268
Future Volume (vph)	51	10	191	61	12	268
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	0.977		0.967			
Flt Protected	0.960					0.998
Satd. Flow (prot)	1802	0	1821	0	0	1917
Flt Permitted	0.960					0.998
Satd. Flow (perm)	1802	0	1821	0	0	1917
Link Speed (k/h)	30		40			40
Link Distance (m)	40.2		78.0			83.8
Travel Time (s)	4.8		7.0			7.5
Confl. Peds. (#/hr)	2	3		46	46	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	2%	2%	0%	0%
Adj. Flow (vph)	55	11	208	66	13	291
Shared Lane Traffic (%)						
Lane Group Flow (vph)	66	0	274	0	0	304
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.7		3.7			3.7
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	1.6		1.6			1.6
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24	14		14	24	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	34.9%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis  
5: Fieldgate Dr & Fieldgate Plaza Access

2024 Existing PM  
06/28/2024



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	51	10	191	61	12	268
Future Volume (Veh/h)	51	10	191	61	12	268
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	55	11	208	66	13	291
Pedestrians	46		2		3	
Lane Width (m)	3.7		3.7		3.7	
Walking Speed (m/s)	1.1		1.1		1.1	
Percent Blockage	5		0		0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)	78					
pX, platoon unblocked	0.99	0.99			0.99	
vC, conflicting volume	606	290			320	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	601	283			313	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	87	98			99	
cM capacity (veh/h)	437	720			1195	
<b>Direction, Lane #</b>	<b>WB 1</b>	<b>NB 1</b>	<b>SB 1</b>			
Volume Total	66	274	304			
Volume Left	55	0	13			
Volume Right	11	66	0			
cSH	468	1700	1195			
Volume to Capacity	0.14	0.16	0.01			
Queue Length 95th (m)	3.7	0.0	0.3			
Control Delay (s)	14.0	0.0	0.4			
Lane LOS	B		A			
Approach Delay (s)	14.0	0.0	0.4			
Approach LOS	B					
<b>Intersection Summary</b>						
Average Delay			1.6			
Intersection Capacity Utilization			34.9%	ICU Level of Service		A
Analysis Period (min)	15					

Lanes, Volumes, Timings  
6: Fieldgate Dr & Williamsport Dr

2024 Existing PM  
06/28/2024



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	29	68	46	145	217	27
Future Volume (vph)	29	68	46	145	217	27
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	0.906					0.985
Flt Protected	0.985					0.988
Satd. Flow (prot)	1694	0	0	1870	1892	0
Flt Permitted	0.985					0.988
Satd. Flow (perm)	1694	0	0	1870	1892	0
Link Speed (k/h)	40					40
Link Distance (m)	168.2					83.8
Travel Time (s)	15.1					6.2
Confl. Peds. (#/hr)	41					30
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	4%	0%	0%	2%	0%	0%
Adj. Flow (vph)	32	74	50	158	236	29
Shared Lane Traffic (%)						
Lane Group Flow (vph)	106	0	0	208	265	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7					0.0
Link Offset(m)	0.0					0.0
Crosswalk Width(m)	1.6					1.6
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24	14	24			
Sign Control	Stop					Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	39.3%
Analysis Period (min)	15
	ICU Level of Service A

HCM Unsignalized Intersection Capacity Analysis  
6: Fieldgate Dr & Williamsport Dr

2024 Existing PM  
06/28/2024



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	29	68	46	145	217	27
Future Volume (Veh/h)	29	68	46	145	217	27
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	32	74	50	158	236	29
Pedestrians	30			41		
Lane Width (m)	3.7			3.7		
Walking Speed (m/s)	1.1			1.1		
Percent Blockage	3			4		
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (m)	162					
pX, platoon unblocked						
vC, conflicting volume	580	280	295			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	580	280	295			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	92	90	96			
cM capacity (veh/h)	423	741	1240			
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>NB 1</b>	<b>SB 1</b>			
Volume Total	106	208	265			
Volume Left	32	50	0			
Volume Right	74	0	29			
cSH	604	1240	1700			
Volume to Capacity	0.18	0.04	0.16			
Queue Length 95th (m)	4.8	1.0	0.0			
Control Delay (s)	12.2	2.2	0.0			
Lane LOS	B	A				
Approach Delay (s)	12.2	2.2	0.0			
Approach LOS	B					
<b>Intersection Summary</b>						
Average Delay			3.0			
Intersection Capacity Utilization			39.3%	ICU Level of Service	A	
Analysis Period (min)			15			

Lanes, Volumes, Timings  
7: Fieldgate Dr & Ponytrail Dr

2024 Existing PM  
06/28/2024



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	64	45	99	78	53	179
Future Volume (vph)	64	45	99	78	53	179
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	0.944		0.941			
Flt Protected	0.971					0.989
Satd. Flow (prot)	1739	0	1765	0	0	1900
Flt Permitted	0.971					0.989
Satd. Flow (perm)	1739	0	1765	0	0	1900
Link Speed (k/h)	30		40			30
Link Distance (m)	39.8		69.3			254.8
Travel Time (s)	4.8		6.2			30.6
Confl. Peds. (#/hr)	1	18		31	31	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	3%	2%	3%	0%	0%
Adj. Flow (vph)	70	49	108	85	58	195
Shared Lane Traffic (%)						
Lane Group Flow (vph)	119	0	193	0	0	253
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.7		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	1.6		1.6			1.6
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24	14		14	24	
Sign Control	Stop		Stop			Stop
<b>Intersection Summary</b>						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	44.8%			ICU Level of Service A		
Analysis Period (min)	15					



HCM Unsignalized Intersection Capacity Analysis  
7: Fieldgate Dr & Ponytrail Dr

2024 Existing PM  
06/28/2024



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Stop			Stop
Traffic Volume (vph)	64	45	99	78	53	179
Future Volume (vph)	64	45	99	78	53	179
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	70	49	108	85	58	195
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total (vph)	119	193	253			
Volume Left (vph)	70	0	58			
Volume Right (vph)	49	85	0			
Hadj (s)	-0.11	-0.22	0.05			
Departure Headway (s)	4.8	4.3	4.5			
Degree Utilization, x	0.16	0.23	0.31			
Capacity (veh/h)	689	810	776			
Control Delay (s)	8.7	8.5	9.5			
Approach Delay (s)	8.7	8.5	9.5			
Approach LOS	A	A	A			
Intersection Summary						
Delay			9.0			
Level of Service			A			
Intersection Capacity Utilization			44.8%	ICU Level of Service	A	
Analysis Period (min)			15			

Lanes, Volumes, Timings  
8: Fieldgate Plaza Access & Ponytrail Dr

2024 Existing PM  
06/28/2024



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	90	25	8	98	32	16
Future Volume (vph)	90	25	8	98	32	16
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	0.971			0.956		
Flt Protected				0.996	0.967	
Satd. Flow (prot)	1865	0	0	1879	1776	0
Flt Permitted				0.996	0.967	
Satd. Flow (perm)	1865	0	0	1879	1776	0
Link Speed (k/h)	30			30	30	
Link Distance (m)	39.8			52.6	38.4	
Travel Time (s)	4.8			6.3	4.6	
Confl. Peds. (#/hr)	19		19	3		6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	2%	0%	0%
Adj. Flow (vph)	98	27	9	107	35	17
Shared Lane Traffic (%)						
Lane Group Flow (vph)	125	0	0	116	52	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	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	14		24	24		14
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	23.6%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis  
 8: Fieldgate Plaza Access & Ponytrail Dr

2024 Existing PM  
 06/28/2024



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↔	↔	
Traffic Volume (veh/h)	90	25	8	98	32	16
Future Volume (Veh/h)	90	25	8	98	32	16
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	98	27	9	107	35	17
Pedestrians	3			6	19	
Lane Width (m)	3.7			3.7	3.7	
Walking Speed (m/s)	1.1			1.1	1.1	
Percent Blockage	0			1	2	
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			144		258	136
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			144		258	136
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		95	98
cM capacity (veh/h)			1424		714	895
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>WB 1</b>	<b>NB 1</b>			
Volume Total	125	116	52			
Volume Left	0	9	35			
Volume Right	27	0	17			
cSH	1700	1424	765			
Volume to Capacity	0.07	0.01	0.07			
Queue Length 95th (m)	0.0	0.1	1.7			
Control Delay (s)	0.0	0.6	10.1			
Lane LOS			A			B
Approach Delay (s)	0.0	0.6	10.1			
Approach LOS			B			
<b>Intersection Summary</b>						
Average Delay			2.0			
Intersection Capacity Utilization			23.6%	ICU Level of Service	A	
Analysis Period (min)			15			

Lanes, Volumes, Timings  
 9: Fieldgate Plaza Access & Ponytrail Dr

2024 Existing PM  
 06/28/2024



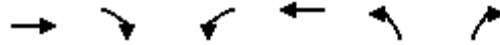
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	111	1	2	99	1	1
Future Volume (vph)	111	1	2	99	1	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.999			0.932		
Flt Protected				0.999	0.976	
Satd. Flow (prot)	1900	0	0	1882	1748	0
Flt Permitted				0.999	0.976	
Satd. Flow (perm)	1900	0	0	1882	1748	0
Link Speed (k/h)	30			30	30	
Link Distance (m)	52.6			151.2	256.1	
Travel Time (s)	6.3			18.1	30.7	
Confl. Peds. (#/hr)	59		59		1	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	0%	0%	2%	0%	0%
Adj. Flow (vph)	121	1	2	108	1	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	122	0	0	110	2	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	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	14		24	24		14
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	22.9%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis  
 9: Fieldgate Plaza Access & Ponytrail Dr

2024 Existing PM  
 06/28/2024



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↔	↔	
Traffic Volume (veh/h)	111	1	2	99	1	1
Future Volume (Veh/h)	111	1	2	99	1	1
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	121	1	2	108	1	1
Pedestrians	1			2	59	
Lane Width (m)	3.7			3.7	3.7	
Walking Speed (m/s)	1.1			1.1	1.1	
Percent Blockage	0			0	6	
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			181		294	182
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			181		294	182
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1325		659	814
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>WB 1</b>	<b>NB 1</b>			
Volume Total	122	110	2			
Volume Left	0	2	1			
Volume Right	1	0	1			
cSH	1700	1325	728			
Volume to Capacity	0.07	0.00	0.00			
Queue Length 95th (m)	0.0	0.0	0.1			
Control Delay (s)	0.0	0.2	10.0			
Lane LOS			A			
Approach Delay (s)	0.0	0.2	10.0			
Approach LOS			A			
<b>Intersection Summary</b>						
Average Delay			0.2			
Intersection Capacity Utilization			22.9%	ICU Level of Service	A	
Analysis Period (min)			15			

Lanes, Volumes, Timings  
10: Fieldgate Dr & Haven Glenn

2024 Existing PM  
06/28/2024



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	12	27	32	122	194	16
Future Volume (vph)	12	27	32	122	194	16
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	0.907			0.990		
Flt Protected	0.985			0.990		
Satd. Flow (prot)	1716	0	0	1875	1867	0
Flt Permitted	0.985			0.990		
Satd. Flow (perm)	1716	0	0	1875	1867	0
Link Speed (k/h)	40			30	30	
Link Distance (m)	258.3			254.8	440.5	
Travel Time (s)	23.2			30.6	52.9	
Confl. Peds. (#/hr)	2	28	4			4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	7%	0%	1%	13%
Adj. Flow (vph)	13	29	35	133	211	17
Shared Lane Traffic (%)						
Lane Group Flow (vph)	42	0	0	168	228	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24	14	24			14
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	39.4%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis  
 10: Fieldgate Dr & Haven Glenn

2024 Existing PM  
 06/28/2024



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	12	27	32	122	194	16
Future Volume (Veh/h)	12	27	32	122	194	16
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	13	29	35	133	211	17
Pedestrians	4			28	2	
Lane Width (m)	3.7			3.7	3.7	
Walking Speed (m/s)	1.1			1.1	1.1	
Percent Blockage	0			3	0	
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	428	252	232			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	428	252	232			
tC, single (s)	6.4	6.2	4.2			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.3			
p0 queue free %	98	96	97			
cM capacity (veh/h)	568	767	1302			
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>NB 1</b>	<b>SB 1</b>			
Volume Total	42	168	228			
Volume Left	13	35	0			
Volume Right	29	0	17			
cSH	692	1302	1700			
Volume to Capacity	0.06	0.03	0.13			
Queue Length 95th (m)	1.5	0.6	0.0			
Control Delay (s)	10.5	1.8	0.0			
Lane LOS	B	A				
Approach Delay (s)	10.5	1.8	0.0			
Approach LOS	B					
<b>Intersection Summary</b>						
Average Delay			1.7			
Intersection Capacity Utilization			39.4%	ICU Level of Service	A	
Analysis Period (min)			15			

Lanes, Volumes, Timings  
11: Fieldgate Dr & Burnhamthorpe Rd

2024 Existing PM  
06/28/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	61	956	105	55	1042	47	47	43	38	52	104	49
Future Volume (vph)	61	956	105	55	1042	47	47	43	38	52	104	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	30.0		25.0	30.0		30.0	15.0		0.0	65.0		65.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	30.0			45.0			40.0			75.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99		0.93	0.99		0.93	0.98	0.99		0.99		0.96
Frt			0.850			0.850		0.930				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1825	3579	1617	1825	3579	1633	1738	1765	0	1825	1921	1633
Flt Permitted	0.235			0.262			0.629			0.700		
Satd. Flow (perm)	448	3579	1507	500	3579	1514	1127	1765	0	1328	1921	1575
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			65			65		26				55
Link Speed (k/h)		60			60			40				50
Link Distance (m)		499.8			675.9			440.5				226.9
Travel Time (s)		30.0			40.6			39.6				16.3
Confl. Peds. (#/hr)	21		19	19		21	17		10	10		17
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	1%	0%	2%	0%	5%	0%	0%	0%	0%	0%
Adj. Flow (vph)	66	1039	114	60	1133	51	51	47	41	57	113	53
Shared Lane Traffic (%)												
Lane Group Flow (vph)	66	1039	114	60	1133	51	51	88	0	57	113	53
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7				3.7
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	0	0	0	0	0	0	1	1		1	1	0
Detector Template												
Leading Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	7.0	7.0		7.0	7.0	0.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	-2.0	-2.0		-2.0	-2.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	-2.0	-2.0		-2.0	-2.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	9.0	9.0		9.0	9.0	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases		2			6			4				8
Permitted Phases	2		2	6		6	4			8		8
Detector Phase	2	2	2	6	6	6	4	4		8	8	8
Switch Phase												



Lane Group	Ø1	Ø3	Ø5	Ø7
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (m)				
Storage Lanes				
Taper Length (m)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (k/h)				
Link Distance (m)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(m)				
Link Offset(m)				
Crosswalk Width(m)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (k/h)				
Number of Detectors				
Detector Template				
Leading Detector (m)				
Trailing Detector (m)				
Detector 1 Position(m)				
Detector 1 Size(m)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Turn Type				
Protected Phases	1	3	5	7
Permitted Phases				
Detector Phase				
Switch Phase				

Lanes, Volumes, Timings  
11: Fieldgate Dr & Burnhamthorpe Rd

2024 Existing PM  
06/28/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	38.0	38.0	38.0	38.0	38.0	38.0	42.5	42.5		42.5	42.5	42.5
Total Split (s)	102.0	102.0	102.0	102.0	102.0	102.0	48.0	48.0		48.0	48.0	48.0
Total Split (%)	63.8%	63.8%	63.8%	63.8%	63.8%	63.8%	30.0%	30.0%		30.0%	30.0%	30.0%
Maximum Green (s)	95.0	95.0	95.0	95.0	95.0	95.0	39.5	39.5		39.5	39.5	39.5
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	5.5	5.5		5.5	5.5	5.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	8.5	8.5		8.5	8.5	8.5
Lead/Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lag		Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	C-Max	C-Max	C-Max	Max	Max	Max	None	None		None	None	None
Walk Time (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	10.0
Flash Dont Walk (s)	21.0	21.0	21.0	21.0	21.0	21.0	24.0	24.0		24.0	24.0	24.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	0
Act Effct Green (s)	129.5	129.5	129.5	129.5	129.5	129.5	15.0	15.0		15.0	15.0	15.0
Actuated g/C Ratio	0.81	0.81	0.81	0.81	0.81	0.81	0.09	0.09		0.09	0.09	0.09
v/c Ratio	0.18	0.36	0.09	0.15	0.39	0.04	0.49	0.47		0.46	0.63	0.27
Control Delay	5.2	4.7	1.8	3.5	3.3	0.2	83.2	55.3		79.5	84.8	17.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	5.2	4.7	1.8	3.5	3.3	0.2	83.2	55.3		79.5	84.8	17.2
LOS	A	A	A	A	A	A	F	E		E	F	B
Approach Delay		4.5			3.1			65.6			67.3	
Approach LOS		A			A			E			E	

Intersection Summary

Area Type:	Other
Cycle Length:	160
Actuated Cycle Length:	160
Offset:	117 (73%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle:	90
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.63
Intersection Signal Delay:	11.9
Intersection LOS:	B
Intersection Capacity Utilization:	74.1%
ICU Level of Service:	D
Analysis Period (min):	15

Splits and Phases: 11: Fieldgate Dr & Burnhamthorpe Rd



Lane Group	Ø1	Ø3	Ø5	Ø7
Minimum Initial (s)	1.0	1.0	1.0	1.0
Minimum Split (s)	3.0	3.0	3.0	3.0
Total Split (s)	5.0	5.0	5.0	5.0
Total Split (%)	3%	3%	3%	3%
Maximum Green (s)	3.0	3.0	3.0	3.0
Yellow Time (s)	2.0	2.0	2.0	2.0
All-Red Time (s)	0.0	0.0	0.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None
Walk Time (s)				
Flash Dont Walk (s)				
Pedestrian Calls (#/hr)				
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Intersection Summary				

Queues  
11: Fieldgate Dr & Burnhamthorpe Rd

2024 Existing PM  
06/28/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	66	1039	114	60	1133	51	51	88	57	113	53
v/c Ratio	0.18	0.36	0.09	0.15	0.39	0.04	0.49	0.47	0.46	0.63	0.27
Control Delay	5.2	4.7	1.8	3.5	3.3	0.2	83.2	55.3	79.5	84.8	17.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.2	4.7	1.8	3.5	3.3	0.2	83.2	55.3	79.5	84.8	17.2
Queue Length 50th (m)	4.0	39.7	2.6	2.4	24.4	0.0	15.7	18.9	17.5	35.3	0.0
Queue Length 95th (m)	9.9	57.1	7.6	m4.1	30.8	m0.2	29.7	36.3	31.8	54.7	12.8
Internal Link Dist (m)		475.8			651.9			416.5		202.9	
Turn Bay Length (m)	30.0		25.0	30.0		30.0	15.0		65.0		65.0
Base Capacity (vph)	362	2897	1232	404	2897	1237	278	455	327	474	430
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.36	0.09	0.15	0.39	0.04	0.18	0.19	0.17	0.24	0.12

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lanes, Volumes, Timings  
12: Ponytrail Dr & Burnhamthorpe Rd

2024 Existing PM  
06/28/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	55	924	29	53	1015	560	19	41	33	371	46	62
Future Volume (vph)	55	924	29	53	1015	560	19	41	33	371	46	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	35.0		30.0	35.0		30.0	15.0		0.0	40.0		45.0
Storage Lanes	1		1	1		1	1		0	2		1
Taper Length (m)	45.0			65.0			50.0			30.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Ped Bike Factor			0.96	1.00		0.91	1.00	0.99		0.98		0.99
Frt			0.850			0.850		0.933				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1789	3579	1633	1722	3579	1601	1722	1771	0	3471	1921	1601
Flt Permitted	0.109			0.273			0.724			0.950		
Satd. Flow (perm)	205	3579	1565	493	3579	1462	1310	1771	0	3396	1921	1579
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			116			215		22				67
Link Speed (k/h)		60			60			40				50
Link Distance (m)		675.9			242.1			944.6				165.5
Travel Time (s)		40.6			14.5			85.0				11.9
Confl. Peds. (#/hr)	28		9	9		28	1		10	10		1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	0%	6%	2%	2%	6%	0%	0%	2%	0%	2%
Adj. Flow (vph)	60	1004	32	58	1103	609	21	45	36	403	50	67
Shared Lane Traffic (%)												
Lane Group Flow (vph)	60	1004	32	58	1103	609	21	81	0	403	50	67
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			7.4				7.4
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2	1	1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0		2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6		2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4				9.4
Detector 2 Size(m)		0.6			0.6			0.6				0.6
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				0.0

Lane Group	Ø7	Ø9	Ø10	Ø11
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (m)				
Storage Lanes				
Taper Length (m)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (k/h)				
Link Distance (m)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(m)				
Link Offset(m)				
Crosswalk Width(m)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (k/h)				
Number of Detectors				
Detector Template				
Leading Detector (m)				
Trailing Detector (m)				
Detector 1 Position(m)				
Detector 1 Size(m)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(m)				
Detector 2 Size(m)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				

Lanes, Volumes, Timings  
12: Ponytrail Dr & Burnhamthorpe Rd

2024 Existing PM  
06/28/2024

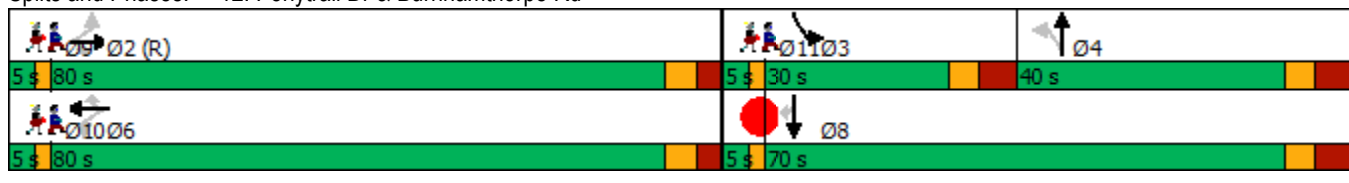


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Prot	NA	Perm
Protected Phases		2			6			4		3	8	
Permitted Phases	2		2	6		6	4					8
Detector Phase	2	2	2	6	6	6	4	4		3	8	8
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	40.0	40.0	40.0	42.0	42.0	42.0	41.0	41.0		18.0	41.0	41.0
Total Split (s)	80.0	80.0	80.0	80.0	80.0	80.0	40.0	40.0		30.0	70.0	70.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	25.0%	25.0%		18.8%	43.8%	43.8%
Maximum Green (s)	73.0	73.0	73.0	73.0	73.0	73.0	32.0	32.0		22.0	62.0	62.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	4.5	4.5		4.5	4.5	4.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	8.0	8.0		8.0	8.0	8.0
Lead/Lag												Lag
Lead-Lag Optimize?												Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	C-Max	C-Max	C-Max	Max	Max	Max	Min	Min		None	Min	Min
Walk Time (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0			10.0	10.0
Flash Dont Walk (s)	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0			23.0	23.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0			0	0
Act Effct Green (s)	91.3	91.3	91.3	73.0	73.0	73.0	11.9	11.9		21.3	41.2	41.2
Actuated g/C Ratio	0.57	0.57	0.57	0.46	0.46	0.46	0.07	0.07		0.13	0.26	0.26
v/c Ratio	0.52	0.49	0.03	0.26	0.68	0.78	0.22	0.54		0.87	0.10	0.15
Control Delay	37.4	18.6	0.1	30.8	36.8	30.9	74.1	64.4		87.3	44.7	9.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	37.4	18.6	0.1	30.8	36.8	30.9	74.1	64.4		87.3	44.7	9.6
LOS	D	B	A	C	D	C	E	E		F	D	A
Approach Delay		19.1			34.6			66.4			73.2	
Approach LOS		B			C			E			E	

Intersection Summary

Area Type: Other  
 Cycle Length: 160  
 Actuated Cycle Length: 160  
 Offset: 117 (73%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 110  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.87  
 Intersection Signal Delay: 36.4  
 Intersection LOS: D  
 Intersection Capacity Utilization 77.7%  
 ICU Level of Service D  
 Analysis Period (min) 15

Splits and Phases: 12: Ponytrail Dr & Burnhamthorpe Rd



Lane Group	Ø7	Ø9	Ø10	Ø11
Turn Type				
Protected Phases	7	9	10	11
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	1.0	1.0	1.0	1.0
Minimum Split (s)	3.0	3.0	3.0	3.0
Total Split (s)	5.0	5.0	5.0	5.0
Total Split (%)	3%	3%	3%	3%
Maximum Green (s)	3.0	3.0	3.0	3.0
Yellow Time (s)	2.0	2.0	2.0	2.0
All-Red Time (s)	0.0	0.0	0.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag				Lead
Lead-Lag Optimize?				Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0
Recall Mode	Ped	Ped	Ped	Ped
Walk Time (s)	0.0	0.0	0.0	0.0
Flash Dont Walk (s)	0.0	0.0	0.0	0.0
Pedestrian Calls (#/hr)	0	0	0	0
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Intersection Summary				



Queues  
12: Ponytrail Dr & Burnhamthorpe Rd

2024 Existing PM  
06/28/2024



























Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	60	1004	32	58	1103	609	21	81	403	50	67
v/c Ratio	0.52	0.49	0.03	0.26	0.68	0.78	0.22	0.54	0.87	0.10	0.15
Control Delay	37.4	18.6	0.1	30.8	36.8	30.9	74.1	64.4	87.3	44.7	9.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.4	18.6	0.1	30.8	36.8	30.9	74.1	64.4	87.3	44.7	9.6
Queue Length 50th (m)	9.0	78.2	0.0	11.2	143.5	110.9	6.5	18.5	65.5	12.3	0.0
Queue Length 95th (m)	33.3	88.3	0.0	22.8	167.8	166.1	15.5	35.7	#90.1	22.8	12.0
Internal Link Dist (m)		651.9			218.1			920.6		141.5	
Turn Bay Length (m)	35.0		30.0	35.0		30.0	15.0		40.0		45.0
Base Capacity (vph)	116	2041	942	224	1632	783	262	371	477	744	652
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.49	0.03	0.26	0.68	0.78	0.08	0.22	0.84	0.07	0.10

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

Lanes, Volumes, Timings  
1: Dixie Rd & Bloor St

2024 Existing SAT  
06/28/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	140	435	218	309	428	219	192	1143	293	122	1154	152
Future Volume (vph)	140	435	218	309	428	219	192	1143	293	122	1154	152
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		15.0	60.0		1.0	75.0		0.0	100.0		85.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	85.0			60.0			90.0			50.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.91	0.91	1.00	0.91	1.00
Ped Bike Factor	0.97		0.97	0.99		0.94	1.00	0.99		1.00		0.97
Frt			0.850			0.850		0.969				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1807	3614	1617	1807	3579	1617	1807	4987	0	1807	5142	1601
Flt Permitted	0.485			0.287			0.146			0.147		
Satd. Flow (perm)	899	3614	1574	542	3579	1519	277	4987	0	279	5142	1546
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			99			47			54			163
Link Speed (k/h)		50			50			60				60
Link Distance (m)		302.0			339.9			615.3				434.7
Travel Time (s)		21.7			24.5			36.9				26.1
Confl. Peds. (#/hr)	40		12	12		40	19		27	27		19
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	1%	1%	1%	2%	1%	1%	1%	1%	1%	2%	2%
Adj. Flow (vph)	152	473	237	336	465	238	209	1242	318	133	1254	165
Shared Lane Traffic (%)												
Lane Group Flow (vph)	152	473	237	336	465	238	209	1560	0	133	1254	165
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7				3.7
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane					Yes							
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	2	1	1	1	1	1	1	0		1	0	0
Detector Template								Thru			Thru	Right
Leading Detector (m)	24.0	7.0	7.0	22.0	7.0	7.0	24.0	0.0		24.0	0.0	0.0
Trailing Detector (m)	-2.5	-2.0	-2.0	12.0	-2.0	-2.0	14.0	0.0		14.0	0.0	0.0
Detector 1 Position(m)	-2.5	-2.0	-2.0	12.0	-2.0	-2.0	14.0	0.0		14.0	0.0	0.0
Detector 1 Size(m)	10.0	9.0	9.0	10.0	9.0	9.0	10.0	0.6		10.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)	14.0											
Detector 2 Size(m)	10.0											
Detector 2 Type	Cl+Ex											
Detector 2 Channel												
Detector 2 Extend (s)	0.0											

Lanes, Volumes, Timings  
1: Dixie Rd & Bloor St

2024 Existing SAT  
06/28/2024

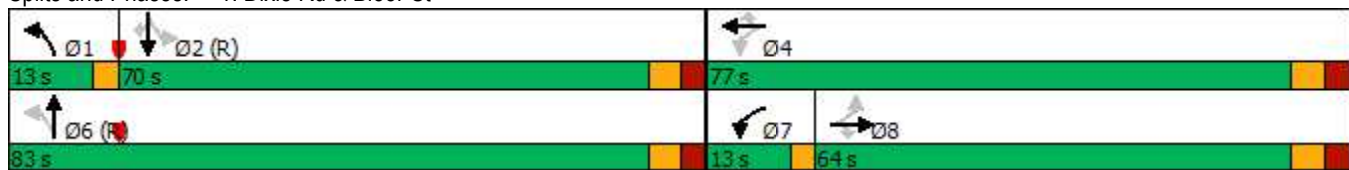


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		Perm	NA	Perm
Protected Phases		8		7	4		1	6			2	
Permitted Phases	8		8	4		4	6			2		2
Detector Phase	8	8	8	7	4	4	1	6		2	2	2
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0		10.0	10.0	10.0
Minimum Split (s)	46.4	46.4	46.4	10.0	46.4	46.4	10.0	46.9		46.9	46.9	46.9
Total Split (s)	64.0	64.0	64.0	13.0	77.0	77.0	13.0	83.0		70.0	70.0	70.0
Total Split (%)	40.0%	40.0%	40.0%	8.1%	48.1%	48.1%	8.1%	51.9%		43.8%	43.8%	43.8%
Maximum Green (s)	56.6	56.6	56.6	10.0	69.6	69.6	10.0	76.1		63.1	63.1	63.1
Yellow Time (s)	4.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0		4.0	4.0	4.0
All-Red Time (s)	3.4	3.4	3.4	0.0	3.4	3.4	0.0	2.9		2.9	2.9	2.9
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.4	7.4	7.4	3.0	7.4	7.4	3.0	6.9		6.9	6.9	6.9
Lead/Lag	Lag	Lag	Lag	Lead			Lead			Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes			Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	C-Max		C-Max	C-Max	C-Max
Walk Time (s)	10.0	10.0	10.0		10.0	10.0		10.0		10.0	10.0	10.0
Flash Dont Walk (s)	29.0	29.0	29.0		29.0	29.0		30.0		30.0	30.0	30.0
Pedestrian Calls (#/hr)	0	0	0		0	0		0		0	0	0
Act Effct Green (s)	35.6	35.6	35.6	53.0	48.6	48.6	101.0	97.1		77.3	77.3	77.3
Actuated g/C Ratio	0.22	0.22	0.22	0.33	0.30	0.30	0.63	0.61		0.48	0.48	0.48
v/c Ratio	0.76	0.59	0.56	1.30	0.43	0.48	0.63	0.51		0.99	0.50	0.20
Control Delay	79.9	57.5	34.6	200.6	46.1	39.6	23.7	19.2		117.1	30.7	4.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	79.9	57.5	34.6	200.6	46.1	39.6	23.7	19.2		117.1	30.7	4.7
LOS	E	E	C	F	D	D	C	B		F	C	A
Approach Delay		55.2			94.6			19.7			35.3	
Approach LOS		E			F			B			D	

Intersection Summary

Area Type: Other  
 Cycle Length: 160  
 Actuated Cycle Length: 160  
 Offset: 74 (46%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green  
 Natural Cycle: 115  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.30  
 Intersection Signal Delay: 45.1  
 Intersection LOS: D  
 Intersection Capacity Utilization 100.9%  
 ICU Level of Service G  
 Analysis Period (min) 15

Splits and Phases: 1: Dixie Rd & Bloor St



Queues  
1: Dixie Rd & Bloor St



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	152	473	237	336	465	238	209	1560	133	1254	165
v/c Ratio	0.76	0.59	0.56	1.30	0.43	0.48	0.63	0.51	0.99	0.50	0.20
Control Delay	79.9	57.5	34.6	200.6	46.1	39.6	23.7	19.2	117.1	30.7	4.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	79.9	57.5	34.6	200.6	46.1	39.6	23.7	19.2	117.1	30.7	4.7
Queue Length 50th (m)	45.8	71.6	39.2	~129.3	58.7	46.3	26.5	96.1	41.1	98.1	0.3
Queue Length 95th (m)	65.2	79.7	59.8	#162.9	73.6	70.1	51.4	134.7	#96.2	132.1	15.4
Internal Link Dist (m)		278.0			315.9			591.3		410.7	
Turn Bay Length (m)	40.0		15.0	60.0		1.0	75.0		100.0		85.0
Base Capacity (vph)	318	1278	620	258	1556	687	334	3046	135	2485	831
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.37	0.38	1.30	0.30	0.35	0.63	0.51	0.99	0.50	0.20

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.





















Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Lanes, Volumes, Timings  
2: Havenwood Dr & Bloor St

2024 Existing SAT  
06/28/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	82	707	54	24	722	39	46	17	30	64	24	109
Future Volume (vph)	82	707	54	24	722	39	46	17	30	64	24	109
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0		0.0	50.0		0.0	25.0		0.0	25.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	65.0			80.0			40.0			35.0		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.98	1.00		0.99	1.00		0.99	0.98		0.98	0.98	
Frt		0.989			0.992			0.903			0.877	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1825	3561	0	1825	3568	0	1825	1657	0	1825	1615	0
Flt Permitted	0.328			0.328			0.665			0.724		
Satd. Flow (perm)	621	3561	0	626	3568	0	1267	1657	0	1365	1615	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			8			33			66	
Link Speed (k/h)		50			50			30			40	
Link Distance (m)		339.9			562.7			137.1			118.1	
Travel Time (s)		24.5			40.5			16.5			10.6	
Confl. Peds. (#/hr)	41		17	17		41	14		28	28		14
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	2%	0%	1%	3%	0%	0%	4%	0%	0%	3%
Adj. Flow (vph)	89	768	59	26	785	42	50	18	33	70	26	118
Shared Lane Traffic (%)												
Lane Group Flow (vph)	89	827	0	26	827	0	50	51	0	70	144	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane		Yes										
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	0	0		0	0		1	1		1	1	
Detector Template		Thru		Left	Thru							
Leading Detector (m)	0.0	0.0		0.0	0.0		7.0	7.0		8.0	8.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		-2.0	-2.0		-2.0	-2.0	
Detector 1 Position(m)	11.5	0.0		0.0	0.0		-2.0	-2.0		-2.0	-2.0	
Detector 1 Size(m)	9.0	0.6		2.0	0.6		9.0	9.0		10.0	10.0	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Detector Phase	2	2		2	2		4	4		4	4	
Switch Phase												

Lanes, Volumes, Timings  
2: Havenwood Dr & Bloor St

2024 Existing SAT  
06/28/2024

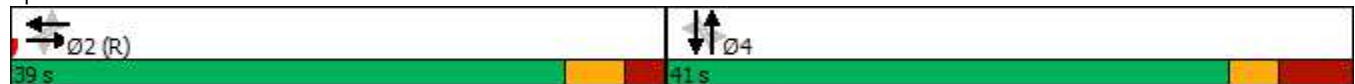


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	35.0	35.0		35.0	35.0		41.5	41.5		41.5	41.5	
Total Split (s)	39.0	39.0		39.0	39.0		41.0	41.0		41.0	41.0	
Total Split (%)	48.8%	48.8%		48.8%	48.8%		51.3%	51.3%		51.3%	51.3%	
Maximum Green (s)	33.0	33.0		33.0	33.0		33.5	33.5		33.5	33.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.5	2.5		2.5	2.5		4.5	4.5		4.5	4.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		7.5	7.5		7.5	7.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	
Walk Time (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Flash Dont Walk (s)	19.0	19.0		19.0	19.0		24.0	24.0		24.0	24.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	55.0	55.0		55.0	55.0		11.5	11.5		11.5	11.5	
Actuated g/C Ratio	0.69	0.69		0.69	0.69		0.14	0.14		0.14	0.14	
v/c Ratio	0.21	0.34		0.06	0.34		0.27	0.19		0.36	0.50	
Control Delay	4.1	3.5		5.9	5.7		33.6	16.6		35.4	23.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	4.1	3.5		5.9	5.7		33.6	16.6		35.4	23.7	
LOS	A	A		A	A		C	B		D	C	
Approach Delay		3.6			5.7			25.0			27.5	
Approach LOS		A			A			C			C	

Intersection Summary

Area Type: Other  
 Cycle Length: 80  
 Actuated Cycle Length: 80  
 Offset: 39 (49%), Referenced to phase 2:EBWB, Start of Green  
 Natural Cycle: 80  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.50  
 Intersection Signal Delay: 8.0  
 Intersection LOS: A  
 Intersection Capacity Utilization 83.8%  
 ICU Level of Service E  
 Analysis Period (min) 15

Splits and Phases: 2: Havenwood Dr & Bloor St



Queues  
2: Havenwood Dr & Bloor St

2024 Existing SAT  
06/28/2024



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	89	827	26	827	50	51	70	144
v/c Ratio	0.21	0.34	0.06	0.34	0.27	0.19	0.36	0.50
Control Delay	4.1	3.5	5.9	5.7	33.6	16.6	35.4	23.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.1	3.5	5.9	5.7	33.6	16.6	35.4	23.7
Queue Length 50th (m)	4.8	24.4	0.9	17.4	7.1	2.5	10.0	11.1
Queue Length 95th (m)	m6.2	m22.9	4.7	35.4	15.5	10.9	20.0	25.4
Internal Link Dist (m)		315.9		538.7		113.1		94.1
Turn Bay Length (m)	50.0		50.0		25.0		25.0	
Base Capacity (vph)	426	2450	430	2453	530	713	571	714
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.34	0.06	0.34	0.09	0.07	0.12	0.20

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lanes, Volumes, Timings  
3: Fieldgate Dr & Bloor St

2024 Existing SAT  
06/28/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	108	597	63	61	559	62	60	32	50	124	53	135
Future Volume (vph)	108	597	63	61	559	62	60	32	50	124	53	135
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0		0.0	45.0		0.0	45.0		0.0	25.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	100.0			100.0			30.0			30.0		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.98	0.99		0.98	0.99		0.97	0.97		0.97	0.97	
Frt		0.986			0.985			0.909			0.892	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1825	3537	0	1825	3528	0	1755	1702	0	1825	1658	0
Flt Permitted	0.350			0.379			0.543			0.699		
Satd. Flow (perm)	659	3537	0	715	3528	0	978	1702	0	1307	1658	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20			16			54			147	
Link Speed (k/h)		50			50			40			40	
Link Distance (m)		562.7			97.8			134.2			78.0	
Travel Time (s)		40.5			7.0			12.1			7.0	
Confl. Peds. (#/hr)	42		34	34		42	38		34	34		38
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	2%	0%	1%	2%	4%	0%	0%	0%	0%	0%
Adj. Flow (vph)	117	649	68	66	608	67	65	35	54	135	58	147
Shared Lane Traffic (%)												
Lane Group Flow (vph)	117	717	0	66	675	0	65	89	0	135	205	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	0		0	0		1	1		1	1	
Detector Template		Thru		Left	Thru							
Leading Detector (m)	21.0	0.0		0.0	0.0		6.5	6.5		7.5	6.0	
Trailing Detector (m)	12.0	0.0		0.0	0.0		-2.5	-2.5		-1.5	-3.0	
Detector 1 Position(m)	12.0	0.0		0.0	0.0		-2.5	-2.5		-1.5	-3.0	
Detector 1 Size(m)	9.0	0.6		2.0	0.6		9.0	9.0		9.0	9.0	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	5	2			6			4				8
Permitted Phases	2			6			4			8		
Detector Phase	5	2		6	6		4	4		8	8	
Switch Phase												



Lanes, Volumes, Timings  
3: Fieldgate Dr & Bloor St

2024 Existing SAT  
06/28/2024

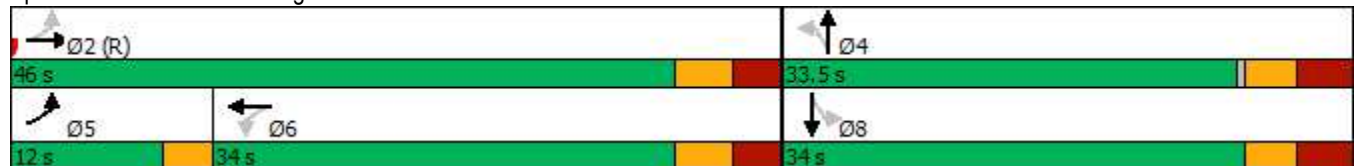


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	7.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	10.0	33.5		33.5	33.5		33.5	33.5		33.5	33.5	
Total Split (s)	12.0	46.0		34.0	34.0		33.5	33.5		34.0	34.0	
Total Split (%)	15.0%	57.5%		42.5%	42.5%		41.9%	41.9%		42.5%	42.5%	
Maximum Green (s)	9.0	39.5		27.5	27.5		27.0	27.0		27.5	27.5	
Yellow Time (s)	3.0	3.5		3.5	3.5		3.0	3.0		3.0	3.0	
All-Red Time (s)	0.0	3.0		3.0	3.0		3.5	3.5		3.5	3.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.0	6.5		6.5	6.5		6.5	6.5		6.5	6.5	
Lead/Lag	Lead			Lag			Lag			Lag		
Lead-Lag Optimize?	Yes			Yes			Yes			Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max		Max	Max		None	None		None	None	
Walk Time (s)		10.0		10.0	10.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)		17.0		17.0	17.0		22.0	22.0		22.0	22.0	
Pedestrian Calls (#/hr)		0		0	0		0	0		0	0	
Act Effct Green (s)	56.3	52.8		44.5	44.5		14.2	14.2		14.2	14.2	
Actuated g/C Ratio	0.70	0.66		0.56	0.56		0.18	0.18		0.18	0.18	
v/c Ratio	0.21	0.31		0.17	0.34		0.38	0.26		0.58	0.50	
Control Delay	11.2	15.1		12.9	11.4		34.0	14.5		39.8	13.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	11.2	15.1		12.9	11.4		34.0	14.5		39.8	13.5	
LOS	B	B		B	B		C	B		D	B	
Approach Delay		14.6			11.5			22.8			23.9	
Approach LOS		B			B			C			C	

Intersection Summary

Area Type: Other  
 Cycle Length: 80  
 Actuated Cycle Length: 80  
 Offset: 17 (21%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 80  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.58  
 Intersection Signal Delay: 15.6  
 Intersection LOS: B  
 Intersection Capacity Utilization 80.8%  
 ICU Level of Service D  
 Analysis Period (min) 15

Splits and Phases: 3: Fieldgate Dr & Bloor St



Queues  
3: Fieldgate Dr & Bloor St

2024 Existing SAT  
06/28/2024



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	117	717	66	675	65	89	135	205
v/c Ratio	0.21	0.31	0.17	0.34	0.38	0.26	0.58	0.50
Control Delay	11.2	15.1	12.9	11.4	34.0	14.5	39.8	13.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.2	15.1	12.9	11.4	34.0	14.5	39.8	13.5
Queue Length 50th (m)	16.3	58.4	4.7	27.6	8.9	4.5	19.2	7.7
Queue Length 95th (m)	26.4	67.5	14.1	47.7	18.5	14.8	33.2	23.4
Internal Link Dist (m)		538.7		73.8		110.2		54.0
Turn Bay Length (m)	50.0		45.0		45.0		25.0	
Base Capacity (vph)	595	2342	397	1971	336	620	449	666
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.31	0.17	0.34	0.19	0.14	0.30	0.31

Intersection Summary

Lanes, Volumes, Timings  
4: Bloor St & Fieldgate Plaza Access

2024 Existing SAT  
06/28/2024



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↕		↕↕	
Traffic Volume (vph)	2	777	706	21	7	12
Future Volume (vph)	2	777	706	21	7	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt			0.996		0.916	
Flt Protected					0.981	
Satd. Flow (prot)	0	3614	3601	0	1726	0
Flt Permitted					0.981	
Satd. Flow (perm)	0	3614	3601	0	1726	0
Link Speed (k/h)		50	50		30	
Link Distance (m)		97.8	226.6		256.1	
Travel Time (s)		7.0	16.3		30.7	
Confl. Peds. (#/hr)	21			21	7	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	1%	0%	0%	0%
Adj. Flow (vph)	2	845	767	23	8	13
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	847	790	0	21	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		3.7	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24			14	24	14
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

HCM Unsignalized Intersection Capacity Analysis  
4: Bloor St & Fieldgate Plaza Access

2024 Existing SAT  
06/28/2024



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔↕	↕↔		↔↕	
Traffic Volume (veh/h)	2	777	706	21	7	12
Future Volume (Veh/h)	2	777	706	21	7	12
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	845	767	23	8	13
Pedestrians		1	7		21	
Lane Width (m)		3.7	3.7		3.7	
Walking Speed (m/s)		1.1	1.1		1.1	
Percent Blockage		0	1		2	
Right turn flare (veh)						
Median type		None	None			
Median storage veh						
Upstream signal (m)		98				
pX, platoon unblocked					0.93	
vC, conflicting volume	811				1233	417
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	811				1090	417
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				96	98
cM capacity (veh/h)	807				191	578
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	
Volume Total	284	563	511	279	21	
Volume Left	2	0	0	0	8	
Volume Right	0	0	0	23	13	
cSH	807	1700	1700	1700	326	
Volume to Capacity	0.00	0.33	0.30	0.16	0.06	
Queue Length 95th (m)	0.1	0.0	0.0	0.0	1.6	
Control Delay (s)	0.1	0.0	0.0	0.0	16.8	
Lane LOS	A				C	
Approach Delay (s)	0.0		0.0		16.8	
Approach LOS					C	
Intersection Summary						
Average Delay			0.2			
Intersection Capacity Utilization			33.2%		ICU Level of Service	A
Analysis Period (min)			15			

Lanes, Volumes, Timings  
5: Fieldgate Dr & Fieldgate Plaza Access

2024 Existing SAT  
06/28/2024



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	82	17	159	45	19	199
Future Volume (vph)	82	17	159	45	19	199
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	0.977		0.970			
Flt Protected	0.960					0.996
Satd. Flow (prot)	1802	0	1849	0	0	1913
Flt Permitted	0.960					0.996
Satd. Flow (perm)	1802	0	1849	0	0	1913
Link Speed (k/h)	30		40			40
Link Distance (m)	40.2		78.0			83.8
Travel Time (s)	4.8		7.0			7.5
Confl. Peds. (#/hr)	4	3		60	60	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%
Adj. Flow (vph)	89	18	173	49	21	216
Shared Lane Traffic (%)						
Lane Group Flow (vph)	107	0	222	0	0	237
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.7		3.7			3.7
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	1.6		1.6			1.6
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24	14		14	24	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	39.3%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis  
5: Fieldgate Dr & Fieldgate Plaza Access

2024 Existing SAT  
06/28/2024



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	82	17	159	45	19	199
Future Volume (Veh/h)	82	17	159	45	19	199
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	89	18	173	49	21	216
Pedestrians	60		4			3
Lane Width (m)	3.7		3.7			3.7
Walking Speed (m/s)	1.1		1.1			1.1
Percent Blockage	6		0			0
Right turn flare (veh)						
Median type			None			None
Median storage veh						
Upstream signal (m)			78			
pX, platoon unblocked						
vC, conflicting volume	520	260			282	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	520	260			282	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	81	98			98	
cM capacity (veh/h)	479	735			1216	
<b>Direction, Lane #</b>	<b>WB 1</b>	<b>NB 1</b>	<b>SB 1</b>			
Volume Total	107	222	237			
Volume Left	89	0	21			
Volume Right	18	49	0			
cSH	509	1700	1216			
Volume to Capacity	0.21	0.13	0.02			
Queue Length 95th (m)	6.0	0.0	0.4			
Control Delay (s)	13.9	0.0	0.9			
Lane LOS	B		A			
Approach Delay (s)	13.9	0.0	0.9			
Approach LOS	B					
<b>Intersection Summary</b>						
Average Delay			3.0			
Intersection Capacity Utilization			39.3%		ICU Level of Service	A
Analysis Period (min)			15			

Lanes, Volumes, Timings  
6: Fieldgate Dr & Williamsport Dr

2024 Existing SAT  
06/28/2024



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	21	55	42	145	153	17
Future Volume (vph)	21	55	42	145	153	17
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	0.902					0.987
Flt Protected	0.986					0.989
Satd. Flow (prot)	1709	0	0	1887	1896	0
Flt Permitted	0.986					0.989
Satd. Flow (perm)	1709	0	0	1887	1896	0
Link Speed (k/h)	40					40
Link Distance (m)	168.2					69.3
Travel Time (s)	15.1					6.2
Confl. Peds. (#/hr)	27	1	20			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	3%	0%	0%	0%
Adj. Flow (vph)	23	60	46	158	166	18
Shared Lane Traffic (%)						
Lane Group Flow (vph)	83	0	0	204	184	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7					0.0
Link Offset(m)	0.0					0.0
Crosswalk Width(m)	1.6					1.6
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24	14	24			
Sign Control	Stop					Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	36.1%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis  
6: Fieldgate Dr & Williamsport Dr

2024 Existing SAT  
06/28/2024












Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	21	55	42	145	153	17
Future Volume (Veh/h)	21	55	42	145	153	17
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	23	60	46	158	166	18
Pedestrians	20			1	27	
Lane Width (m)	3.7			3.7	3.7	
Walking Speed (m/s)	1.1			1.1	1.1	
Percent Blockage	2			0	3	
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (m)	162					
pX, platoon unblocked						
vC, conflicting volume	472	196	204			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	472	196	204			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	95	93	97			
cM capacity (veh/h)	511	833	1335			
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>NB 1</b>	<b>SB 1</b>			
Volume Total	83	204	184			
Volume Left	23	46	0			
Volume Right	60	0	18			
cSH	709	1335	1700			
Volume to Capacity	0.12	0.03	0.11			
Queue Length 95th (m)	3.0	0.8	0.0			
Control Delay (s)	10.7	2.0	0.0			
Lane LOS	B	A				
Approach Delay (s)	10.7	2.0	0.0			
Approach LOS	B					
<b>Intersection Summary</b>						
Average Delay	2.8					
Intersection Capacity Utilization	36.1%			ICU Level of Service	A	
Analysis Period (min)	15					












Lanes, Volumes, Timings  
7: Fieldgate Dr & Ponytrail Dr

2024 Existing SAT  
06/28/2024

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	51	39	100	65	45	116
Future Volume (vph)	51	39	100	65	45	116
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	0.942		0.947			
Flt Protected	0.972					0.986
Satd. Flow (prot)	1759	0	1819	0	0	1894
Flt Permitted	0.972					0.986
Satd. Flow (perm)	1759	0	1819	0	0	1894
Link Speed (k/h)	30		40			30
Link Distance (m)	39.8		69.3			254.8
Travel Time (s)	4.8		6.2			30.6
Confl. Peds. (#/hr)	1	8		27	27	
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)	55	42	109	71	49	126
Shared Lane Traffic (%)						
Lane Group Flow (vph)	97	0	180	0	0	175
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.7		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	1.6		1.6			1.6
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24	14		14	24	
Sign Control	Stop		Stop			Stop
<b>Intersection Summary</b>						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	38.0%			ICU Level of Service A		
Analysis Period (min)	15					

HCM Unsignalized Intersection Capacity Analysis  
7: Fieldgate Dr & Ponytrail Dr

2024 Existing SAT  
06/28/2024

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Stop			Stop
Traffic Volume (vph)	51	39	100	65	45	116
Future Volume (vph)	51	39	100	65	45	116
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	55	42	109	71	49	126
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total (vph)	97	180	175			
Volume Left (vph)	55	0	49			
Volume Right (vph)	42	71	0			
Hadj (s)	-0.15	-0.24	0.06			
Departure Headway (s)	4.5	4.1	4.4			
Degree Utilization, x	0.12	0.20	0.21			
Capacity (veh/h)	733	850	791			
Control Delay (s)	8.2	8.1	8.6			
Approach Delay (s)	8.2	8.1	8.6			
Approach LOS	A	A	A			
Intersection Summary						
Delay			8.3			
Level of Service			A			
Intersection Capacity Utilization			38.0%	ICU Level of Service	A	
Analysis Period (min)			15			

Lanes, Volumes, Timings  
8: Fieldgate Plaza Access & Ponytrail Dr

2024 Existing SAT  
06/28/2024



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	85	25	12	68	23	15
Future Volume (vph)	85	25	12	68	23	15
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	0.969				0.947	
Flt Protected				0.993	0.970	
Satd. Flow (prot)	1833	0	0	1908	1765	0
Flt Permitted				0.993	0.970	
Satd. Flow (perm)	1833	0	0	1908	1765	0
Link Speed (k/h)	30			30	30	
Link Distance (m)	39.8			52.6	38.4	
Travel Time (s)	4.8			6.3	4.6	
Confl. Peds. (#/hr)		16	16		2	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	0%	0%	0%	0%	0%
Adj. Flow (vph)	92	27	13	74	25	16
Shared Lane Traffic (%)						
Lane Group Flow (vph)	119	0	0	87	41	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	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)		14	24		24	14
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	23.2%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis  
8: Fieldgate Plaza Access & Ponytrail Dr

2024 Existing SAT  
06/28/2024



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↻			↻	↻	
Traffic Volume (veh/h)	85	25	12	68	23	15
Future Volume (Veh/h)	85	25	12	68	23	15
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	92	27	13	74	25	16
Pedestrians	2			8	16	
Lane Width (m)	3.7			3.7	3.7	
Walking Speed (m/s)	1.1			1.1	1.1	
Percent Blockage	0			1	2	
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			135		224	130
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			135		224	130
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		97	98
cM capacity (veh/h)			1439		749	904
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>WB 1</b>	<b>NB 1</b>			
Volume Total	119	87	41			
Volume Left	0	13	25			
Volume Right	27	0	16			
cSH	1700	1439	803			
Volume to Capacity	0.07	0.01	0.05			
Queue Length 95th (m)	0.0	0.2	1.2			
Control Delay (s)	0.0	1.2	9.7			
Lane LOS		A	A			
Approach Delay (s)	0.0	1.2	9.7			
Approach LOS			A			
<b>Intersection Summary</b>						
Average Delay			2.0			
Intersection Capacity Utilization			23.2%	ICU Level of Service	A	
Analysis Period (min)			15			

Lanes, Volumes, Timings  
 9: Fieldgate Plaza Access & Ponytrail Dr

2024 Existing SAT  
 06/28/2024



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	97	1	1	85	1	1
Future Volume (vph)	97	1	1	85	1	1
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				0.932	
Flt Protected				0.999	0.976	
Satd. Flow (prot)	1919	0	0	1919	1748	0
Flt Permitted				0.999	0.976	
Satd. Flow (perm)	1919	0	0	1919	1748	0
Link Speed (k/h)	30				30	30
Link Distance (m)	52.6				151.2	256.1
Travel Time (s)	6.3				18.1	30.7
Confl. Peds. (#/hr)	40		40			1 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)	105	1	1	92	1	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	106	0	0	93	2	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	3.7
Link Offset(m)	0.0				0.0	0.0
Crosswalk Width(m)	1.6				1.6	1.6
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	14		24	24		14
Sign Control	Free				Free	Stop

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	22.1%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis  
 9: Fieldgate Plaza Access & Ponytrail Dr

2024 Existing SAT  
 06/28/2024



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↻			↻	↻	
Traffic Volume (veh/h)	97	1	1	85	1	1
Future Volume (Veh/h)	97	1	1	85	1	1
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	105	1	1	92	1	1
Pedestrians	1			3	40	
Lane Width (m)	3.7			3.7	3.7	
Walking Speed (m/s)	1.1			1.1	1.1	
Percent Blockage	0			0	4	
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			146		240	148
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			146		240	148
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1392		722	866
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>WB 1</b>	<b>NB 1</b>			
Volume Total	106	93	2			
Volume Left	0	1	1			
Volume Right	1	0	1			
cSH	1700	1392	787			
Volume to Capacity	0.06	0.00	0.00			
Queue Length 95th (m)	0.0	0.0	0.1			
Control Delay (s)	0.0	0.1	9.6			
Lane LOS			A			
Approach Delay (s)	0.0	0.1	9.6			
Approach LOS			A			
<b>Intersection Summary</b>						
Average Delay			0.1			
Intersection Capacity Utilization			22.1%	ICU Level of Service	A	
Analysis Period (min)			15			

Lanes, Volumes, Timings  
10: Fieldgate Dr & Haven Glenn

2024 Existing SAT  
06/28/2024



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	5	35	21	126	114	11
Future Volume (vph)	5	35	21	126	114	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
Ped Bike Factor						
Frt	0.881					0.988
Flt Protected	0.994					0.993
Satd. Flow (prot)	1682	0	0	1908	1898	0
Flt Permitted	0.994					0.993
Satd. Flow (perm)	1682	0	0	1908	1898	0
Link Speed (k/h)	40					30
Link Distance (m)	258.3					440.5
Travel Time (s)	23.2					52.9
Confl. Peds. (#/hr)	1	26	14			
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)	5	38	23	137	124	12
Shared Lane Traffic (%)						
Lane Group Flow (vph)	43	0	0	160	136	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7					3.7
Link Offset(m)	0.0					0.0
Crosswalk Width(m)	1.6					1.6
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24	14	24			
Sign Control	Stop					Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	36.7%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis  
 10: Fieldgate Dr & Haven Glenn

2024 Existing SAT  
 06/28/2024



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	5	35	21	126	114	11
Future Volume (Veh/h)	5	35	21	126	114	11
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	38	23	137	124	12
Pedestrians	14			26	1	
Lane Width (m)	3.7			3.7	3.7	
Walking Speed (m/s)	1.1			1.1	1.1	
Percent Blockage	1			3	0	
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	328	170	150			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	328	170	150			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	96	98			
cM capacity (veh/h)	650	845	1424			
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>NB 1</b>	<b>SB 1</b>			
Volume Total	43	160	136			
Volume Left	5	23	0			
Volume Right	38	0	12			
cSH	817	1424	1700			
Volume to Capacity	0.05	0.02	0.08			
Queue Length 95th (m)	1.3	0.4	0.0			
Control Delay (s)	9.7	1.2	0.0			
Lane LOS	A	A				
Approach Delay (s)	9.7	1.2	0.0			
Approach LOS	A					
<b>Intersection Summary</b>						
Average Delay			1.8			
Intersection Capacity Utilization			36.7%	ICU Level of Service	A	
Analysis Period (min)			15			



Lanes, Volumes, Timings  
11: Fieldgate Dr & Burnhamthorpe Rd

2024 Existing SAT  
06/28/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	62	1007	62	43	795	40	54	33	49	55	45	47
Future Volume (vph)	62	1007	62	43	795	40	54	33	49	55	45	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	30.0		25.0	30.0		30.0	15.0		0.0	65.0		65.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	30.0			45.0			40.0			75.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		0.97	1.00		0.97	0.99	0.99		0.99		0.97
Frt			0.850			0.850		0.911				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1825	3614	1633	1825	3614	1633	1825	1731	0	1825	1921	1633
Flt Permitted	0.321			0.240			0.725			0.699		
Satd. Flow (perm)	616	3614	1580	460	3614	1590	1375	1731	0	1336	1921	1591
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			130			130		53				109
Link Speed (k/h)		60			60			40				50
Link Distance (m)		499.8			675.9			440.5				226.9
Travel Time (s)		30.0			40.6			39.6				16.3
Confl. Peds. (#/hr)	5		10	10		5	14		6	6		14
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	67	1095	67	47	864	43	59	36	53	60	49	51
Shared Lane Traffic (%)												
Lane Group Flow (vph)	67	1095	67	47	864	43	59	89	0	60	49	51
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7				3.7
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	0	0	0	0	0	0	1	1		1	1	0
Detector Template												
Leading Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	7.0	7.0		7.0	7.0	0.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	-2.0	-2.0		-2.0	-2.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	-2.0	-2.0		-2.0	-2.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	9.0	9.0		9.0	9.0	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases		2			6			4				8
Permitted Phases	2		2	6		6	4			8		8
Detector Phase	2	2	2	6	6	6	4	4		8	8	8
Switch Phase												

Lane Group	Ø1	Ø3	Ø5	Ø7
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (m)				
Storage Lanes				
Taper Length (m)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (k/h)				
Link Distance (m)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(m)				
Link Offset(m)				
Crosswalk Width(m)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (k/h)				
Number of Detectors				
Detector Template				
Leading Detector (m)				
Trailing Detector (m)				
Detector 1 Position(m)				
Detector 1 Size(m)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Turn Type				
Protected Phases	1	3	5	7
Permitted Phases				
Detector Phase				
Switch Phase				

Lanes, Volumes, Timings  
11: Fieldgate Dr & Burnhamthorpe Rd

2024 Existing SAT  
06/28/2024

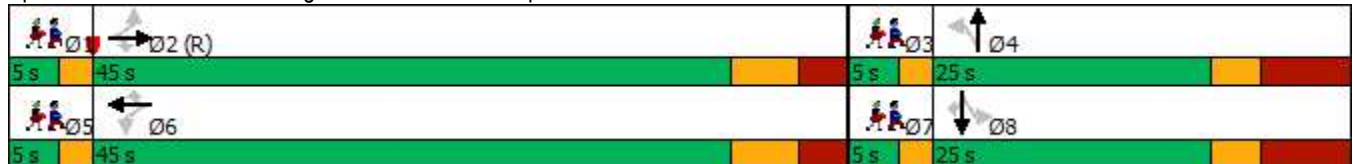


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	38.0	38.0	38.0	38.0	38.0	38.0	32.5	32.5		32.5	32.5	32.5
Total Split (s)	45.0	45.0	45.0	45.0	45.0	45.0	25.0	25.0		25.0	25.0	25.0
Total Split (%)	56.3%	56.3%	56.3%	56.3%	56.3%	56.3%	31.3%	31.3%		31.3%	31.3%	31.3%
Maximum Green (s)	38.0	38.0	38.0	38.0	38.0	38.0	16.5	16.5		16.5	16.5	16.5
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	5.5	5.5		5.5	5.5	5.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	8.5	8.5		8.5	8.5	8.5
Lead/Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lag		Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	C-Max	C-Max	C-Max	Max	Max	Max	None	None		None	None	None
Walk Time (s)	10.0	10.0	10.0	10.0	10.0	10.0	0.0	0.0		0.0	0.0	0.0
Flash Dont Walk (s)	21.0	21.0	21.0	21.0	21.0	21.0	24.0	24.0		24.0	24.0	24.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	0
Act Effct Green (s)	58.9	58.9	58.9	58.9	58.9	58.9	10.7	10.7		10.7	10.7	10.7
Actuated g/C Ratio	0.74	0.74	0.74	0.74	0.74	0.74	0.13	0.13		0.13	0.13	0.13
v/c Ratio	0.15	0.41	0.06	0.14	0.32	0.04	0.32	0.32		0.34	0.19	0.17
Control Delay	6.1	6.1	0.2	1.7	1.1	0.1	36.1	18.6		36.6	32.3	1.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	6.1	6.1	0.2	1.7	1.1	0.1	36.1	18.6		36.6	32.3	1.5
LOS	A	A	A	A	A	A	D	B		D	C	A
Approach Delay		5.8			1.1			25.6			24.1	
Approach LOS		A			A			C			C	

Intersection Summary

Area Type: Other  
 Cycle Length: 80  
 Actuated Cycle Length: 80  
 Offset: 72 (90%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 80  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.41  
 Intersection Signal Delay: 6.3  
 Intersection LOS: A  
 Intersection Capacity Utilization 68.5%  
 ICU Level of Service C  
 Analysis Period (min) 15

Splits and Phases: 11: Fieldgate Dr & Burnhamthorpe Rd



Lane Group	Ø1	Ø3	Ø5	Ø7
Minimum Initial (s)	1.0	1.0	1.0	1.0
Minimum Split (s)	3.0	3.0	3.0	3.0
Total Split (s)	5.0	5.0	5.0	5.0
Total Split (%)	6%	6%	6%	6%
Maximum Green (s)	3.0	3.0	3.0	3.0
Yellow Time (s)	2.0	2.0	2.0	2.0
All-Red Time (s)	0.0	0.0	0.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None
Walk Time (s)				
Flash Dont Walk (s)				
Pedestrian Calls (#/hr)				
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Intersection Summary				

Queues  
11: Fieldgate Dr & Burnhamthorpe Rd

2024 Existing SAT  
06/28/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	67	1095	67	47	864	43	59	89	60	49	51
v/c Ratio	0.15	0.41	0.06	0.14	0.32	0.04	0.32	0.32	0.34	0.19	0.17
Control Delay	6.1	6.1	0.2	1.7	1.1	0.1	36.1	18.6	36.6	32.3	1.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.1	6.1	0.2	1.7	1.1	0.1	36.1	18.6	36.6	32.3	1.5
Queue Length 50th (m)	3.1	34.0	0.0	0.4	3.8	0.0	8.3	5.0	8.5	6.8	0.0
Queue Length 95th (m)	8.7	51.4	0.5	m1.3	9.7	m0.2	18.5	16.8	18.8	15.5	1.0
Internal Link Dist (m)	475.8			651.9			416.5			202.9	
Turn Bay Length (m)	30.0		25.0	30.0		30.0	15.0		65.0		65.0
Base Capacity (vph)	453	2661	1197	338	2661	1204	283	399	275	396	414
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.41	0.06	0.14	0.32	0.04	0.21	0.22	0.22	0.12	0.12

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lanes, Volumes, Timings  
12: Ponytrail Dr & Burnhamthorpe Rd

2024 Existing SAT  
06/28/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	73	968	26	60	799	446	25	47	41	372	52	121
Future Volume (vph)	73	968	26	60	799	446	25	47	41	372	52	121
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	35.0		30.0	35.0		30.0	15.0		0.0	40.0		45.0
Storage Lanes	1		1	1		1	1		0	2		1
Taper Length (m)	45.0			65.0			50.0			30.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Ped Bike Factor	1.00		0.96			0.96	1.00	0.99		0.98		0.98
Frt			0.850			0.850		0.930				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1825	3614	1633	1825	3614	1617	1825	1765	0	3506	1921	1633
Flt Permitted	0.094			0.272			0.720			0.950		
Satd. Flow (perm)	180	3614	1569	523	3614	1550	1378	1765	0	3431	1921	1606
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			116			180			29			132
Link Speed (k/h)		60			60			40				50
Link Distance (m)		675.9			242.1			944.6				165.5
Travel Time (s)		40.6			14.5			85.0				11.9
Confl. Peds. (#/hr)	9		8	8		9	3		10	10		3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	0%	0%	1%	1%	0%	0%	0%	1%	0%	0%
Adj. Flow (vph)	79	1052	28	65	868	485	27	51	45	404	57	132
Shared Lane Traffic (%)												
Lane Group Flow (vph)	79	1052	28	65	868	485	27	96	0	404	57	132
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			7.4				7.4
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2	1	1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0		2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6		2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4				9.4
Detector 2 Size(m)		0.6			0.6			0.6				0.6
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				0.0

Lane Group	Ø7	Ø9	Ø10	Ø11
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (m)				
Storage Lanes				
Taper Length (m)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (k/h)				
Link Distance (m)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(m)				
Link Offset(m)				
Crosswalk Width(m)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (k/h)				
Number of Detectors				
Detector Template				
Leading Detector (m)				
Trailing Detector (m)				
Detector 1 Position(m)				
Detector 1 Size(m)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(m)				
Detector 2 Size(m)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				

Lanes, Volumes, Timings  
12: Ponytrail Dr & Burnhamthorpe Rd

2024 Existing SAT  
06/28/2024

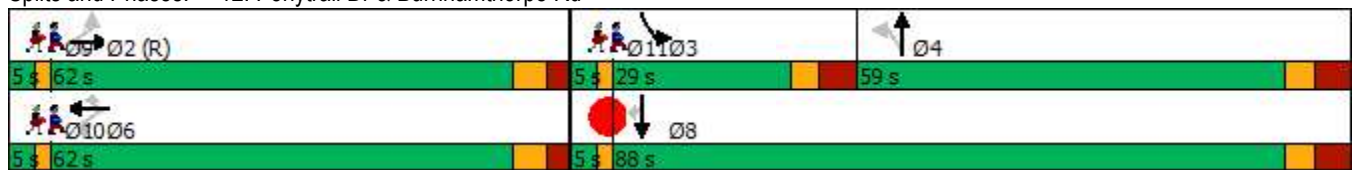


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Prot	NA	Perm
Protected Phases		2			6			4		3	8	
Permitted Phases	2		2	6		6	4					8
Detector Phase	2	2	2	6	6	6	4	4		3	8	8
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	40.0	40.0	40.0	42.0	42.0	42.0	41.0	41.0		18.0	41.0	41.0
Total Split (s)	62.0	62.0	62.0	62.0	62.0	62.0	59.0	59.0		29.0	88.0	88.0
Total Split (%)	38.8%	38.8%	38.8%	38.8%	38.8%	38.8%	36.9%	36.9%		18.1%	55.0%	55.0%
Maximum Green (s)	55.0	55.0	55.0	55.0	55.0	55.0	51.0	51.0		21.0	80.0	80.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	4.5	4.5		4.5	4.5	4.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	8.0	8.0		8.0	8.0	8.0
Lead/Lag												Lag
Lead-Lag Optimize?												Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	C-Max	C-Max	C-Max	Max	Max	Max	Min	Min		None	Min	Min
Walk Time (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0			10.0	10.0
Flash Dont Walk (s)	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0			23.0	23.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0			0	0
Act Effct Green (s)	91.4	91.4	91.4	55.0	55.0	55.0	12.5	12.5		20.6	41.1	41.1
Actuated g/C Ratio	0.57	0.57	0.57	0.34	0.34	0.34	0.08	0.08		0.13	0.26	0.26
v/c Ratio	0.77	0.51	0.03	0.36	0.70	0.75	0.25	0.59		0.90	0.12	0.26
Control Delay	69.8	20.0	0.3	46.6	49.0	36.4	73.9	63.4		91.2	45.1	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	69.8	20.0	0.3	46.6	49.0	36.4	73.9	63.4		91.2	45.1	7.7
LOS	E	C	A	D	D	D	E	E		F	D	A
Approach Delay		23.0			44.6			65.7			68.1	
Approach LOS		C			D			E			E	

Intersection Summary

Area Type:	Other
Cycle Length:	160
Actuated Cycle Length:	160
Offset:	16 (10%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle:	110
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.90
Intersection Signal Delay:	42.0
Intersection LOS:	D
Intersection Capacity Utilization	72.4%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 12: Ponytrail Dr & Burnhamthorpe Rd





Lane Group	Ø7	Ø9	Ø10	Ø11
Turn Type				
Protected Phases	7	9	10	11
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	1.0	1.0	1.0	1.0
Minimum Split (s)	3.0	3.0	3.0	3.0
Total Split (s)	5.0	5.0	5.0	5.0
Total Split (%)	3%	3%	3%	3%
Maximum Green (s)	3.0	3.0	3.0	3.0
Yellow Time (s)	2.0	2.0	2.0	2.0
All-Red Time (s)	0.0	0.0	0.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag				Lead
Lead-Lag Optimize?				Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0
Recall Mode	Ped	Ped	Ped	Ped
Walk Time (s)	0.0	0.0	0.0	0.0
Flash Dont Walk (s)	0.0	0.0	0.0	0.0
Pedestrian Calls (#/hr)	0	0	0	0
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Intersection Summary				

Queues  
12: Ponytrail Dr & Burnhamthorpe Rd

2024 Existing SAT  
06/28/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	79	1052	28	65	868	485	27	96	404	57	132
v/c Ratio	0.77	0.51	0.03	0.36	0.70	0.75	0.25	0.59	0.90	0.12	0.26
Control Delay	69.8	20.0	0.3	46.6	49.0	36.4	73.9	63.4	91.2	45.1	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	69.8	20.0	0.3	46.6	49.0	36.4	73.9	63.4	91.2	45.1	7.7
Queue Length 50th (m)	14.4	93.7	0.0	15.5	125.6	89.5	8.3	21.0	66.0	14.1	0.0
Queue Length 95th (m)	#57.1	112.7	0.8	30.8	149.6	135.3	18.4	39.5	#93.3	25.1	16.2
Internal Link Dist (m)		651.9			218.1			920.6		141.5	
Turn Bay Length (m)	35.0		30.0	35.0		30.0	15.0		40.0		45.0
Base Capacity (vph)	102	2064	946	179	1242	650	439	582	460	960	869
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.77	0.51	0.03	0.36	0.70	0.75	0.06	0.16	0.88	0.06	0.15

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

# APPENDIX G

## Bloor Street Preliminary Design

**LEGEND**

- PROPOSED LANDSCAPE ZONE
- PROPOSED PAVEMENT / CYCLE TRACK
- PROPOSED SIDEWALK
- PROPOSED HARDSCAPE BUFFER / SPLASH PAD
- EXISTING PROPERTY LINE
- PROPOSED NOISE WALL
- PROPOSED TREES

# BLOOR STREET INTEGRATED ROAD PROJECT CENTRAL PARKWAY EAST TO CAWTHRA ROAD



DESIGN BY _____ C.E.T. DEPARTMENTAL APPROVAL _____ SILVIO CESARO P.ENG.	APPROVED BY _____
MISSISSAUGA PRODUCED FOR T&W ENGINEERING AND WORKS	
BLOOR STREET INTEGRATED ROAD PROJECT EA CENTRAL PARKWAY BLVD TO CAWTHRA RD	
SCALE 1:1000	AREA BLOOR ST
C.A.D.D. BY A.C.	CHECKED BY M.P.
DATE 2023-05-15	SHEET 01 OF 04
PROJECT No. 134154	PLAN No.

- LEGEND**
- PROPOSED LANDSCAPE ZONE
  - PROPOSED PAVEMENT / CYCLE TRACK
  - PROPOSED SIDEWALK
  - PROPOSED HARDSCAPE BUFFER / SPLASH PAD
  - EXISTING PROPERTY LINE
  - PROPOSED NOISE WALL
  - PROPOSED TREES

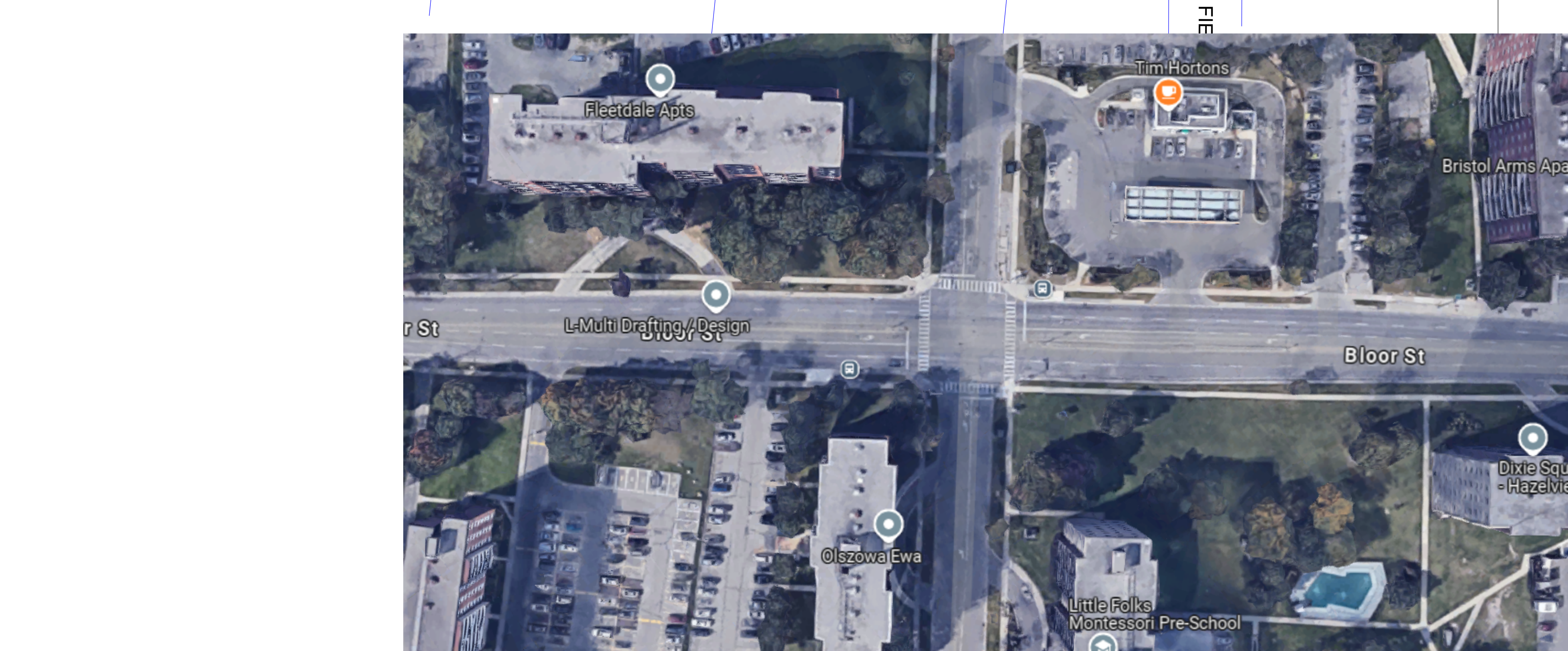
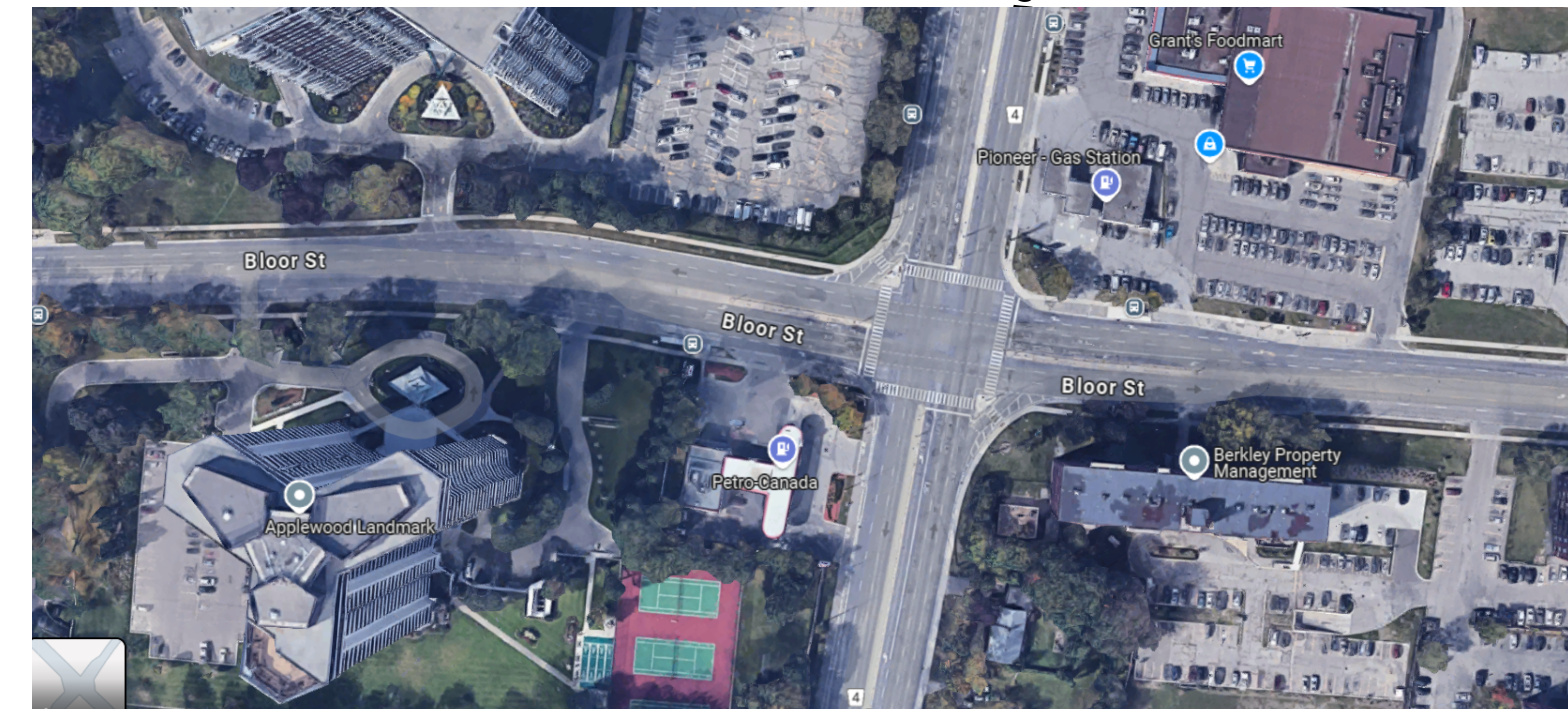
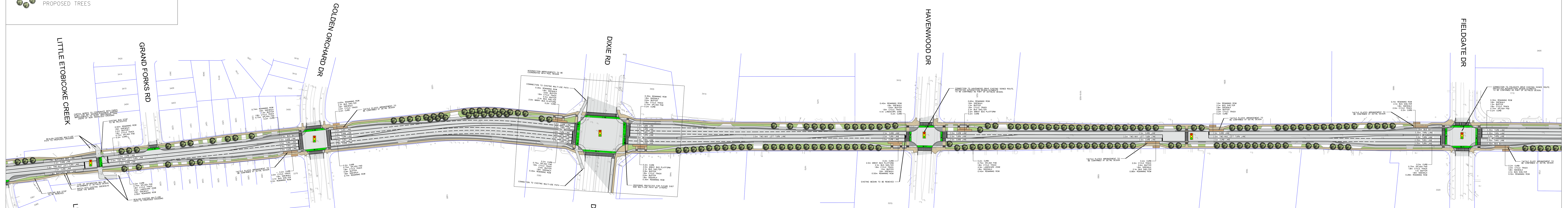
# BLOOR STREET INTEGRATED ROAD PROJECT CEDAR CREEK DRIVE TO GRAND FORKS RD



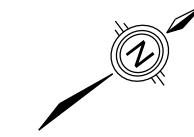
DESIGN BY C.E.T. DEPARTMENTAL APPROVAL SILVIO CESARO P.ENG.	APPROVED BY   	
PRODUCED FOR: T&W ENGINEERING AND WORKS <b>BLOOR STREET INTEGRATED ROAD PROJECT</b> CEDAR CREEK DR TO GRAND FORKS RD		
SCALE 1"=100'	AREA BLOOR ST	PROJECT No. 134154
C.A.D.D. BY A.C.	CHECKED BY M.P.	PLAN No.
DATE 2023-05-15	SHEET 02 OF 04	

# BLOOR STREET INTEGRATED ROAD PROJECT LITTLE ETOBICOKE CREEK TO FIELDGATE DRIVE

- LEGEND**
- PROPOSED LANDSCAPE ZONE
  - PROPOSED PAVEMENT / CYCLE TRACK
  - PROPOSED SIDEWALK
  - PROPOSED HARDSCAPE BUFFER / SPLASH PAD
  - EXISTING PROPERTY LINE
  - PROPOSED NOISE WALL
  - PROPOSED TREES

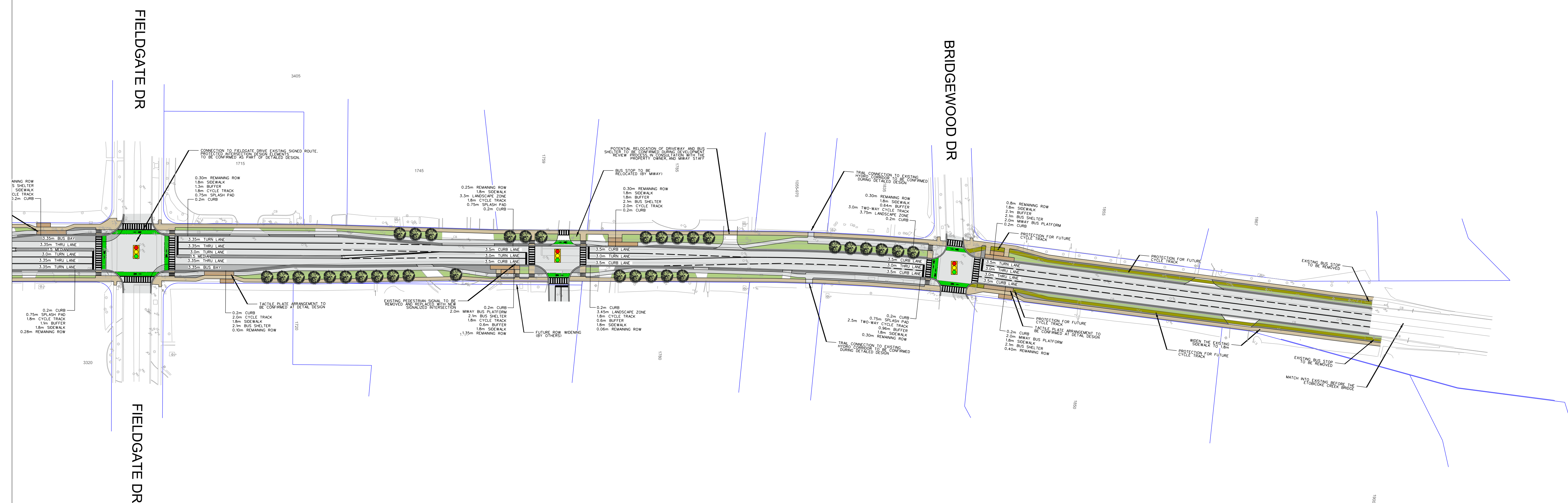


# BLOOR STREET INTEGRATED ROAD PROJECT FIELDGATE DRIVE TO ETOBICOKE CREEK



**LEGEND**

- PROPOSED LANDSCAPE ZONE
- PROPOSED PAVEMENT / CYCLE TRACK
- PROPOSED SIDEWALK
- PROPOSED HARDSCAPE BUFFER / SPLASH PAD
- EXISTING PROPERTY LINE
- PROPOSED NOISE WALL
- PROPOSED TREES
- PROTECTION FOR FUTURE CYCLE TRACK



DESIGN BY _____ C.E.T. DEPARTMENTAL APPROVAL _____ SILVIO CESARO P.ENG.	APPROVED BY _____	
PRODUCED FOR T&W ENGINEERING AND WORKS <b>BLOOR STREET INTEGRATED ROAD PROJECT</b> FIELDGATE DR TO ETOBICOKE CREEK		
SCALE 1:1000	AREA BLOOR ST	PROJECT No. 134154
C.A.D.D. BY A.C.	CHECKED BY M.P.	PLAN No.
DATE 2023-05-15	SHEET 04 OF 04	

# APPENDIX H

## Background Development Traffic Volumes





Timbercreek Asset Management

# TRANSPORTATION IMPACT STUDY

(OCTOBER 2020 UPDATE)

PROPOSED RESIDENTIAL  
DEVELOPMENT

**1750 BLOOR STREET  
CITY OF MISSISSAUGA**

October 2020

18005

## 4 SITE-GENERATED TRAFFIC

The proposed development includes the addition of a 17-storey residential and an amenity building with a total addition of 268 units. The sections below discuss in detail the calculation and distribution of site-generated single-occupant vehicle (SOV) trips.

### 4.1 MODAL SPLIT

To determine the modal split of the trips generated by the subject site, 2016 Transportation Tomorrow Survey (2016 TTS) modal split data was reviewed for home-based trips originating from the study area and is summarized in **Table 4.1**. The subject site is located within TTS Traffic Zone 3670, with detailed TTS data is provided in **Appendix D**.

Table 4.1: Modal Split Summary

Peak Period	Auto Driver (SOV)	Transit, excluding GO	GO Rail Only	Auto Passenger	School Bus/ Taxi	Walk	Total
AM	51%	14%	2%	9%	8%	16%	100%
PM	78%	10%	0%	4%	0%	7%	100%

Based on the results presented above, 49 and 22 percent of trips are made by a non-SOV in the AM and PM peak periods, respectively. Therefore, an average non-SOV modal split reduction of 35 percent was applied to the total trips generated by the proposed development, which is utilized below in Section 4.2.

### 4.2 TRIP GENERATION

Trip generation for the development was calculated based on the ITE Trip Generation Manual 10<sup>th</sup> Edition utilizing the rates for Multifamily High-Rise (LUC 222). The average trip rates were used for Multifamily Mid-Rise and the fitted equation was applied for Multifamily High-Rise. The trip generation rates are summarized in **Table 4.2**. The proposed development is expected to generate a maximum of 65 new trips during the two peak hours.

Table 4.2: ITE Trip Generation

Land Use	Trip Gen Info	Weekday AM Peak Hour			Weekday PM Peak Hour		
		In	Out	Total	In	Out	Total
Multifamily High-Rise (266 Units)	Percentage Split	24%	76%	100%	65%	35%	100%
	Trip Rate	0.07	0.24	0.31	0.23	0.13	0.36
	<b>Trips Generated</b>	<b>21</b>	<b>67</b>	<b>88</b>	<b>65</b>	<b>35</b>	<b>100</b>
Non-SOV Reduction (35%)		-7	-24	-31	-23	-12	-35
<b>Net SOV Trips</b>		<b>14</b>	<b>43</b>	<b>57</b>	<b>42</b>	<b>23</b>	<b>65</b>

For comparison purposes, a trip generation survey was also completed at the subject site to determine the existing trip rate and compare with the ITE trip rates. Based on the existing unit count, the existing site traffic observed at Towers A and B were used to determine a trip generation rate, which was subsequently applied to the additional units proposed. The trip generation summary is provided for comparison in **Table 4.3** below.

Table 4.3: Existing Site Trip Generation

	Occupied Units	Weekday AM Peak Hour			Weekday PM Peak Hour		
		In	Out	Total	In	Out	Total
Existing Residential Trips	305	16	49	65	30	21	51
Existing Trip Rate		0.05	0.16	0.21	0.10	0.07	0.17
<b>Projected Residential Trips (based on Existing Trip Rates)</b>	268	<b>13</b>	<b>43</b>	<b>56</b>	<b>27</b>	<b>19</b>	<b>46</b>

According to the trip generation survey, the proposed development would generate less than 60 new trips in the two peak hours. In comparison, the proposed development is expected to generate slightly more trips when applying the ITE rates as indicated above. As such, the ITE-based trip generation estimation was utilized in our analysis to present a conservative analysis.

### 4.3 TRIP DISTRIBUTION AND ASSIGNMENT

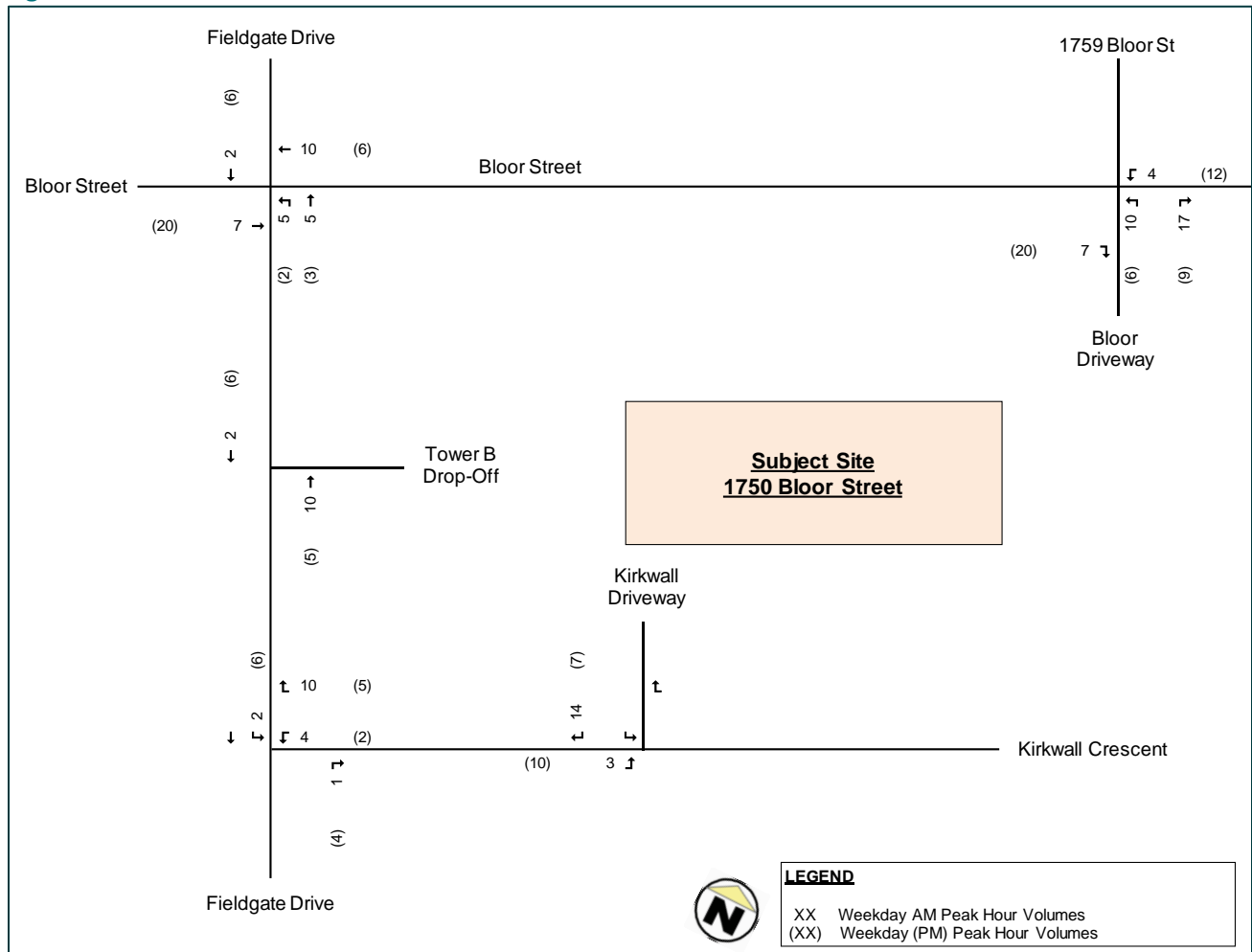
Directional trip distribution was determined using 2016 TTS data for “Home-Based Work” trip purposes for the AM and PM peak periods, as shown in **Table 4.4**. The assumption made is that the AM and PM peak hour trip distribution is the same for inbound and outbound trips. Detailed survey data is provided in **Appendix D**.

Table 4.4: Directional Trip Distribution

Directions	Inbound	Outbound
Bloor Street (East)	28%	42%
Bloor Street (West)	48%	36%
Fieldgate Drive (North)	15%	13%
Fieldgate Drive (South)	10%	9%
<b>TOTAL</b>	<b>100%</b>	<b>100%</b>

The site plan is proposing to maintain both existing site accesses on Bloor Street and Kirkwall Crescent. Given the underground parking connections, Tower C and Tower D can be accessed via both existing site driveways. As per Comment 8, site traffic has been reassigned accordingly to utilize the Bloor Street Access as well. The site-generated traffic volumes for the 2022 horizon year are illustrated in **Figure 4.1**.

Figure 4.1: Site Generated Peak Hour Traffic Volumes





Starlight Investments  
3480 Havenwood Drive & 1485 Williamsport Drive  
**Transportation Impact Study**  
Proposed Residential Redevelopment

June 2018

18337/200

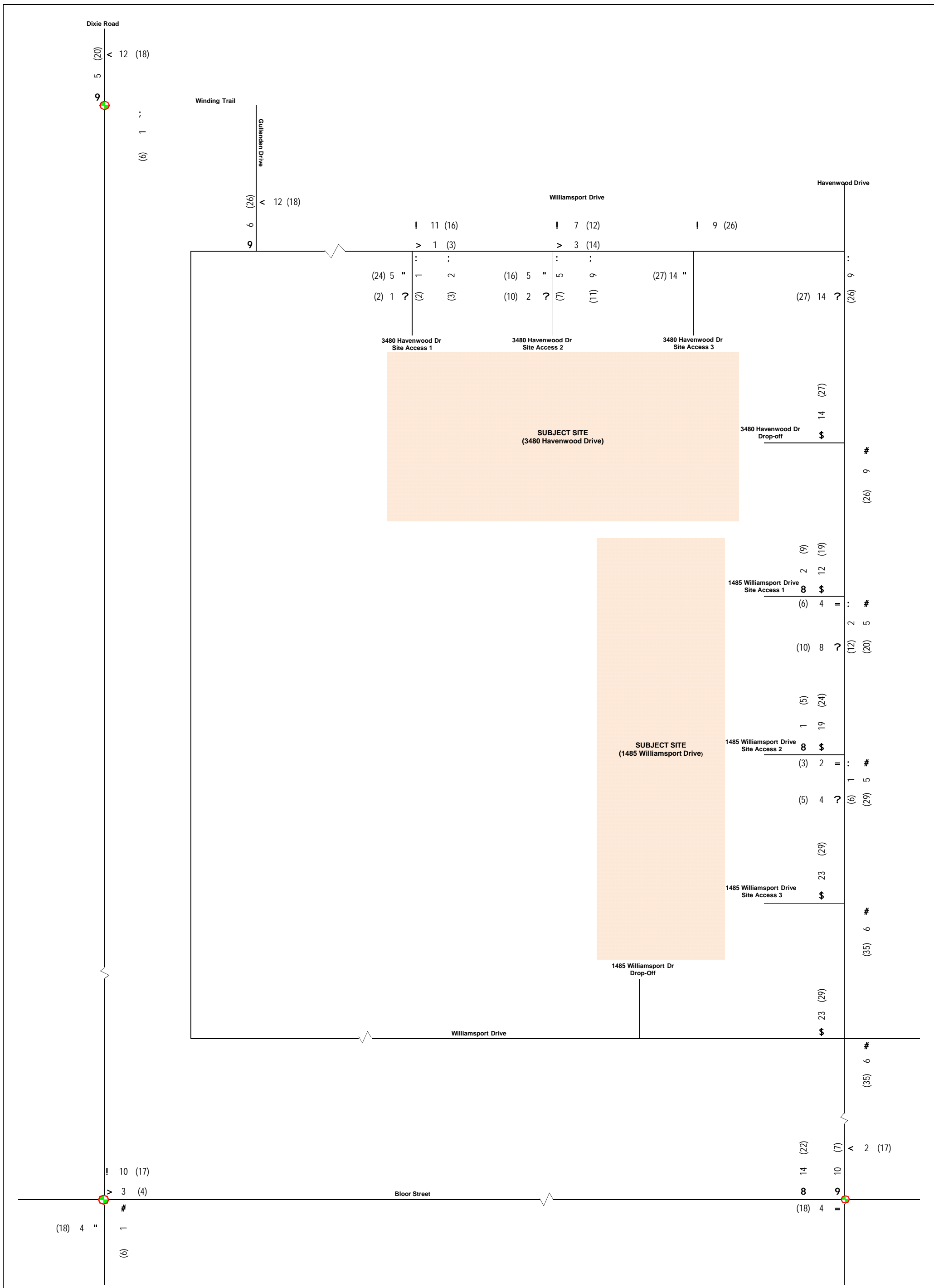


FIGURE 4-1  
 FUTURE TOTAL (2023)  
 LEA Consulting Ltd.



LEGEND

XX (XX)	WEEKDAY AM (PM) PEAK HOUR TRAFFIC VOLUMES
	SIGNALIZED INTERSECTION





**BA Group**

# **PROPOSED RESIDENTIAL DEVELOPMENT 1840-1850 BLOOR STREET CITY OF MISSISSAUGA**

Urban Transportation Considerations Report

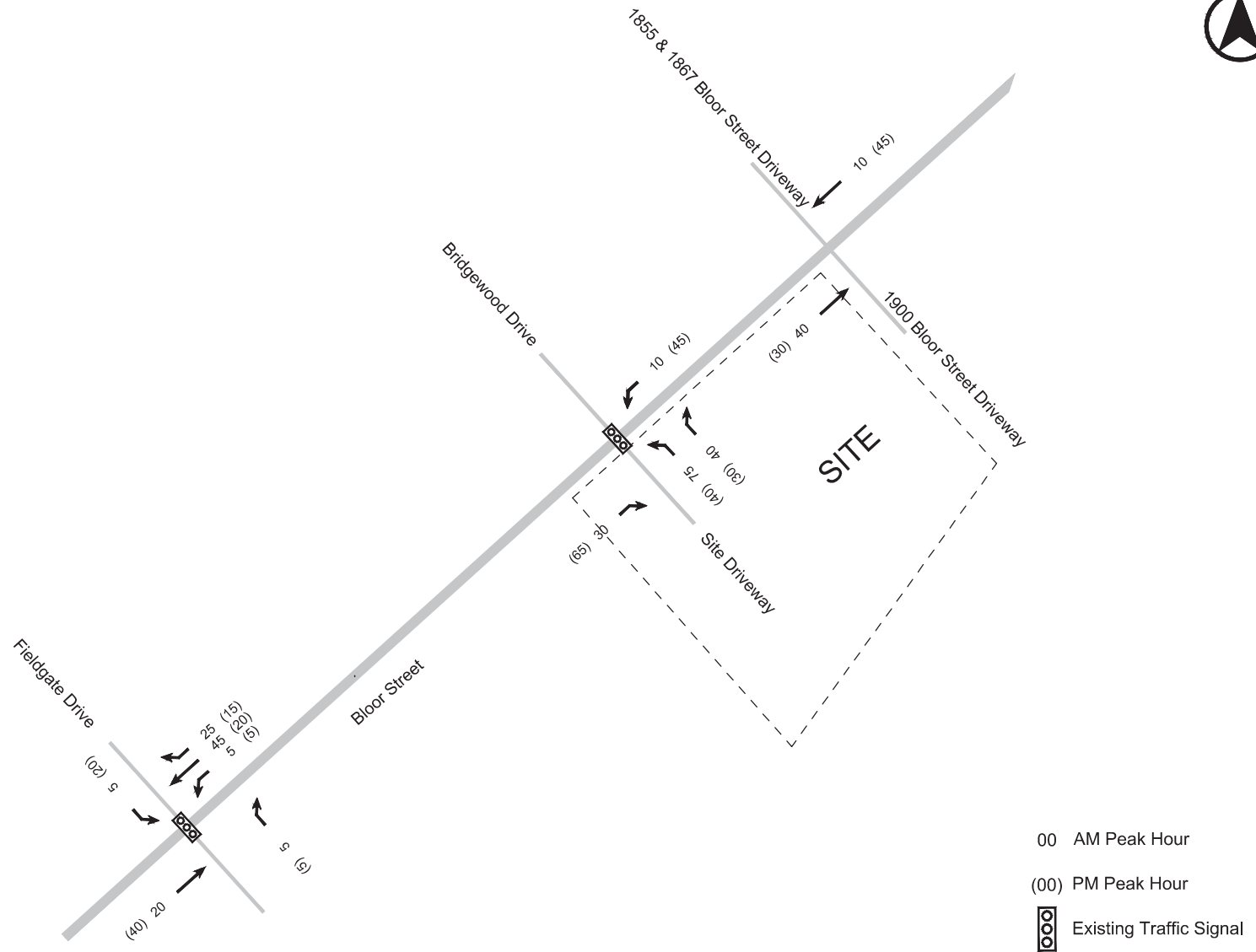
Prepared For: Raneer Management

March, 2020





Date Plotted: March 11, 2020 Filename: P:\80115101\Graphics\CAD\Fig07-00-NRSt-Xerox.dwg

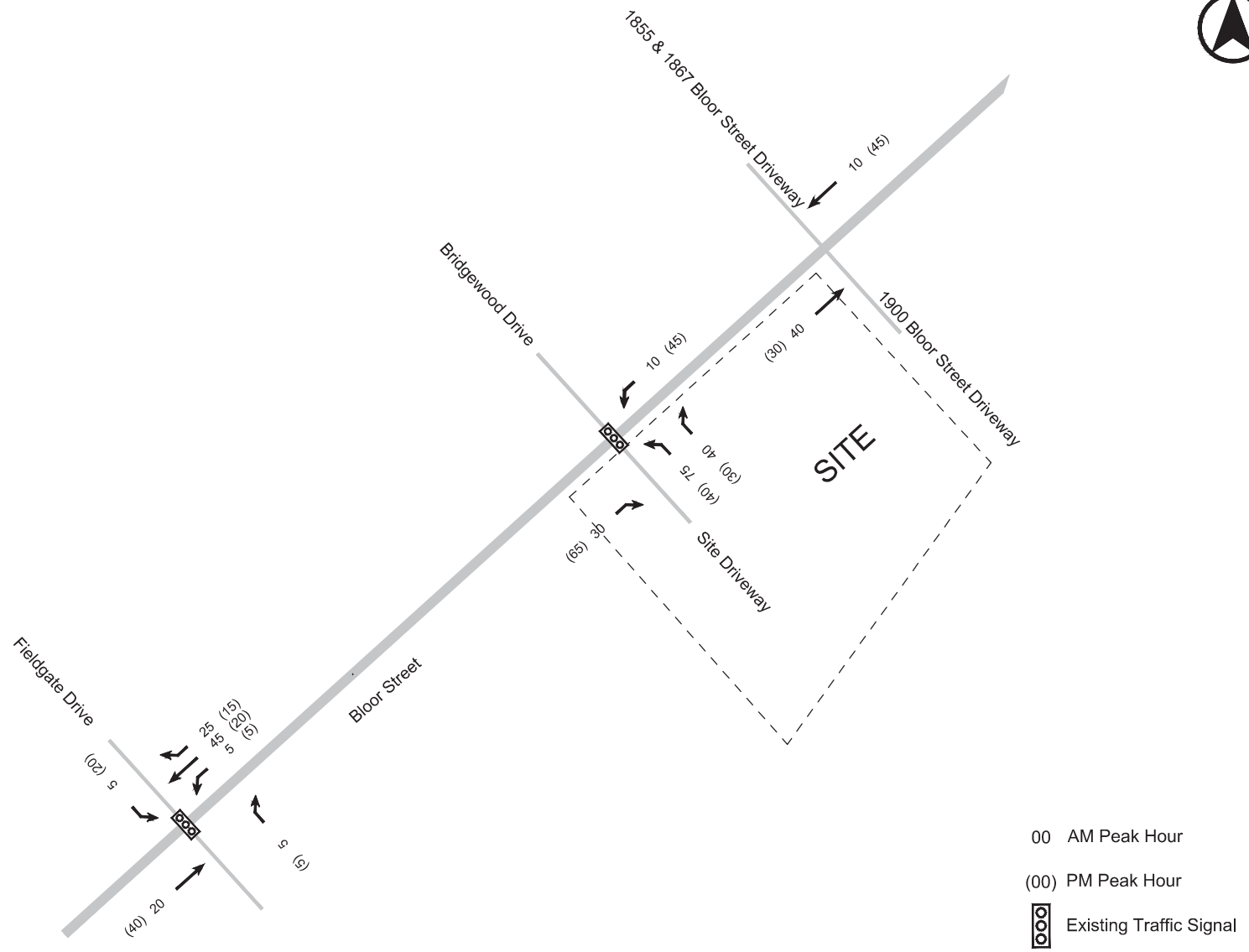


**FIGURE 7 NEW RESIDENTIAL SITE TRAFFIC VOLUMES**





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**FIGURE 8 TOTAL RESIDENTIAL SITE TRAFFIC VOLUMES**

# TRAFFIC IMPACT STUDY & PARKING STUDY

Proposed Residential Apartment Addition  
1785 Bloor Street  
City of Mississauga, Region of Peel

June 2022

Prepared for  
1785 Bloor Holdings Inc.

c/o Sajecki Planning



**TRANS-PLAN**  
Transportation Engineering



785 Dundas St W  
Toronto, ON, M6J 1V2

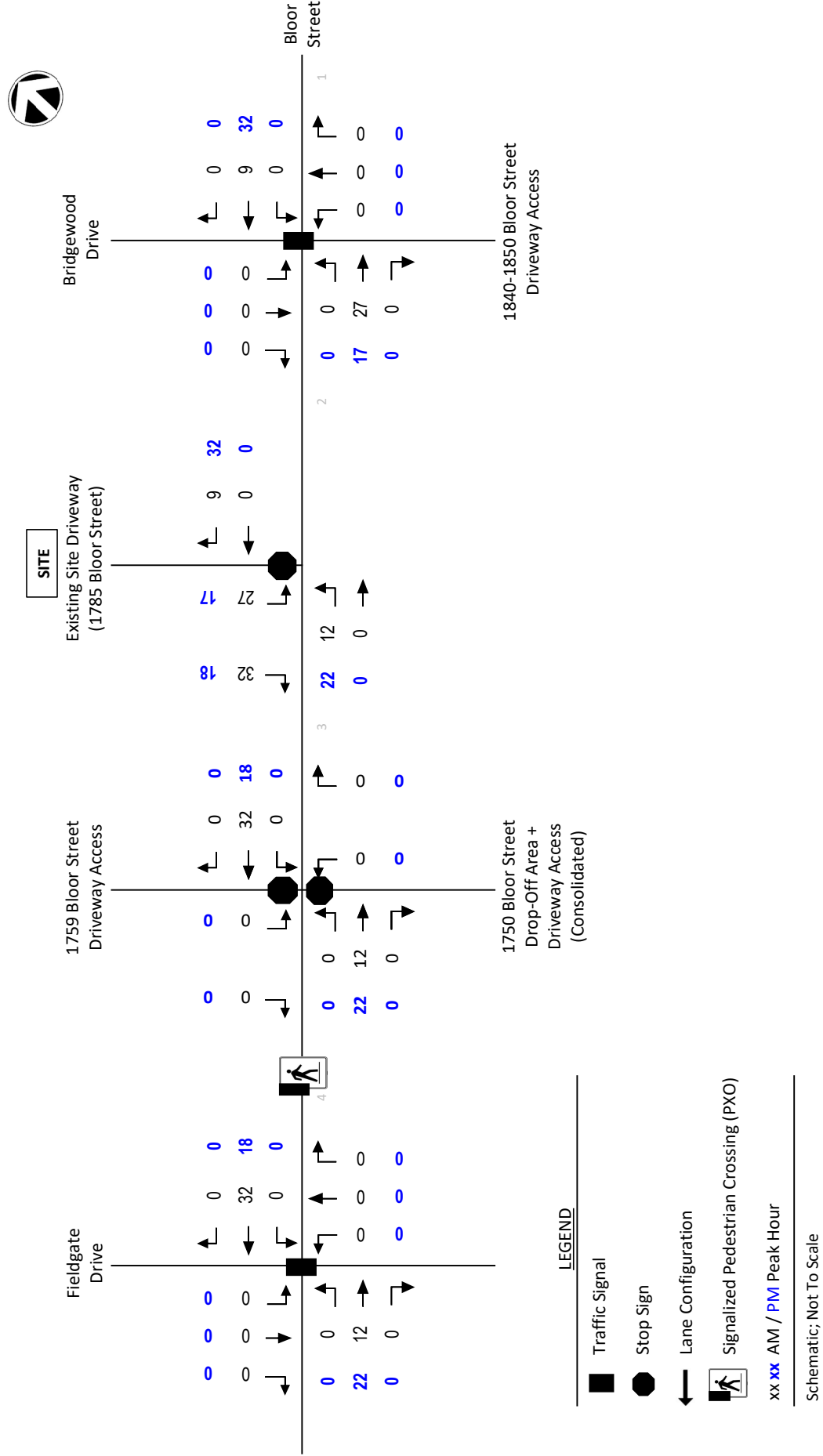


1 (647) 931 7383  
1 (877) 668 8784



trans-plan.com  
admin@trans-plan.com

**Figure 7: Site Traffic Assignment, Weekday AM and PM Peak Hours**
































# APPENDIX I

## 2029 Future Background Detailed Capacity Analysis

Lanes, Volumes, Timings  
1: Dixie Rd & Bloor St

2029 FB AM  
06/04/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 			  			  	
Traffic Volume (vph)	137	460	173	269	388	260	57	974	187	194	1185	100
Future Volume (vph)	137	460	173	269	388	260	57	974	187	194	1185	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		15.0	60.0		10.0	75.0		0.0	100.0		85.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	85.0			60.0			90.0			50.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.91	0.91	1.00	0.91	1.00
Ped Bike Factor	0.97		0.98	1.00		0.93	0.99	1.00		1.00		0.95
Frt			0.850			0.850		0.976				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1738	3544	1617	1772	3444	1555	1722	4702	0	1722	4948	1555
Flt Permitted	0.506			0.253			0.203			0.147		
Satd. Flow (perm)	897	3544	1582	470	3444	1452	365	4702	0	266	4948	1473
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			68			108			30			109
Link Speed (k/h)		50			50			60				60
Link Distance (m)		302.0			160.9			615.3				434.7
Travel Time (s)		21.7			11.6			36.9				26.1
Confl. Peds. (#/hr)	45		8	8		45	35		14	14		35
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	5%	3%	1%	3%	6%	5%	6%	9%	5%	6%	6%	5%
Adj. Flow (vph)	149	500	188	292	422	283	62	1059	203	211	1288	109
Shared Lane Traffic (%)												
Lane Group Flow (vph)	149	500	188	292	422	283	62	1262	0	211	1288	109
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7				3.7
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane					Yes							
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	2	1	1	1	1	1	1	0		1	0	0
Detector Template								Thru			Thru	Right
Leading Detector (m)	24.0	7.0	7.0	22.0	7.0	7.0	24.0	0.0		24.0	0.0	0.0
Trailing Detector (m)	-2.5	-2.0	-2.0	12.0	-2.0	-2.0	14.0	0.0		14.0	0.0	0.0
Detector 1 Position(m)	-2.5	-2.0	-2.0	12.0	-2.0	-2.0	14.0	0.0		14.0	0.0	0.0
Detector 1 Size(m)	10.0	9.0	9.0	10.0	9.0	9.0	10.0	0.6		10.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)	14.0											
Detector 2 Size(m)	10.0											
Detector 2 Type	Cl+Ex											
Detector 2 Channel												
Detector 2 Extend (s)	0.0											

Lanes, Volumes, Timings  
1: Dixie Rd & Bloor St

2029 FB AM  
06/04/2024

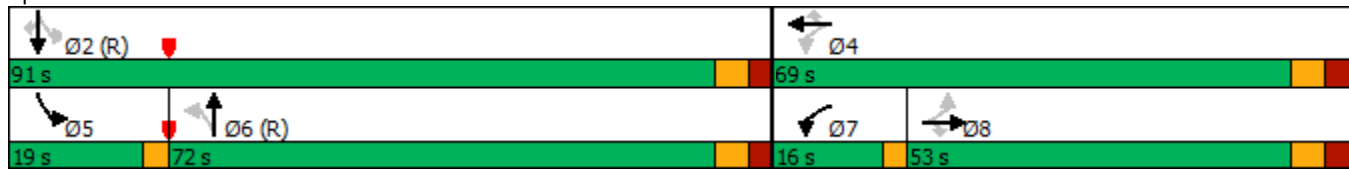


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	Perm	NA		pm+pt	NA	Perm
Protected Phases		8		7	4			6		5	2	
Permitted Phases	8		8	4		4	6			2		2
Detector Phase	8	8	8	7	4	4	6	6		5	2	2
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	7.0	10.0	10.0	10.0	10.0		7.0	10.0	10.0
Minimum Split (s)	46.4	46.4	46.4	10.0	46.4	46.4	46.9	46.9		10.0	46.9	46.9
Total Split (s)	53.0	53.0	53.0	16.0	69.0	69.0	72.0	72.0		19.0	91.0	91.0
Total Split (%)	33.1%	33.1%	33.1%	10.0%	43.1%	43.1%	45.0%	45.0%		11.9%	56.9%	56.9%
Maximum Green (s)	45.6	45.6	45.6	13.0	61.6	61.6	65.1	65.1		16.0	84.1	84.1
Yellow Time (s)	4.0	4.0	4.0	3.0	4.0	4.0	4.0	4.0		3.0	4.0	4.0
All-Red Time (s)	3.4	3.4	3.4	0.0	3.4	3.4	2.9	2.9		0.0	2.9	2.9
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.4	7.4	7.4	3.0	7.4	7.4	6.9	6.9		3.0	6.9	6.9
Lead/Lag	Lag	Lag	Lag	Lead			Lag	Lag		Lead		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	C-Max	C-Max		None	C-Max	C-Max
Walk Time (s)	10.0	10.0	10.0		10.0	10.0	10.0	10.0			10.0	10.0
Flash Dont Walk (s)	29.0	29.0	29.0		29.0	29.0	30.0	30.0			30.0	30.0
Pedestrian Calls (#/hr)	0	0	0		0	0	0	0			0	0
Act Effct Green (s)	34.2	34.2	34.2	54.6	50.2	50.2	78.8	78.8		99.4	95.5	95.5
Actuated g/C Ratio	0.21	0.21	0.21	0.34	0.31	0.31	0.49	0.49		0.62	0.60	0.60
v/c Ratio	0.78	0.66	0.48	1.10	0.39	0.53	0.35	0.54		0.73	0.44	0.12
Control Delay	84.5	61.1	37.1	125.6	43.1	29.7	36.5	30.1		31.0	19.1	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	84.5	61.1	37.1	125.6	43.1	29.7	36.5	30.1		31.0	19.1	3.2
LOS	F	E	D	F	D	C	D	C		C	B	A
Approach Delay		59.9			63.5			30.4			19.6	
Approach LOS		E			E			C			B	

Intersection Summary

Area Type: Other  
 Cycle Length: 160  
 Actuated Cycle Length: 160  
 Offset: 45 (28%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green  
 Natural Cycle: 115  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.10  
 Intersection Signal Delay: 38.8      Intersection LOS: D  
 Intersection Capacity Utilization 101.5%      ICU Level of Service G  
 Analysis Period (min) 15

Splits and Phases: 1: Dixie Rd & Bloor St





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	149	500	188	292	422	283	62	1262	211	1288	109
v/c Ratio	0.78	0.66	0.48	1.10	0.39	0.53	0.35	0.54	0.73	0.44	0.12
Control Delay	84.5	61.1	37.1	125.6	43.1	29.7	36.5	30.1	31.0	19.1	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	84.5	61.1	37.1	125.6	43.1	29.7	36.5	30.1	31.0	19.1	3.2
Queue Length 50th (m)	45.3	77.6	33.6	~83.8	55.6	46.1	11.8	97.6	27.6	78.3	0.0
Queue Length 95th (m)	66.7	88.2	53.5	#124.4	63.4	67.7	30.0	131.8	#53.8	106.6	9.6
Internal Link Dist (m)		278.0			136.9			591.3		410.7	
Turn Bay Length (m)	40.0		15.0	60.0		10.0	75.0		100.0		85.0
Base Capacity (vph)	255	1010	499	266	1325	625	179	2330	314	2954	923
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.58	0.50	0.38	1.10	0.32	0.45	0.35	0.54	0.67	0.44	0.12

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Lanes, Volumes, Timings  
2: Havenwood Dr & Bloor St

2029 FB AM  
06/04/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	67	723	62	58	690	28	68	60	60	48	85	120
Future Volume (vph)	67	723	62	58	690	28	68	60	60	48	85	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0		0.0	50.0		0.0	25.0		0.0	25.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	65.0			80.0			40.0			35.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			0.99		0.87	0.86		0.78	0.88	
Frt		0.988			0.994			0.925			0.912	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1789	1816	0	1722	1826	0	1690	1501	0	1722	1464	0
Flt Permitted	0.279			0.240			0.466			0.674		
Satd. Flow (perm)	525	1816	0	435	1826	0	718	1501	0	955	1464	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			3			54			76	
Link Speed (k/h)		50			50			30			40	
Link Distance (m)		179.0			562.7			137.1			118.1	
Travel Time (s)		12.9			40.5			16.5			10.6	
Confl. Peds. (#/hr)	70		25	25		70	127		178	178		127
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	4%	4%	6%	4%	4%	8%	2%	2%	6%	6%	5%
Adj. Flow (vph)	73	786	67	63	750	30	74	65	65	52	92	130
Shared Lane Traffic (%)												
Lane Group Flow (vph)	73	853	0	63	780	0	74	130	0	52	222	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	0	0		0	0		1	1		1	1	
Detector Template		Thru		Left	Thru							
Leading Detector (m)	0.0	0.0		0.0	0.0		7.0	7.0		8.0	8.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		-2.0	-2.0		-2.0	-2.0	
Detector 1 Position(m)	11.5	0.0		0.0	0.0		-2.0	-2.0		-2.0	-2.0	
Detector 1 Size(m)	9.0	0.6		2.0	0.6		9.0	9.0		10.0	10.0	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Detector Phase	2	2		2	2		4	4		4	4	
Switch Phase												



Lanes, Volumes, Timings  
2: Havenwood Dr & Bloor St

2029 FB AM  
06/04/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	35.0	35.0		35.0	35.0		41.5	41.5		41.5	41.5	
Total Split (s)	59.0	59.0		59.0	59.0		41.0	41.0		41.0	41.0	
Total Split (%)	59.0%	59.0%		59.0%	59.0%		41.0%	41.0%		41.0%	41.0%	
Maximum Green (s)	53.0	53.0		53.0	53.0		33.5	33.5		33.5	33.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.5	2.5		2.5	2.5		4.5	4.5		4.5	4.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		7.5	7.5		7.5	7.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	
Walk Time (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Flash Dont Walk (s)	19.0	19.0		19.0	19.0		24.0	24.0		24.0	24.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	69.6	69.6		69.6	69.6		16.9	16.9		16.9	16.9	
Actuated g/C Ratio	0.70	0.70		0.70	0.70		0.17	0.17		0.17	0.17	
v/c Ratio	0.20	0.67		0.21	0.61		0.61	0.44		0.32	0.72	
Control Delay	8.6	13.4		7.8	8.7		58.1	25.2		39.5	37.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	8.6	13.4		7.8	8.7		58.1	25.2		39.5	37.7	
LOS	A	B		A	A		E	C		D	D	
Approach Delay		13.0			8.6			37.1			38.0	
Approach LOS		B			A			D			D	

Intersection Summary

Area Type: Other  
 Cycle Length: 100  
 Actuated Cycle Length: 100  
 Offset: 39 (39%), Referenced to phase 2:EBWB, Start of Green  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.72  
 Intersection Signal Delay: 16.6  
 Intersection LOS: B  
 Intersection Capacity Utilization 109.4%  
 ICU Level of Service H  
 Analysis Period (min) 15

Splits and Phases: 2: Havenwood Dr & Bloor St



Queues  
2: Havenwood Dr & Bloor St

2029 FB AM  
06/04/2024



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	73	853	63	780	74	130	52	222
v/c Ratio	0.20	0.67	0.21	0.61	0.61	0.44	0.32	0.72
Control Delay	8.6	13.4	7.8	8.7	58.1	25.2	39.5	37.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.6	13.4	7.8	8.7	58.1	25.2	39.5	37.7
Queue Length 50th (m)	4.2	79.8	3.4	46.1	13.6	13.2	9.0	27.1
Queue Length 95th (m)	13.3	162.2	m9.0	75.3	26.0	27.3	18.3	46.9
Internal Link Dist (m)		155.0		538.7		113.1		94.1
Turn Bay Length (m)	50.0		50.0		25.0		25.0	
Base Capacity (vph)	365	1265	302	1271	240	538	319	540
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.67	0.21	0.61	0.31	0.24	0.16	0.41

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lanes, Volumes, Timings  
3: Fieldgate Dr & Bloor St

2029 FB AM  
06/04/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	148	653	38	31	517	78	68	54	77	141	41	164
Future Volume (vph)	148	653	38	31	517	78	68	54	77	141	41	164
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	80.0		75.0	92.0		92.0	45.0		0.0	25.0		0.0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (m)	50.0			55.0			30.0			30.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.98			0.97			0.94	0.91		0.89	0.92	
Frt			0.850			0.850		0.912			0.880	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1772	1847	1585	1825	1847	1498	1738	1541	0	1789	1462	0
Flt Permitted	0.330			0.372			0.460			0.649		
Satd. Flow (perm)	604	1847	1585	697	1847	1498	792	1541	0	1091	1462	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			142			142		77			178	
Link Speed (k/h)		50			50			40			40	
Link Distance (m)		562.7			233.6			134.2			78.0	
Travel Time (s)		40.5			16.8			12.1			7.0	
Confl. Peds. (#/hr)	37		47	47		37	54		84	84		54
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	4%	3%	0%	4%	9%	5%	2%	5%	2%	3%	7%
Adj. Flow (vph)	161	710	41	34	562	85	74	59	84	153	45	178
Shared Lane Traffic (%)												
Lane Group Flow (vph)	161	710	41	34	562	85	74	143	0	153	223	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane		Yes										
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	0	1	0	0	1	1	1		1	1	
Detector Template		Thru	Right	Left	Thru	Right						
Leading Detector (m)	21.0	0.0	2.0	0.0	0.0	2.0	6.5	6.5		7.5	6.0	
Trailing Detector (m)	12.0	0.0	0.0	0.0	0.0	0.0	-2.5	-2.5		-1.5	-3.0	
Detector 1 Position(m)	12.0	0.0	0.0	0.0	0.0	0.0	-2.5	-2.5		-1.5	-3.0	
Detector 1 Size(m)	9.0	0.6	2.0	2.0	0.6	2.0	9.0	9.0		9.0	9.0	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA	NA	Perm	NA	NA	Perm	NA		Perm	NA	
Protected Phases	5	2			6			4				8
Permitted Phases	2			6			4			8		
Detector Phase	5	2		6	6		4	4		8	8	
Switch Phase												

Lanes, Volumes, Timings  
3: Fieldgate Dr & Bloor St

2029 FB AM  
06/04/2024

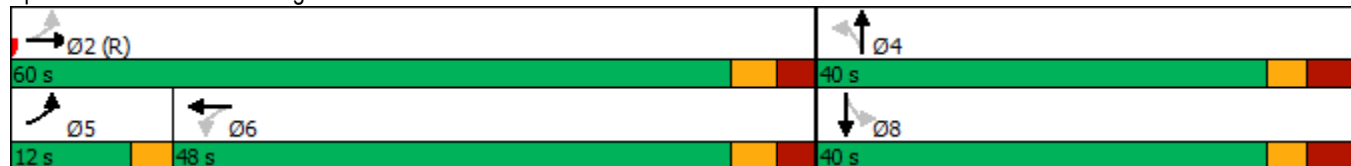


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	7.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	11.5	33.5		33.5	33.5		38.5	38.5		38.5	38.5	
Total Split (s)	12.0	60.0		48.0	48.0		40.0	40.0		40.0	40.0	
Total Split (%)	12.0%	60.0%		48.0%	48.0%		40.0%	40.0%		40.0%	40.0%	
Maximum Green (s)	9.0	53.5		41.5	41.5		33.5	33.5		33.5	33.5	
Yellow Time (s)	3.0	3.5		3.5	3.5		3.0	3.0		3.0	3.0	
All-Red Time (s)	0.0	3.0		3.0	3.0		3.5	3.5		3.5	3.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.0	6.5		6.5	6.5		6.5	6.5		6.5	6.5	
Lead/Lag	Lead			Lag			Lag			Lag		
Lead-Lag Optimize?	Yes			Yes			Yes			Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max		Max	Max		None	None		None	None	
Walk Time (s)		10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Flash Dont Walk (s)		17.0		17.0	17.0		22.0	22.0		22.0	22.0	
Pedestrian Calls (#/hr)		0		0	0		0	0		0	0	
Act Effct Green (s)	71.3	67.8	0.0	56.6	56.6	0.0	19.2	19.2		19.2	19.2	
Actuated g/C Ratio	0.71	0.68	0.00	0.57	0.57	0.00	0.19	0.19		0.19	0.19	
v/c Ratio	0.31	0.57	0.29	0.09	0.54	0.60	0.49	0.40		0.73	0.53	
Control Delay	10.0	18.6	4.1	13.7	17.8	19.2	45.1	19.1		57.1	12.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	10.0	18.6	4.1	13.7	17.8	19.2	45.1	19.1		57.1	12.9	
LOS	A	B	A	B	B	B	D	B		E	B	
Approach Delay		16.4			17.8			28.0			30.9	
Approach LOS		B			B			C			C	

Intersection Summary

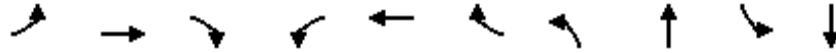
Area Type:	Other
Cycle Length:	100
Actuated Cycle Length:	100
Offset:	10 (10%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle:	85
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.73
Intersection Signal Delay:	20.5
Intersection LOS:	C
Intersection Capacity Utilization:	98.4%
ICU Level of Service:	F
Analysis Period (min):	15

Splits and Phases: 3: Fieldgate Dr & Bloor St



Queues  
3: Fieldgate Dr & Bloor St

2029 FB AM  
06/04/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	161	710	41	34	562	85	74	143	153	223
v/c Ratio	0.31	0.57	0.29	0.09	0.54	0.60	0.49	0.40	0.73	0.53
Control Delay	10.0	18.6	4.1	13.7	17.8	19.2	45.1	19.1	57.1	12.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.0	18.6	4.1	13.7	17.8	19.2	45.1	19.1	57.1	12.9
Queue Length 50th (m)	15.3	109.5	0.0	2.8	62.5	0.0	12.9	10.9	28.1	7.4
Queue Length 95th (m)	m25.6	168.6	m0.0	9.6	119.8	#6.5	24.5	25.0	45.0	25.3
Internal Link Dist (m)		538.7			209.6			110.2		54.0
Turn Bay Length (m)	80.0		75.0	92.0		92.0	45.0		25.0	
Base Capacity (vph)	540	1253	142	394	1046	142	265	567	365	608
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.57	0.29	0.09	0.54	0.60	0.28	0.25	0.42	0.37

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lanes, Volumes, Timings  
5: Fieldgate Dr

2029 FB AM  
06/04/2024



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	301	0	0	281
Future Volume (vph)	0	0	301	0	0	281
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)	1762	0	1847	0	0	1847
Flt Permitted						
Satd. Flow (perm)	1762	0	1847	0	0	1847
Link Speed (k/h)	30		40			40
Link Distance (m)	40.2		78.0			83.8
Travel Time (s)	4.8		7.0			7.5
Confl. Peds. (#/hr)	1	2		172	172	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	9%	0%	4%	3%	0%	4%
Adj. Flow (vph)	0	0	327	0	0	305
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	327	0	0	305
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.7		3.7			3.7
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	1.6		1.6			1.6
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24	14		14	24	
Sign Control	Stop		Free			Free
<b>Intersection Summary</b>						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	26.5%			ICU Level of Service A		
Analysis Period (min)	15					

HCM Unsignalized Intersection Capacity Analysis  
5: Fieldgate Dr

2029 FB AM  
06/04/2024



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	301	0	0	281
Future Volume (Veh/h)	0	0	301	0	0	281
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	327	0	0	305
Pedestrians	172		1			2
Lane Width (m)	3.7		3.7			3.7
Walking Speed (m/s)	1.1		1.1			1.1
Percent Blockage	17		0			0
Right turn flare (veh)						
Median type			None			None
Median storage veh						
Upstream signal (m)			78			
pX, platoon unblocked	0.98	0.98			0.98	
vC, conflicting volume	805	501			499	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	792	482			480	
tC, single (s)	6.5	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.6	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	284	479			892	
<b>Direction, Lane #</b>	<b>WB 1</b>	<b>NB 1</b>	<b>SB 1</b>			
Volume Total	0	327	305			
Volume Left	0	0	0			
Volume Right	0	0	0			
cSH	1700	1700	892			
Volume to Capacity	0.00	0.19	0.00			
Queue Length 95th (m)	0.0	0.0	0.0			
Control Delay (s)	0.0	0.0	0.0			
Lane LOS	A					
Approach Delay (s)	0.0	0.0	0.0			
Approach LOS	A					
<b>Intersection Summary</b>						
Average Delay			0.0			
Intersection Capacity Utilization			26.5%		ICU Level of Service	A
Analysis Period (min)			15			

Lanes, Volumes, Timings  
6: Fieldgate Dr & Williamsport Dr/Site Access

2029 FB AM  
06/04/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↕			↕			↕			↕		
Traffic Volume (vph)	32	0	72	0	0	0	50	257	0	0	207	44	
Future Volume (vph)	32	0	72	0	0	0	50	257	0	0	207	44	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Ped Bike Factor													
Frt	0.907										0.976		
Flt Protected	0.985										0.992		
Satd. Flow (prot)	0	1716	0	0	1883	0	0	1838	0	0	1792	0	
Flt Permitted	0.985										0.992		
Satd. Flow (perm)	0	1716	0	0	1883	0	0	1838	0	0	1792	0	
Link Speed (k/h)	40						48		40		40		
Link Distance (m)	168.2						35.5		83.8		69.3		
Travel Time (s)	15.1						2.7		7.5		6.2		
Confl. Peds. (#/hr)	23	7		7	23		68						68
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Heavy Vehicles (%)	0%	2%	0%	2%	2%	2%	2%	4%	2%	2%	5%	3%	
Adj. Flow (vph)	35	0	78	0	0	0	54	279	0	0	225	48	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	113	0	0	0	0	0	333	0	0	273	0	
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No	
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right	
Median Width(m)	0.0						0.0		0.0		0.0		
Link Offset(m)	0.0						0.0		0.0		0.0		
Crosswalk Width(m)	1.6						1.6		1.6		1.6		
Two way Left Turn Lane													
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	
Turning Speed (k/h)	24	14		97	97		24	97		97	14		
Sign Control	Stop						Stop		Free		Free		

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	49.4%
ICU Level of Service	A
Analysis Period (min)	15



HCM Unsignalized Intersection Capacity Analysis  
6: Fieldgate Dr & Williamsport Dr/Site Access

2029 FB AM  
06/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	32	0	72	0	0	0	50	257	0	0	207	44
Future Volume (Veh/h)	32	0	72	0	0	0	50	257	0	0	207	44
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	35	0	78	0	0	0	54	279	0	0	225	48
Pedestrians		68						7			23	
Lane Width (m)		3.7						3.7			3.7	
Walking Speed (m/s)		1.1						1.1			1.1	
Percent Blockage		7						1			2	
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (m)								162				
pX, platoon unblocked												
vC, conflicting volume	727	704	324	721	728	302	341			279		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	727	704	324	721	728	302	341			279		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	88	100	88	100	100	100	95			100		
cM capacity (veh/h)	286	321	669	275	311	721	1137			1284		
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>WB 1</b>	<b>NB 1</b>	<b>SB 1</b>								
Volume Total	113	0	333	273								
Volume Left	35	0	54	0								
Volume Right	78	0	0	48								
cSH	472	1700	1137	1284								
Volume to Capacity	0.24	0.00	0.05	0.00								
Queue Length 95th (m)	7.0	0.0	1.1	0.0								
Control Delay (s)	15.0	0.0	1.7	0.0								
Lane LOS	B	A	A									
Approach Delay (s)	15.0	0.0	1.7	0.0								
Approach LOS	B	A										
<b>Intersection Summary</b>												
Average Delay			3.2									
Intersection Capacity Utilization			49.4%		ICU Level of Service					A		
Analysis Period (min)			15									

Lanes, Volumes, Timings  
7: Fieldgate Dr & Ponytrail Dr

2029 FB AM  
06/04/2024



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	93	44	206	82	36	161
Future Volume (vph)	93	44	206	82	36	161
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	0.957		0.962			
Flt Protected	0.967					0.991
Satd. Flow (prot)	1665	0	1787	0	0	1850
Flt Permitted	0.967					0.991
Satd. Flow (perm)	1665	0	1787	0	0	1850
Link Speed (k/h)	30		40			30
Link Distance (m)	39.8		69.3			254.8
Travel Time (s)	4.8		6.2			30.6
Confl. Peds. (#/hr)	1	99		117	117	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	9%	2%	2%	7%	7%	2%
Adj. Flow (vph)	101	48	224	89	39	175
Shared Lane Traffic (%)						
Lane Group Flow (vph)	149	0	313	0	0	214
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.7		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	1.6		1.6			1.6
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24	14		14	24	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	51.3%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis  
7: Fieldgate Dr & Ponytrail Dr

2029 FB AM  
06/04/2024



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	93	44	206	82	36	161
Future Volume (Veh/h)	93	44	206	82	36	161
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	101	48	224	89	39	175
Pedestrians	117		1		99	
Lane Width (m)	3.7		3.7		3.7	
Walking Speed (m/s)	1.1		1.1		1.1	
Percent Blockage	11		0		10	
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)	231					
pX, platoon unblocked						
vC, conflicting volume	640	484			430	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	640	484			430	
tC, single (s)	6.5	6.2			4.2	
tC, 2 stage (s)						
tF (s)	3.6	3.3			2.3	
p0 queue free %	72	90			96	
cM capacity (veh/h)	364	466			977	
<b>Direction, Lane #</b>	<b>WB 1</b>	<b>NB 1</b>	<b>SB 1</b>			
Volume Total	149	313	214			
Volume Left	101	0	39			
Volume Right	48	89	0			
cSH	392	1700	977			
Volume to Capacity	0.38	0.18	0.04			
Queue Length 95th (m)	13.2	0.0	0.9			
Control Delay (s)	19.7	0.0	1.9			
Lane LOS	C		A			
Approach Delay (s)	19.7	0.0	1.9			
Approach LOS	C					
<b>Intersection Summary</b>						
Average Delay			5.0			
Intersection Capacity Utilization			51.3%	ICU Level of Service		A
Analysis Period (min)	15					

Lanes, Volumes, Timings  
8: Ponytrail Dr

2029 FB AM  
06/04/2024



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	117	0	0	138	0	0
Future Volume (vph)	117	0	0	138	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)	1795	0	0	1812	1762	0
Flt Permitted						
Satd. Flow (perm)	1795	0	0	1812	1762	0
Link Speed (k/h)	30			30	30	
Link Distance (m)	39.8			47.8	38.4	
Travel Time (s)	4.8			5.7	4.6	
Confl. Peds. (#/hr)		29	29		4	16
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	7%	0%	10%	6%	9%	0%
Adj. Flow (vph)	127	0	0	150	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	127	0	0	150	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	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)		14	24		24	14
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	24.7%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis  
8: Ponytrail Dr

2029 FB AM  
06/04/2024



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↔	↔	
Traffic Volume (veh/h)	117	0	0	138	0	0
Future Volume (Veh/h)	117	0	0	138	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	127	0	0	150	0	0
Pedestrians	4			16	29	
Lane Width (m)	3.7			3.7	3.7	
Walking Speed (m/s)	1.1			1.1	1.1	
Percent Blockage	0			2	3	
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			156		310	172
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			156		310	172
tC, single (s)			4.2		6.5	6.2
tC, 2 stage (s)						
tF (s)			2.3		3.6	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1337		647	839
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>WB 1</b>	<b>NB 1</b>			
Volume Total	127	150	0			
Volume Left	0	0	0			
Volume Right	0	0	0			
cSH	1700	1337	1700			
Volume to Capacity	0.07	0.00	0.00			
Queue Length 95th (m)	0.0	0.0	0.0			
Control Delay (s)	0.0	0.0	0.0			
Lane LOS			A			
Approach Delay (s)	0.0	0.0	0.0			
Approach LOS			A			
<b>Intersection Summary</b>						
Average Delay			0.0			
Intersection Capacity Utilization			24.7%	ICU Level of Service	A	
Analysis Period (min)			15			

Lanes, Volumes, Timings  
 9: Site Access & Ponytrail Dr

2029 FB AM  
 06/04/2024



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	116	0	0	136	0	0
Future Volume (vph)	116	0	0	136	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)	1795	0	0	1795	1921	0
Flt Permitted						
Satd. Flow (perm)	1795	0	0	1795	1921	0
Link Speed (k/h)	30			30	30	
Link Distance (m)	47.8			156.1	119.1	
Travel Time (s)	5.7			18.7	14.3	
Confl. Peds. (#/hr)		101	101		3	4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	7%	2%	0%	7%	0%	2%
Adj. Flow (vph)	126	0	0	148	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	126	0	0	148	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	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)		14	24		24	14
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	24.3%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis  
 9: Site Access & Ponytrail Dr

2029 FB AM  
 06/04/2024



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↔	↔	
Traffic Volume (veh/h)	116	0	0	136	0	0
Future Volume (Veh/h)	116	0	0	136	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	126	0	0	148	0	0
Pedestrians	3			4	101	
Lane Width (m)	3.7			3.7	3.7	
Walking Speed (m/s)	1.1			1.1	1.1	
Percent Blockage	0			0	10	
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			227		378	231
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			227		378	231
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1219		564	725
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>WB 1</b>	<b>NB 1</b>			
Volume Total	126	148	0			
Volume Left	0	0	0			
Volume Right	0	0	0			
cSH	1700	1219	1700			
Volume to Capacity	0.07	0.00	0.00			
Queue Length 95th (m)	0.0	0.0	0.0			
Control Delay (s)	0.0	0.0	0.0			
Lane LOS			A			
Approach Delay (s)	0.0	0.0	0.0			
Approach LOS			A			
<b>Intersection Summary</b>						
Average Delay			0.0			
Intersection Capacity Utilization			24.3%	ICU Level of Service	A	
Analysis Period (min)			15			

Lanes, Volumes, Timings  
10: Fieldgate Dr & Haven Glenn

2029 FB AM  
06/04/2024



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	49	45	37	214	148	42
Future Volume (vph)	49	45	37	214	148	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
Ped Bike Factor						
Frt	0.935				0.970	
Flt Protected	0.975			0.993		
Satd. Flow (prot)	1724	0	0	1875	1775	0
Flt Permitted	0.975			0.993		
Satd. Flow (perm)	1724	0	0	1875	1775	0
Link Speed (k/h)	40			30	30	
Link Distance (m)	258.3			254.8	440.5	
Travel Time (s)	23.2			30.6	52.9	
Confl. Peds. (#/hr)	43	104	20			20
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	0%	6%	1%	5%	5%
Adj. Flow (vph)	53	49	40	233	161	46
Shared Lane Traffic (%)						
Lane Group Flow (vph)	102	0	0	273	207	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24	14	24			14
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	48.5%
	ICU Level of Service A
Analysis Period (min)	15



HCM Unsignalized Intersection Capacity Analysis  
 10: Fieldgate Dr & Haven Glenn

2029 FB AM  
 06/04/2024



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	49	45	37	214	148	42
Future Volume (Veh/h)	49	45	37	214	148	42
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	53	49	40	233	161	46
Pedestrians	20			104	43	
Lane Width (m)	3.7			3.7	3.7	
Walking Speed (m/s)	1.1			1.1	1.1	
Percent Blockage	2			10	4	
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	560	308	227			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	560	308	227			
tC, single (s)	6.4	6.2	4.2			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.3			
p0 queue free %	88	92	97			
cM capacity (veh/h)	444	649	1292			
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>NB 1</b>	<b>SB 1</b>			
Volume Total	102	273	207			
Volume Left	53	40	0			
Volume Right	49	0	46			
cSH	523	1292	1700			
Volume to Capacity	0.19	0.03	0.12			
Queue Length 95th (m)	5.4	0.7	0.0			
Control Delay (s)	13.5	1.4	0.0			
Lane LOS	B	A				
Approach Delay (s)	13.5	1.4	0.0			
Approach LOS	B					
<b>Intersection Summary</b>						
Average Delay	3.0					
Intersection Capacity Utilization	48.5%			ICU Level of Service	A	
Analysis Period (min)	15					

Lanes, Volumes, Timings  
11: Fieldgate Dr & Burnhamthorpe Rd

2029 FB AM  
06/04/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↗↗	↘	↘	↗↗	↘	↘	↗		↘	↗	↘
Traffic Volume (vph)	37	1046	177	49	715	30	147	102	83	65	72	58
Future Volume (vph)	37	1046	177	49	715	30	147	102	83	65	72	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	30.0		25.0	30.0		30.0	15.0		0.0	65.0		65.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	30.0			45.0			40.0			75.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.98		0.94	0.99		0.90	0.97	0.97		0.97		0.96
Frt			0.850			0.850		0.933				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1644	3544	1585	1755	3510	1633	1807	1702	0	1789	1847	1526
Flt Permitted	0.343			0.222			0.706			0.419		
Satd. Flow (perm)	581	3544	1486	408	3510	1472	1305	1702	0	763	1847	1461
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			76			65		24				63
Link Speed (k/h)		60			60			40				50
Link Distance (m)		499.8			675.9			440.5				226.9
Travel Time (s)		30.0			40.6			39.6				16.3
Confl. Peds. (#/hr)	31		17	17		31	22		34	34		22
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	11%	3%	3%	4%	4%	0%	1%	3%	2%	2%	4%	7%
Adj. Flow (vph)	40	1137	192	53	777	33	160	111	90	71	78	63
Shared Lane Traffic (%)												
Lane Group Flow (vph)	40	1137	192	53	777	33	160	201	0	71	78	63
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7				3.7
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	0	0	0	0	0	0	1	1		1	1	0
Detector Template												
Leading Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	7.0	7.0		7.0	7.0	0.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	-2.0	-2.0		-2.0	-2.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	-2.0	-2.0		-2.0	-2.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	9.0	9.0		9.0	9.0	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases		2			6			4				8
Permitted Phases	2		2	6		6	4			8		8
Detector Phase	2	2	2	6	6	6	4	4		8	8	8
Switch Phase												

Lane Group	Ø1	Ø3	Ø5	Ø7
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (m)				
Storage Lanes				
Taper Length (m)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (k/h)				
Link Distance (m)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(m)				
Link Offset(m)				
Crosswalk Width(m)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (k/h)				
Number of Detectors				
Detector Template				
Leading Detector (m)				
Trailing Detector (m)				
Detector 1 Position(m)				
Detector 1 Size(m)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Turn Type				
Protected Phases	1	3	5	7
Permitted Phases				
Detector Phase				
Switch Phase				

Lanes, Volumes, Timings  
11: Fieldgate Dr & Burnhamthorpe Rd

2029 FB AM  
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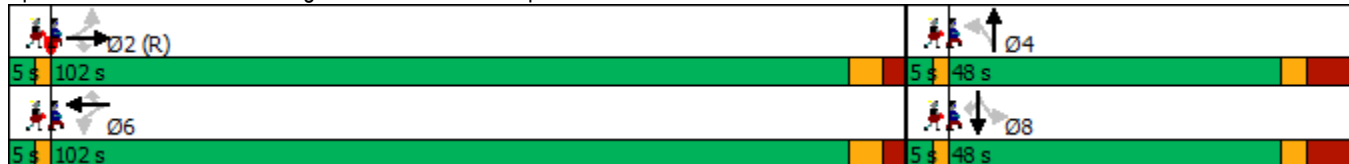


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	38.0	38.0	38.0	38.0	38.0	38.0	42.5	42.5		42.5	42.5	42.5
Total Split (s)	102.0	102.0	102.0	102.0	102.0	102.0	48.0	48.0		48.0	48.0	48.0
Total Split (%)	63.8%	63.8%	63.8%	63.8%	63.8%	63.8%	30.0%	30.0%		30.0%	30.0%	30.0%
Maximum Green (s)	95.0	95.0	95.0	95.0	95.0	95.0	39.5	39.5		39.5	39.5	39.5
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	5.5	5.5		5.5	5.5	5.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	8.5	8.5		8.5	8.5	8.5
Lead/Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lag		Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	C-Max	C-Max	C-Max	Max	Max	Max	None	None		None	None	None
Walk Time (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	10.0
Flash Dont Walk (s)	21.0	21.0	21.0	21.0	21.0	21.0	24.0	24.0		24.0	24.0	24.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	0
Act Effct Green (s)	119.4	119.4	119.4	119.4	119.4	119.4	25.1	25.1		25.1	25.1	25.1
Actuated g/C Ratio	0.75	0.75	0.75	0.75	0.75	0.75	0.16	0.16		0.16	0.16	0.16
v/c Ratio	0.09	0.43	0.17	0.17	0.30	0.03	0.78	0.70		0.60	0.27	0.22
Control Delay	7.5	8.8	4.5	8.3	6.9	0.3	89.0	68.3		81.2	59.6	13.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	7.5	8.8	4.5	8.3	6.9	0.3	89.0	68.3		81.2	59.6	13.1
LOS	A	A	A	A	A	A	F	E		F	E	B
Approach Delay		8.2			6.7			77.4			53.0	
Approach LOS		A			A			E			D	

Intersection Summary

Area Type:	Other
Cycle Length:	160
Actuated Cycle Length:	160
Offset:	40 (25%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle:	90
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.78
Intersection Signal Delay:	20.0
Intersection LOS:	C
Intersection Capacity Utilization:	92.1%
ICU Level of Service:	F
Analysis Period (min):	15

Splits and Phases: 11: Fieldgate Dr & Burnhamthorpe Rd



Lane Group	Ø1	Ø3	Ø5	Ø7
Minimum Initial (s)	1.0	1.0	1.0	1.0
Minimum Split (s)	3.0	3.0	3.0	3.0
Total Split (s)	5.0	5.0	5.0	5.0
Total Split (%)	3%	3%	3%	3%
Maximum Green (s)	3.0	3.0	3.0	3.0
Yellow Time (s)	2.0	2.0	2.0	2.0
All-Red Time (s)	0.0	0.0	0.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None
Walk Time (s)				
Flash Dont Walk (s)				
Pedestrian Calls (#/hr)				
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Intersection Summary				

Queues  
11: Fieldgate Dr & Burnhamthorpe Rd

2029 FB AM  
06/04/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	40	1137	192	53	777	33	160	201	71	78	63
v/c Ratio	0.09	0.43	0.17	0.17	0.30	0.03	0.78	0.70	0.60	0.27	0.22
Control Delay	7.5	8.8	4.5	8.3	6.9	0.3	89.0	68.3	81.2	59.6	13.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.5	8.8	4.5	8.3	6.9	0.3	89.0	68.3	81.2	59.6	13.1
Queue Length 50th (m)	3.2	64.6	9.2	4.3	35.6	0.0	49.6	54.2	21.3	22.2	0.0
Queue Length 95th (m)	8.6	95.4	20.8	9.0	43.4	m0.0	71.6	77.4	37.1	35.9	13.1
Internal Link Dist (m)		475.8			651.9			416.5		202.9	
Turn Bay Length (m)	30.0		25.0	30.0		30.0	15.0		65.0		65.0
Base Capacity (vph)	433	2644	1128	304	2618	1114	322	438	188	455	408
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.43	0.17	0.17	0.30	0.03	0.50	0.46	0.38	0.17	0.15

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lanes, Volumes, Timings  
12: Ponytrail Dr & Burnhamthorpe Rd

2029 FB AM  
06/04/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	1117	33	29	698	303	27	43	62	311	34	73
Future Volume (vph)	35	1117	33	29	698	303	27	43	62	311	34	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	35.0		30.0	35.0		30.0	15.0		0.0	40.0		45.0
Storage Lanes	1		1	1		1	1		0	2		1
Taper Length (m)	45.0			65.0			50.0			30.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Ped Bike Factor	0.99		0.96			0.93	1.00	0.98		0.96		0.98
Frt			0.850			0.850		0.912				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1630	3579	1471	1825	3476	1585	1755	1674	0	3471	1779	1555
Flt Permitted	0.213			0.206			0.733			0.950		
Satd. Flow (perm)	361	3579	1417	396	3476	1478	1348	1674	0	3349	1779	1530
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			116			169			42			79
Link Speed (k/h)		60			60			40				50
Link Distance (m)		675.9			242.1			944.6				165.5
Travel Time (s)		40.6			14.5			85.0				11.9
Confl. Peds. (#/hr)	20		7	7		20	3		17	17		3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	12%	2%	11%	0%	5%	3%	4%	3%	2%	2%	8%	5%
Adj. Flow (vph)	38	1214	36	32	759	329	29	47	67	338	37	79
Shared Lane Traffic (%)												
Lane Group Flow (vph)	38	1214	36	32	759	329	29	114	0	338	37	79
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			7.4				7.4
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2	1	1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0		2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6		2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4				9.4
Detector 2 Size(m)		0.6			0.6			0.6				0.6
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				0.0

Lane Group	Ø7	Ø9	Ø10	Ø11
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (m)				
Storage Lanes				
Taper Length (m)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (k/h)				
Link Distance (m)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(m)				
Link Offset(m)				
Crosswalk Width(m)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (k/h)				
Number of Detectors				
Detector Template				
Leading Detector (m)				
Trailing Detector (m)				
Detector 1 Position(m)				
Detector 1 Size(m)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(m)				
Detector 2 Size(m)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				



Lanes, Volumes, Timings  
12: Ponytrail Dr & Burnhamthorpe Rd

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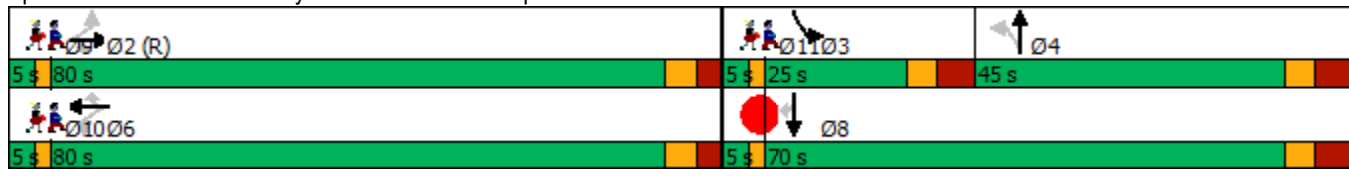


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Prot	NA	Perm
Protected Phases		2			6			4		3	8	
Permitted Phases	2		2	6		6	4					8
Detector Phase	2	2	2	6	6	6	4	4		3	8	8
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	40.0	40.0	40.0	42.0	42.0	42.0	41.0	41.0		18.0	41.0	41.0
Total Split (s)	80.0	80.0	80.0	80.0	80.0	80.0	45.0	45.0		25.0	70.0	70.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	28.1%	28.1%		15.6%	43.8%	43.8%
Maximum Green (s)	73.0	73.0	73.0	73.0	73.0	73.0	37.0	37.0		17.0	62.0	62.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	4.5	4.5		4.5	4.5	4.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	8.0	8.0		8.0	8.0	8.0
Lead/Lag												Lag
Lead-Lag Optimize?												Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	C-Max	C-Max	C-Max	Max	Max	Max	None	None		None	None	None
Walk Time (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0			10.0	10.0
Flash Dont Walk (s)	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0			23.0	23.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0			0	0
Act Effct Green (s)	94.2	94.2	94.2	73.0	73.0	73.0	13.3	13.3		17.0	38.3	38.3
Actuated g/C Ratio	0.59	0.59	0.59	0.46	0.46	0.46	0.08	0.08		0.11	0.24	0.24
v/c Ratio	0.18	0.58	0.04	0.18	0.48	0.43	0.26	0.64		0.92	0.09	0.19
Control Delay	14.9	16.7	0.1	29.1	31.5	15.3	71.1	58.3		100.2	46.5	9.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	14.9	16.7	0.1	29.1	31.5	15.3	71.1	58.3		100.2	46.5	9.5
LOS	B	B	A	C	C	B	E	E		F	D	A
Approach Delay		16.2			26.7			60.9			80.0	
Approach LOS		B			C			E			F	

Intersection Summary

Area Type: Other  
 Cycle Length: 160  
 Actuated Cycle Length: 160  
 Offset: 64 (40%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 110  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.92  
 Intersection Signal Delay: 31.9  
 Intersection LOS: C  
 Intersection Capacity Utilization 70.8%  
 ICU Level of Service C  
 Analysis Period (min) 15

Splits and Phases: 12: Ponytrail Dr & Burnhamthorpe Rd



Lane Group	Ø7	Ø9	Ø10	Ø11
Turn Type				
Protected Phases	7	9	10	11
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	1.0	1.0	1.0	1.0
Minimum Split (s)	3.0	3.0	3.0	3.0
Total Split (s)	5.0	5.0	5.0	5.0
Total Split (%)	3%	3%	3%	3%
Maximum Green (s)	3.0	3.0	3.0	3.0
Yellow Time (s)	2.0	2.0	2.0	2.0
All-Red Time (s)	0.0	0.0	0.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag				Lead
Lead-Lag Optimize?				Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0
Recall Mode	Ped	Ped	Ped	Ped
Walk Time (s)	0.0	0.0	0.0	0.0
Flash Dont Walk (s)	0.0	0.0	0.0	0.0
Pedestrian Calls (#/hr)	0	0	0	0
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Intersection Summary				

Queues  
12: Ponytrail Dr & Burnhamthorpe Rd

2029 FB AM  
06/04/2024



























Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	38	1214	36	32	759	329	29	114	338	37	79
v/c Ratio	0.18	0.58	0.04	0.18	0.48	0.43	0.26	0.64	0.92	0.09	0.19
Control Delay	14.9	16.7	0.1	29.1	31.5	15.3	71.1	58.3	100.2	46.5	9.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.9	16.7	0.1	29.1	31.5	15.3	71.1	58.3	100.2	46.5	9.5
Queue Length 50th (m)	4.2	71.6	0.0	6.0	87.4	32.5	8.6	21.3	55.8	9.3	0.0
Queue Length 95th (m)	8.4	79.2	0.0	14.1	105.5	58.2	18.7	40.5	#84.4	18.5	13.0
Internal Link Dist (m)		651.9			218.1			920.6		141.5	
Turn Bay Length (m)	35.0		30.0	35.0		30.0	15.0		40.0		45.0
Base Capacity (vph)	212	2107	882	180	1585	766	311	419	368	689	641
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.58	0.04	0.18	0.48	0.43	0.09	0.27	0.92	0.05	0.12

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

Lanes, Volumes, Timings  
1: Dixie Rd & Bloor St

2029 FB AM  
06/04/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	132	463	179	293	704	199	272	1311	377	134	1435	219
Future Volume (vph)	132	463	179	293	704	199	272	1311	377	134	1435	219
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		15.0	60.0		10.0	75.0		0.0	100.0		85.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	85.0			60.0			90.0			50.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.91	0.91	1.00	0.91	1.00
Ped Bike Factor	0.98		0.96	0.99		0.90		0.99		1.00		0.93
Frt			0.850			0.850		0.966				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1789	3544	1601	1789	3579	1617	1825	4906	0	1789	5092	1617
Flt Permitted	0.128			0.320			0.064			0.067		
Satd. Flow (perm)	236	3544	1530	594	3579	1451	123	4906	0	126	5092	1502
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			88			88			55			171
Link Speed (k/h)		50			50			60				60
Link Distance (m)		302.0			160.9			615.3				434.7
Travel Time (s)		21.7			11.6			36.9				26.1
Confl. Peds. (#/hr)	75		27	27		75	50		24	24		50
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	3%	2%	2%	2%	1%	0%	3%	0%	2%	3%	1%
Adj. Flow (vph)	143	503	195	318	765	216	296	1425	410	146	1560	238
Shared Lane Traffic (%)												
Lane Group Flow (vph)	143	503	195	318	765	216	296	1835	0	146	1560	238
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7				3.7
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane					Yes							
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	2	1	1	1	1	1	1	0		1	0	0
Detector Template								Thru			Thru	Right
Leading Detector (m)	24.0	7.0	7.0	22.0	7.0	7.0	24.0	0.0		24.0	0.0	0.0
Trailing Detector (m)	-2.5	-2.0	-2.0	12.0	-2.0	-2.0	14.0	0.0		14.0	0.0	0.0
Detector 1 Position(m)	-2.5	-2.0	-2.0	12.0	-2.0	-2.0	14.0	0.0		14.0	0.0	0.0
Detector 1 Size(m)	10.0	9.0	9.0	10.0	9.0	9.0	10.0	0.6		10.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)	14.0											
Detector 2 Size(m)	10.0											
Detector 2 Type	Cl+Ex											
Detector 2 Channel												
Detector 2 Extend (s)	0.0											

Lanes, Volumes, Timings  
1: Dixie Rd & Bloor St

2029 FB AM  
06/04/2024

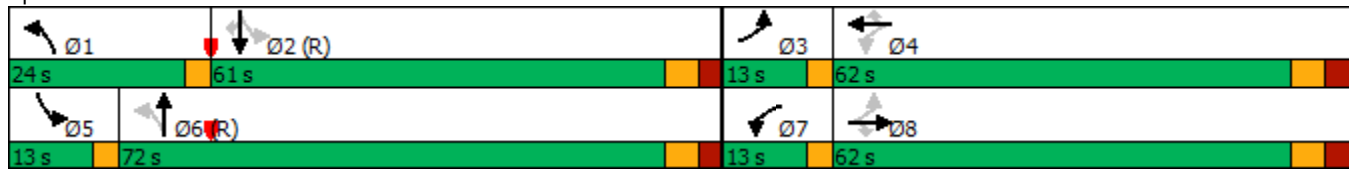


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	Perm
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8		8	4		4	6			2		2
Detector Phase	3	8	8	7	4	4	1	6		5	2	2
Switch Phase												
Minimum Initial (s)	7.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0		7.0	10.0	10.0
Minimum Split (s)	11.5	46.4	46.4	10.0	46.4	46.4	11.5	46.9		11.5	46.9	46.9
Total Split (s)	13.0	62.0	62.0	13.0	62.0	62.0	24.0	72.0		13.0	61.0	61.0
Total Split (%)	8.1%	38.8%	38.8%	8.1%	38.8%	38.8%	15.0%	45.0%		8.1%	38.1%	38.1%
Maximum Green (s)	10.0	54.6	54.6	10.0	54.6	54.6	21.0	65.1		10.0	54.1	54.1
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0		3.0	4.0	4.0
All-Red Time (s)	0.0	3.4	3.4	0.0	3.4	3.4	0.0	2.9		0.0	2.9	2.9
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	3.0	7.4	7.4	3.0	7.4	7.4	3.0	6.9		3.0	6.9	6.9
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	C-Max
Walk Time (s)		10.0	10.0		10.0	10.0		10.0			10.0	10.0
Flash Dont Walk (s)		29.0	29.0		29.0	29.0		30.0			30.0	30.0
Pedestrian Calls (#/hr)		0	0		0	0		0			0	0
Act Effct Green (s)	55.8	41.4	41.4	55.8	41.4	41.4	95.2	74.6		77.4	59.7	59.7
Actuated g/C Ratio	0.35	0.26	0.26	0.35	0.26	0.26	0.60	0.47		0.48	0.37	0.37
v/c Ratio	0.80	0.55	0.42	1.13	0.83	0.49	0.79	0.79		0.72	0.82	0.36
Control Delay	65.5	53.0	28.2	134.1	63.8	32.0	58.9	39.3		57.4	50.4	12.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	65.5	53.0	28.2	134.1	63.8	32.0	58.9	39.3		57.4	50.4	12.9
LOS	E	D	C	F	E	C	E	D		E	D	B
Approach Delay		49.4			75.7			42.0			46.3	
Approach LOS		D			E			D			D	

Intersection Summary

Area Type: Other  
 Cycle Length: 160  
 Actuated Cycle Length: 160  
 Offset: 74 (46%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.13  
 Intersection Signal Delay: 51.4  
 Intersection LOS: D  
 Intersection Capacity Utilization 107.7%  
 ICU Level of Service G  
 Analysis Period (min) 15

Splits and Phases: 1: Dixie Rd & Bloor St



Queues  
1: Dixie Rd & Bloor St

2029 FB AM  
06/04/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	143	503	195	318	765	216	296	1835	146	1560	238
v/c Ratio	0.80	0.55	0.42	1.13	0.83	0.49	0.79	0.79	0.72	0.82	0.36
Control Delay	65.5	53.0	28.2	134.1	63.8	32.0	58.9	39.3	57.4	50.4	12.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.5	53.0	28.2	134.1	63.8	32.0	58.9	39.3	57.4	50.4	12.9
Queue Length 50th (m)	31.1	73.1	27.8	~91.1	121.4	34.4	72.5	177.4	28.7	166.6	14.2
Queue Length 95th (m)	#49.9	85.6	48.7	#139.1	136.2	57.0	#125.6	216.1	#54.6	193.8	37.8
Internal Link Dist (m)		278.0			136.9			591.3		410.7	
Turn Bay Length (m)	40.0		15.0	60.0		10.0	75.0		100.0		85.0
Base Capacity (vph)	179	1209	580	281	1221	553	376	2315	204	1901	668
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.80	0.42	0.34	1.13	0.63	0.39	0.79	0.79	0.72	0.82	0.36

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

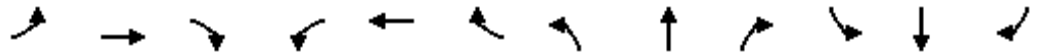
Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Lanes, Volumes, Timings  
2: Havenwood Dr & Bloor St

2029 FB AM  
06/04/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	107	815	58	47	1042	54	38	31	39	70	43	130
Future Volume (vph)	107	815	58	47	1042	54	38	31	39	70	43	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0		0.0	50.0		0.0	25.0		0.0	25.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	65.0			80.0			40.0			35.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			1.00		0.96	0.95		0.93	0.95	
Frt		0.990			0.993			0.917				0.887
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1825	1858	0	1825	1865	0	1825	1666	0	1755	1614	0
Flt Permitted	0.076			0.202			0.536			0.708		
Satd. Flow (perm)	146	1858	0	388	1865	0	989	1666	0	1214	1614	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			4			42			52	
Link Speed (k/h)		50			50			30			40	
Link Distance (m)		179.0			562.7			137.1			118.1	
Travel Time (s)		12.9			40.5			16.5			10.6	
Confl. Peds. (#/hr)	36		30	30		36	35		54	54		35
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	0%	0%	2%	0%	0%	0%	0%	4%	0%	0%
Adj. Flow (vph)	116	886	63	51	1133	59	41	34	42	76	47	141
Shared Lane Traffic (%)												
Lane Group Flow (vph)	116	949	0	51	1192	0	41	76	0	76	188	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	0	0		0	0		1	1		1	1	
Detector Template		Thru		Left	Thru							
Leading Detector (m)	0.0	0.0		0.0	0.0		7.0	7.0		8.0	8.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		-2.0	-2.0		-2.0	-2.0	
Detector 1 Position(m)	11.5	0.0		0.0	0.0		-2.0	-2.0		-2.0	-2.0	
Detector 1 Size(m)	9.0	0.6		2.0	0.6		9.0	9.0		10.0	10.0	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4				4
Permitted Phases	2			2			4			4		
Detector Phase	2	2		2	2		4	4		4	4	
Switch Phase												

Lanes, Volumes, Timings  
2: Havenwood Dr & Bloor St

2029 FB AM  
06/04/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	35.0	35.0		35.0	35.0		41.5	41.5		41.5	41.5	
Total Split (s)	59.0	59.0		59.0	59.0		41.0	41.0		41.0	41.0	
Total Split (%)	59.0%	59.0%		59.0%	59.0%		41.0%	41.0%		41.0%	41.0%	
Maximum Green (s)	53.0	53.0		53.0	53.0		33.5	33.5		33.5	33.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.5	2.5		2.5	2.5		4.5	4.5		4.5	4.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		7.5	7.5		7.5	7.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	
Walk Time (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Flash Dont Walk (s)	19.0	19.0		19.0	19.0		24.0	24.0		24.0	24.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	71.5	71.5		71.5	71.5		15.0	15.0		15.0	15.0	
Actuated g/C Ratio	0.72	0.72		0.72	0.72		0.15	0.15		0.15	0.15	
v/c Ratio	1.12	0.71		0.18	0.89		0.28	0.27		0.42	0.66	
Control Delay	146.3	13.2		5.2	15.1		40.6	20.7		44.2	39.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	146.3	13.2		5.2	15.1		40.6	20.7		44.2	39.2	
LOS	F	B		A	B		D	C		D	D	
Approach Delay		27.7			14.7			27.7			40.6	
Approach LOS		C			B			C			D	

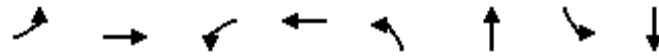
Intersection Summary

Area Type:	Other
Cycle Length:	100
Actuated Cycle Length:	100
Offset:	77 (77%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle:	150
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	1.12
Intersection Signal Delay:	23.0
Intersection LOS:	C
Intersection Capacity Utilization:	114.4%
ICU Level of Service:	H
Analysis Period (min):	15

Splits and Phases: 2: Havenwood Dr & Bloor St







Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	116	949	51	1192	41	76	76	188
v/c Ratio	1.12	0.71	0.18	0.89	0.28	0.27	0.42	0.66
Control Delay	146.3	13.2	5.2	15.1	40.6	20.7	44.2	39.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	146.3	13.2	5.2	15.1	40.6	20.7	44.2	39.2
Queue Length 50th (m)	~25.7	89.2	1.7	42.5	7.2	5.8	13.6	25.1
Queue Length 95th (m)	#44.2	177.6	m2.9 m#	281.7	15.8	16.9	25.3	43.6
Internal Link Dist (m)		155.0		538.7		113.1		94.1
Turn Bay Length (m)	50.0		50.0		25.0		25.0	
Base Capacity (vph)	104	1329	277	1334	331	586	406	575
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.12	0.71	0.18	0.89	0.12	0.13	0.19	0.33

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Lanes, Volumes, Timings  
3: Fieldgate Dr & Bloor St

2029 FB AM  
06/04/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	82	725	58	75	952	66	62	31	60	145	75	99
Future Volume (vph)	82	725	58	75	952	66	62	31	60	145	75	99
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	80.0		75.0	92.0		92.0	45.0		0.0	25.0		0.0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (m)	50.0			55.0			30.0			30.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor				0.98			0.96	0.91		0.90	0.96	
Frt			0.850			0.850		0.902			0.915	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1825	1883	1601	1825	1883	1633	1789	1583	0	1807	1686	0
Flt Permitted	0.064			0.309			0.533			0.693		
Satd. Flow (perm)	123	1883	1601	580	1883	1633	964	1583	0	1187	1686	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			142			142		65			71	
Link Speed (k/h)		50			50			40			40	
Link Distance (m)		562.7			233.6			134.2			78.0	
Travel Time (s)		40.5			16.8			12.1			7.0	
Confl. Peds. (#/hr)	65		56	56		65	34		73	73		34
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	2%	0%	2%	0%	2%	0%	0%	1%	0%	0%
Adj. Flow (vph)	89	788	63	82	1035	72	67	34	65	158	82	108
Shared Lane Traffic (%)												
Lane Group Flow (vph)	89	788	63	82	1035	72	67	99	0	158	190	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane		Yes										
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	0	1	0	0	1	1	1		1	1	
Detector Template		Thru	Right	Left	Thru	Right						
Leading Detector (m)	21.0	0.0	2.0	0.0	0.0	2.0	6.5	6.5		7.5	6.0	
Trailing Detector (m)	12.0	0.0	0.0	0.0	0.0	0.0	-2.5	-2.5		-1.5	-3.0	
Detector 1 Position(m)	12.0	0.0	0.0	0.0	0.0	0.0	-2.5	-2.5		-1.5	-3.0	
Detector 1 Size(m)	9.0	0.6	2.0	2.0	0.6	2.0	9.0	9.0		9.0	9.0	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA	NA	Perm	NA	NA	Perm	NA		Perm	NA	
Protected Phases	5	2			6			4				8
Permitted Phases	2			6			4			8		
Detector Phase	5	2		6	6		4	4		8	8	
Switch Phase												

Lanes, Volumes, Timings  
3: Fieldgate Dr & Bloor St

2029 FB AM  
06/04/2024

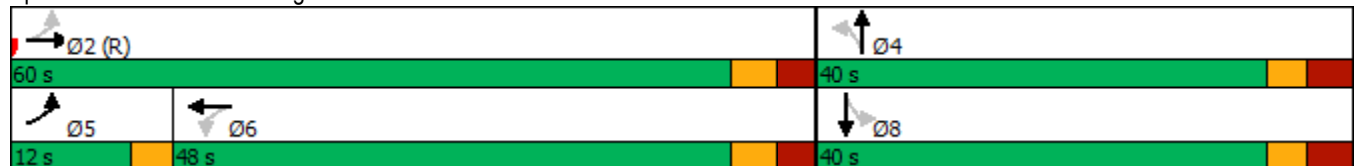


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	7.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	11.5	33.5		33.5	33.5		38.5	38.5		38.5	38.5	
Total Split (s)	12.0	60.0		48.0	48.0		40.0	40.0		40.0	40.0	
Total Split (%)	12.0%	60.0%		48.0%	48.0%		40.0%	40.0%		40.0%	40.0%	
Maximum Green (s)	9.0	53.5		41.5	41.5		33.5	33.5		33.5	33.5	
Yellow Time (s)	3.0	3.5		3.5	3.5		3.0	3.0		3.0	3.0	
All-Red Time (s)	0.0	3.0		3.0	3.0		3.5	3.5		3.5	3.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.0	6.5		6.5	6.5		6.5	6.5		6.5	6.5	
Lead/Lag	Lead			Lag			Lag			Lag		
Lead-Lag Optimize?	Yes			Yes			Yes			Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max		Max	Max		None	None		None	None	
Walk Time (s)		10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Flash Dont Walk (s)		17.0		17.0	17.0		22.0	22.0		22.0	22.0	
Pedestrian Calls (#/hr)		0		0	0		0	0		0	0	
Act Effct Green (s)	71.7	68.2	0.0	60.0	60.0	0.0	18.8	18.8		18.8	18.8	
Actuated g/C Ratio	0.72	0.68	0.00	0.60	0.60	0.00	0.19	0.19		0.19	0.19	
v/c Ratio	0.42	0.61	0.44	0.24	0.92	0.51	0.37	0.28		0.71	0.51	
Control Delay	14.7	17.2	10.2	14.7	34.7	12.3	39.1	15.2		54.4	26.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	14.7	17.2	10.2	14.7	34.7	12.3	39.1	15.2		54.4	26.0	
LOS	B	B	B	B	C	B	D	B		D	C	
Approach Delay		16.5			32.0			24.8			38.9	
Approach LOS		B			C			C			D	

Intersection Summary

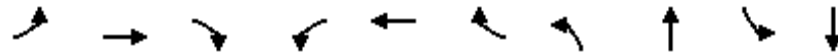
Area Type: Other  
 Cycle Length: 100  
 Actuated Cycle Length: 100  
 Offset: 41 (41%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 125  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.92  
 Intersection Signal Delay: 26.9      Intersection LOS: C  
 Intersection Capacity Utilization 108.9%      ICU Level of Service G  
 Analysis Period (min) 15

Splits and Phases: 3: Fieldgate Dr & Bloor St



Queues  
3: Fieldgate Dr & Bloor St

2029 FB AM  
06/04/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	89	788	63	82	1035	72	67	99	158	190
v/c Ratio	0.42	0.61	0.44	0.24	0.92	0.51	0.37	0.28	0.71	0.51
Control Delay	14.7	17.2	10.2	14.7	34.7	12.3	39.1	15.2	54.4	26.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.7	17.2	10.2	14.7	34.7	12.3	39.1	15.2	54.4	26.0
Queue Length 50th (m)	0.3	119.2	0.0	7.2	174.0	0.0	11.4	5.5	28.9	20.3
Queue Length 95th (m)	m9.6	181.5	m0.0	19.9	#306.9	0.0	21.9	17.1	45.8	37.0
Internal Link Dist (m)		538.7			209.6			110.2		54.0
Turn Bay Length (m)	80.0		75.0	92.0		92.0	45.0		25.0	
Base Capacity (vph)	241	1284	142	348	1129	142	322	573	397	612
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.61	0.44	0.24	0.92	0.51	0.21	0.17	0.40	0.31

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lanes, Volumes, Timings  
5: Fieldgate Dr

2029 FB AM  
06/04/2024



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	209	0	0	278
Future Volume (vph)	0	0	209	0	0	278
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)	1921	0	1883	0	0	1921
Flt Permitted						
Satd. Flow (perm)	1921	0	1883	0	0	1921
Link Speed (k/h)	30		40			40
Link Distance (m)	40.2		78.0			83.8
Travel Time (s)	4.8		7.0			7.5
Confl. Peds. (#/hr)	2	3		46	46	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	2%	2%	0%	0%
Adj. Flow (vph)	0	0	227	0	0	302
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	227	0	0	302
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.7		3.7			3.7
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	1.6		1.6			1.6
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24	14		14	24	
Sign Control	Stop		Free			Free
<b>Intersection Summary</b>						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	25.6%		ICU Level of Service A			
Analysis Period (min)	15					

HCM Unsignalized Intersection Capacity Analysis  
5: Fieldgate Dr

2029 FB AM  
06/04/2024



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	209	0	0	278
Future Volume (Veh/h)	0	0	209	0	0	278
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	227	0	0	302
Pedestrians	46		2		3	
Lane Width (m)	3.7		3.7		3.7	
Walking Speed (m/s)	1.1		1.1		1.1	
Percent Blockage	5		0		0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)	78					
pX, platoon unblocked						
vC, conflicting volume	577	276			273	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	577	276			273	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	459	731			1243	
<b>Direction, Lane #</b>	<b>WB 1</b>	<b>NB 1</b>	<b>SB 1</b>			
Volume Total	0	227	302			
Volume Left	0	0	0			
Volume Right	0	0	0			
cSH	1700	1700	1243			
Volume to Capacity	0.00	0.13	0.00			
Queue Length 95th (m)	0.0	0.0	0.0			
Control Delay (s)	0.0	0.0	0.0			
Lane LOS	A					
Approach Delay (s)	0.0	0.0	0.0			
Approach LOS	A					
<b>Intersection Summary</b>						
Average Delay			0.0			
Intersection Capacity Utilization			25.6%	ICU Level of Service		A
Analysis Period (min)			15			

Lanes, Volumes, Timings  
6: Fieldgate Dr & Williamsport Dr/Site Access

2029 FB AM  
06/04/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	29	0	68	0	0	0	46	153	0	0	215	27
Future Volume (vph)	29	0	68	0	0	0	46	153	0	0	215	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt	0.906										0.985	
Flt Protected	0.985										0.989	
Satd. Flow (prot)	0	1694	0	0	1883	0	0	1871	0	0	1892	0
Flt Permitted	0.985										0.989	
Satd. Flow (perm)	0	1694	0	0	1883	0	0	1871	0	0	1892	0
Link Speed (k/h)	40						48		40		40	
Link Distance (m)	168.2						35.5		83.8		69.3	
Travel Time (s)	15.1						2.7		7.5		6.2	
Confl. Peds. (#/hr)	41						41		30		30	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	4%	2%	0%	2%	2%	2%	0%	2%	2%	2%	0%	0%
Adj. Flow (vph)	32	0	74	0	0	0	50	166	0	0	234	29
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	106	0	0	0	0	0	216	0	0	263	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)	0.0						0.0		0.0		0.0	
Link Offset(m)	0.0						0.0		0.0		0.0	
Crosswalk Width(m)	1.6						1.6		1.6		1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14		97		97		24		97	
Sign Control	Stop						Stop		Free		Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	44.7%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis  
6: Fieldgate Dr & Williamsport Dr/Site Access

2029 FB AM  
06/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	29	0	68	0	0	0	46	153	0	0	215	27
Future Volume (Veh/h)	29	0	68	0	0	0	46	153	0	0	215	27
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	32	0	74	0	0	0	50	166	0	0	234	29
Pedestrians		30									41	
Lane Width (m)		3.7									3.7	
Walking Speed (m/s)		1.1									1.1	
Percent Blockage		3									4	
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (m)								162				
pX, platoon unblocked												
vC, conflicting volume	586	544	278	588	559	207	293			166		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	586	544	278	588	559	207	293			166		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	91	100	90	100	100	100	96			100		
cM capacity (veh/h)	370	415	743	359	408	800	1243			1412		
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>WB 1</b>	<b>NB 1</b>	<b>SB 1</b>								
Volume Total	106	0	216	263								
Volume Left	32	0	50	0								
Volume Right	74	0	0	29								
cSH	570	1700	1243	1412								
Volume to Capacity	0.19	0.00	0.04	0.00								
Queue Length 95th (m)	5.2	0.0	1.0	0.0								
Control Delay (s)	12.8	0.0	2.1	0.0								
Lane LOS	B	A	A									
Approach Delay (s)	12.8	0.0	2.1	0.0								
Approach LOS	B	A										
<b>Intersection Summary</b>												
Average Delay			3.1									
Intersection Capacity Utilization			44.7%		ICU Level of Service					A		
Analysis Period (min)			15									



Lanes, Volumes, Timings  
7: Fieldgate Dr & Ponytrail Dr

2029 FB AM  
06/04/2024



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	48	28	107	78	27	193
Future Volume (vph)	48	28	107	78	27	193
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	0.951		0.943			
Flt Protected	0.969					0.994
Satd. Flow (prot)	1751	0	1769	0	0	1910
Flt Permitted	0.969					0.994
Satd. Flow (perm)	1751	0	1769	0	0	1910
Link Speed (k/h)	30		40			30
Link Distance (m)	39.8		69.3			254.8
Travel Time (s)	4.8		6.2			30.6
Confl. Peds. (#/hr)	1	18		31	31	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	3%	2%	3%	0%	0%
Adj. Flow (vph)	52	30	116	85	29	210
Shared Lane Traffic (%)						
Lane Group Flow (vph)	82	0	201	0	0	239
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.7		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	1.6		1.6			1.6
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24	14		14	24	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	43.1%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis  
7: Fieldgate Dr & Ponytrail Dr

2029 FB AM  
06/04/2024



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	48	28	107	78	27	193
Future Volume (Veh/h)	48	28	107	78	27	193
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	52	30	116	85	29	210
Pedestrians	31		1			18
Lane Width (m)	3.7		3.7		3.7	
Walking Speed (m/s)	1.1		1.1		1.1	
Percent Blockage	3		0		2	
Right turn flare (veh)						
Median type			None		None	
Median storage veh						
Upstream signal (m)	231					
pX, platoon unblocked						
vC, conflicting volume	458	208			232	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	458	208			232	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	90	96			98	
cM capacity (veh/h)	534	791			1307	
<b>Direction, Lane #</b>	<b>WB 1</b>	<b>NB 1</b>	<b>SB 1</b>			
Volume Total	82	201	239			
Volume Left	52	0	29			
Volume Right	30	85	0			
cSH	606	1700	1307			
Volume to Capacity	0.14	0.12	0.02			
Queue Length 95th (m)	3.5	0.0	0.5			
Control Delay (s)	11.9	0.0	1.1			
Lane LOS	B		A			
Approach Delay (s)	11.9	0.0	1.1			
Approach LOS	B					
<b>Intersection Summary</b>						
Average Delay			2.4			
Intersection Capacity Utilization			43.1%	ICU Level of Service		A
Analysis Period (min)	15					

Lanes, Volumes, Timings  
8: Ponytrail Dr

2029 FB AM  
06/04/2024



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	89	0	0	97	0	0
Future Volume (vph)	89	0	0	97	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)	1921	0	0	1883	1921	0
Flt Permitted						
Satd. Flow (perm)	1921	0	0	1883	1921	0
Link Speed (k/h)	30			30	30	
Link Distance (m)	39.8			47.8	38.4	
Travel Time (s)	4.8			5.7	4.6	
Confl. Peds. (#/hr)		19	19		3	6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	2%	0%	0%
Adj. Flow (vph)	97	0	0	105	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	97	0	0	105	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	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)		14	24		24	14
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	20.6%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis  
8: Ponytrail Dr

2029 FB AM  
06/04/2024



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	→			←	←	↘
Traffic Volume (veh/h)	89	0	0	97	0	0
Future Volume (Veh/h)	89	0	0	97	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	97	0	0	105	0	0
Pedestrians	3			6	19	
Lane Width (m)	3.7			3.7	3.7	
Walking Speed (m/s)	1.1			1.1	1.1	
Percent Blockage	0			1	2	
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			116		224	122
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			116		224	122
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1458		752	912
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>WB 1</b>	<b>NB 1</b>			
Volume Total	97	105	0			
Volume Left	0	0	0			
Volume Right	0	0	0			
cSH	1700	1458	1700			
Volume to Capacity	0.06	0.00	0.00			
Queue Length 95th (m)	0.0	0.0	0.0			
Control Delay (s)	0.0	0.0	0.0			
Lane LOS			A			
Approach Delay (s)	0.0	0.0	0.0			
Approach LOS			A			
<b>Intersection Summary</b>						
Average Delay			0.0			
Intersection Capacity Utilization			20.6%	ICU Level of Service	A	
Analysis Period (min)			15			

Lanes, Volumes, Timings  
9: Site Access & Ponytrail Dr

2029 FB AM  
06/04/2024



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	95	0	0	91	0	1
Future Volume (vph)	95	0	0	91	0	1
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						0.865
Flt Protected						
Satd. Flow (prot)	1902	0	0	1883	1662	0
Flt Permitted						
Satd. Flow (perm)	1902	0	0	1883	1662	0
Link Speed (k/h)	30			30		30
Link Distance (m)	47.8			156.1		119.1
Travel Time (s)	5.7			18.7		14.3
Confl. Peds. (#/hr)	59		59		1	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	0%	0%	2%	0%	0%
Adj. Flow (vph)	103	0	0	99	0	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	103	0	0	99	1	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		3.7
Link Offset(m)	0.0			0.0		0.0
Crosswalk Width(m)	1.6			1.6		1.6
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	14		24		24	
Sign Control	Free			Free		Stop

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	22.8%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis  
 9: Site Access & Ponytrail Dr

2029 FB AM  
 06/04/2024



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↻			↻	↻	
Traffic Volume (veh/h)	95	0	0	91	0	1
Future Volume (Veh/h)	95	0	0	91	0	1
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	103	0	0	99	0	1
Pedestrians	1			2	59	
Lane Width (m)	3.7			3.7	3.7	
Walking Speed (m/s)	1.1			1.1	1.1	
Percent Blockage	0			0	6	
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			162		262	164
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			162		262	164
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1347		688	833
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>WB 1</b>	<b>NB 1</b>			
Volume Total	103	99	1			
Volume Left	0	0	0			
Volume Right	0	0	1			
cSH	1700	1347	833			
Volume to Capacity	0.06	0.00	0.00			
Queue Length 95th (m)	0.0	0.0	0.0			
Control Delay (s)	0.0	0.0	9.3			
Lane LOS			A			
Approach Delay (s)	0.0	0.0	9.3			
Approach LOS			A			
<b>Intersection Summary</b>						
Average Delay			0.0			
Intersection Capacity Utilization			22.8%	ICU Level of Service	A	
Analysis Period (min)			15			

Lanes, Volumes, Timings  
10: Fieldgate Dr & Haven Glenn

2029 FB AM  
06/04/2024



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	12	27	32	113	182	16
Future Volume (vph)	12	27	32	113	182	16
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	0.907			0.989		
Flt Protected	0.985			0.989		
Satd. Flow (prot)	1716	0	0	1871	1864	0
Flt Permitted	0.985			0.989		
Satd. Flow (perm)	1716	0	0	1871	1864	0
Link Speed (k/h)	40			30	30	
Link Distance (m)	258.3			254.8	440.5	
Travel Time (s)	23.2			30.6	52.9	
Confl. Peds. (#/hr)	2	28	4			4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	7%	0%	1%	13%
Adj. Flow (vph)	13	29	35	123	198	17
Shared Lane Traffic (%)						
Lane Group Flow (vph)	42	0	0	158	215	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24	14	24			14
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	38.3%
	ICU Level of Service A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis  
 10: Fieldgate Dr & Haven Glenn

2029 FB AM  
 06/04/2024



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	12	27	32	113	182	16
Future Volume (Veh/h)	12	27	32	113	182	16
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	13	29	35	123	198	17
Pedestrians	4			28	2	
Lane Width (m)	3.7			3.7	3.7	
Walking Speed (m/s)	1.1			1.1	1.1	
Percent Blockage	0			3	0	
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	406	238	219			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	406	238	219			
tC, single (s)	6.4	6.2	4.2			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.3			
p0 queue free %	98	96	97			
cM capacity (veh/h)	586	780	1316			
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>NB 1</b>	<b>SB 1</b>			
Volume Total	42	158	215			
Volume Left	13	35	0			
Volume Right	29	0	17			
cSH	708	1316	1700			
Volume to Capacity	0.06	0.03	0.13			
Queue Length 95th (m)	1.4	0.6	0.0			
Control Delay (s)	10.4	1.9	0.0			
Lane LOS	B	A				
Approach Delay (s)	10.4	1.9	0.0			
Approach LOS	B					
<b>Intersection Summary</b>						
Average Delay			1.8			
Intersection Capacity Utilization			38.3%	ICU Level of Service	A	
Analysis Period (min)			15			



Lanes, Volumes, Timings  
11: Fieldgate Dr & Burnhamthorpe Rd

2029 FB AM  
06/04/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	61	1030	101	53	1096	47	44	40	36	52	100	49
Future Volume (vph)	61	1030	101	53	1096	47	44	40	36	52	100	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	30.0		25.0	30.0		30.0	15.0		0.0	65.0		65.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	30.0			45.0			40.0			75.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99		0.93	0.99		0.93	0.98	0.99		0.99		0.96
Frt			0.850			0.850		0.929				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1825	3579	1617	1825	3579	1633	1738	1763	0	1825	1921	1633
Flt Permitted	0.220			0.239			0.646			0.704		
Satd. Flow (perm)	420	3579	1507	456	3579	1514	1158	1763	0	1335	1921	1575
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			65			65		27				55
Link Speed (k/h)		60			60			40				50
Link Distance (m)		499.8			675.9			440.5				226.9
Travel Time (s)		30.0			40.6			39.6				16.3
Confl. Peds. (#/hr)	21		19	19		21	17		10	10		17
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	1%	0%	2%	0%	5%	0%	0%	0%	0%	0%
Adj. Flow (vph)	66	1120	110	58	1191	51	48	43	39	57	109	53
Shared Lane Traffic (%)												
Lane Group Flow (vph)	66	1120	110	58	1191	51	48	82	0	57	109	53
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7				3.7
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	0	0	0	0	0	0	1	1		1	1	0
Detector Template												
Leading Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	7.0	7.0		7.0	7.0	0.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	-2.0	-2.0		-2.0	-2.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	-2.0	-2.0		-2.0	-2.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	9.0	9.0		9.0	9.0	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases		2			6			4				8
Permitted Phases	2		2	6		6	4			8		8
Detector Phase	2	2	2	6	6	6	4	4		8	8	8
Switch Phase												

Lane Group	Ø1	Ø3	Ø5	Ø7
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (m)				
Storage Lanes				
Taper Length (m)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (k/h)				
Link Distance (m)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(m)				
Link Offset(m)				
Crosswalk Width(m)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (k/h)				
Number of Detectors				
Detector Template				
Leading Detector (m)				
Trailing Detector (m)				
Detector 1 Position(m)				
Detector 1 Size(m)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Turn Type				
Protected Phases	1	3	5	7
Permitted Phases				
Detector Phase				
Switch Phase				

Lanes, Volumes, Timings  
11: Fieldgate Dr & Burnhamthorpe Rd

2029 FB AM  
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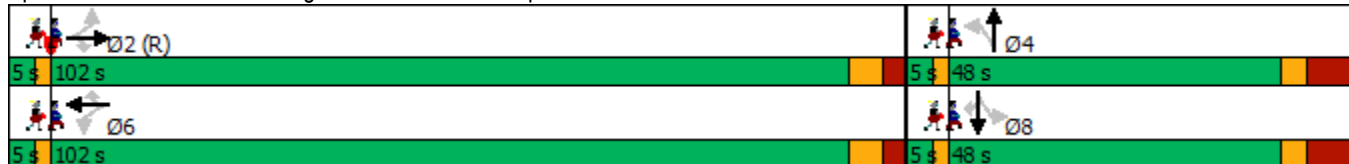


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	38.0	38.0	38.0	38.0	38.0	38.0	42.5	42.5		42.5	42.5	42.5
Total Split (s)	102.0	102.0	102.0	102.0	102.0	102.0	48.0	48.0		48.0	48.0	48.0
Total Split (%)	63.8%	63.8%	63.8%	63.8%	63.8%	63.8%	30.0%	30.0%		30.0%	30.0%	30.0%
Maximum Green (s)	95.0	95.0	95.0	95.0	95.0	95.0	39.5	39.5		39.5	39.5	39.5
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	5.5	5.5		5.5	5.5	5.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	8.5	8.5		8.5	8.5	8.5
Lead/Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lag		Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	C-Max	C-Max	C-Max	Max	Max	Max	None	None		None	None	None
Walk Time (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	10.0
Flash Dont Walk (s)	21.0	21.0	21.0	21.0	21.0	21.0	24.0	24.0		24.0	24.0	24.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	0
Act Effct Green (s)	129.8	129.8	129.8	129.8	129.8	129.8	14.7	14.7		14.7	14.7	14.7
Actuated g/C Ratio	0.81	0.81	0.81	0.81	0.81	0.81	0.09	0.09		0.09	0.09	0.09
v/c Ratio	0.19	0.39	0.09	0.16	0.41	0.04	0.45	0.44		0.47	0.62	0.27
Control Delay	5.4	4.8	1.7	3.6	3.2	0.2	81.5	52.4		80.4	84.6	17.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	5.4	4.8	1.7	3.6	3.2	0.2	81.5	52.4		80.4	84.6	17.4
LOS	A	A	A	A	A	A	F	D		F	F	B
Approach Delay		4.6			3.1			63.1			67.3	
Approach LOS		A			A			E			E	

Intersection Summary

Area Type:	Other
Cycle Length:	160
Actuated Cycle Length:	160
Offset:	117 (73%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle:	90
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.62
Intersection Signal Delay:	11.2
Intersection LOS:	B
Intersection Capacity Utilization:	75.6%
ICU Level of Service:	D
Analysis Period (min):	15

Splits and Phases: 11: Fieldgate Dr & Burnhamthorpe Rd



Lane Group	Ø1	Ø3	Ø5	Ø7
Minimum Initial (s)	1.0	1.0	1.0	1.0
Minimum Split (s)	3.0	3.0	3.0	3.0
Total Split (s)	5.0	5.0	5.0	5.0
Total Split (%)	3%	3%	3%	3%
Maximum Green (s)	3.0	3.0	3.0	3.0
Yellow Time (s)	2.0	2.0	2.0	2.0
All-Red Time (s)	0.0	0.0	0.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None
Walk Time (s)				
Flash Dont Walk (s)				
Pedestrian Calls (#/hr)				
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Intersection Summary				

Queues  
11: Fieldgate Dr & Burnhamthorpe Rd

2029 FB AM  
06/04/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	66	1120	110	58	1191	51	48	82	57	109	53
v/c Ratio	0.19	0.39	0.09	0.16	0.41	0.04	0.45	0.44	0.47	0.62	0.27
Control Delay	5.4	4.8	1.7	3.6	3.2	0.2	81.5	52.4	80.4	84.6	17.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.4	4.8	1.7	3.6	3.2	0.2	81.5	52.4	80.4	84.6	17.4
Queue Length 50th (m)	4.0	43.5	2.4	2.3	25.7	0.0	14.8	16.7	17.5	34.0	0.0
Queue Length 95th (m)	9.9	62.1	7.2	m3.5	32.0	m0.2	28.3	33.7	32.0	53.2	12.8
Internal Link Dist (m)		475.8			651.9			416.5		202.9	
Turn Bay Length (m)	30.0		25.0	30.0		30.0	15.0		65.0		65.0
Base Capacity (vph)	340	2903	1234	370	2903	1240	285	455	329	474	430
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.39	0.09	0.16	0.41	0.04	0.17	0.18	0.17	0.23	0.12

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lanes, Volumes, Timings  
12: Ponytrail Dr & Burnhamthorpe Rd

2029 FB AM  
06/04/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	55	1001	27	49	1072	560	16	34	28	371	43	62
Future Volume (vph)	55	1001	27	49	1072	560	16	34	28	371	43	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	35.0		30.0	35.0		30.0	15.0		0.0	40.0		45.0
Storage Lanes	1		1	1		1	1		0	2		1
Taper Length (m)	45.0			65.0			50.0			30.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Ped Bike Factor			0.96			0.91	1.00	0.99		0.98		0.99
Frt			0.850			0.850		0.933				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1789	3579	1633	1722	3579	1601	1722	1771	0	3471	1921	1601
Flt Permitted	0.093			0.242			0.726			0.950		
Satd. Flow (perm)	175	3579	1565	439	3579	1462	1314	1771	0	3395	1921	1579
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			116			203			23			67
Link Speed (k/h)		60			60			40				50
Link Distance (m)		675.9			242.1			944.6				165.5
Travel Time (s)		40.6			14.5			85.0				11.9
Confl. Peds. (#/hr)	28		9	9		28	1		10	10		1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	0%	6%	2%	2%	6%	0%	0%	2%	0%	2%
Adj. Flow (vph)	60	1088	29	53	1165	609	17	37	30	403	47	67
Shared Lane Traffic (%)												
Lane Group Flow (vph)	60	1088	29	53	1165	609	17	67	0	403	47	67
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			7.4				7.4
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2	1	1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0		2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6		2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4				9.4
Detector 2 Size(m)		0.6			0.6			0.6				0.6
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				0.0

Lane Group	Ø7	Ø9	Ø10	Ø11
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (m)				
Storage Lanes				
Taper Length (m)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (k/h)				
Link Distance (m)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(m)				
Link Offset(m)				
Crosswalk Width(m)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (k/h)				
Number of Detectors				
Detector Template				
Leading Detector (m)				
Trailing Detector (m)				
Detector 1 Position(m)				
Detector 1 Size(m)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(m)				
Detector 2 Size(m)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				

Lanes, Volumes, Timings  
12: Ponytrail Dr & Burnhamthorpe Rd

2029 FB AM  
06/04/2024

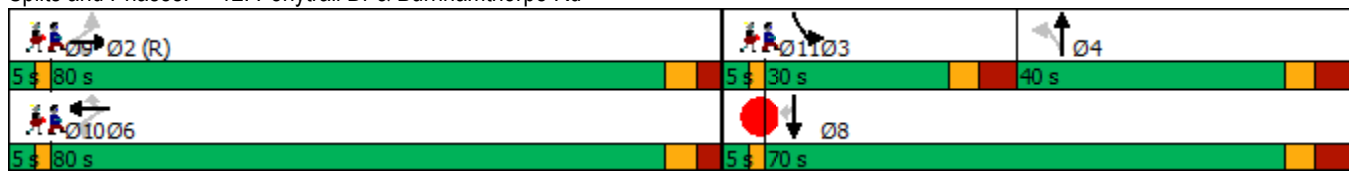


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Prot	NA	Perm
Protected Phases		2			6			4		3	8	
Permitted Phases	2		2	6		6	4					8
Detector Phase	2	2	2	6	6	6	4	4		3	8	8
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	40.0	40.0	40.0	42.0	42.0	42.0	41.0	41.0		18.0	41.0	41.0
Total Split (s)	80.0	80.0	80.0	80.0	80.0	80.0	40.0	40.0		30.0	70.0	70.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	25.0%	25.0%		18.8%	43.8%	43.8%
Maximum Green (s)	73.0	73.0	73.0	73.0	73.0	73.0	32.0	32.0		22.0	62.0	62.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	4.5	4.5		4.5	4.5	4.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	8.0	8.0		8.0	8.0	8.0
Lead/Lag												Lag
Lead-Lag Optimize?												Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	C-Max	C-Max	C-Max	Max	Max	Max	Min	Min		None	Min	Min
Walk Time (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0			10.0	10.0
Flash Dont Walk (s)	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0			23.0	23.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0			0	0
Act Effct Green (s)	92.1	92.1	92.1	73.0	73.0	73.0	11.0	11.0		21.3	40.4	40.4
Actuated g/C Ratio	0.58	0.58	0.58	0.46	0.46	0.46	0.07	0.07		0.13	0.25	0.25
v/c Ratio	0.60	0.53	0.03	0.27	0.71	0.78	0.19	0.47		0.87	0.10	0.15
Control Delay	47.2	18.7	0.1	31.5	38.1	32.1	79.2	62.1		87.3	45.6	9.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	47.2	18.7	0.1	31.5	38.1	32.1	79.2	62.1		87.3	45.6	9.9
LOS	D	B	A	C	D	C	E	E		F	D	A
Approach Delay		19.7			35.9			65.5			73.5	
Approach LOS		B			D			E			E	

Intersection Summary

Area Type: Other  
 Cycle Length: 160  
 Actuated Cycle Length: 160  
 Offset: 117 (73%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 110  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.87  
 Intersection Signal Delay: 36.7  
 Intersection LOS: D  
 Intersection Capacity Utilization 77.7%  
 ICU Level of Service D  
 Analysis Period (min) 15

Splits and Phases: 12: Ponytrail Dr & Burnhamthorpe Rd





Lane Group	Ø7	Ø9	Ø10	Ø11
Turn Type				
Protected Phases	7	9	10	11
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	1.0	1.0	1.0	1.0
Minimum Split (s)	3.0	3.0	3.0	3.0
Total Split (s)	5.0	5.0	5.0	5.0
Total Split (%)	3%	3%	3%	3%
Maximum Green (s)	3.0	3.0	3.0	3.0
Yellow Time (s)	2.0	2.0	2.0	2.0
All-Red Time (s)	0.0	0.0	0.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag				Lead
Lead-Lag Optimize?				Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0
Recall Mode	Ped	Ped	Ped	Ped
Walk Time (s)	0.0	0.0	0.0	0.0
Flash Dont Walk (s)	0.0	0.0	0.0	0.0
Pedestrian Calls (#/hr)	0	0	0	0
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Intersection Summary				

Queues  
12: Ponytrail Dr & Burnhamthorpe Rd

2029 FB AM  
06/04/2024
































Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	60	1088	29	53	1165	609	17	67	403	47	67
v/c Ratio	0.60	0.53	0.03	0.27	0.71	0.78	0.19	0.47	0.87	0.10	0.15
Control Delay	47.2	18.7	0.1	31.5	38.1	32.1	79.2	62.1	87.3	45.6	9.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.2	18.7	0.1	31.5	38.1	32.1	79.2	62.1	87.3	45.6	9.9
Queue Length 50th (m)	8.8	84.0	0.0	10.3	155.5	114.7	5.3	13.7	65.5	11.6	0.0
Queue Length 95th (m)	#39.2	94.1	0.0	21.9	181.1	170.4	13.2	29.8	#90.1	21.9	12.2
Internal Link Dist (m)		651.9			218.1			920.6		141.5	
Turn Bay Length (m)	35.0		30.0	35.0		30.0	15.0		40.0		45.0
Base Capacity (vph)	100	2060	950	200	1632	777	262	372	477	744	652
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.60	0.53	0.03	0.27	0.71	0.78	0.06	0.18	0.84	0.06	0.10

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

Lanes, Volumes, Timings  
1: Dixie Rd & Bloor St

2029 FB SAT  
06/04/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 			  			  	
Traffic Volume (vph)	140	471	218	314	434	218	197	1172	329	134	1184	156
Future Volume (vph)	140	471	218	314	434	218	197	1172	329	134	1184	156
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		15.0	60.0		10.0	75.0		0.0	100.0		85.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	85.0			60.0			90.0			50.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.91	0.91	1.00	0.91	1.00
Ped Bike Factor	0.97		0.97	0.99		0.94	1.00	0.99		1.00		0.97
Frt			0.850			0.850		0.967				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1807	3614	1617	1807	3579	1617	1807	4973	0	1807	5142	1601
Flt Permitted	0.482			0.258			0.135			0.135		
Satd. Flow (perm)	893	3614	1574	488	3579	1519	256	4973	0	256	5142	1546
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			91			47			60			163
Link Speed (k/h)		50			50			60				60
Link Distance (m)		302.0			160.9			615.3				434.7
Travel Time (s)		21.7			11.6			36.9				26.1
Confl. Peds. (#/hr)	40		12	12		40	19		27	27		19
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	1%	1%	1%	2%	1%	1%	1%	1%	1%	2%	2%
Adj. Flow (vph)	152	512	237	341	472	237	214	1274	358	146	1287	170
Shared Lane Traffic (%)												
Lane Group Flow (vph)	152	512	237	341	472	237	214	1632	0	146	1287	170
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7				3.7
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane					Yes							
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	2	1	1	1	1	1	1	0		1	0	0
Detector Template								Thru			Thru	Right
Leading Detector (m)	24.0	7.0	7.0	22.0	7.0	7.0	24.0	0.0		24.0	0.0	0.0
Trailing Detector (m)	-2.5	-2.0	-2.0	12.0	-2.0	-2.0	14.0	0.0		14.0	0.0	0.0
Detector 1 Position(m)	-2.5	-2.0	-2.0	12.0	-2.0	-2.0	14.0	0.0		14.0	0.0	0.0
Detector 1 Size(m)	10.0	9.0	9.0	10.0	9.0	9.0	10.0	0.6		10.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)	14.0											
Detector 2 Size(m)	10.0											
Detector 2 Type	Cl+Ex											
Detector 2 Channel												
Detector 2 Extend (s)	0.0											

Lanes, Volumes, Timings  
1: Dixie Rd & Bloor St

2029 FB SAT  
06/04/2024

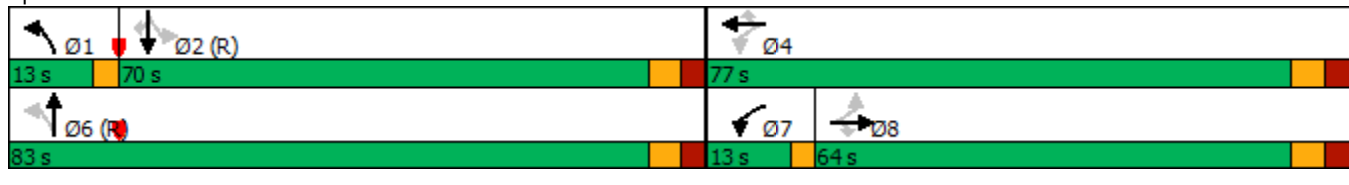


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		Perm	NA	Perm
Protected Phases		8		7	4		1	6			2	
Permitted Phases	8		8	4		4	6			2		2
Detector Phase	8	8	8	7	4	4	1	6		2	2	2
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0		10.0	10.0	10.0
Minimum Split (s)	46.4	46.4	46.4	10.0	46.4	46.4	10.0	46.9		46.9	46.9	46.9
Total Split (s)	64.0	64.0	64.0	13.0	77.0	77.0	13.0	83.0		70.0	70.0	70.0
Total Split (%)	40.0%	40.0%	40.0%	8.1%	48.1%	48.1%	8.1%	51.9%		43.8%	43.8%	43.8%
Maximum Green (s)	56.6	56.6	56.6	10.0	69.6	69.6	10.0	76.1		63.1	63.1	63.1
Yellow Time (s)	4.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0		4.0	4.0	4.0
All-Red Time (s)	3.4	3.4	3.4	0.0	3.4	3.4	0.0	2.9		2.9	2.9	2.9
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.4	7.4	7.4	3.0	7.4	7.4	3.0	6.9		6.9	6.9	6.9
Lead/Lag	Lag	Lag	Lag	Lead			Lead			Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes			Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	C-Max		C-Max	C-Max	C-Max
Walk Time (s)	10.0	10.0	10.0		10.0	10.0		10.0		10.0	10.0	10.0
Flash Dont Walk (s)	29.0	29.0	29.0		29.0	29.0		30.0		30.0	30.0	30.0
Pedestrian Calls (#/hr)	0	0	0		0	0		0		0	0	0
Act Effct Green (s)	36.2	36.2	36.2	53.6	49.2	49.2	100.4	96.5		74.9	74.9	74.9
Actuated g/C Ratio	0.23	0.23	0.23	0.34	0.31	0.31	0.63	0.60		0.47	0.47	0.47
v/c Ratio	0.75	0.63	0.56	1.39	0.43	0.47	0.63	0.54		1.23	0.53	0.21
Control Delay	78.7	58.3	36.4	232.6	44.1	37.2	25.1	20.0		192.2	32.4	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	78.7	58.3	36.4	232.6	44.1	37.2	25.1	20.0		192.2	32.4	5.2
LOS	E	E	D	F	D	D	C	B		F	C	A
Approach Delay		56.0			103.8			20.5			44.1	
Approach LOS		E			F			C			D	

Intersection Summary

Area Type: Other  
 Cycle Length: 160  
 Actuated Cycle Length: 160  
 Offset: 74 (46%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green  
 Natural Cycle: 115  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.39  
 Intersection Signal Delay: 49.6  
 Intersection LOS: D  
 Intersection Capacity Utilization 101.1%  
 ICU Level of Service G  
 Analysis Period (min) 15

Splits and Phases: 1: Dixie Rd & Bloor St



Queues  
1: Dixie Rd & Bloor St

2029 FB SAT  
06/04/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	152	512	237	341	472	237	214	1632	146	1287	170
v/c Ratio	0.75	0.63	0.56	1.39	0.43	0.47	0.63	0.54	1.23	0.53	0.21
Control Delay	78.7	58.3	36.4	232.6	44.1	37.2	25.1	20.0	192.2	32.4	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	78.7	58.3	36.4	232.6	44.1	37.2	25.1	20.0	192.2	32.4	5.2
Queue Length 50th (m)	45.8	78.4	41.6	~133.6	58.7	45.1	27.2	102.7	~56.4	104.0	1.2
Queue Length 95th (m)	64.8	85.8	61.5	#182.2	77.0	75.5	#60.9	145.2	#109.1	136.5	16.6
Internal Link Dist (m)		278.0			136.9			591.3		410.7	
Turn Bay Length (m)	40.0		15.0	60.0		10.0	75.0		100.0		85.0
Base Capacity (vph)	315	1278	615	245	1556	687	341	3023	119	2407	810
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.40	0.39	1.39	0.30	0.34	0.63	0.54	1.23	0.53	0.21

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Lanes, Volumes, Timings  
2: Havenwood Dr & Bloor St

2029 FB SAT  
06/04/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	100	760	54	24	710	56	46	17	30	71	24	131
Future Volume (vph)	100	760	54	24	710	56	46	17	30	71	24	131
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0		0.0	50.0		0.0	25.0		0.0	25.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	65.0			80.0			40.0			35.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			0.99		0.99	0.97		0.97	0.97	
Frt		0.990			0.989			0.903			0.873	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1825	1876	0	1825	1868	0	1825	1634	0	1825	1586	0
Flt Permitted	0.246			0.217			0.651			0.724		
Satd. Flow (perm)	473	1876	0	417	1868	0	1234	1634	0	1348	1586	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			6			33			69	
Link Speed (k/h)		50			50			30			40	
Link Distance (m)		179.0			562.7			137.1			118.1	
Travel Time (s)		12.9			40.5			16.5			10.6	
Confl. Peds. (#/hr)	41		17	17		41	14		28	28		14
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	2%	0%	1%	3%	0%	0%	4%	0%	0%	3%
Adj. Flow (vph)	109	826	59	26	772	61	50	18	33	77	26	142
Shared Lane Traffic (%)												
Lane Group Flow (vph)	109	885	0	26	833	0	50	51	0	77	168	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	0	0		0	0		1	1		1	1	
Detector Template		Thru		Left	Thru							
Leading Detector (m)	0.0	0.0		0.0	0.0		7.0	7.0		8.0	8.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		-2.0	-2.0		-2.0	-2.0	
Detector 1 Position(m)	11.5	0.0		0.0	0.0		-2.0	-2.0		-2.0	-2.0	
Detector 1 Size(m)	9.0	0.6		2.0	0.6		9.0	9.0		10.0	10.0	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Detector Phase	2	2		2	2		4	4		4	4	
Switch Phase												

Lanes, Volumes, Timings  
2: Havenwood Dr & Bloor St

2029 FB SAT  
06/04/2024

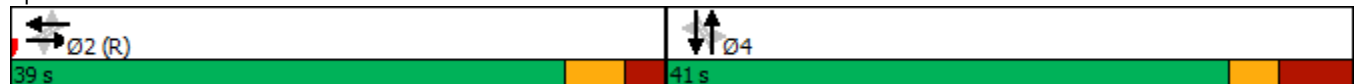


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	35.0	35.0		35.0	35.0		41.5	41.5		41.5	41.5	
Total Split (s)	39.0	39.0		39.0	39.0		41.0	41.0		41.0	41.0	
Total Split (%)	48.8%	48.8%		48.8%	48.8%		51.3%	51.3%		51.3%	51.3%	
Maximum Green (s)	33.0	33.0		33.0	33.0		33.5	33.5		33.5	33.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.5	2.5		2.5	2.5		4.5	4.5		4.5	4.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		7.5	7.5		7.5	7.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	
Walk Time (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Flash Dont Walk (s)	19.0	19.0		19.0	19.0		24.0	24.0		24.0	24.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	54.1	54.1		54.1	54.1		12.4	12.4		12.4	12.4	
Actuated g/C Ratio	0.68	0.68		0.68	0.68		0.16	0.16		0.16	0.16	
v/c Ratio	0.34	0.70		0.09	0.66		0.26	0.18		0.37	0.55	
Control Delay	6.7	11.8		8.7	12.3		32.1	15.7		34.6	25.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	6.7	11.8		8.7	12.3		32.1	15.7		34.6	25.3	
LOS	A	B		A	B		C	B		C	C	
Approach Delay		11.2			12.2			23.8			28.2	
Approach LOS		B			B			C			C	

Intersection Summary

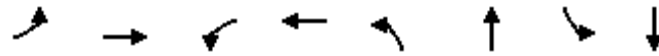
Area Type: Other  
 Cycle Length: 80  
 Actuated Cycle Length: 80  
 Offset: 39 (49%), Referenced to phase 2:EBWB, Start of Green  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.70  
 Intersection Signal Delay: 14.1      Intersection LOS: B  
 Intersection Capacity Utilization 103.0%      ICU Level of Service G  
 Analysis Period (min) 15

Splits and Phases: 2: Havenwood Dr & Bloor St



Queues  
2: Havenwood Dr & Bloor St

2029 FB SAT  
06/04/2024



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	109	885	26	833	50	51	77	168
v/c Ratio	0.34	0.70	0.09	0.66	0.26	0.18	0.37	0.55
Control Delay	6.7	11.8	8.7	12.3	32.1	15.7	34.6	25.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.7	11.8	8.7	12.3	32.1	15.7	34.6	25.3
Queue Length 50th (m)	6.5	66.2	0.9	41.5	7.0	2.4	10.9	14.1
Queue Length 95th (m)	m9.4	m165.8	m4.2	113.8	15.1	10.5	21.1	29.4
Internal Link Dist (m)		155.0		538.7		113.1		94.1
Turn Bay Length (m)	50.0		50.0		25.0		25.0	
Base Capacity (vph)	320	1271	282	1266	516	703	564	704
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.70	0.09	0.66	0.10	0.07	0.14	0.24

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lanes, Volumes, Timings  
3: Fieldgate Dr & Bloor St

2029 FB SAT  
06/04/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	81	684	63	66	608	68	62	27	55	107	49	91
Future Volume (vph)	81	684	63	66	608	68	62	27	55	107	49	91
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	80.0		75.0	92.0		92.0	45.0		0.0	25.0		0.0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (m)	50.0			55.0			30.0			30.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99			0.99			0.95	0.95		0.96	0.95	
Frt			0.850			0.850		0.899			0.902	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1825	1902	1601	1825	1902	1601	1755	1646	0	1825	1648	0
Flt Permitted	0.269			0.355			0.660			0.699		
Satd. Flow (perm)	510	1902	1601	672	1902	1601	1164	1646	0	1283	1648	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			177			177		60			99	
Link Speed (k/h)		50			50			40			40	
Link Distance (m)		562.7			233.6			134.2			78.0	
Travel Time (s)		40.5			16.8			12.1			7.0	
Confl. Peds. (#/hr)	42		34	34		42	38		34	34		38
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	2%	0%	1%	2%	4%	0%	0%	0%	0%	0%
Adj. Flow (vph)	88	743	68	72	661	74	67	29	60	116	53	99
Shared Lane Traffic (%)												
Lane Group Flow (vph)	88	743	68	72	661	74	67	89	0	116	152	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane		Yes										
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	0	1	0	0	1	1	1		1	1	
Detector Template		Thru	Right	Left	Thru	Right						
Leading Detector (m)	21.0	0.0	2.0	0.0	0.0	2.0	6.5	6.5		7.5	6.0	
Trailing Detector (m)	12.0	0.0	0.0	0.0	0.0	0.0	-2.5	-2.5		-1.5	-3.0	
Detector 1 Position(m)	12.0	0.0	0.0	0.0	0.0	0.0	-2.5	-2.5		-1.5	-3.0	
Detector 1 Size(m)	9.0	0.6	2.0	2.0	0.6	2.0	9.0	9.0		9.0	9.0	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA	NA	Perm	NA	NA	Perm	NA		Perm	NA	
Protected Phases	5	2			6			4				8
Permitted Phases	2			6			4			8		
Detector Phase	5	2		6	6		4	4		8	8	
Switch Phase												

Lanes, Volumes, Timings  
3: Fieldgate Dr & Bloor St

2029 FB SAT  
06/04/2024

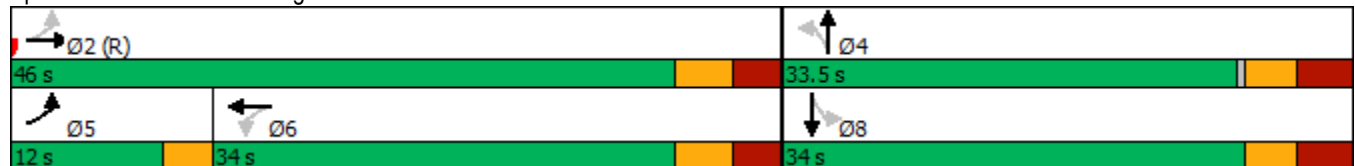


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	7.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	10.0	33.5		33.5	33.5		33.5	33.5		33.5	33.5	
Total Split (s)	12.0	46.0		34.0	34.0		33.5	33.5		34.0	34.0	
Total Split (%)	15.0%	57.5%		42.5%	42.5%		41.9%	41.9%		42.5%	42.5%	
Maximum Green (s)	9.0	39.5		27.5	27.5		27.0	27.0		27.5	27.5	
Yellow Time (s)	3.0	3.5		3.5	3.5		3.0	3.0		3.0	3.0	
All-Red Time (s)	0.0	3.0		3.0	3.0		3.5	3.5		3.5	3.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.0	6.5		6.5	6.5		6.5	6.5		6.5	6.5	
Lead/Lag	Lead			Lag			Lag			Lag		
Lead-Lag Optimize?	Yes			Yes			Yes			Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max		Max	Max		None	None		None	None	
Walk Time (s)		10.0		10.0	10.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)		17.0		17.0	17.0		22.0	22.0		22.0	22.0	
Pedestrian Calls (#/hr)		0		0	0		0	0		0	0	
Act Effct Green (s)	57.2	53.7	0.0	45.7	45.7	0.0	13.3	13.3		13.3	13.3	
Actuated g/C Ratio	0.72	0.67	0.00	0.57	0.57	0.00	0.17	0.17		0.17	0.17	
v/c Ratio	0.18	0.58	0.38	0.19	0.61	0.42	0.35	0.28		0.55	0.43	
Control Delay	6.5	15.7	4.8	12.3	16.1	7.1	33.5	14.1		39.1	13.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	6.5	15.7	4.8	12.3	16.1	7.1	33.5	14.1		39.1	13.3	
LOS	A	B	A	B	B	A	C	B		D	B	
Approach Delay		14.0			14.9			22.4			24.5	
Approach LOS		B			B			C			C	

Intersection Summary

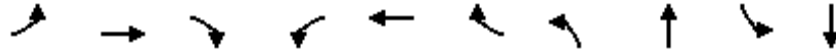
Area Type:	Other
Cycle Length:	80
Actuated Cycle Length:	80
Offset:	17 (21%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle:	80
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.61
Intersection Signal Delay:	16.3
Intersection LOS:	B
Intersection Capacity Utilization:	93.4%
ICU Level of Service:	F
Analysis Period (min):	15

Splits and Phases: 3: Fieldgate Dr & Bloor St



Queues  
3: Fieldgate Dr & Bloor St

2029 FB SAT  
06/04/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	88	743	68	72	661	74	67	89	116	152
v/c Ratio	0.18	0.58	0.38	0.19	0.61	0.42	0.35	0.28	0.55	0.43
Control Delay	6.5	15.7	4.8	12.3	16.1	7.1	33.5	14.1	39.1	13.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.5	15.7	4.8	12.3	16.1	7.1	33.5	14.1	39.1	13.3
Queue Length 50th (m)	5.8	127.1	0.0	5.1	63.6	0.0	9.2	3.8	18.7	7.7
Queue Length 95th (m)	m8.1	129.5	m0.0	14.5	116.5	0.0	18.8	14.4	28.3	17.7
Internal Link Dist (m)		538.7			209.6			110.2		54.0
Turn Bay Length (m)	80.0		75.0	92.0		92.0	45.0		25.0	
Base Capacity (vph)	512	1277	177	383	1085	177	400	605	441	631
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.58	0.38	0.19	0.61	0.42	0.17	0.15	0.26	0.24

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lanes, Volumes, Timings  
5: Fieldgate Dr

2029 FB SAT  
06/04/2024



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	177	0	0	214
Future Volume (vph)	0	0	177	0	0	214
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)	1921	0	1902	0	0	1921
Flt Permitted						
Satd. Flow (perm)	1921	0	1902	0	0	1921
Link Speed (k/h)	30		40			40
Link Distance (m)	40.2		78.0			83.8
Travel Time (s)	4.8		7.0			7.5
Confl. Peds. (#/hr)	4	3		60	60	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%
Adj. Flow (vph)	0	0	192	0	0	233
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	192	0	0	233
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.7		3.7			3.7
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	1.6		1.6			1.6
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24	14		14	24	
Sign Control	Stop		Free			Free
<b>Intersection Summary</b>						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	23.7%			ICU Level of Service A		
Analysis Period (min)	15					

HCM Unsignalized Intersection Capacity Analysis  
5: Fieldgate Dr

2029 FB SAT  
06/04/2024



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	177	0	0	214
Future Volume (Veh/h)	0	0	177	0	0	214
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	192	0	0	233
Pedestrians	60		4		3	
Lane Width (m)	3.7		3.7		3.7	
Walking Speed (m/s)	1.1		1.1		1.1	
Percent Blockage	6		0		0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)	78					
pX, platoon unblocked						
vC, conflicting volume	489	255			252	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	489	255			252	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	508	740			1247	
<b>Direction, Lane #</b>	<b>WB 1</b>	<b>NB 1</b>	<b>SB 1</b>			
Volume Total	0	192	233			
Volume Left	0	0	0			
Volume Right	0	0	0			
cSH	1700	1700	1247			
Volume to Capacity	0.00	0.11	0.00			
Queue Length 95th (m)	0.0	0.0	0.0			
Control Delay (s)	0.0	0.0	0.0			
Lane LOS	A					
Approach Delay (s)	0.0	0.0	0.0			
Approach LOS	A					
<b>Intersection Summary</b>						
Average Delay			0.0			
Intersection Capacity Utilization			23.7%	ICU Level of Service		A
Analysis Period (min)			15			

Lanes, Volumes, Timings  
6: Fieldgate Dr & Williamsport Dr/Site Access

2029 FB SAT  
06/04/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	21	0	55	0	0	0	42	146	0	0	149	17
Future Volume (vph)	21	0	55	0	0	0	42	146	0	0	149	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt	0.902										0.986	
Flt Protected	0.986										0.989	
Satd. Flow (prot)	0	1709	0	0	1883	0	0	1887	0	0	1894	0
Flt Permitted	0.986										0.989	
Satd. Flow (perm)	0	1709	0	0	1883	0	0	1887	0	0	1894	0
Link Speed (k/h)	40						48		40		40	
Link Distance (m)	168.2						35.5		83.8		69.3	
Travel Time (s)	15.1						2.7		7.5		6.2	
Confl. Peds. (#/hr)	27			1	1			27	20			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	0%	2%	2%	2%	3%	0%	2%	2%	0%	0%
Adj. Flow (vph)	23	0	60	0	0	0	46	159	0	0	162	18
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	83	0	0	0	0	0	205	0	0	180	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)	0.0						0.0		0.0		0.0	
Link Offset(m)	0.0						0.0		0.0		0.0	
Crosswalk Width(m)	1.6						1.6		1.6		1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24	14		24			14	24	14		24	14
Sign Control	Stop						Stop		Free		Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	40.4%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis  
6: Fieldgate Dr & Williamsport Dr/Site Access

2029 FB SAT  
06/04/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	21	0	55	0	0	0	42	146	0	0	149	17
Future Volume (Veh/h)	21	0	55	0	0	0	42	146	0	0	149	17
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	23	0	60	0	0	0	46	159	0	0	162	18
Pedestrians		20						1			27	
Lane Width (m)		3.7						3.7			3.7	
Walking Speed (m/s)		1.1						1.1			1.1	
Percent Blockage		2						0			3	
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (m)								162				
pX, platoon unblocked												
vC, conflicting volume	469	442	192	483	451	186	200			159		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	469	442	192	483	451	186	200			159		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	95	100	93	100	100	100	97			100		
cM capacity (veh/h)	465	483	837	439	477	834	1339			1420		
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>WB 1</b>	<b>NB 1</b>	<b>SB 1</b>								
Volume Total	83	0	205	180								
Volume Left	23	0	46	0								
Volume Right	60	0	0	18								
cSH	685	1700	1339	1420								
Volume to Capacity	0.12	0.00	0.03	0.00								
Queue Length 95th (m)	3.1	0.0	0.8	0.0								
Control Delay (s)	11.0	0.0	2.0	0.0								
Lane LOS	B	A	A									
Approach Delay (s)	11.0	0.0	2.0	0.0								
Approach LOS	B	A										
<b>Intersection Summary</b>												
Average Delay			2.8									
Intersection Capacity Utilization			40.4%		ICU Level of Service					A		
Analysis Period (min)			15									

Lanes, Volumes, Timings  
7: Fieldgate Dr & Ponytrail Dr

2029 FB SAT  
06/04/2024



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	40	27	101	65	20	123
Future Volume (vph)	40	27	101	65	20	123
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	0.946		0.947			
Flt Protected	0.971					0.993
Satd. Flow (prot)	1765	0	1819	0	0	1908
Flt Permitted	0.971					0.993
Satd. Flow (perm)	1765	0	1819	0	0	1908
Link Speed (k/h)	30		40			30
Link Distance (m)	39.8		69.3			254.8
Travel Time (s)	4.8		6.2			30.6
Confl. Peds. (#/hr)	1	8		27	27	
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)	43	29	110	71	22	134
Shared Lane Traffic (%)						
Lane Group Flow (vph)	72	0	181	0	0	156
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.7		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	1.6		1.6			1.6
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24	14		14	24	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	36.0%
ICU Level of Service	A
Analysis Period (min)	15



HCM Unsignalized Intersection Capacity Analysis  
7: Fieldgate Dr & Ponytrail Dr

2029 FB SAT  
06/04/2024



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	40	27	101	65	20	123
Future Volume (Veh/h)	40	27	101	65	20	123
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	43	29	110	71	22	134
Pedestrians	27		1		8	
Lane Width (m)	3.7		3.7		3.7	
Walking Speed (m/s)	1.1		1.1		1.1	
Percent Blockage	3		0		1	
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)	231					
pX, platoon unblocked						
vC, conflicting volume	352	180			208	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	352	180			208	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	93	97			98	
cM capacity (veh/h)	622	838			1339	
<b>Direction, Lane #</b>	<b>WB 1</b>	<b>NB 1</b>	<b>SB 1</b>			
Volume Total	72	181	156			
Volume Left	43	0	22			
Volume Right	29	71	0			
cSH	694	1700	1339			
Volume to Capacity	0.10	0.11	0.02			
Queue Length 95th (m)	2.6	0.0	0.4			
Control Delay (s)	10.8	0.0	1.2			
Lane LOS	B		A			
Approach Delay (s)	10.8	0.0	1.2			
Approach LOS	B					
<b>Intersection Summary</b>						
Average Delay			2.4			
Intersection Capacity Utilization			36.0%	ICU Level of Service		A
Analysis Period (min)	15					

Lanes, Volumes, Timings  
8: Ponytrail Dr

2029 FB SAT  
06/04/2024



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	85	0	0	67	0	0
Future Volume (vph)	85	0	0	67	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)	1883	0	0	1921	1921	0
Flt Permitted						
Satd. Flow (perm)	1883	0	0	1921	1921	0
Link Speed (k/h)	30			30	30	
Link Distance (m)	39.8			47.8	38.4	
Travel Time (s)	4.8			5.7	4.6	
Confl. Peds. (#/hr)		16	16		2	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	0%	0%	0%	0%	0%
Adj. Flow (vph)	92	0	0	73	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	92	0	0	73	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	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)		14	24		24	14
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	20.5%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis  
8: Ponytrail Dr

2029 FB SAT  
06/04/2024



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	→			←	←	↗
Traffic Volume (veh/h)	85	0	0	67	0	0
Future Volume (Veh/h)	85	0	0	67	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	92	0	0	73	0	0
Pedestrians	2			8	16	
Lane Width (m)	3.7			3.7	3.7	
Walking Speed (m/s)	1.1			1.1	1.1	
Percent Blockage	0			1	2	
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			108		183	116
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			108		183	116
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1472		797	920
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>WB 1</b>	<b>NB 1</b>			
Volume Total	92	73	0			
Volume Left	0	0	0			
Volume Right	0	0	0			
cSH	1700	1472	1700			
Volume to Capacity	0.05	0.00	0.00			
Queue Length 95th (m)	0.0	0.0	0.0			
Control Delay (s)	0.0	0.0	0.0			
Lane LOS			A			
Approach Delay (s)	0.0	0.0	0.0			
Approach LOS			A			
<b>Intersection Summary</b>						
Average Delay			0.0			
Intersection Capacity Utilization			20.5%	ICU Level of Service	A	
Analysis Period (min)			15			

Lanes, Volumes, Timings  
 9: Site Access & Ponytrail Dr

2029 FB SAT  
 06/04/2024



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	82	0	0	73	0	0
Future Volume (vph)	82	0	0	73	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)	1921	0	0	1921	1921	0
Flt Permitted						
Satd. Flow (perm)	1921	0	0	1921	1921	0
Link Speed (k/h)	30			30	30	
Link Distance (m)	47.8			156.1	119.1	
Travel Time (s)	5.7			18.7	14.3	
Confl. Peds. (#/hr)		40	40		1	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)	89	0	0	79	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	89	0	0	79	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	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)		14	24		24	14
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	21.9%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis  
 9: Site Access & Ponytrail Dr

2029 FB SAT  
 06/04/2024



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	→			←	←	↘
Traffic Volume (veh/h)	82	0	0	73	0	0
Future Volume (Veh/h)	82	0	0	73	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	89	0	0	79	0	0
Pedestrians	1			3	40	
Lane Width (m)	3.7			3.7	3.7	
Walking Speed (m/s)	1.1			1.1	1.1	
Percent Blockage	0			0	4	
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			129		209	132
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			129		209	132
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1412		752	884
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>WB 1</b>	<b>NB 1</b>			
Volume Total	89	79	0			
Volume Left	0	0	0			
Volume Right	0	0	0			
cSH	1700	1412	1700			
Volume to Capacity	0.05	0.00	0.00			
Queue Length 95th (m)	0.0	0.0	0.0			
Control Delay (s)	0.0	0.0	0.0			
Lane LOS			A			
Approach Delay (s)	0.0	0.0	0.0			
Approach LOS			A			
<b>Intersection Summary</b>						
Average Delay			0.0			
Intersection Capacity Utilization			21.9%	ICU Level of Service	A	
Analysis Period (min)			15			

Lanes, Volumes, Timings  
10: Fieldgate Dr & Haven Glenn

2029 FB SAT  
06/04/2024



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	5	35	21	115	96	11
Future Volume (vph)	5	35	21	115	96	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
Ped Bike Factor						
Frt	0.881					0.986
Flt Protected	0.994					0.992
Satd. Flow (prot)	1682	0	0	1906	1894	0
Flt Permitted	0.994					0.992
Satd. Flow (perm)	1682	0	0	1906	1894	0
Link Speed (k/h)	40					30
Link Distance (m)	258.3					254.8
Travel Time (s)	23.2					30.6
Confl. Peds. (#/hr)	1	26	14			
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)	5	38	23	125	104	12
Shared Lane Traffic (%)						
Lane Group Flow (vph)	43	0	0	148	116	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7					3.7
Link Offset(m)	0.0					0.0
Crosswalk Width(m)	1.6					1.6
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24	14	24			
Sign Control	Stop				Free	Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	30.2%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis  
 10: Fieldgate Dr & Haven Glenn

2029 FB SAT  
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Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	5	35	21	115	96	11
Future Volume (Veh/h)	5	35	21	115	96	11
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	38	23	125	104	12
Pedestrians	14			26	1	
Lane Width (m)	3.7			3.7	3.7	
Walking Speed (m/s)	1.1			1.1	1.1	
Percent Blockage	1			3	0	
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	296	150	130			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	296	150	130			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	96	98			
cM capacity (veh/h)	678	867	1448			
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>NB 1</b>	<b>SB 1</b>			
Volume Total	43	148	116			
Volume Left	5	23	0			
Volume Right	38	0	12			
cSH	840	1448	1700			
Volume to Capacity	0.05	0.02	0.07			
Queue Length 95th (m)	1.2	0.4	0.0			
Control Delay (s)	9.5	1.3	0.0			
Lane LOS	A	A				
Approach Delay (s)	9.5	1.3	0.0			
Approach LOS	A					
<b>Intersection Summary</b>						
Average Delay			1.9			
Intersection Capacity Utilization			30.2%	ICU Level of Service	A	
Analysis Period (min)			15			

Lanes, Volumes, Timings  
11: Fieldgate Dr & Burnhamthorpe Rd

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	62	1007	47	44	795	40	49	29	49	55	43	47
Future Volume (vph)	62	1007	47	44	795	40	49	29	49	55	43	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	30.0		25.0	30.0		30.0	15.0		0.0	65.0		65.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	30.0			45.0			40.0			75.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		0.97	1.00		0.97	0.99	0.99		0.99		0.97
Frt			0.850			0.850		0.906				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1825	3614	1633	1825	3614	1633	1825	1721	0	1825	1921	1633
Flt Permitted	0.321			0.240			0.726			0.702		
Satd. Flow (perm)	616	3614	1580	460	3614	1590	1376	1721	0	1341	1921	1591
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			130			130		53				109
Link Speed (k/h)		60			60			40				50
Link Distance (m)		499.8			675.9			440.5				226.9
Travel Time (s)		30.0			40.6			39.6				16.3
Confl. Peds. (#/hr)	5		10	10		5	14		6	6		14
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	67	1095	51	48	864	43	53	32	53	60	47	51
Shared Lane Traffic (%)												
Lane Group Flow (vph)	67	1095	51	48	864	43	53	85	0	60	47	51
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7				3.7
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	0	0	0	0	0	0	1	1		1	1	0
Detector Template												
Leading Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	7.0	7.0		7.0	7.0	0.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	-2.0	-2.0		-2.0	-2.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	-2.0	-2.0		-2.0	-2.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	9.0	9.0		9.0	9.0	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases		2			6			4				8
Permitted Phases	2		2	6		6	4			8		8
Detector Phase	2	2	2	6	6	6	4	4		8	8	8
Switch Phase												



Lane Group	Ø1	Ø3	Ø5	Ø7
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (m)				
Storage Lanes				
Taper Length (m)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (k/h)				
Link Distance (m)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(m)				
Link Offset(m)				
Crosswalk Width(m)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (k/h)				
Number of Detectors				
Detector Template				
Leading Detector (m)				
Trailing Detector (m)				
Detector 1 Position(m)				
Detector 1 Size(m)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Turn Type				
Protected Phases	1	3	5	7
Permitted Phases				
Detector Phase				
Switch Phase				

Lanes, Volumes, Timings  
 11: Fieldgate Dr & Burnhamthorpe Rd

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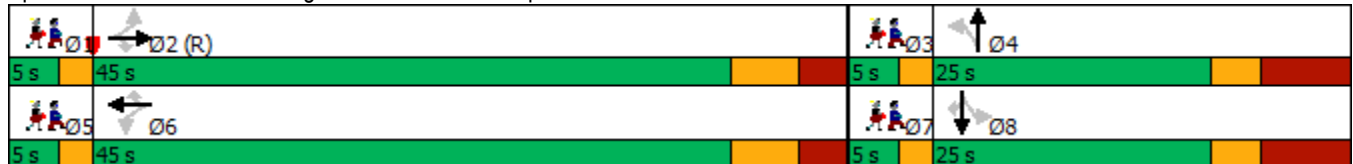


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	38.0	38.0	38.0	38.0	38.0	38.0	32.5	32.5		32.5	32.5	32.5
Total Split (s)	45.0	45.0	45.0	45.0	45.0	45.0	25.0	25.0		25.0	25.0	25.0
Total Split (%)	56.3%	56.3%	56.3%	56.3%	56.3%	56.3%	31.3%	31.3%		31.3%	31.3%	31.3%
Maximum Green (s)	38.0	38.0	38.0	38.0	38.0	38.0	16.5	16.5		16.5	16.5	16.5
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	5.5	5.5		5.5	5.5	5.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	8.5	8.5		8.5	8.5	8.5
Lead/Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lag		Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	C-Max	C-Max	C-Max	Max	Max	Max	None	None		None	None	None
Walk Time (s)	10.0	10.0	10.0	10.0	10.0	10.0	0.0	0.0		0.0	0.0	0.0
Flash Dont Walk (s)	21.0	21.0	21.0	21.0	21.0	21.0	24.0	24.0		24.0	24.0	24.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	0
Act Effct Green (s)	58.9	58.9	58.9	58.9	58.9	58.9	10.7	10.7		10.7	10.7	10.7
Actuated g/C Ratio	0.74	0.74	0.74	0.74	0.74	0.74	0.13	0.13		0.13	0.13	0.13
v/c Ratio	0.15	0.41	0.04	0.14	0.32	0.04	0.29	0.31		0.34	0.18	0.17
Control Delay	6.1	6.1	0.1	1.7	1.1	0.1	33.8	14.7		36.6	32.2	1.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	6.1	6.1	0.1	1.7	1.1	0.1	33.8	14.7		36.6	32.2	1.5
LOS	A	A	A	A	A	A	C	B		D	C	A
Approach Delay		5.8			1.1			22.0			24.0	
Approach LOS		A			A			C			C	

Intersection Summary

Area Type:	Other
Cycle Length:	80
Actuated Cycle Length:	80
Offset:	72 (90%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle:	80
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.41
Intersection Signal Delay:	6.1
Intersection LOS:	A
Intersection Capacity Utilization:	68.5%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 11: Fieldgate Dr & Burnhamthorpe Rd



Lane Group	Ø1	Ø3	Ø5	Ø7
Minimum Initial (s)	1.0	1.0	1.0	1.0
Minimum Split (s)	3.0	3.0	3.0	3.0
Total Split (s)	5.0	5.0	5.0	5.0
Total Split (%)	6%	6%	6%	6%
Maximum Green (s)	3.0	3.0	3.0	3.0
Yellow Time (s)	2.0	2.0	2.0	2.0
All-Red Time (s)	0.0	0.0	0.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None
Walk Time (s)				
Flash Dont Walk (s)				
Pedestrian Calls (#/hr)				
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Intersection Summary				

Queues  
11: Fieldgate Dr & Burnhamthorpe Rd

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	67	1095	51	48	864	43	53	85	60	47	51
v/c Ratio	0.15	0.41	0.04	0.14	0.32	0.04	0.29	0.31	0.34	0.18	0.17
Control Delay	6.1	6.1	0.1	1.7	1.1	0.1	33.8	14.7	36.6	32.2	1.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.1	6.1	0.1	1.7	1.1	0.1	33.8	14.7	36.6	32.2	1.5
Queue Length 50th (m)	3.1	34.0	0.0	0.4	3.8	0.0	8.1	5.5	8.5	6.5	0.0
Queue Length 95th (m)	8.7	51.4	0.0	m1.4	9.8	m0.2	14.1	12.5	18.8	15.2	1.0
Internal Link Dist (m)	475.8			651.9			416.5			202.9	
Turn Bay Length (m)	30.0		25.0	30.0		30.0	15.0		65.0		65.0
Base Capacity (vph)	453	2661	1197	338	2661	1204	283	397	276	396	414
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.41	0.04	0.14	0.32	0.04	0.19	0.21	0.22	0.12	0.12

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lanes, Volumes, Timings  
12: Ponytrail Dr & Burnhamthorpe Rd

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷	↷	↶	↷	↷	↶	↷	↷	↶	↷	↷
Traffic Volume (vph)	73	974	22	56	805	446	22	42	34	372	48	121
Future Volume (vph)	73	974	22	56	805	446	22	42	34	372	48	121
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	35.0		30.0	35.0		30.0	15.0		0.0	40.0		45.0
Storage Lanes	1		1	1		1	1		0	2		1
Taper Length (m)	45.0			65.0			50.0			30.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Ped Bike Factor	1.00		0.96			0.96	1.00	0.99		0.98		0.98
Frt			0.850			0.850		0.933				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1825	3614	1633	1825	3614	1617	1825	1771	0	3506	1921	1633
Flt Permitted	0.091			0.270			0.723			0.950		
Satd. Flow (perm)	174	3614	1569	519	3614	1550	1383	1771	0	3430	1921	1606
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			116			178		27				132
Link Speed (k/h)		60			60			40				50
Link Distance (m)		675.9			242.1			944.6				165.5
Travel Time (s)		40.6			14.5			85.0				11.9
Confl. Peds. (#/hr)	9		8	8		9	3		10	10		3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	0%	0%	1%	1%	0%	0%	0%	1%	0%	0%
Adj. Flow (vph)	79	1059	24	61	875	485	24	46	37	404	52	132
Shared Lane Traffic (%)												
Lane Group Flow (vph)	79	1059	24	61	875	485	24	83	0	404	52	132
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			7.4				7.4
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2	1	1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0		2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6		2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4				9.4
Detector 2 Size(m)		0.6			0.6			0.6				0.6
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				0.0

Lane Group	Ø7	Ø9	Ø10	Ø11
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (m)				
Storage Lanes				
Taper Length (m)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (k/h)				
Link Distance (m)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(m)				
Link Offset(m)				
Crosswalk Width(m)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (k/h)				
Number of Detectors				
Detector Template				
Leading Detector (m)				
Trailing Detector (m)				
Detector 1 Position(m)				
Detector 1 Size(m)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(m)				
Detector 2 Size(m)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				

Lanes, Volumes, Timings  
12: Ponytrail Dr & Burnhamthorpe Rd

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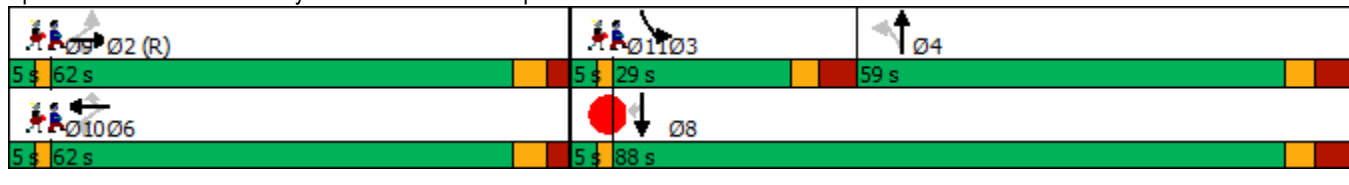


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Prot	NA	Perm
Protected Phases		2			6			4		3	8	
Permitted Phases	2		2	6		6	4					8
Detector Phase	2	2	2	6	6	6	4	4		3	8	8
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	40.0	40.0	40.0	42.0	42.0	42.0	41.0	41.0		18.0	41.0	41.0
Total Split (s)	62.0	62.0	62.0	62.0	62.0	62.0	59.0	59.0		29.0	88.0	88.0
Total Split (%)	38.8%	38.8%	38.8%	38.8%	38.8%	38.8%	36.9%	36.9%		18.1%	55.0%	55.0%
Maximum Green (s)	55.0	55.0	55.0	55.0	55.0	55.0	51.0	51.0		21.0	80.0	80.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	4.5	4.5		4.5	4.5	4.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	8.0	8.0		8.0	8.0	8.0
Lead/Lag												Lag
Lead-Lag Optimize?												Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	C-Max	C-Max	C-Max	Max	Max	Max	Min	Min		None	Min	Min
Walk Time (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0			10.0	10.0
Flash Dont Walk (s)	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0			23.0	23.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0			0	0
Act Effct Green (s)	92.1	92.1	92.1	55.0	55.0	55.0	11.8	11.8		20.6	40.4	40.4
Actuated g/C Ratio	0.58	0.58	0.58	0.34	0.34	0.34	0.07	0.07		0.13	0.25	0.25
v/c Ratio	0.79	0.51	0.03	0.34	0.70	0.75	0.24	0.54		0.90	0.11	0.26
Control Delay	73.7	19.7	0.2	45.8	49.2	36.7	76.9	61.6		91.2	45.7	7.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	73.7	19.7	0.2	45.8	49.2	36.7	76.9	61.6		91.2	45.7	7.9
LOS	E	B	A	D	D	D	E	E		F	D	A
Approach Delay		22.9			44.8			65.0			68.4	
Approach LOS		C			D			E			E	

Intersection Summary

Area Type: Other  
 Cycle Length: 160  
 Actuated Cycle Length: 160  
 Offset: 16 (10%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 110  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.90  
 Intersection Signal Delay: 41.9      Intersection LOS: D  
 Intersection Capacity Utilization 72.4%      ICU Level of Service C  
 Analysis Period (min) 15

Splits and Phases: 12: Ponytrail Dr & Burnhamthorpe Rd



Lane Group	Ø7	Ø9	Ø10	Ø11
Turn Type				
Protected Phases	7	9	10	11
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	1.0	1.0	1.0	1.0
Minimum Split (s)	3.0	3.0	3.0	3.0
Total Split (s)	5.0	5.0	5.0	5.0
Total Split (%)	3%	3%	3%	3%
Maximum Green (s)	3.0	3.0	3.0	3.0
Yellow Time (s)	2.0	2.0	2.0	2.0
All-Red Time (s)	0.0	0.0	0.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag				Lead
Lead-Lag Optimize?				Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0
Recall Mode	Ped	Ped	Ped	Ped
Walk Time (s)	0.0	0.0	0.0	0.0
Flash Dont Walk (s)	0.0	0.0	0.0	0.0
Pedestrian Calls (#/hr)	0	0	0	0
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Intersection Summary				



Queues  
12: Ponytrail Dr & Burnhamthorpe Rd

2029 FB SAT  
06/04/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	79	1059	24	61	875	485	24	83	404	52	132
v/c Ratio	0.79	0.51	0.03	0.34	0.70	0.75	0.24	0.54	0.90	0.11	0.26
Control Delay	73.7	19.7	0.2	45.8	49.2	36.7	76.9	61.6	91.2	45.7	7.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	73.7	19.7	0.2	45.8	49.2	36.7	76.9	61.6	91.2	45.7	7.9
Queue Length 50th (m)	14.3	94.5	0.0	14.4	127.0	90.1	7.1	17.4	66.0	12.9	0.0
Queue Length 95th (m)	#57.6	113.2	0.5	29.2	150.9	136.0	16.8	35.0	#93.3	23.6	16.4
Internal Link Dist (m)		651.9			218.1			920.6		141.5	
Turn Bay Length (m)	35.0		30.0	35.0		30.0	15.0		40.0		45.0
Base Capacity (vph)	100	2081	952	178	1242	649	440	582	460	960	869
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.79	0.51	0.03	0.34	0.70	0.75	0.05	0.14	0.88	0.05	0.15

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

# APPENDIX J

## TTS Modal Split

	Transit excluding GO rail	Cycle	Auto driver	GO rail only	Joint GO rail and local transit	Auto passenger	School bus	Taxi passenger	Paid rideshare	Walk
AM		3%	0%	75%	0%		8%	0%	1%	11%
PM		12%	0%	68%	3%	1%	12%	0%	0%	0%
		8%	0%	72%	2%	1%	10%	0%	1%	0%

# APPENDIX K

## ITE Trip Generation

## Multifamily Housing (High-Rise) Not Close to Rail Transit (222)

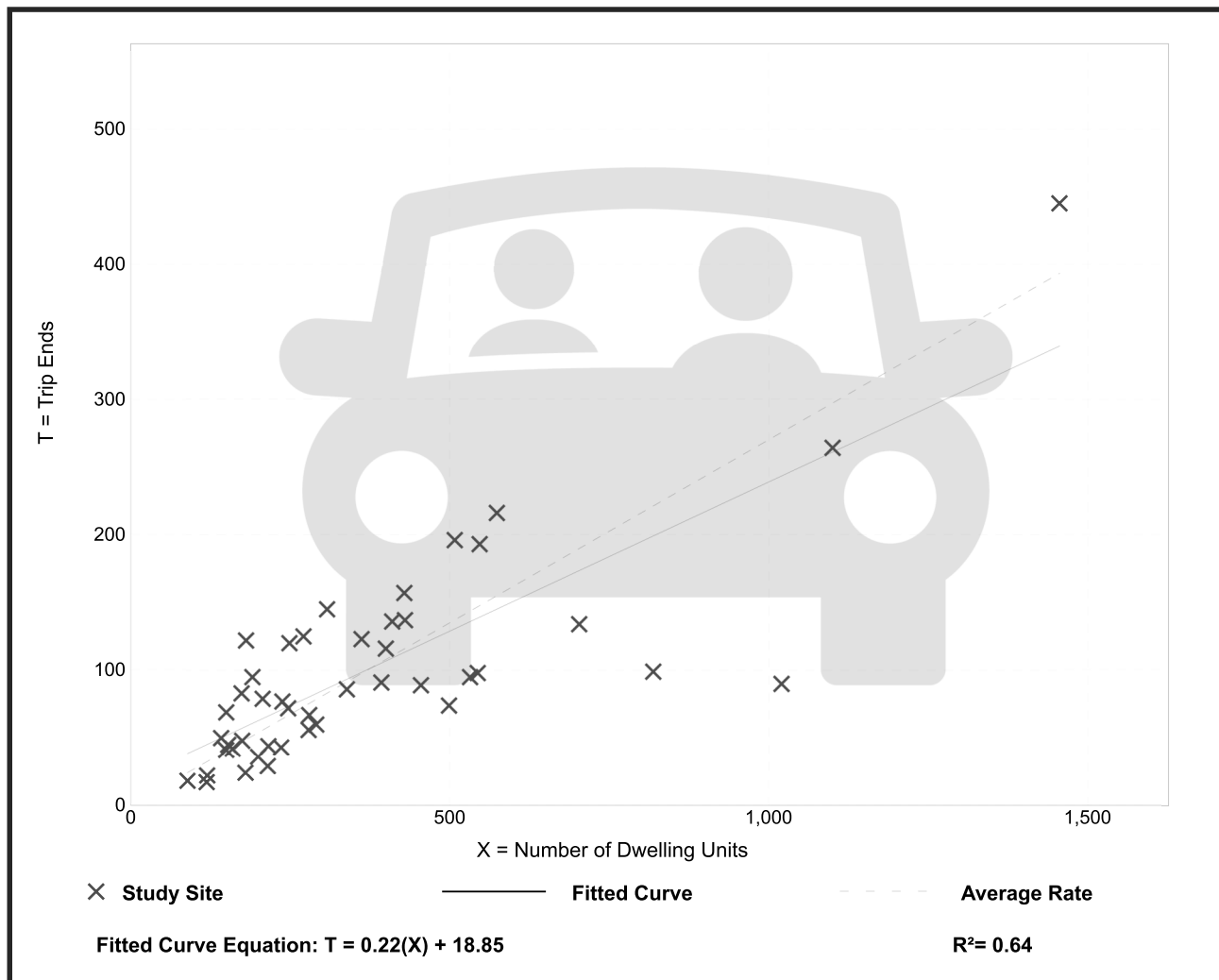
**Vehicle Trip Ends vs: Dwelling Units**  
**On a: Weekday,**  
**Peak Hour of Adjacent Street Traffic,**  
**One Hour Between 7 and 9 a.m.**

**Setting/Location: General Urban/Suburban**  
 Number of Studies: 45  
 Avg. Num. of Dwelling Units: 372  
 Directional Distribution: 26% entering, 74% exiting

### Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.27	0.09 - 0.67	0.11

### Data Plot and Equation



## Multifamily Housing (High-Rise) Not Close to Rail Transit (222)

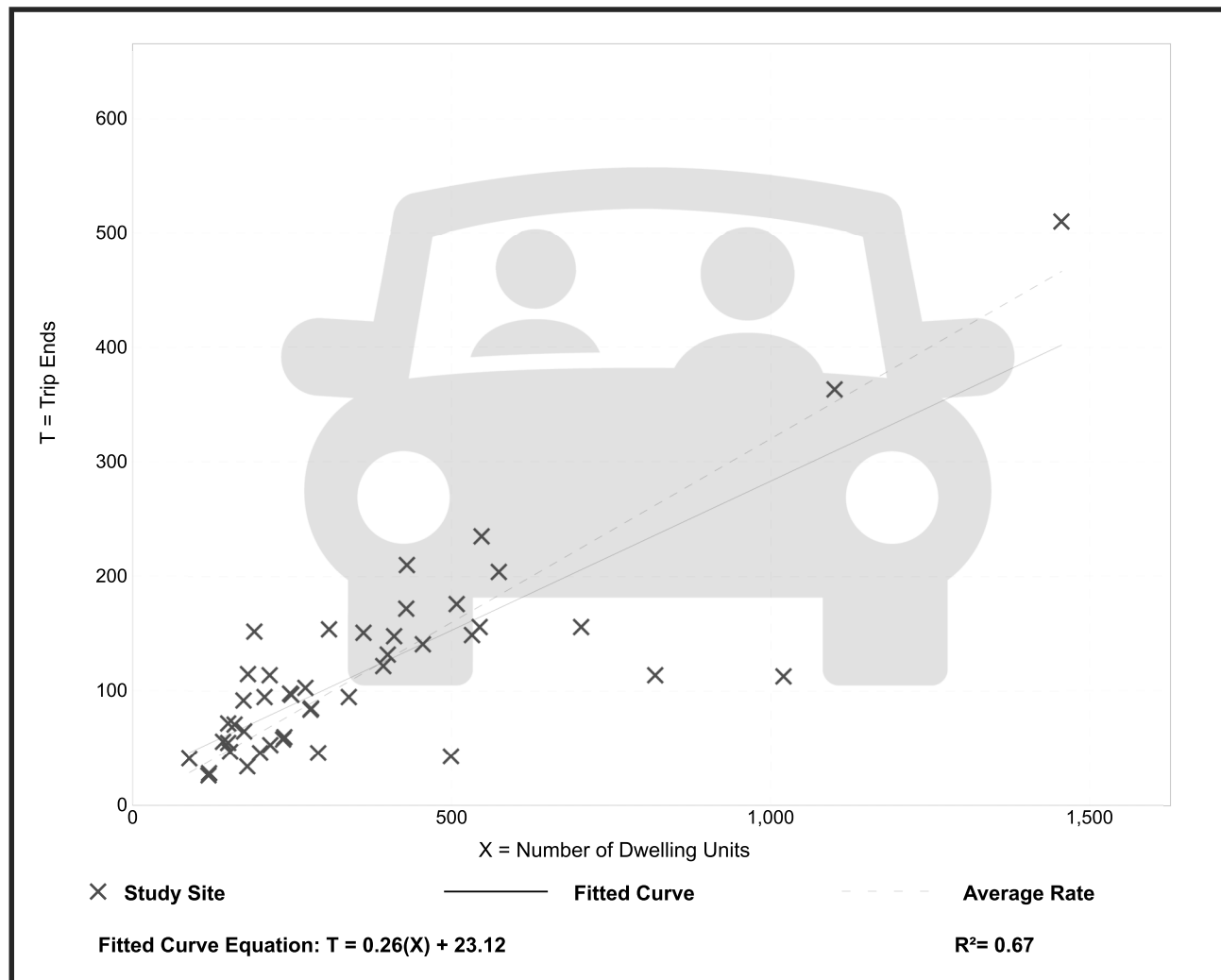
**Vehicle Trip Ends vs: Dwelling Units**  
**On a: Weekday,**  
**Peak Hour of Adjacent Street Traffic,**  
**One Hour Between 4 and 6 p.m.**

**Setting/Location: General Urban/Suburban**  
 Number of Studies: 45  
 Avg. Num. of Dwelling Units: 372  
 Directional Distribution: 62% entering, 38% exiting

### Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.32	0.09 - 0.80	0.13

### Data Plot and Equation



# Multifamily Housing (High-Rise) Not Close to Rail Transit (222)

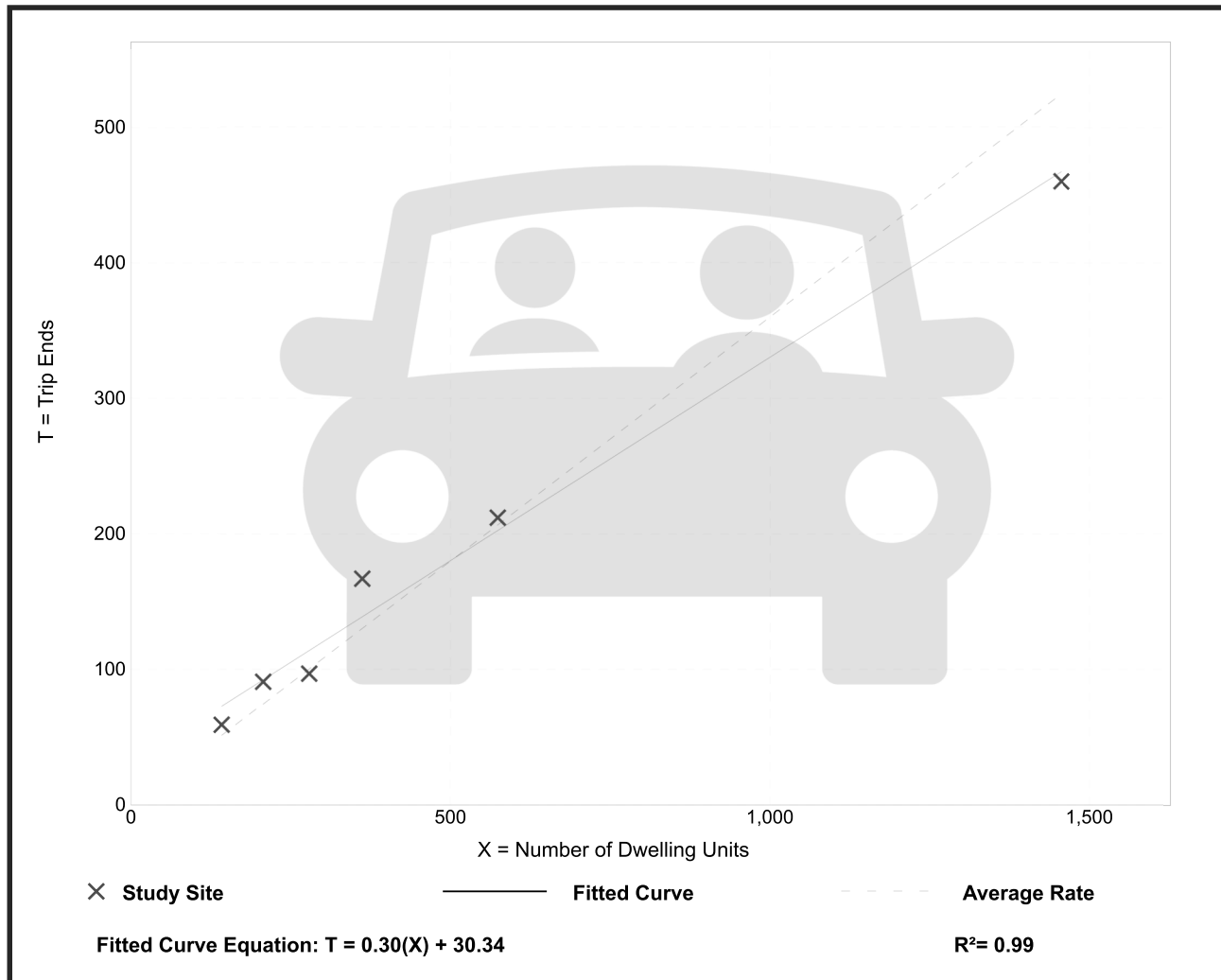
Vehicle Trip Ends vs: Dwelling Units  
On a: Saturday, Peak Hour of Generator

Setting/Location: General Urban/Suburban  
Number of Studies: 6  
Avg. Num. of Dwelling Units: 503  
Directional Distribution: 57% entering, 43% exiting

## Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.36	0.32 - 0.46	0.06

## Data Plot and Equation



# Strip Retail Plaza (<40k) (822)

**Vehicle Trip Ends vs:** 1000 Sq. Ft. GLA  
**On a:** Weekday,  
**Peak Hour of Adjacent Street Traffic,**  
**One Hour Between 7 and 9 a.m.**

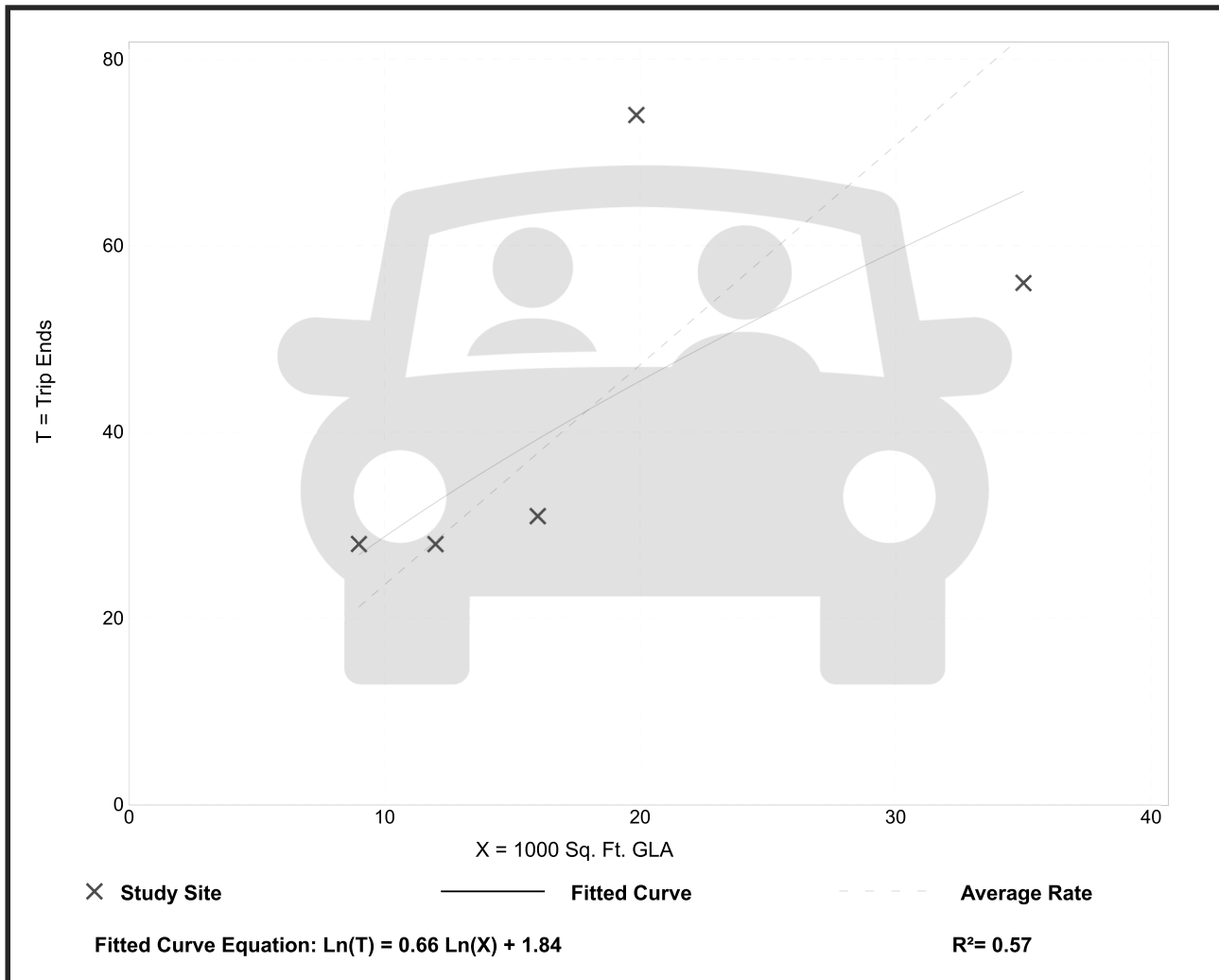
**Setting/Location:** General Urban/Suburban  
 Number of Studies: 5  
 Avg. 1000 Sq. Ft. GLA: 18  
 Directional Distribution: 60% entering, 40% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
2.36	1.60 - 3.73	0.94

## Data Plot and Equation

*Caution – Small Sample Size*





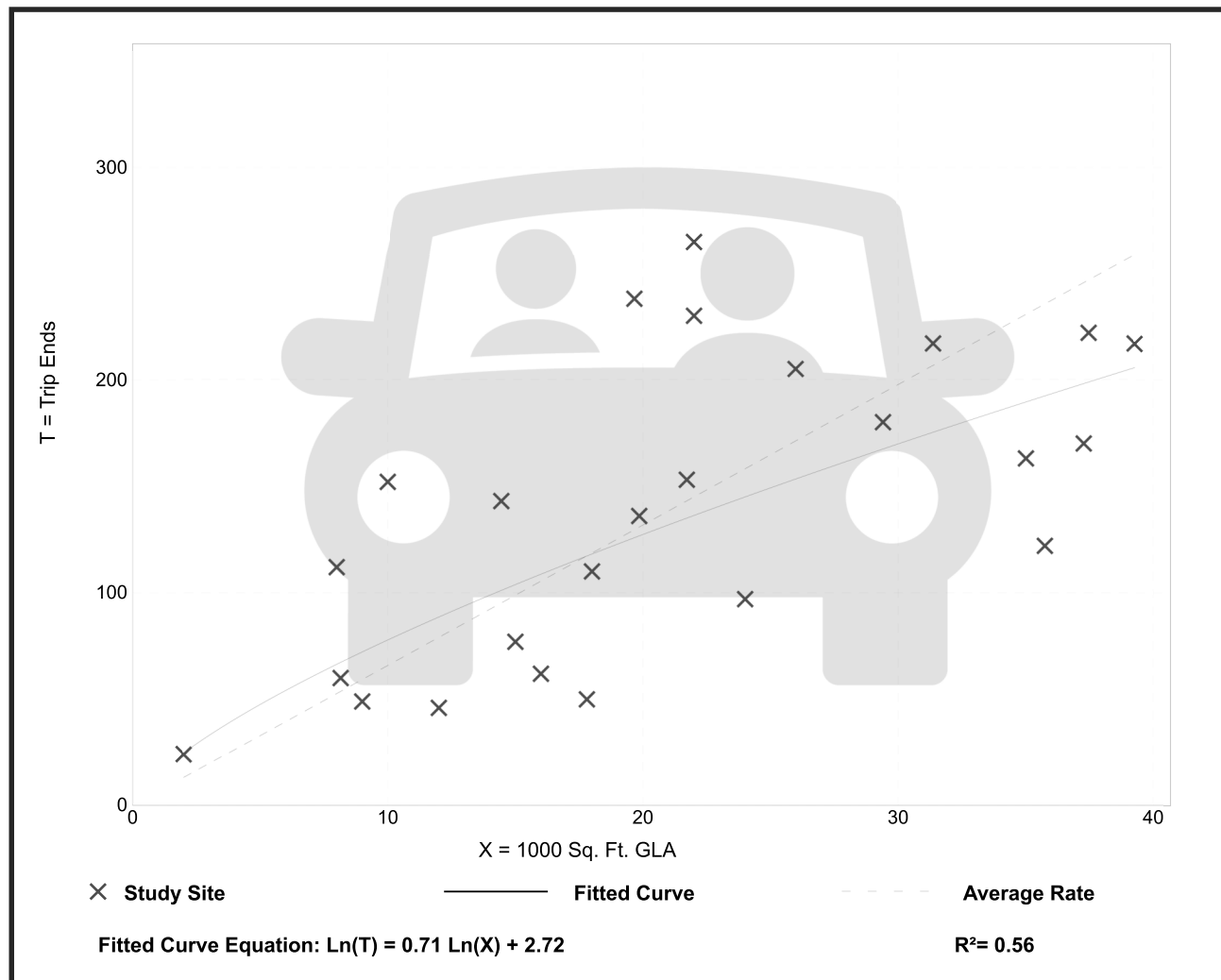
# Strip Retail Plaza (<40k) (822)

**Vehicle Trip Ends vs: 1000 Sq. Ft. GLA**  
**On a: Weekday,**  
**Peak Hour of Adjacent Street Traffic,**  
**One Hour Between 4 and 6 p.m.**  
**Setting/Location: General Urban/Suburban**  
 Number of Studies: 25  
 Avg. 1000 Sq. Ft. GLA: 21  
 Directional Distribution: 50% entering, 50% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
6.59	2.81 - 15.20	2.94

## Data Plot and Equation



# Strip Retail Plaza (<40k) (822)

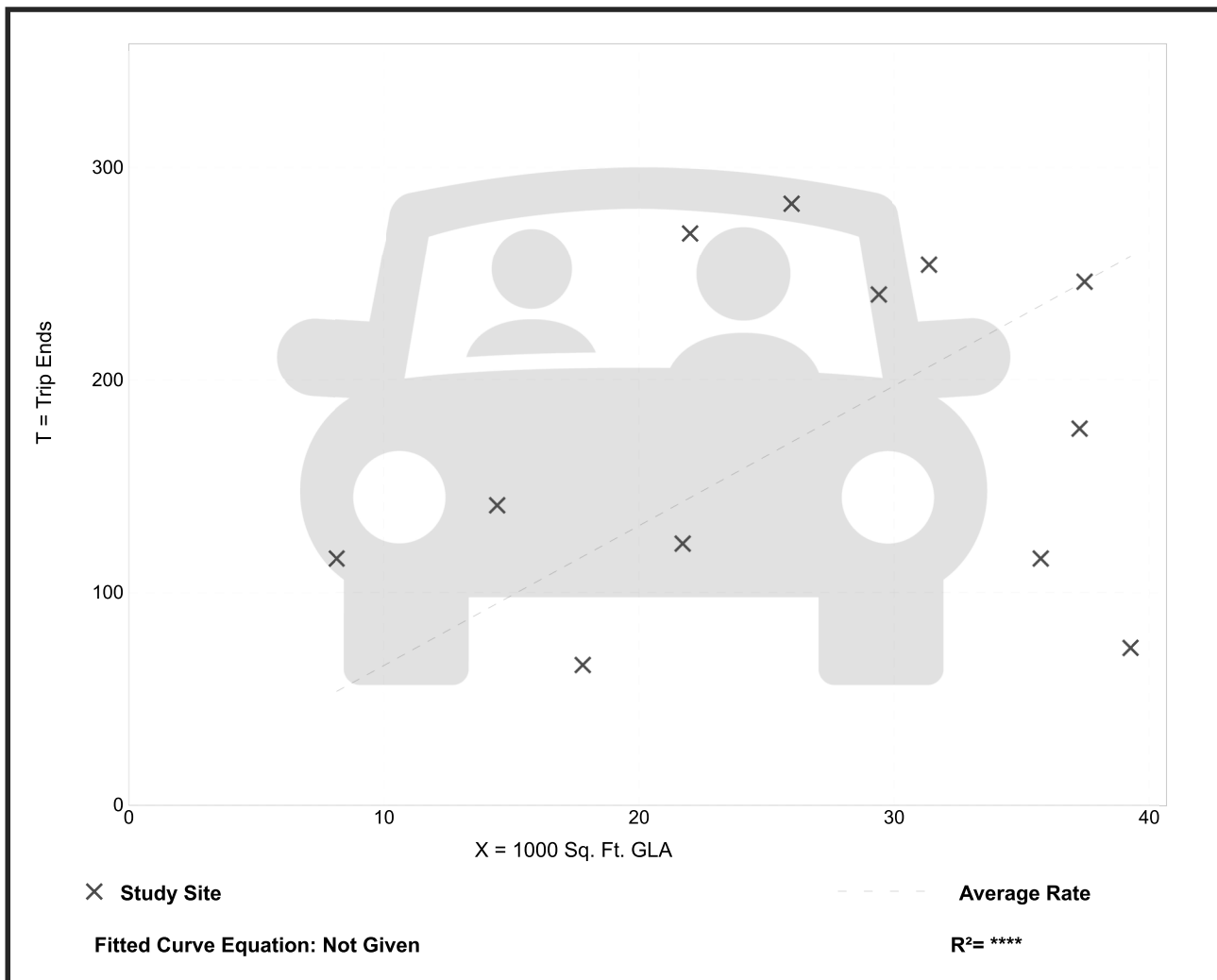
**Vehicle Trip Ends vs: 1000 Sq. Ft. GLA**  
**On a: Saturday, Peak Hour of Generator**

**Setting/Location: General Urban/Suburban**  
 Number of Studies: 12  
 Avg. 1000 Sq. Ft. GLA: 27  
 Directional Distribution: 51% entering, 49% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
6.57	1.88 - 14.23	3.45

## Data Plot and Equation



# APPENDIX L

## TTS Survey

























Time Period	Internal								External								Total
	NW	N	NE	E	SE	S	SW	W	NW	N	NE	E	SE	S	SW	W	
<b>AM (IN)</b>	10.2%	12.9%	2.9%	0.0%	4.5%	0.7%	2.3%	20.4%	0.0%	0.0%	2.4%	10.5%	29.9%	3.1%	0.0%	0.0%	100.0%
<b>AM (OUT)</b>	9.7%	15.2%	5.0%	0.0%	2.8%	3.8%	3.4%	11.4%	2.3%	2.3%	9.7%	11.2%	17.1%	0.2%	0.2%	5.8%	100.0%
<b>PM (IN)</b>	9.1%	13.6%	5.7%	0.0%	5.2%	4.5%	2.9%	10.9%	1.7%	3.0%	8.3%	10.5%	18.9%	0.1%	0.3%	5.3%	100.0%
<b>PM (OUT)</b>	5.4%	13.5%	3.2%	0.0%	13.8%	4.8%	7.9%	20.4%	1.2%	0.7%	4.0%	14.4%	9.2%	0.0%	0.0%	1.6%	100.0%
<b>SAT (IN)</b>	9.1%	13.6%	5.7%	0.0%	5.2%	4.5%	2.9%	10.9%	1.7%	3.0%	8.3%	10.5%	18.9%	0.1%	0.3%	5.3%	100.0%
<b>SAT (OUT)</b>	5.4%	13.5%	3.2%	0.0%	13.8%	4.8%	7.9%	20.4%	1.2%	0.7%	4.0%	14.4%	9.2%	0.0%	0.0%	1.6%	100.0%

# APPENDIX M

## 2029 Future Total Detailed Capacity Analysis

Lanes, Volumes, Timings  
1: Dixie Rd & Bloor St

2029 FT AM  
08/09/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	137	470	173	291	397	266	57	974	204	194	1185	100
Future Volume (vph)	137	470	173	291	397	266	57	974	204	194	1185	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		15.0	60.0		10.0	75.0		0.0	100.0		85.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	85.0			60.0			90.0			50.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.91	0.91	1.00	0.91	1.00
Ped Bike Factor	0.97		0.98	1.00		0.93	0.99	1.00		1.00		0.95
Fr <sub>t</sub>			0.850			0.850		0.974				0.850
Fl <sub>t</sub> Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1738	3544	1617	1772	3444	1555	1722	4693	0	1722	4948	1555
Fl <sub>t</sub> Permitted	0.501			0.245			0.203			0.142		
Satd. Flow (perm)	889	3544	1582	455	3444	1452	365	4693	0	257	4948	1473
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			68			108			34			109
Link Speed (k/h)		50			50			60			60	
Link Distance (m)		302.0			160.9			615.3			434.7	
Travel Time (s)		21.7			11.6			36.9			26.1	
Confl. Peds. (#/hr)	45		8	8		45	35		14	14		35
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	5%	3%	1%	3%	6%	5%	6%	9%	5%	6%	6%	5%
Adj. Flow (vph)	149	511	188	316	432	289	62	1059	222	211	1288	109
Shared Lane Traffic (%)												
Lane Group Flow (vph)	149	511	188	316	432	289	62	1281	0	211	1288	109
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane					Yes							
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	2	1	1	1	1	1	1	0		1	0	0
Detector Template								Thru			Thru	Right
Leading Detector (m)	24.0	7.0	7.0	22.0	7.0	7.0	24.0	0.0		24.0	0.0	0.0
Trailing Detector (m)	-2.5	-0.2	-2.0	12.0	-2.0	-2.0	14.0	0.0		14.0	0.0	0.0
Detector 1 Position(m)	-2.5	-0.2	-2.0	12.0	-2.0	-2.0	14.0	0.0		14.0	0.0	0.0
Detector 1 Size(m)	10.0	7.2	9.0	10.0	9.0	9.0	10.0	0.6		10.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)	14.0											
Detector 2 Size(m)	10.0											
Detector 2 Type	Cl+Ex											
Detector 2 Channel												
Detector 2 Extend (s)	0.0											

Lanes, Volumes, Timings  
1: Dixie Rd & Bloor St

2029 FT AM  
08/09/2024

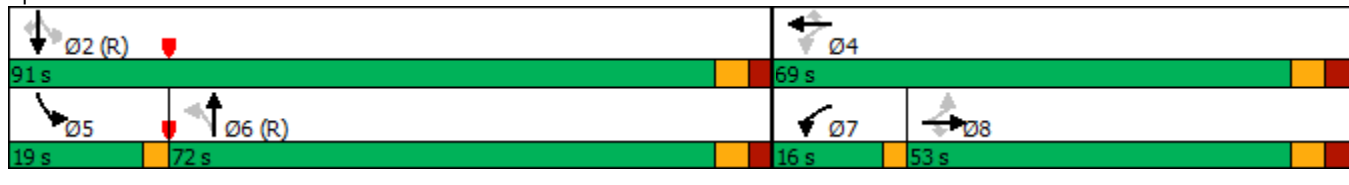


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	Perm	NA		pm+pt	NA	Perm
Protected Phases		8		7	4			6		5	2	
Permitted Phases	8		8	4		4	6			2		2
Detector Phase	8	8	8	7	4	4	6	6		5	2	2
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	7.0	10.0	10.0	10.0	10.0		7.0	10.0	10.0
Minimum Split (s)	46.4	46.4	46.4	10.0	46.4	46.4	46.9	46.9		10.0	46.9	46.9
Total Split (s)	53.0	53.0	53.0	16.0	69.0	69.0	72.0	72.0		19.0	91.0	91.0
Total Split (%)	33.1%	33.1%	33.1%	10.0%	43.1%	43.1%	45.0%	45.0%		11.9%	56.9%	56.9%
Maximum Green (s)	45.6	45.6	45.6	13.0	61.6	61.6	65.1	65.1		16.0	84.1	84.1
Yellow Time (s)	4.0	4.0	4.0	3.0	4.0	4.0	4.0	4.0		3.0	4.0	4.0
All-Red Time (s)	3.4	3.4	3.4	0.0	3.4	3.4	2.9	2.9		0.0	2.9	2.9
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.4	7.4	7.4	3.0	7.4	7.4	6.9	6.9		3.0	6.9	6.9
Lead/Lag	Lag	Lag	Lag	Lead			Lag	Lag		Lead		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	C-Max	C-Max		None	C-Max	C-Max
Walk Time (s)	10.0	10.0	10.0		10.0	10.0	10.0	10.0			10.0	10.0
Flash Dont Walk (s)	29.0	29.0	29.0		29.0	29.0	30.0	30.0			30.0	30.0
Pedestrian Calls (#/hr)	0	0	0		0	0	0	0			0	0
Act Effct Green (s)	34.5	34.5	34.5	54.9	50.5	50.5	78.2	78.2		99.1	95.2	95.2
Actuated g/C Ratio	0.22	0.22	0.22	0.34	0.32	0.32	0.49	0.49		0.62	0.60	0.60
v/c Ratio	0.78	0.67	0.48	1.20	0.40	0.54	0.35	0.55		0.74	0.44	0.12
Control Delay	84.0	61.1	36.8	160.3	43.0	30.2	36.9	30.6		32.3	19.3	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	84.0	61.1	36.8	160.3	43.0	30.2	36.9	30.6		32.3	19.3	3.2
LOS	F	E	D	F	D	C	D	C		C	B	A
Approach Delay		59.8			75.2			30.9			19.9	
Approach LOS		E			E			C			B	

Intersection Summary

Area Type: Other  
 Cycle Length: 160  
 Actuated Cycle Length: 160  
 Offset: 45 (28%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green  
 Natural Cycle: 115  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.20  
 Intersection Signal Delay: 41.8  
 Intersection LOS: D  
 Intersection Capacity Utilization 101.5%  
 ICU Level of Service G  
 Analysis Period (min) 15

Splits and Phases: 1: Dixie Rd & Bloor St



Queues  
1: Dixie Rd & Bloor St

2029 FT AM  
08/09/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	149	511	188	316	432	289	62	1281	211	1288	109
v/c Ratio	0.78	0.67	0.48	1.20	0.40	0.54	0.35	0.55	0.74	0.44	0.12
Control Delay	84.0	61.1	36.8	160.3	43.0	30.2	36.9	30.6	32.3	19.3	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	84.0	61.1	36.8	160.3	43.0	30.2	36.9	30.6	32.3	19.3	3.2
Queue Length 50th (m)	45.0	79.0	33.3	~100.2	56.5	47.5	12.0	100.9	28.1	79.7	0.0
Queue Length 95th (m)	67.0	90.1	53.5	#146.7	65.0	70.0	30.0	134.1	#58.5	106.6	9.6
Internal Link Dist (m)		278.0			136.9			591.3		410.7	
Turn Bay Length (m)	40.0		15.0	60.0		10.0	75.0		100.0		85.0
Base Capacity (vph)	253	1010	499	263	1325	625	178	2311	310	2942	920
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.59	0.51	0.38	1.20	0.33	0.46	0.35	0.55	0.68	0.44	0.12

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.



Lanes, Volumes, Timings  
2: Havenwood Dr & Bloor St

2029 FT AM  
08/09/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	67	749	62	58	729	28	68	60	60	48	85	120
Future Volume (vph)	67	749	62	58	729	28	68	60	60	48	85	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0		0.0	50.0		0.0	25.0		0.0	25.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	65.0			80.0			40.0			35.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			0.99		0.87	0.86		0.78	0.88	
Frt		0.989			0.995			0.925			0.912	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1789	1818	0	1722	1829	0	1690	1501	0	1722	1464	0
Flt Permitted	0.256			0.225			0.466			0.674		
Satd. Flow (perm)	482	1818	0	408	1829	0	718	1501	0	955	1464	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6			3			54			76	
Link Speed (k/h)		50			50			30			40	
Link Distance (m)		179.0			562.7			137.1			118.1	
Travel Time (s)		12.9			40.5			16.5			10.6	
Confl. Peds. (#/hr)	70		25	25		70	127		178	178		127
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	4%	4%	6%	4%	4%	8%	2%	2%	6%	6%	5%
Adj. Flow (vph)	73	814	67	63	792	30	74	65	65	52	92	130
Shared Lane Traffic (%)												
Lane Group Flow (vph)	73	881	0	63	822	0	74	130	0	52	222	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	0	0		0	0		1	1		1	1	
Detector Template		Thru		Left	Thru							
Leading Detector (m)	0.0	0.0		0.0	0.0		7.0	7.0		8.0	8.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		-2.0	-2.0		-2.0	-2.0	
Detector 1 Position(m)	11.5	0.0		0.0	0.0		-2.0	-2.0		-2.0	-2.0	
Detector 1 Size(m)	9.0	0.6		2.0	0.6		9.0	9.0		10.0	10.0	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Detector Phase	2	2		2	2		4	4		4	4	
Switch Phase												

Lanes, Volumes, Timings  
2: Havenwood Dr & Bloor St

2029 FT AM  
08/09/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	35.0	35.0		35.0	35.0		41.5	41.5		41.5	41.5	
Total Split (s)	59.0	59.0		59.0	59.0		41.0	41.0		41.0	41.0	
Total Split (%)	59.0%	59.0%		59.0%	59.0%		41.0%	41.0%		41.0%	41.0%	
Maximum Green (s)	53.0	53.0		53.0	53.0		33.5	33.5		33.5	33.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.5	2.5		2.5	2.5		4.5	4.5		4.5	4.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		7.5	7.5		7.5	7.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	
Walk Time (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Flash Dont Walk (s)	19.0	19.0		19.0	19.0		24.0	24.0		24.0	24.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	69.6	69.6		69.6	69.6		16.9	16.9		16.9	16.9	
Actuated g/C Ratio	0.70	0.70		0.70	0.70		0.17	0.17		0.17	0.17	
v/c Ratio	0.22	0.70		0.22	0.65		0.61	0.44		0.32	0.72	
Control Delay	9.0	14.1		9.2	10.1		58.1	25.2		39.5	37.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	9.0	14.1		9.2	10.1		58.1	25.2		39.5	37.7	
LOS	A	B		A	B		E	C		D	D	
Approach Delay		13.7			10.0			37.1			38.0	
Approach LOS		B			A			D			D	

Intersection Summary

Area Type: Other  
 Cycle Length: 100  
 Actuated Cycle Length: 100  
 Offset: 39 (39%), Referenced to phase 2:EBWB, Start of Green  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.72  
 Intersection Signal Delay: 17.2      Intersection LOS: B  
 Intersection Capacity Utilization 109.8%      ICU Level of Service H  
 Analysis Period (min) 15

Splits and Phases: 2: Havenwood Dr & Bloor St



Queues  
2: Havenwood Dr & Bloor St

2029 FT AM  
08/09/2024



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	73	881	63	822	74	130	52	222
v/c Ratio	0.22	0.70	0.22	0.65	0.61	0.44	0.32	0.72
Control Delay	9.0	14.1	9.2	10.1	58.1	25.2	39.5	37.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.0	14.1	9.2	10.1	58.1	25.2	39.5	37.7
Queue Length 50th (m)	4.3	84.9	3.4	49.3	13.6	13.2	9.0	27.1
Queue Length 95th (m)	13.8	173.5	m10.7	96.8	26.0	27.3	18.3	46.9
Internal Link Dist (m)		155.0		538.7		113.1		94.1
Turn Bay Length (m)	50.0		50.0		25.0		25.0	
Base Capacity (vph)	335	1266	283	1273	240	538	319	540
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.70	0.22	0.65	0.31	0.24	0.16	0.41

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lanes, Volumes, Timings  
3: Fieldgate Dr & Bloor St

2029 FT AM  
08/09/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	174	653	38	31	517	96	68	54	77	171	42	203
Future Volume (vph)	174	653	38	31	517	96	68	54	77	171	42	203
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	80.0		75.0	92.0		92.0	45.0		0.0	25.0		0.0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (m)	50.0			55.0			30.0			30.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.98			0.97			0.95	0.91		0.89	0.92	
Frt			0.850			0.850		0.912			0.876	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1772	1847	1585	1825	1847	1498	1738	1541	0	1789	1448	0
Flt Permitted	0.311			0.360			0.405			0.659		
Satd. Flow (perm)	570	1847	1585	674	1847	1498	701	1541	0	1108	1448	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			142			142		77			221	
Link Speed (k/h)		50			50			40			40	
Link Distance (m)		562.7			233.6			134.2			78.0	
Travel Time (s)		40.5			16.8			12.1			7.0	
Confl. Peds. (#/hr)	37		47	47		37	54		84	84		54
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	4%	3%	0%	4%	9%	5%	2%	5%	2%	3%	7%
Adj. Flow (vph)	189	710	41	34	562	104	74	59	84	186	46	221
Shared Lane Traffic (%)												
Lane Group Flow (vph)	189	710	41	34	562	104	74	143	0	186	267	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane		Yes										
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	0	1	0	0	1	1	1		1	1	
Detector Template		Thru	Right	Left	Thru	Right						
Leading Detector (m)	21.0	0.0	2.0	0.0	0.0	2.0	6.5	6.5		7.5	6.0	
Trailing Detector (m)	12.0	0.0	0.0	0.0	0.0	0.0	-2.5	-2.5		-1.5	-3.0	
Detector 1 Position(m)	12.0	0.0	0.0	0.0	0.0	0.0	-2.5	-2.5		-1.5	-3.0	
Detector 1 Size(m)	9.0	0.6	2.0	2.0	0.6	2.0	9.0	9.0		9.0	9.0	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA	NA	Perm	NA	NA	Perm	NA		Perm	NA	
Protected Phases	5	2			6			4				8
Permitted Phases	2			6			4			8		
Detector Phase	5	2		6	6		4	4		8	8	
Switch Phase												

Lanes, Volumes, Timings  
3: Fieldgate Dr & Bloor St

2029 FT AM  
08/09/2024

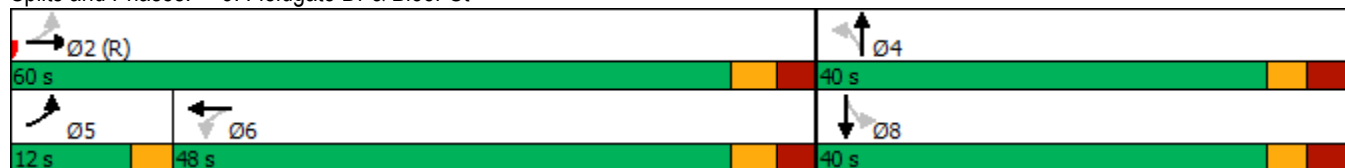


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	7.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	11.5	33.5		33.5	33.5		38.5	38.5		38.5	38.5	
Total Split (s)	12.0	60.0		48.0	48.0		40.0	40.0		40.0	40.0	
Total Split (%)	12.0%	60.0%		48.0%	48.0%		40.0%	40.0%		40.0%	40.0%	
Maximum Green (s)	9.0	53.5		41.5	41.5		33.5	33.5		33.5	33.5	
Yellow Time (s)	3.0	3.5		3.5	3.5		3.0	3.0		3.0	3.0	
All-Red Time (s)	0.0	3.0		3.0	3.0		3.5	3.5		3.5	3.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.0	6.5		6.5	6.5		6.5	6.5		6.5	6.5	
Lead/Lag	Lead			Lag			Lag			Lag		
Lead-Lag Optimize?	Yes			Yes			Yes			Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max		Max	Max		None	None		None	None	
Walk Time (s)		10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Flash Dont Walk (s)		17.0		17.0	17.0		22.0	22.0		22.0	22.0	
Pedestrian Calls (#/hr)		0		0	0		0	0		0	0	
Act Effct Green (s)	68.4	64.9	0.0	53.3	53.3	0.0	22.1	22.1		22.1	22.1	
Actuated g/C Ratio	0.68	0.65	0.00	0.53	0.53	0.00	0.22	0.22		0.22	0.22	
v/c Ratio	0.38	0.59	0.29	0.09	0.57	0.73	0.48	0.36		0.76	0.54	
Control Delay	12.5	21.3	3.9	16.1	20.8	32.7	42.1	16.8		54.9	11.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	12.5	21.3	3.9	16.1	20.8	32.7	42.1	16.8		54.9	11.0	
LOS	B	C	A	B	C	C	D	B		D	B	
Approach Delay		18.8			22.4			25.4			29.0	
Approach LOS		B			C			C			C	

Intersection Summary

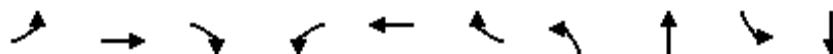
Area Type:	Other
Cycle Length:	100
Actuated Cycle Length:	100
Offset:	10 (10%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle:	85
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.76
Intersection Signal Delay:	22.5
Intersection LOS:	C
Intersection Capacity Utilization:	99.5%
ICU Level of Service:	F
Analysis Period (min):	15

Splits and Phases: 3: Fieldgate Dr & Bloor St



Queues  
3: Fieldgate Dr & Bloor St

2029 FT AM  
08/09/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	189	710	41	34	562	104	74	143	186	267
v/c Ratio	0.38	0.59	0.29	0.09	0.57	0.73	0.48	0.36	0.76	0.54
Control Delay	12.5	21.3	3.9	16.1	20.8	32.7	42.1	16.8	54.9	11.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.5	21.3	3.9	16.1	20.8	32.7	42.1	16.8	54.9	11.0
Queue Length 50th (m)	19.6	116.7	0.0	3.1	68.9	0.0	12.6	10.5	34.0	7.2
Queue Length 95th (m)	m33.7	181.3	m0.0	10.5	129.6	#17.5	23.7	23.4	51.5	25.7
Internal Link Dist (m)		538.7			209.6			110.2		54.0
Turn Bay Length (m)	80.0		75.0	92.0		92.0	45.0		25.0	
Base Capacity (vph)	504	1197	142	358	983	142	234	567	371	632
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.59	0.29	0.09	0.57	0.73	0.32	0.25	0.50	0.42

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lanes, Volumes, Timings  
6: Fieldgate Dr & Williamsport Dr/Site Access 1

2029 FT AM  
08/09/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	32	0	72	70	0	52	50	257	45	26	207	44
Future Volume (vph)	32	0	72	70	0	52	50	257	45	26	207	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.907			0.942			0.983			0.978	
Flt Protected		0.985			0.972			0.993			0.995	
Satd. Flow (prot)	0	1716	0	0	1725	0	0	1813	0	0	1791	0
Flt Permitted		0.985			0.972			0.993			0.995	
Satd. Flow (perm)	0	1716	0	0	1725	0	0	1813	0	0	1791	0
Link Speed (k/h)		40			48			40			40	
Link Distance (m)		168.2			54.9			83.8			69.3	
Travel Time (s)		15.1			4.1			7.5			6.2	
Confl. Peds. (#/hr)	23		7	7		23	68					68
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	0%	2%	2%	2%	2%	4%	2%	2%	5%	3%
Adj. Flow (vph)	35	0	78	76	0	57	54	279	49	28	225	48
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	113	0	0	133	0	0	382	0	0	301	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	97		97	24		97	97		14
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	49.0%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis  
6: Fieldgate Dr & Williamsport Dr/Site Access 1

2029 FT AM  
08/09/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	32	0	72	70	0	52	50	257	45	26	207	44
Future Volume (Veh/h)	32	0	72	70	0	52	50	257	45	26	207	44
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	35	0	78	76	0	57	54	279	49	28	225	48
Pedestrians		68						7			23	
Lane Width (m)		3.7						3.7			3.7	
Walking Speed (m/s)		1.1						1.1			1.1	
Percent Blockage		7						1			2	
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (m)								162				
pX, platoon unblocked	0.99	0.99		0.99	0.99	0.99				0.99		
vC, conflicting volume	864	809	324	802	808	326	341			328		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	860	804	324	797	804	319	341			320		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	83	100	88	68	100	92	95			98		
cM capacity (veh/h)	208	273	669	239	273	701	1137			1232		
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>WB 1</b>	<b>NB 1</b>	<b>SB 1</b>								
Volume Total	113	133	382	301								
Volume Left	35	76	54	28								
Volume Right	78	57	49	48								
cSH	397	333	1137	1232								
Volume to Capacity	0.28	0.40	0.05	0.02								
Queue Length 95th (m)	8.8	14.1	1.1	0.5								
Control Delay (s)	17.6	22.8	1.6	0.9								
Lane LOS	C	C	A	A								
Approach Delay (s)	17.6	22.8	1.6	0.9								
Approach LOS	C	C										
<b>Intersection Summary</b>												
Average Delay			6.4									
Intersection Capacity Utilization			49.0%		ICU Level of Service					A		
Analysis Period (min)			15									



Lanes, Volumes, Timings  
7: Fieldgate Dr & Ponytrail Dr

2029 FT AM  
08/09/2024












Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	93	44	258	82	36	187
Future Volume (vph)	93	44	258	82	36	187
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	0.957		0.967			
Flt Protected	0.967					0.992
Satd. Flow (prot)	1665	0	1800	0	0	1854
Flt Permitted	0.967					0.992
Satd. Flow (perm)	1665	0	1800	0	0	1854
Link Speed (k/h)	30		40			30
Link Distance (m)	39.8		69.3			254.8
Travel Time (s)	4.8		6.2			30.6
Confl. Peds. (#/hr)	1	99		117	117	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	9%	2%	2%	7%	7%	2%
Adj. Flow (vph)	101	48	280	89	39	203
Shared Lane Traffic (%)						
Lane Group Flow (vph)	149	0	369	0	0	242
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.7		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	1.6		1.6			1.6
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24	14		14	24	
Sign Control	Stop		Stop			Stop

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	55.1%
ICU Level of Service	B
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis  
7: Fieldgate Dr & Ponytrail Dr

2029 FT AM  
08/09/2024

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Stop			Stop
Traffic Volume (vph)	93	44	258	82	36	187
Future Volume (vph)	93	44	258	82	36	187
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	101	48	280	89	39	203
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total (vph)	149	369	242			
Volume Left (vph)	101	0	39			
Volume Right (vph)	48	89	0			
Hadj (s)	0.06	-0.09	0.08			
Departure Headway (s)	5.4	4.5	4.8			
Degree Utilization, x	0.22	0.47	0.33			
Capacity (veh/h)	608	768	710			
Control Delay (s)	9.9	11.4	10.1			
Approach Delay (s)	9.9	11.4	10.1			
Approach LOS	A	B	B			
Intersection Summary						
Delay			10.7			
Level of Service			B			
Intersection Capacity Utilization			55.1%	ICU Level of Service	B	
Analysis Period (min)			15			



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	116	0	7	136	0	21
Future Volume (vph)	116	0	7	136	0	21
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						0.865
Flt Protected				0.997		
Satd. Flow (prot)	1795	0	0	1796	1629	0
Flt Permitted				0.997		
Satd. Flow (perm)	1795	0	0	1796	1629	0
Link Speed (k/h)	30		30		30	
Link Distance (m)	47.8		156.1		119.1	
Travel Time (s)	5.7		18.7		14.3	
Confl. Peds. (#/hr)	101		101		3	4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	7%	2%	0%	7%	0%	2%
Adj. Flow (vph)	126	0	8	148	0	23
Shared Lane Traffic (%)						
Lane Group Flow (vph)	126	0	0	156	23	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		3.7	
Link Offset(m)	0.0		0.0		0.0	
Crosswalk Width(m)	1.6		1.6		1.6	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	14		24		24	
Sign Control	Free		Free		Stop	

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	24.3%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis  
 9: Site Access 2 & Ponytrail Dr

2029 FT AM  
 08/09/2024



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↔	↔	
Traffic Volume (veh/h)	116	0	7	136	0	21
Future Volume (Veh/h)	116	0	7	136	0	21
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	126	0	8	148	0	23
Pedestrians	3			4	101	
Lane Width (m)	3.7			3.7	3.7	
Walking Speed (m/s)	1.1			1.1	1.1	
Percent Blockage	0			0	10	
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			227		394	231
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			227		394	231
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		100	97
cM capacity (veh/h)			1219		549	725
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>WB 1</b>	<b>NB 1</b>			
Volume Total	126	156	23			
Volume Left	0	8	0			
Volume Right	0	0	23			
cSH	1700	1219	725			
Volume to Capacity	0.07	0.01	0.03			
Queue Length 95th (m)	0.0	0.2	0.7			
Control Delay (s)	0.0	0.5	10.1			
Lane LOS		A	B			
Approach Delay (s)	0.0	0.5	10.1			
Approach LOS			B			
<b>Intersection Summary</b>						
Average Delay			1.0			
Intersection Capacity Utilization			24.3%	ICU Level of Service	A	
Analysis Period (min)			15			

Lanes, Volumes, Timings  
10: Fieldgate Dr & Haven Glenn

2029 FT AM  
08/09/2024



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	49	45	37	266	174	42
Future Volume (vph)	49	45	37	266	174	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
Ped Bike Factor						
Frt	0.935			0.974		
Flt Protected	0.975			0.994		
Satd. Flow (prot)	1724	0	0	1879	1782	0
Flt Permitted	0.975			0.994		
Satd. Flow (perm)	1724	0	0	1879	1782	0
Link Speed (k/h)	40			30	30	
Link Distance (m)	258.3			254.8	440.5	
Travel Time (s)	23.2			30.6	52.9	
Confl. Peds. (#/hr)	43	104	20			20
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	0%	6%	1%	5%	5%
Adj. Flow (vph)	53	49	40	289	189	46
Shared Lane Traffic (%)						
Lane Group Flow (vph)	102	0	0	329	235	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24	14	24			14
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	51.9%
	ICU Level of Service A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis  
 10: Fieldgate Dr & Haven Glenn

2029 FT AM  
 08/09/2024



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	49	45	37	266	174	42
Future Volume (Veh/h)	49	45	37	266	174	42
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	53	49	40	289	189	46
Pedestrians	20			104	43	
Lane Width (m)	3.7			3.7	3.7	
Walking Speed (m/s)	1.1			1.1	1.1	
Percent Blockage	2			10	4	
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	644	336	255			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	644	336	255			
tC, single (s)	6.4	6.2	4.2			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.3			
p0 queue free %	87	92	97			
cM capacity (veh/h)	396	626	1262			
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>NB 1</b>	<b>SB 1</b>			
Volume Total	102	329	235			
Volume Left	53	40	0			
Volume Right	49	0	46			
cSH	481	1262	1700			
Volume to Capacity	0.21	0.03	0.14			
Queue Length 95th (m)	6.0	0.7	0.0			
Control Delay (s)	14.5	1.2	0.0			
Lane LOS	B	A				
Approach Delay (s)	14.5	1.2	0.0			
Approach LOS	B					
<b>Intersection Summary</b>						
Average Delay			2.8			
Intersection Capacity Utilization			51.9%	ICU Level of Service	A	
Analysis Period (min)			15			

Lanes, Volumes, Timings  
11: Fieldgate Dr & Burnhamthorpe Rd

2029 FT AM  
08/09/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	37	1046	194	49	715	30	180	120	83	65	81	58
Future Volume (vph)	37	1046	194	49	715	30	180	120	83	65	81	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	30.0		25.0	30.0		30.0	15.0		0.0	65.0		65.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	30.0			45.0			40.0			75.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.98		0.94	0.99		0.90	0.97	0.98		0.97		0.96
Frt			0.850			0.850		0.939				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1644	3544	1585	1755	3510	1633	1807	1716	0	1789	1847	1526
Flt Permitted	0.338			0.216			0.700			0.418		
Satd. Flow (perm)	572	3544	1486	397	3510	1472	1295	1716	0	763	1847	1461
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			84			65		21				63
Link Speed (k/h)		60			60			40				50
Link Distance (m)		499.8			675.9			440.5				226.9
Travel Time (s)		30.0			40.6			39.6				16.3
Confl. Peds. (#/hr)	31		17	17		31	22		34	34		22
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	11%	3%	3%	4%	4%	0%	1%	3%	2%	2%	4%	7%
Adj. Flow (vph)	40	1137	211	53	777	33	196	130	90	71	88	63
Shared Lane Traffic (%)												
Lane Group Flow (vph)	40	1137	211	53	777	33	196	220	0	71	88	63
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7				3.7
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	0	0	0	0	0	0	1	1		1	1	0
Detector Template												
Leading Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	7.0	7.0		7.0	7.0	0.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	-2.0	-2.0		-2.0	-2.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	-2.0	-2.0		-2.0	-2.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	9.0	9.0		9.0	9.0	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases		2			6			4				8
Permitted Phases	2		2	6		6	4			8		8
Detector Phase	2	2	2	6	6	6	4	4		8	8	8
Switch Phase												

Lane Group	Ø1	Ø3	Ø5	Ø7
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (m)				
Storage Lanes				
Taper Length (m)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (k/h)				
Link Distance (m)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(m)				
Link Offset(m)				
Crosswalk Width(m)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (k/h)				
Number of Detectors				
Detector Template				
Leading Detector (m)				
Trailing Detector (m)				
Detector 1 Position(m)				
Detector 1 Size(m)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Turn Type				
Protected Phases	1	3	5	7
Permitted Phases				
Detector Phase				
Switch Phase				



Lanes, Volumes, Timings  
11: Fieldgate Dr & Burnhamthorpe Rd

2029 FT AM  
08/09/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	38.0	38.0	38.0	38.0	38.0	38.0	42.5	42.5		42.5	42.5	42.5
Total Split (s)	102.0	102.0	102.0	102.0	102.0	102.0	48.0	48.0		48.0	48.0	48.0
Total Split (%)	63.8%	63.8%	63.8%	63.8%	63.8%	63.8%	30.0%	30.0%		30.0%	30.0%	30.0%
Maximum Green (s)	95.0	95.0	95.0	95.0	95.0	95.0	39.5	39.5		39.5	39.5	39.5
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	5.5	5.5		5.5	5.5	5.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	8.5	8.5		8.5	8.5	8.5
Lead/Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lag		Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	C-Max	C-Max	C-Max	Max	Max	Max	None	None		None	None	None
Walk Time (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	10.0
Flash Dont Walk (s)	21.0	21.0	21.0	21.0	21.0	21.0	24.0	24.0		24.0	24.0	24.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	0
Act Effct Green (s)	114.9	114.9	114.9	114.9	114.9	114.9	29.6	29.6		29.6	29.6	29.6
Actuated g/C Ratio	0.72	0.72	0.72	0.72	0.72	0.72	0.18	0.18		0.18	0.18	0.18
v/c Ratio	0.10	0.45	0.19	0.19	0.31	0.03	0.82	0.66		0.50	0.26	0.20
Control Delay	9.2	10.8	5.5	9.9	8.2	0.3	87.5	63.1		69.2	55.6	11.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	9.2	10.8	5.5	9.9	8.2	0.3	87.5	63.1		69.2	55.6	11.7
LOS	A	B	A	A	A	A	F	E		E	E	B
Approach Delay		9.9			8.0			74.6			47.5	
Approach LOS		A			A			E			D	

Intersection Summary

Area Type: Other  
 Cycle Length: 160  
 Actuated Cycle Length: 160  
 Offset: 40 (25%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.82  
 Intersection Signal Delay: 21.5  
 Intersection LOS: C  
 Intersection Capacity Utilization 92.3%  
 ICU Level of Service F  
 Analysis Period (min) 15

Splits and Phases: 11: Fieldgate Dr & Burnhamthorpe Rd



Lane Group	Ø1	Ø3	Ø5	Ø7
Minimum Initial (s)	1.0	1.0	1.0	1.0
Minimum Split (s)	3.0	3.0	3.0	3.0
Total Split (s)	5.0	5.0	5.0	5.0
Total Split (%)	3%	3%	3%	3%
Maximum Green (s)	3.0	3.0	3.0	3.0
Yellow Time (s)	2.0	2.0	2.0	2.0
All-Red Time (s)	0.0	0.0	0.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None
Walk Time (s)				
Flash Dont Walk (s)				
Pedestrian Calls (#/hr)				
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Intersection Summary				

Queues  
11: Fieldgate Dr & Burnhamthorpe Rd

2029 FT AM  
08/09/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	40	1137	211	53	777	33	196	220	71	88	63
v/c Ratio	0.10	0.45	0.19	0.19	0.31	0.03	0.82	0.66	0.50	0.26	0.20
Control Delay	9.2	10.8	5.5	9.9	8.2	0.3	87.5	63.1	69.2	55.6	11.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.2	10.8	5.5	9.9	8.2	0.3	87.5	63.1	69.2	55.6	11.7
Queue Length 50th (m)	3.6	72.9	11.5	4.6	36.0	0.0	60.6	59.6	20.6	24.3	0.0
Queue Length 95th (m)	9.7	106.8	25.6	10.0	47.8	m0.0	84.3	82.0	35.4	38.0	12.5
Internal Link Dist (m)		475.8			651.9			416.5		202.9	
Turn Bay Length (m)	30.0		25.0	30.0		30.0	15.0		65.0		65.0
Base Capacity (vph)	410	2545	1090	285	2520	1075	319	439	188	456	408
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.45	0.19	0.19	0.31	0.03	0.61	0.50	0.38	0.19	0.15

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lanes, Volumes, Timings  
12: Ponytrail Dr & Burnhamthorpe Rd

2029 FT AM  
08/09/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	1117	33	36	698	303	27	43	83	311	34	73
Future Volume (vph)	35	1117	33	36	698	303	27	43	83	311	34	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	35.0		30.0	35.0		30.0	15.0		0.0	40.0		0.0
Storage Lanes	1		1	1		1	1		0	2		1
Taper Length (m)	45.0			65.0			50.0			30.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Ped Bike Factor	0.99		0.96			0.96	1.00	0.98		0.97		0.98
Fr <sub>t</sub>			0.850			0.850		0.901				0.850
Fl <sub>t</sub> Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1630	3579	1471	1825	3476	1585	1755	1651	0	3471	1779	1555
Fl <sub>t</sub> Permitted	0.215			0.202			0.733			0.950		
Satd. Flow (perm)	366	3579	1417	388	3476	1521	1348	1651	0	3353	1779	1530
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			116			169		56				79
Link Speed (k/h)		60			60			40				50
Link Distance (m)		675.9			242.1			944.6				165.5
Travel Time (s)		40.6			14.5			85.0				11.9
Confl. Peds. (#/hr)	20		7	7		20	3		17	17		3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	12%	2%	11%	0%	5%	3%	4%	3%	2%	2%	8%	5%
Adj. Flow (vph)	38	1214	36	39	759	329	29	47	90	338	37	79
Shared Lane Traffic (%)												
Lane Group Flow (vph)	38	1214	36	39	759	329	29	137	0	338	37	79
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			7.4				7.4
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2	1	1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0		2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6		2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4				9.4
Detector 2 Size(m)		0.6			0.6			0.6				0.6
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				0.0

Lane Group	Ø7	Ø9	Ø10	Ø11
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (m)				
Storage Lanes				
Taper Length (m)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (k/h)				
Link Distance (m)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(m)				
Link Offset(m)				
Crosswalk Width(m)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (k/h)				
Number of Detectors				
Detector Template				
Leading Detector (m)				
Trailing Detector (m)				
Detector 1 Position(m)				
Detector 1 Size(m)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(m)				
Detector 2 Size(m)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				

Lanes, Volumes, Timings  
12: Ponytrail Dr & Burnhamthorpe Rd

2029 FT AM  
08/09/2024

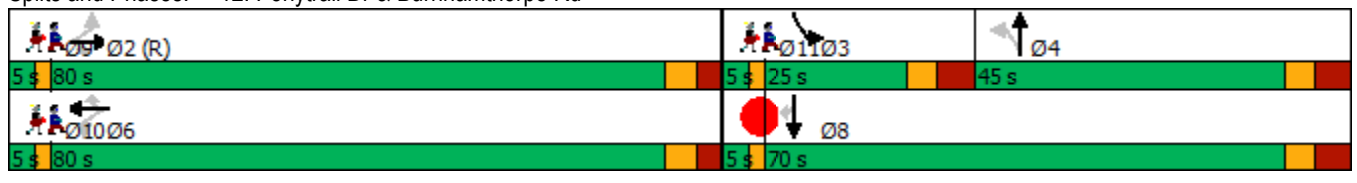


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Prot	NA	Perm
Protected Phases		2			6			4		3	8	
Permitted Phases	2		2	6		6	4					8
Detector Phase	2	2	2	6	6	6	4	4		3	8	8
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	40.0	40.0	40.0	42.0	42.0	42.0	41.0	41.0		18.0	41.0	41.0
Total Split (s)	80.0	80.0	80.0	80.0	80.0	80.0	45.0	45.0		25.0	70.0	70.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	28.1%	28.1%		15.6%	43.8%	43.8%
Maximum Green (s)	73.0	73.0	73.0	73.0	73.0	73.0	37.0	37.0		17.0	62.0	62.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	4.5	4.5		4.5	4.5	4.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	8.0	8.0		8.0	8.0	8.0
Lead/Lag												Lag
Lead-Lag Optimize?												Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	C-Max	C-Max	C-Max	Max	Max	Max	None	None		None	None	None
Walk Time (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0			10.0	10.0
Flash Dont Walk (s)	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0			23.0	23.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0			0	0
Act Effct Green (s)	93.3	93.3	93.3	73.0	73.0	73.0	14.2	14.2		17.0	39.2	39.2
Actuated g/C Ratio	0.58	0.58	0.58	0.46	0.46	0.46	0.09	0.09		0.11	0.24	0.24
v/c Ratio	0.18	0.58	0.04	0.22	0.48	0.42	0.24	0.70		0.92	0.08	0.18
Control Delay	15.3	16.0	0.1	30.6	31.5	15.1	70.9	59.2		100.2	45.4	9.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	15.3	16.0	0.1	30.6	31.5	15.1	70.9	59.2		100.2	45.4	9.2
LOS	B	B	A	C	C	B	E	E		F	D	A
Approach Delay		15.5			26.7			61.2			79.9	
Approach LOS		B			C			E			E	

Intersection Summary

Area Type: Other  
 Cycle Length: 160  
 Actuated Cycle Length: 160  
 Offset: 64 (40%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 110  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.92  
 Intersection Signal Delay: 31.8  
 Intersection LOS: C  
 Intersection Capacity Utilization 75.6%  
 ICU Level of Service D  
 Analysis Period (min) 15

Splits and Phases: 12: Ponytrail Dr & Burnhamthorpe Rd



Lane Group	Ø7	Ø9	Ø10	Ø11
Turn Type				
Protected Phases	7	9	10	11
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	1.0	1.0	1.0	1.0
Minimum Split (s)	3.0	3.0	3.0	3.0
Total Split (s)	5.0	5.0	5.0	5.0
Total Split (%)	3%	3%	3%	3%
Maximum Green (s)	3.0	3.0	3.0	3.0
Yellow Time (s)	2.0	2.0	2.0	2.0
All-Red Time (s)	0.0	0.0	0.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag				Lead
Lead-Lag Optimize?				Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0
Recall Mode	Ped	Ped	Ped	Ped
Walk Time (s)	0.0	0.0	0.0	0.0
Flash Dont Walk (s)	0.0	0.0	0.0	0.0
Pedestrian Calls (#/hr)	0	0	0	0
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Intersection Summary				

Queues  
12: Ponytrail Dr & Burnhamthorpe Rd

2029 FT AM  
08/09/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	38	1214	36	39	759	329	29	137	338	37	79
v/c Ratio	0.18	0.58	0.04	0.22	0.48	0.42	0.24	0.70	0.92	0.08	0.18
Control Delay	15.3	16.0	0.1	30.6	31.5	15.1	70.9	59.2	100.2	45.4	9.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.3	16.0	0.1	30.6	31.5	15.1	70.9	59.2	100.2	45.4	9.2
Queue Length 50th (m)	4.2	71.8	0.0	7.4	87.4	32.2	8.8	25.4	55.8	9.2	0.0
Queue Length 95th (m)	m8.4	79.3	m0.0	17.0	105.5	57.5	18.9	47.1	#84.4	18.2	12.8
Internal Link Dist (m)		651.9			218.1			920.6		141.5	
Turn Bay Length (m)	35.0		30.0	35.0		30.0	15.0		40.0		
Base Capacity (vph)	213	2086	874	177	1585	785	311	424	368	689	641
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.58	0.04	0.22	0.48	0.42	0.09	0.32	0.92	0.05	0.12

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.

























Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lanes, Volumes, Timings  
1: Dixie Rd & Bloor St

2029 FT PM  
08/09/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	132	473	179	320	719	201	272	1311	406	141	1435	219
Future Volume (vph)	132	473	179	320	719	201	272	1311	406	141	1435	219
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		15.0	60.0		10.0	75.0		0.0	100.0		85.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	85.0			60.0			90.0			50.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.91	0.91	1.00	0.91	1.00
Ped Bike Factor	0.98		0.96	0.99		0.90		0.99				0.93
Fr <sub>t</sub>			0.850			0.850		0.965				0.850
Fl <sub>t</sub> Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1789	3544	1601	1789	3579	1617	1825	4901	0	1789	5092	1617
Fl <sub>t</sub> Permitted	0.123			0.315			0.064			0.067		
Satd. Flow (perm)	227	3544	1530	585	3579	1451	123	4901	0	126	5092	1502
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			88			88		59				169
Link Speed (k/h)		50			50			60				60
Link Distance (m)		302.0			160.9			615.3				434.7
Travel Time (s)		21.7			11.6			36.9				26.1
Confl. Peds. (#/hr)	75		27	27		75	50		24	24		50
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	3%	2%	2%	2%	1%	0%	3%	0%	2%	3%	1%
Adj. Flow (vph)	143	514	195	348	782	218	296	1425	441	153	1560	238
Shared Lane Traffic (%)												
Lane Group Flow (vph)	143	514	195	348	782	218	296	1866	0	153	1560	238
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7				3.7
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane					Yes							
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	2	1	1	1	1	1	1	0		1	0	0
Detector Template								Thru			Thru	Right
Leading Detector (m)	24.0	7.0	7.0	22.0	7.0	7.0	24.0	0.0		24.0	0.0	0.0
Trailing Detector (m)	-2.5	-0.2	-2.0	12.0	-2.0	-2.0	14.0	0.0		14.0	0.0	0.0
Detector 1 Position(m)	-2.5	-0.2	-2.0	12.0	-2.0	-2.0	14.0	0.0		14.0	0.0	0.0
Detector 1 Size(m)	10.0	7.2	9.0	10.0	9.0	9.0	10.0	0.6		10.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)	14.0											
Detector 2 Size(m)	10.0											
Detector 2 Type	Cl+Ex											
Detector 2 Channel												
Detector 2 Extend (s)	0.0											

Lanes, Volumes, Timings  
1: Dixie Rd & Bloor St

2029 FT PM  
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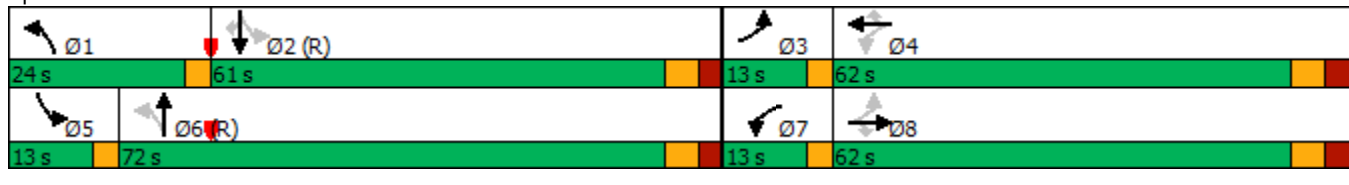


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	Perm
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8		8	4		4	6			2		2
Detector Phase	3	8	8	7	4	4	1	6		5	2	2
Switch Phase												
Minimum Initial (s)	7.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0		7.0	10.0	10.0
Minimum Split (s)	11.5	46.4	46.4	10.0	46.4	46.4	11.5	46.9		11.5	46.9	46.9
Total Split (s)	13.0	62.0	62.0	13.0	62.0	62.0	24.0	72.0		13.0	61.0	61.0
Total Split (%)	8.1%	38.8%	38.8%	8.1%	38.8%	38.8%	15.0%	45.0%		8.1%	38.1%	38.1%
Maximum Green (s)	10.0	54.6	54.6	10.0	54.6	54.6	21.0	65.1		10.0	54.1	54.1
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0		3.0	4.0	4.0
All-Red Time (s)	0.0	3.4	3.4	0.0	3.4	3.4	0.0	2.9		0.0	2.9	2.9
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	3.0	7.4	7.4	3.0	7.4	7.4	3.0	6.9		3.0	6.9	6.9
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	C-Max
Walk Time (s)		10.0	10.0		10.0	10.0		10.0			10.0	10.0
Flash Dont Walk (s)		29.0	29.0		29.0	29.0		30.0			30.0	30.0
Pedestrian Calls (#/hr)		0	0		0	0		0			0	0
Act Effct Green (s)	56.5	42.1	42.1	56.5	42.1	42.1	94.5	73.0		77.7	59.3	59.3
Actuated g/C Ratio	0.35	0.26	0.26	0.35	0.26	0.26	0.59	0.46		0.49	0.37	0.37
v/c Ratio	0.81	0.55	0.42	1.24	0.83	0.49	0.79	0.82		0.72	0.83	0.36
Control Delay	66.1	52.5	27.7	171.2	63.5	31.8	59.8	41.3		57.4	50.9	13.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	66.1	52.5	27.7	171.2	63.5	31.8	59.8	41.3		57.4	50.9	13.2
LOS	E	D	C	F	E	C	E	D		E	D	B
Approach Delay		49.1			86.2			43.8			46.8	
Approach LOS		D			F			D			D	

Intersection Summary

Area Type:	Other
Cycle Length:	160
Actuated Cycle Length:	160
Offset:	74 (46%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle:	120
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	1.24
Intersection Signal Delay:	54.5
Intersection LOS:	D
Intersection Capacity Utilization	109.3%
ICU Level of Service	H
Analysis Period (min)	15

Splits and Phases: 1: Dixie Rd & Bloor St





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	143	514	195	348	782	218	296	1866	153	1560	238
v/c Ratio	0.81	0.55	0.42	1.24	0.83	0.49	0.79	0.82	0.72	0.83	0.36
Control Delay	66.1	52.5	27.7	171.2	63.5	31.8	59.8	41.3	57.4	50.9	13.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.1	52.5	27.7	171.2	63.5	31.8	59.8	41.3	57.4	50.9	13.2
Queue Length 50th (m)	30.9	74.5	27.6	~111.6	124.0	34.7	72.6	185.9	30.9	168.0	14.8
Queue Length 95th (m)	#51.1	87.0	48.3	#164.2	138.6	57.2	#128.7	221.7	#64.9	193.8	38.4
Internal Link Dist (m)		278.0			136.9			591.3		410.7	
Turn Bay Length (m)	40.0		15.0	60.0		10.0	75.0		100.0		85.0
Base Capacity (vph)	177	1209	580	281	1221	553	373	2268	212	1887	663
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.81	0.43	0.34	1.24	0.64	0.39	0.79	0.82	0.72	0.83	0.36

**Intersection Summary**

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Lanes, Volumes, Timings  
2: Havenwood Dr & Bloor St

2029 FT PM  
08/09/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	107	861	58	47	1086	54	38	31	39	70	43	130
Future Volume (vph)	107	861	58	47	1086	54	38	31	39	70	43	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0		0.0	50.0		0.0	25.0		0.0	25.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	65.0			80.0			40.0			35.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			1.00		0.96	0.95		0.93	0.95	
Frt		0.991			0.993			0.917			0.887	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1825	1860	0	1825	1865	0	1825	1666	0	1755	1614	0
Flt Permitted	0.056			0.175			0.540			0.708		
Satd. Flow (perm)	108	1860	0	336	1865	0	996	1666	0	1214	1614	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			4			42			46	
Link Speed (k/h)		50			50			30			40	
Link Distance (m)		179.0			562.7			137.1			118.1	
Travel Time (s)		12.9			40.5			16.5			10.6	
Confl. Peds. (#/hr)	36		30	30		36	35		54	54		35
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	0%	0%	2%	0%	0%	0%	0%	4%	0%	0%
Adj. Flow (vph)	116	936	63	51	1180	59	41	34	42	76	47	141
Shared Lane Traffic (%)												
Lane Group Flow (vph)	116	999	0	51	1239	0	41	76	0	76	188	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	0	0		0	0		1	1		1	1	
Detector Template		Thru		Left	Thru							
Leading Detector (m)	0.0	0.0		0.0	0.0		7.0	7.0		8.0	8.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		-2.0	-2.0		-2.0	-2.0	
Detector 1 Position(m)	11.5	0.0		0.0	0.0		-2.0	-2.0		-2.0	-2.0	
Detector 1 Size(m)	9.0	0.6		2.0	0.6		9.0	9.0		10.0	10.0	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Detector Phase	2	2		2	2		4	4		4	4	
Switch Phase												

Lanes, Volumes, Timings  
2: Havenwood Dr & Bloor St

2029 FT PM  
08/09/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	35.0	35.0		35.0	35.0		41.5	41.5		41.5	41.5	
Total Split (s)	59.0	59.0		59.0	59.0		41.0	41.0		41.0	41.0	
Total Split (%)	59.0%	59.0%		59.0%	59.0%		41.0%	41.0%		41.0%	41.0%	
Maximum Green (s)	53.0	53.0		53.0	53.0		33.5	33.5		33.5	33.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.5	2.5		2.5	2.5		4.5	4.5		4.5	4.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		7.5	7.5		7.5	7.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	
Walk Time (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Flash Dont Walk (s)	19.0	19.0		19.0	19.0		24.0	24.0		24.0	24.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	71.2	71.2		71.2	71.2		15.3	15.3		15.3	15.3	
Actuated g/C Ratio	0.71	0.71		0.71	0.71		0.15	0.15		0.15	0.15	
v/c Ratio	1.53	0.75		0.21	0.93		0.27	0.26		0.41	0.66	
Control Delay	310.9	14.9		6.0	19.3		39.9	20.5		43.5	40.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	310.9	14.9		6.0	19.3		39.9	20.5		43.5	40.4	
LOS	F	B		A	B		D	C		D	D	
Approach Delay		45.7			18.8			27.3			41.3	
Approach LOS		D			B			C			D	

Intersection Summary

Area Type:	Other
Cycle Length:	100
Actuated Cycle Length:	100
Offset:	77 (77%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle:	150
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	1.53
Intersection Signal Delay:	32.0
Intersection LOS:	C
Intersection Capacity Utilization:	116.7%
ICU Level of Service:	H
Analysis Period (min):	15

Splits and Phases: 2: Havenwood Dr & Bloor St





Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	116	999	51	1239	41	76	76	188
v/c Ratio	1.53	0.75	0.21	0.93	0.27	0.26	0.41	0.66
Control Delay	310.9	14.9	6.0	19.3	39.9	20.5	43.5	40.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	310.9	14.9	6.0	19.3	39.9	20.5	43.5	40.4
Queue Length 50th (m)	~16.2	100.6	2.0	57.3	7.2	5.8	13.6	26.2
Queue Length 95th (m)	#54.4	201.5	m3.3 m#	137.6	15.8	16.8	25.2	44.7
Internal Link Dist (m)		155.0		538.7		113.1		94.1
Turn Bay Length (m)	50.0		50.0		25.0		25.0	
Base Capacity (vph)	76	1325	239	1329	333	586	406	571
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.53	0.75	0.21	0.93	0.12	0.13	0.19	0.33

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Lanes, Volumes, Timings  
3: Fieldgate Dr & Bloor St

2029 FT PM  
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	128	725	58	75	952	100	62	33	60	166	76	143
Future Volume (vph)	128	725	58	75	952	100	62	33	60	166	76	143
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	80.0		75.0	92.0		92.0	45.0		0.0	25.0		0.0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (m)	50.0			55.0			30.0			30.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor				0.98			0.96	0.92		0.90	0.95	
Frt			0.850			0.850		0.903			0.902	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1825	1883	1601	1825	1883	1633	1789	1588	0	1807	1652	0
Flt Permitted	0.069			0.312			0.445			0.692		
Satd. Flow (perm)	133	1883	1601	585	1883	1633	808	1588	0	1186	1652	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			142			142		65			101	
Link Speed (k/h)		50			50			40			40	
Link Distance (m)		562.7			233.6			134.2			78.0	
Travel Time (s)		40.5			16.8			12.1			7.0	
Confl. Peds. (#/hr)	65		56	56		65	34		73	73		34
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	2%	0%	2%	0%	2%	0%	0%	1%	0%	0%
Adj. Flow (vph)	139	788	63	82	1035	109	67	36	65	180	83	155
Shared Lane Traffic (%)												
Lane Group Flow (vph)	139	788	63	82	1035	109	67	101	0	180	238	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane		Yes										
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	0	1	0	0	1	1	1		1	1	
Detector Template		Thru	Right	Left	Thru	Right						
Leading Detector (m)	21.0	0.0	2.0	0.0	0.0	2.0	6.5	6.5		7.5	6.0	
Trailing Detector (m)	12.0	0.0	0.0	0.0	0.0	0.0	-2.5	-2.5		-1.5	-3.0	
Detector 1 Position(m)	12.0	0.0	0.0	0.0	0.0	0.0	-2.5	-2.5		-1.5	-3.0	
Detector 1 Size(m)	9.0	0.6	2.0	2.0	0.6	2.0	9.0	9.0		9.0	9.0	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA	NA	Perm	NA	NA	Perm	NA		Perm	NA	
Protected Phases	5	2			6			4				8
Permitted Phases	2			6			4			8		
Detector Phase	5	2		6	6		4	4		8	8	
Switch Phase												

Lanes, Volumes, Timings  
3: Fieldgate Dr & Bloor St

2029 FT PM  
08/09/2024

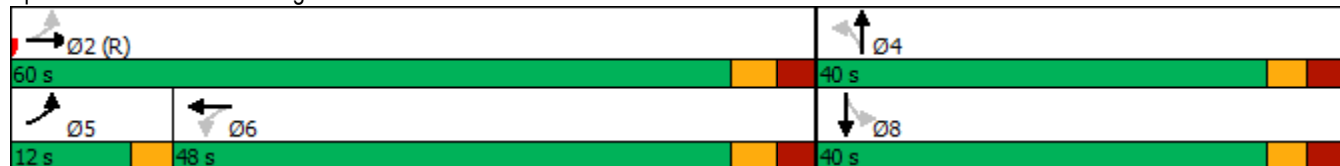


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	7.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	11.5	33.5		33.5	33.5		38.5	38.5		38.5	38.5	
Total Split (s)	12.0	60.0		48.0	48.0		40.0	40.0		40.0	40.0	
Total Split (%)	12.0%	60.0%		48.0%	48.0%		40.0%	40.0%		40.0%	40.0%	
Maximum Green (s)	9.0	53.5		41.5	41.5		33.5	33.5		33.5	33.5	
Yellow Time (s)	3.0	3.5		3.5	3.5		3.0	3.0		3.0	3.0	
All-Red Time (s)	0.0	3.0		3.0	3.0		3.5	3.5		3.5	3.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.0	6.5		6.5	6.5		6.5	6.5		6.5	6.5	
Lead/Lag	Lead			Lag								
Lead-Lag Optimize?	Yes			Yes								
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max		Max	Max		None	None		None	None	
Walk Time (s)		10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Flash Dont Walk (s)		17.0		17.0	17.0		22.0	22.0		22.0	22.0	
Pedestrian Calls (#/hr)		0		0	0		0	0		0	0	
Act Effct Green (s)	69.9	66.4	0.0	55.1	55.1	0.0	20.6	20.6		20.6	20.6	
Actuated g/C Ratio	0.70	0.66	0.00	0.55	0.55	0.00	0.21	0.21		0.21	0.21	
v/c Ratio	0.60	0.63	0.44	0.25	1.00	0.77	0.40	0.27		0.74	0.57	
Control Delay	20.4	18.5	9.7	17.5	52.6	37.2	39.5	14.4		53.9	24.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	20.4	18.5	9.7	17.5	52.6	37.2	39.5	14.4		53.9	24.3	
LOS	C	B	A	B	D	D	D	B		D	C	
Approach Delay		18.2			48.9			24.4			37.0	
Approach LOS		B			D			C			D	

Intersection Summary

Area Type:	Other
Cycle Length:	100
Actuated Cycle Length:	100
Offset:	41 (41%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle:	125
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	1.00
Intersection Signal Delay:	34.8
Intersection LOS:	C
Intersection Capacity Utilization:	111.1%
ICU Level of Service:	H
Analysis Period (min):	15

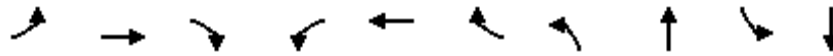
Splits and Phases: 3: Fieldgate Dr & Bloor St





Queues  
3: Fieldgate Dr & Bloor St

2029 FT PM  
08/09/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	139	788	63	82	1035	109	67	101	180	238
v/c Ratio	0.60	0.63	0.44	0.25	1.00	0.77	0.40	0.27	0.74	0.57
Control Delay	20.4	18.5	9.7	17.5	52.6	37.2	39.5	14.4	53.9	24.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.4	18.5	9.7	17.5	52.6	37.2	39.5	14.4	53.9	24.3
Queue Length 50th (m)	13.3	124.9	0.0	7.6	183.2	0.0	11.3	5.7	32.8	23.3
Queue Length 95th (m)	m19.0	182.8	m0.0	22.6	#330.2	#19.9	21.8	17.0	50.5	41.9
Internal Link Dist (m)		538.7			209.6			110.2		54.0
Turn Bay Length (m)	80.0		75.0	92.0		92.0	45.0		25.0	
Base Capacity (vph)	255	1250	142	322	1037	142	270	575	397	620
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.55	0.63	0.44	0.25	1.00	0.77	0.25	0.18	0.45	0.38

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lanes, Volumes, Timings  
6: Fieldgate Dr & Williamsport Dr/Site Access 1

2029 FT PM  
08/09/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	29	0	68	67	0	37	46	153	81	53	215	27
Future Volume (vph)	29	0	68	67	0	37	46	153	81	53	215	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.906			0.952			0.961			0.988	
Flt Protected		0.985			0.969			0.992			0.991	
Satd. Flow (prot)	0	1694	0	0	1737	0	0	1801	0	0	1874	0
Flt Permitted		0.985			0.969			0.992			0.991	
Satd. Flow (perm)	0	1694	0	0	1737	0	0	1801	0	0	1874	0
Link Speed (k/h)		40			48			40			40	
Link Distance (m)		168.2			54.9			83.8			69.3	
Travel Time (s)		15.1			4.1			7.5			6.2	
Confl. Peds. (#/hr)	41					41	30					30
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	4%	2%	0%	2%	2%	2%	0%	2%	2%	2%	0%	0%
Adj. Flow (vph)	32	0	74	73	0	40	50	166	88	58	234	29
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	106	0	0	113	0	0	304	0	0	321	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	97		97	24		97	97		14
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	42.1%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis  
6: Fieldgate Dr & Williamsport Dr/Site Access 1










2029 FT PM  
08/09/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	29	0	68	67	0	37	46	153	81	53	215	27
Future Volume (Veh/h)	29	0	68	67	0	37	46	153	81	53	215	27
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	32	0	74	73	0	40	50	166	88	58	234	29
Pedestrians		30									41	
Lane Width (m)		3.7									3.7	
Walking Speed (m/s)		1.1									1.1	
Percent Blockage		3									4	
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (m)								162				
pX, platoon unblocked												
vC, conflicting volume	786	748	278	748	719	251	293			254		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	786	748	278	748	719	251	293			254		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	87	100	90	73	100	95	96			96		
cM capacity (veh/h)	249	303	743	271	315	756	1243			1311		
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>WB 1</b>	<b>NB 1</b>	<b>SB 1</b>								
Volume Total	106	113	304	321								
Volume Left	32	73	50	58								
Volume Right	74	40	88	29								
cSH	464	350	1243	1311								
Volume to Capacity	0.23	0.32	0.04	0.04								
Queue Length 95th (m)	6.6	10.4	1.0	1.1								
Control Delay (s)	15.0	20.1	1.6	1.8								
Lane LOS	C	C	A	A								
Approach Delay (s)	15.0	20.1	1.6	1.8								
Approach LOS	C	C										
<b>Intersection Summary</b>												
Average Delay			5.8									
Intersection Capacity Utilization			42.1%		ICU Level of Service					A		
Analysis Period (min)			15									

Lanes, Volumes, Timings  
7: Fieldgate Dr & Ponytrail Dr

2029 FT PM  
08/09/2024

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	48	28	144	78	27	246
Future Volume (vph)	48	28	144	78	27	246
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	0.951		0.953			
Flt Protected	0.969					0.995
Satd. Flow (prot)	1751	0	1789	0	0	1912
Flt Permitted	0.969					0.995
Satd. Flow (perm)	1751	0	1789	0	0	1912
Link Speed (k/h)	30		40			30
Link Distance (m)	39.8		69.3			254.8
Travel Time (s)	4.8		6.2			30.6
Confl. Peds. (#/hr)	1	18		31	31	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	3%	2%	3%	0%	0%
Adj. Flow (vph)	52	30	157	85	29	267
Shared Lane Traffic (%)						
Lane Group Flow (vph)	82	0	242	0	0	296
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.7		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	1.6		1.6			1.6
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24	14		14	24	
Sign Control	Stop		Stop			Stop
<b>Intersection Summary</b>						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	46.5%			ICU Level of Service A		
Analysis Period (min)	15					

HCM Unsignalized Intersection Capacity Analysis  
7: Fieldgate Dr & Ponytrail Dr

2029 FT PM  
08/09/2024



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Stop			Stop
Traffic Volume (vph)	48	28	144	78	27	246
Future Volume (vph)	48	28	144	78	27	246
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	52	30	157	85	29	267
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total (vph)	82	242	296			
Volume Left (vph)	52	0	29			
Volume Right (vph)	30	85	0			
Hadj (s)	-0.07	-0.17	0.02			
Departure Headway (s)	5.0	4.3	4.4			
Degree Utilization, x	0.11	0.29	0.36			
Capacity (veh/h)	650	816	794			
Control Delay (s)	8.6	9.0	9.9			
Approach Delay (s)	8.6	9.0	9.9			
Approach LOS	A	A	A			
Intersection Summary						
Delay			9.3			
Level of Service			A			
Intersection Capacity Utilization			46.5%	ICU Level of Service	A	
Analysis Period (min)			15			

Lanes, Volumes, Timings  
9: Site Access 2 & Ponytrail Dr

2029 FT PM  
08/09/2024



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	95	0	21	91	0	14
Future Volume (vph)	95	0	21	91	0	14
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						0.865
Flt Protected					0.991	
Satd. Flow (prot)	1902	0	0	1873	1662	0
Flt Permitted					0.991	
Satd. Flow (perm)	1902	0	0	1873	1662	0
Link Speed (k/h)	30		30		30	
Link Distance (m)	47.8		156.1		119.1	
Travel Time (s)	5.7		18.7		14.3	
Confl. Peds. (#/hr)	59		59		1 2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	0%	0%	2%	0%	0%
Adj. Flow (vph)	103	0	23	99	0	15
Shared Lane Traffic (%)						
Lane Group Flow (vph)	103	0	0	122	15	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		3.7	
Link Offset(m)	0.0		0.0		0.0	
Crosswalk Width(m)	1.6		1.6		1.6	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	14		24		24 14	
Sign Control	Free		Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	23.3%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis  
 9: Site Access 2 & Ponytrail Dr

2029 FT PM  
 08/09/2024



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↔	↔	
Traffic Volume (veh/h)	95	0	21	91	0	14
Future Volume (Veh/h)	95	0	21	91	0	14
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	103	0	23	99	0	15
Pedestrians	1			2	59	
Lane Width (m)	3.7			3.7	3.7	
Walking Speed (m/s)	1.1			1.1	1.1	
Percent Blockage	0			0	6	
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			162		308	164
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			162		308	164
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			98		100	98
cM capacity (veh/h)			1347		637	833
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>WB 1</b>	<b>NB 1</b>			
Volume Total	103	122	15			
Volume Left	0	23	0			
Volume Right	0	0	15			
cSH	1700	1347	833			
Volume to Capacity	0.06	0.02	0.02			
Queue Length 95th (m)	0.0	0.4	0.4			
Control Delay (s)	0.0	1.6	9.4			
Lane LOS		A	A			
Approach Delay (s)	0.0	1.6	9.4			
Approach LOS			A			
<b>Intersection Summary</b>						
Average Delay			1.4			
Intersection Capacity Utilization			23.3%	ICU Level of Service	A	
Analysis Period (min)			15			

Lanes, Volumes, Timings  
10: Fieldgate Dr & Haven Glenn

2029 FT PM  
08/09/2024



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	12	27	32	150	235	16
Future Volume (vph)	12	27	32	150	235	16
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	0.907			0.992		
Flt Protected	0.985			0.991		
Satd. Flow (prot)	1716	0	0	1881	1873	0
Flt Permitted	0.985			0.991		
Satd. Flow (perm)	1716	0	0	1881	1873	0
Link Speed (k/h)	40			30	30	
Link Distance (m)	258.3			254.8	440.5	
Travel Time (s)	23.2			30.6	52.9	
Confl. Peds. (#/hr)	2	28	4			4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	7%	0%	1%	13%
Adj. Flow (vph)	13	29	35	163	255	17
Shared Lane Traffic (%)						
Lane Group Flow (vph)	42	0	0	198	272	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24	14	24			14
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	42.7%
ICU Level of Service	A
Analysis Period (min)	15



HCM Unsignalized Intersection Capacity Analysis  
 10: Fieldgate Dr & Haven Glenn

2029 FT PM  
 08/09/2024



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	12	27	32	150	235	16
Future Volume (Veh/h)	12	27	32	150	235	16
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	13	29	35	163	255	17
Pedestrians	4			28	2	
Lane Width (m)	3.7			3.7	3.7	
Walking Speed (m/s)	1.1			1.1	1.1	
Percent Blockage	0			3	0	
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	502	296	276			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	502	296	276			
tC, single (s)	6.4	6.2	4.2			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.3			
p0 queue free %	97	96	97			
cM capacity (veh/h)	514	725	1254			
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>NB 1</b>	<b>SB 1</b>			
Volume Total	42	198	272			
Volume Left	13	35	0			
Volume Right	29	0	17			
cSH	644	1254	1700			
Volume to Capacity	0.07	0.03	0.16			
Queue Length 95th (m)	1.6	0.7	0.0			
Control Delay (s)	11.0	1.6	0.0			
Lane LOS	B	A				
Approach Delay (s)	11.0	1.6	0.0			
Approach LOS	B					
<b>Intersection Summary</b>						
Average Delay			1.5			
Intersection Capacity Utilization			42.7%	ICU Level of Service	A	
Analysis Period (min)			15			

Lanes, Volumes, Timings  
11: Fieldgate Dr & Burnhamthorpe Rd

2029 FT PM  
08/09/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	61	1030	135	53	1096	47	70	51	36	52	118	49
Future Volume (vph)	61	1030	135	53	1096	47	70	51	36	52	118	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	30.0		25.0	30.0		30.0	15.0		0.0	65.0		65.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	30.0			45.0			40.0			75.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99		0.93	0.99		0.93	0.98	0.99		0.99		0.96
Frt			0.850			0.850		0.938				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1825	3579	1617	1825	3579	1633	1738	1783	0	1825	1921	1633
Flt Permitted	0.218			0.237			0.572			0.696		
Satd. Flow (perm)	416	3579	1507	452	3579	1514	1026	1783	0	1321	1921	1575
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			65			65		21				55
Link Speed (k/h)		60			60			40				50
Link Distance (m)		499.8			675.9			440.5				226.9
Travel Time (s)		30.0			40.6			39.6				16.3
Confl. Peds. (#/hr)	21		19	19		21	17		10	10		17
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	1%	0%	2%	0%	5%	0%	0%	0%	0%	0%
Adj. Flow (vph)	66	1120	147	58	1191	51	76	55	39	57	128	53
Shared Lane Traffic (%)												
Lane Group Flow (vph)	66	1120	147	58	1191	51	76	94	0	57	128	53
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7				3.7
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	0	0	0	0	0	0	1	1		1	1	0
Detector Template												
Leading Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	7.0	7.0		7.0	7.0	0.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	-2.0	-2.0		-2.0	-2.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	-2.0	-2.0		-2.0	-2.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	9.0	9.0		9.0	9.0	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases		2			6			4				8
Permitted Phases	2		2	6		6	4			8		8
Detector Phase	2	2	2	6	6	6	4	4		8	8	8
Switch Phase												

Lane Group	Ø1	Ø3	Ø5	Ø7
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (m)				
Storage Lanes				
Taper Length (m)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (k/h)				
Link Distance (m)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(m)				
Link Offset(m)				
Crosswalk Width(m)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (k/h)				
Number of Detectors				
Detector Template				
Leading Detector (m)				
Trailing Detector (m)				
Detector 1 Position(m)				
Detector 1 Size(m)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Turn Type				
Protected Phases	1	3	5	7
Permitted Phases				
Detector Phase				
Switch Phase				

Lanes, Volumes, Timings  
11: Fieldgate Dr & Burnhamthorpe Rd

2029 FT PM  
08/09/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	38.0	38.0	38.0	38.0	38.0	38.0	42.5	42.5		42.5	42.5	42.5
Total Split (s)	102.0	102.0	102.0	102.0	102.0	102.0	48.0	48.0		48.0	48.0	48.0
Total Split (%)	63.8%	63.8%	63.8%	63.8%	63.8%	63.8%	30.0%	30.0%		30.0%	30.0%	30.0%
Maximum Green (s)	95.0	95.0	95.0	95.0	95.0	95.0	39.5	39.5		39.5	39.5	39.5
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	5.5	5.5		5.5	5.5	5.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	8.5	8.5		8.5	8.5	8.5
Lead/Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lag		Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	C-Max	C-Max	C-Max	Max	Max	Max	None	None		None	None	None
Walk Time (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	10.0
Flash Dont Walk (s)	21.0	21.0	21.0	21.0	21.0	21.0	24.0	24.0		24.0	24.0	24.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	0
Act Effct Green (s)	128.1	128.1	128.1	128.1	128.1	128.1	16.4	16.4		16.4	16.4	16.4
Actuated g/C Ratio	0.80	0.80	0.80	0.80	0.80	0.80	0.10	0.10		0.10	0.10	0.10
v/c Ratio	0.20	0.39	0.12	0.16	0.42	0.04	0.73	0.47		0.42	0.65	0.25
Control Delay	6.0	5.4	2.5	3.9	3.5	0.2	104.6	58.8		75.5	83.9	16.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	6.0	5.4	2.5	3.9	3.5	0.2	104.6	58.8		75.5	83.9	16.2
LOS	A	A	A	A	A	A	F	E		E	F	B
Approach Delay		5.1			3.4			79.3			66.8	
Approach LOS		A			A			E			E	

Intersection Summary

Area Type: Other  
 Cycle Length: 160  
 Actuated Cycle Length: 160  
 Offset: 117 (73%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.73  
 Intersection Signal Delay: 13.3  
 Intersection LOS: B  
 Intersection Capacity Utilization 75.6%  
 ICU Level of Service D  
 Analysis Period (min) 15

Splits and Phases: 11: Fieldgate Dr & Burnhamthorpe Rd



Lane Group	Ø1	Ø3	Ø5	Ø7
Minimum Initial (s)	1.0	1.0	1.0	1.0
Minimum Split (s)	3.0	3.0	3.0	3.0
Total Split (s)	5.0	5.0	5.0	5.0
Total Split (%)	3%	3%	3%	3%
Maximum Green (s)	3.0	3.0	3.0	3.0
Yellow Time (s)	2.0	2.0	2.0	2.0
All-Red Time (s)	0.0	0.0	0.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None
Walk Time (s)				
Flash Dont Walk (s)				
Pedestrian Calls (#/hr)				
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Intersection Summary				

Queues  
11: Fieldgate Dr & Burnhamthorpe Rd

2029 FT PM  
08/09/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	66	1120	147	58	1191	51	76	94	57	128	53
v/c Ratio	0.20	0.39	0.12	0.16	0.42	0.04	0.73	0.47	0.42	0.65	0.25
Control Delay	6.0	5.4	2.5	3.9	3.5	0.2	104.6	58.8	75.5	83.9	16.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.0	5.4	2.5	3.9	3.5	0.2	104.6	58.8	75.5	83.9	16.2
Queue Length 50th (m)	4.3	46.3	4.7	2.3	25.9	0.0	23.9	22.2	17.3	39.9	0.0
Queue Length 95th (m)	11.0	68.7	11.6	m3.8	32.4	m0.2	41.2	39.7	31.3	59.7	12.5
Internal Link Dist (m)		475.8			651.9			416.5		202.9	
Turn Bay Length (m)	30.0		25.0	30.0		30.0	15.0		65.0		65.0
Base Capacity (vph)	333	2865	1219	361	2865	1225	253	455	326	474	430
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.39	0.12	0.16	0.42	0.04	0.30	0.21	0.17	0.27	0.12

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lanes, Volumes, Timings  
12: Ponytrail Dr & Burnhamthorpe Rd

2029 FT PM  
08/09/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	55	1001	27	70	1072	560	16	34	41	371	43	62
Future Volume (vph)	55	1001	27	70	1072	560	16	34	41	371	43	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	35.0		30.0	35.0		30.0	15.0		0.0	40.0		0.0
Storage Lanes	1		1	1		1	1		0	2		1
Taper Length (m)	45.0			65.0			50.0			30.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Ped Bike Factor			0.96			0.95	1.00	0.99		0.98		0.99
Fr <sub>t</sub>			0.850			0.850		0.918				0.850
Fl <sub>t</sub> Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1789	3579	1633	1722	3579	1601	1722	1738	0	3471	1921	1601
Fl <sub>t</sub> Permitted	0.093			0.241			0.726			0.950		
Satd. Flow (perm)	175	3579	1565	437	3579	1518	1314	1738	0	3396	1921	1579
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			116			203		34				67
Link Speed (k/h)		60			60			40				50
Link Distance (m)		675.9			242.1			944.6				165.5
Travel Time (s)		40.6			14.5			85.0				11.9
Confl. Peds. (#/hr)	28		9	9		28	1		10	10		1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	0%	6%	2%	2%	6%	0%	0%	2%	0%	2%
Adj. Flow (vph)	60	1088	29	76	1165	609	17	37	45	403	47	67
Shared Lane Traffic (%)												
Lane Group Flow (vph)	60	1088	29	76	1165	609	17	82	0	403	47	67
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			7.4				7.4
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2	1	1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0		2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6		2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4				9.4
Detector 2 Size(m)		0.6			0.6			0.6				0.6
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				0.0

Lane Group	Ø7	Ø9	Ø10	Ø11
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (m)				
Storage Lanes				
Taper Length (m)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (k/h)				
Link Distance (m)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(m)				
Link Offset(m)				
Crosswalk Width(m)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (k/h)				
Number of Detectors				
Detector Template				
Leading Detector (m)				
Trailing Detector (m)				
Detector 1 Position(m)				
Detector 1 Size(m)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(m)				
Detector 2 Size(m)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				



Lanes, Volumes, Timings  
12: Ponytrail Dr & Burnhamthorpe Rd

2029 FT PM  
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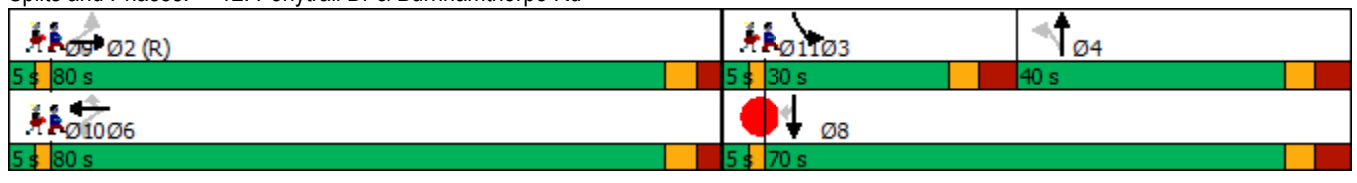


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Prot	NA	Perm
Protected Phases		2			6			4		3	8	
Permitted Phases	2		2	6		6	4					8
Detector Phase	2	2	2	6	6	6	4	4		3	8	8
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	40.0	40.0	40.0	42.0	42.0	42.0	41.0	41.0		18.0	41.0	41.0
Total Split (s)	80.0	80.0	80.0	80.0	80.0	80.0	40.0	40.0		30.0	70.0	70.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	25.0%	25.0%		18.8%	43.8%	43.8%
Maximum Green (s)	73.0	73.0	73.0	73.0	73.0	73.0	32.0	32.0		22.0	62.0	62.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	4.5	4.5		4.5	4.5	4.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	8.0	8.0		8.0	8.0	8.0
Lead/Lag												Lag
Lead-Lag Optimize?												Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	C-Max	C-Max	C-Max	Max	Max	Max	Min	Min		None	Min	Min
Walk Time (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0			10.0	10.0
Flash Dont Walk (s)	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0			23.0	23.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0			0	0
Act Effct Green (s)	91.8	91.8	91.8	73.0	73.0	73.0	11.4	11.4		21.3	40.7	40.7
Actuated g/C Ratio	0.57	0.57	0.57	0.46	0.46	0.46	0.07	0.07		0.13	0.25	0.25
v/c Ratio	0.60	0.53	0.03	0.38	0.71	0.76	0.18	0.53		0.87	0.10	0.15
Control Delay	47.2	18.8	0.1	35.8	38.1	30.4	73.5	55.1		87.3	45.1	9.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	47.2	18.8	0.1	35.8	38.1	30.4	73.5	55.1		87.3	45.1	9.7
LOS	D	B	A	D	D	C	E	E		F	D	A
Approach Delay		19.8			35.5			58.3			73.4	
Approach LOS		B			D			E			E	

Intersection Summary

Area Type: Other  
 Cycle Length: 160  
 Actuated Cycle Length: 160  
 Offset: 117 (73%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.87  
 Intersection Signal Delay: 36.4  
 Intersection LOS: D  
 Intersection Capacity Utilization 77.7%  
 ICU Level of Service D  
 Analysis Period (min) 15

Splits and Phases: 12: Ponytrail Dr & Burnhamthorpe Rd



Lane Group	Ø7	Ø9	Ø10	Ø11
Turn Type				
Protected Phases	7	9	10	11
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	1.0	1.0	1.0	1.0
Minimum Split (s)	3.0	3.0	3.0	3.0
Total Split (s)	5.0	5.0	5.0	5.0
Total Split (%)	3%	3%	3%	3%
Maximum Green (s)	3.0	3.0	3.0	3.0
Yellow Time (s)	2.0	2.0	2.0	2.0
All-Red Time (s)	0.0	0.0	0.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag				Lead
Lead-Lag Optimize?				Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0
Recall Mode	Ped	Ped	Ped	Ped
Walk Time (s)	0.0	0.0	0.0	0.0
Flash Dont Walk (s)	0.0	0.0	0.0	0.0
Pedestrian Calls (#/hr)	0	0	0	0
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Intersection Summary				

Queues  
12: Ponytrail Dr & Burnhamthorpe Rd

2029 FT PM  
08/09/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	60	1088	29	76	1165	609	17	82	403	47	67
v/c Ratio	0.60	0.53	0.03	0.38	0.71	0.76	0.18	0.53	0.87	0.10	0.15
Control Delay	47.2	18.8	0.1	35.8	38.1	30.4	73.5	55.1	87.3	45.1	9.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.2	18.8	0.1	35.8	38.1	30.4	73.5	55.1	87.3	45.1	9.7
Queue Length 50th (m)	8.7	84.2	0.0	15.7	155.5	111.8	5.2	15.0	65.5	11.6	0.0
Queue Length 95th (m)	#39.1	94.0	0.0	31.7	181.1	164.5	13.4	32.7	#90.1	21.7	12.1
Internal Link Dist (m)		651.9			218.1			920.6		141.5	
Turn Bay Length (m)	35.0		30.0	35.0		30.0	15.0		40.0		
Base Capacity (vph)	100	2052	946	199	1632	802	262	374	477	744	652
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.60	0.53	0.03	0.38	0.71	0.76	0.06	0.22	0.84	0.06	0.10

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

Lanes, Volumes, Timings  
1: Dixie Rd & Bloor St

2029 FT SAT  
08/09/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘	↑↑↑		↘	↑↑↑	↗
Traffic Volume (vph)	140	481	218	345	451	220	197	1172	359	141	1184	156
Future Volume (vph)	140	481	218	345	451	220	197	1172	359	141	1184	156
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		15.0	60.0		10.0	75.0		0.0	100.0		85.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	85.0			60.0			90.0			50.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.91	0.91	1.00	0.91	1.00
Ped Bike Factor	0.98		0.97	0.99		0.94	1.00	0.99		1.00		0.97
Frt			0.850			0.850		0.965				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1807	3614	1617	1807	3579	1617	1807	4960	0	1807	5142	1601
Flt Permitted	0.473			0.252			0.134			0.128		
Satd. Flow (perm)	877	3614	1574	477	3579	1519	254	4960	0	243	5142	1546
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			89			47			66			163
Link Speed (k/h)		50			50			60				60
Link Distance (m)		302.0			160.9			615.3				434.7
Travel Time (s)		21.7			11.6			36.9				26.1
Confl. Peds. (#/hr)	40		12	12		40	19		27	27		19
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	1%	1%	1%	2%	1%	1%	1%	1%	1%	2%	2%
Adj. Flow (vph)	152	523	237	375	490	239	214	1274	390	153	1287	170
Shared Lane Traffic (%)												
Lane Group Flow (vph)	152	523	237	375	490	239	214	1664	0	153	1287	170
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7				3.7
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane					Yes							
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	2	1	1	1	1	1	1	0		1	0	0
Detector Template								Thru			Thru	Right
Leading Detector (m)	24.0	7.0	7.0	22.0	7.0	7.0	24.0	0.0		24.0	0.0	0.0
Trailing Detector (m)	-2.5	-0.2	-2.0	12.0	-2.0	-2.0	14.0	0.0		14.0	0.0	0.0
Detector 1 Position(m)	-2.5	-0.2	-2.0	12.0	-2.0	-2.0	14.0	0.0		14.0	0.0	0.0
Detector 1 Size(m)	10.0	7.2	9.0	10.0	9.0	9.0	10.0	0.6		10.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)	14.0											
Detector 2 Size(m)	10.0											
Detector 2 Type	Cl+Ex											
Detector 2 Channel												
Detector 2 Extend (s)	0.0											

Lanes, Volumes, Timings  
1: Dixie Rd & Bloor St

2029 FT SAT  
08/09/2024

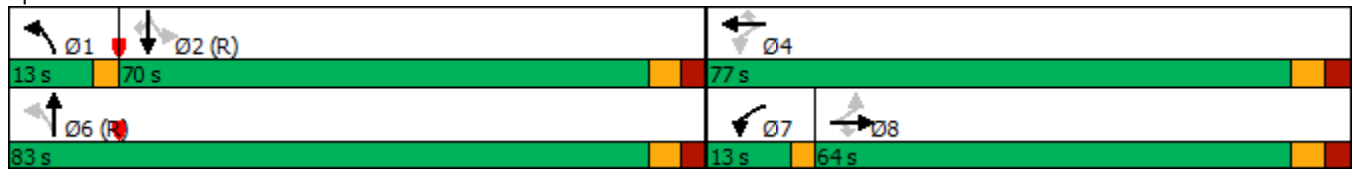


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		Perm	NA	Perm
Protected Phases		8		7	4		1	6			2	
Permitted Phases	8		8	4		4	6			2		2
Detector Phase	8	8	8	7	4	4	1	6		2	2	2
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0		10.0	10.0	10.0
Minimum Split (s)	46.4	46.4	46.4	10.0	46.4	46.4	10.0	46.9		46.9	46.9	46.9
Total Split (s)	64.0	64.0	64.0	13.0	77.0	77.0	13.0	83.0		70.0	70.0	70.0
Total Split (%)	40.0%	40.0%	40.0%	8.1%	48.1%	48.1%	8.1%	51.9%		43.8%	43.8%	43.8%
Maximum Green (s)	56.6	56.6	56.6	10.0	69.6	69.6	10.0	76.1		63.1	63.1	63.1
Yellow Time (s)	4.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0		4.0	4.0	4.0
All-Red Time (s)	3.4	3.4	3.4	0.0	3.4	3.4	0.0	2.9		2.9	2.9	2.9
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.4	7.4	7.4	3.0	7.4	7.4	3.0	6.9		6.9	6.9	6.9
Lead/Lag	Lag	Lag	Lag	Lead			Lead			Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes			Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	C-Max		C-Max	C-Max	C-Max
Walk Time (s)	10.0	10.0	10.0		10.0	10.0		10.0		10.0	10.0	10.0
Flash Dont Walk (s)	29.0	29.0	29.0		29.0	29.0		30.0		30.0	30.0	30.0
Pedestrian Calls (#/hr)	0	0	0		0	0		0		0	0	0
Act Effct Green (s)	36.7	36.7	36.7	54.1	49.7	49.7	99.9	96.0		74.5	74.5	74.5
Actuated g/C Ratio	0.23	0.23	0.23	0.34	0.31	0.31	0.62	0.60		0.47	0.47	0.47
v/c Ratio	0.76	0.63	0.55	1.54	0.44	0.48	0.63	0.55		1.35	0.54	0.21
Control Delay	79.1	58.1	36.5	293.1	44.2	37.4	25.5	20.4		242.1	32.7	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	79.1	58.1	36.5	293.1	44.2	37.4	25.5	20.4		242.1	32.7	5.2
LOS	E	E	D	F	D	D	C	C		F	C	A
Approach Delay		56.0			127.3			21.0			49.7	
Approach LOS		E			F			C			D	

Intersection Summary

Area Type: Other  
 Cycle Length: 160  
 Actuated Cycle Length: 160  
 Offset: 74 (46%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green  
 Natural Cycle: 115  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.54  
 Intersection Signal Delay: 56.5  
 Intersection LOS: E  
 Intersection Capacity Utilization 101.6%  
 ICU Level of Service G  
 Analysis Period (min) 15

Splits and Phases: 1: Dixie Rd & Bloor St





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	152	523	237	375	490	239	214	1664	153	1287	170
v/c Ratio	0.76	0.63	0.55	1.54	0.44	0.48	0.63	0.55	1.35	0.54	0.21
Control Delay	79.1	58.1	36.5	293.1	44.2	37.4	25.5	20.4	242.1	32.7	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	79.1	58.1	36.5	293.1	44.2	37.4	25.5	20.4	242.1	32.7	5.2
Queue Length 50th (m)	45.7	80.0	42.1	~161.8	63.3	47.9	27.5	106.4	~63.2	104.7	1.2
Queue Length 95th (m)	64.9	87.2	61.8	#215.1	79.3	75.8	#63.4	150.2	#116.7	136.5	16.6
Internal Link Dist (m)		278.0			136.9			591.3		410.7	
Turn Bay Length (m)	40.0		15.0	60.0		10.0	75.0		100.0		85.0
Base Capacity (vph)	310	1278	614	244	1556	687	338	3002	113	2394	807
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.41	0.39	1.54	0.31	0.35	0.63	0.55	1.35	0.54	0.21

**Intersection Summary**

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Lanes, Volumes, Timings  
2: Havenwood Dr & Bloor St

2029 FT SAT  
08/09/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	100	808	54	24	758	56	46	17	30	71	24	131
Future Volume (vph)	100	808	54	24	758	56	46	17	30	71	24	131
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0		0.0	50.0		0.0	25.0		0.0	25.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	65.0			80.0			40.0			35.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			0.99		0.99	0.97		0.97	0.97	
Frt		0.991			0.990			0.903				0.873
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1825	1879	0	1825	1871	0	1825	1634	0	1825	1586	0
Flt Permitted	0.215			0.186			0.651			0.724		
Satd. Flow (perm)	413	1879	0	357	1871	0	1234	1634	0	1348	1586	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			6			33			58	
Link Speed (k/h)		50			50			30			40	
Link Distance (m)		179.0			562.7			137.1			118.1	
Travel Time (s)		12.9			40.5			16.5			10.6	
Confl. Peds. (#/hr)	41		17	17		41	14		28	28		14
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	2%	0%	1%	3%	0%	0%	4%	0%	0%	3%
Adj. Flow (vph)	109	878	59	26	824	61	50	18	33	77	26	142
Shared Lane Traffic (%)												
Lane Group Flow (vph)	109	937	0	26	885	0	50	51	0	77	168	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	0	0		0	0		1	1		1	1	
Detector Template		Thru		Left	Thru							
Leading Detector (m)	0.0	0.0		0.0	0.0		7.0	7.0		8.0	8.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		-2.0	-2.0		-2.0	-2.0	
Detector 1 Position(m)	11.5	0.0		0.0	0.0		-2.0	-2.0		-2.0	-2.0	
Detector 1 Size(m)	9.0	0.6		2.0	0.6		9.0	9.0		10.0	10.0	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4				4
Permitted Phases	2			2			4			4		
Detector Phase	2	2		2	2		4	4		4	4	
Switch Phase												

Lanes, Volumes, Timings  
2: Havenwood Dr & Bloor St

2029 FT SAT  
08/09/2024

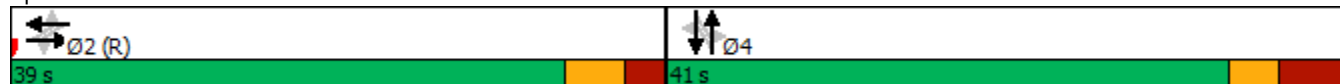


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	35.0	35.0		35.0	35.0		41.5	41.5		41.5	41.5	
Total Split (s)	39.0	39.0		39.0	39.0		41.0	41.0		41.0	41.0	
Total Split (%)	48.8%	48.8%		48.8%	48.8%		51.3%	51.3%		51.3%	51.3%	
Maximum Green (s)	33.0	33.0		33.0	33.0		33.5	33.5		33.5	33.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.5	2.5		2.5	2.5		4.5	4.5		4.5	4.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		7.5	7.5		7.5	7.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	
Walk Time (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Flash Dont Walk (s)	19.0	19.0		19.0	19.0		24.0	24.0		24.0	24.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	53.8	53.8		53.8	53.8		12.7	12.7		12.7	12.7	
Actuated g/C Ratio	0.67	0.67		0.67	0.67		0.16	0.16		0.16	0.16	
v/c Ratio	0.39	0.74		0.11	0.70		0.26	0.18		0.36	0.56	
Control Delay	8.4	13.5		11.2	16.0		31.5	15.4		33.8	27.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	8.4	13.5		11.2	16.0		31.5	15.4		33.8	27.0	
LOS	A	B		B	B		C	B		C	C	
Approach Delay		12.9			15.9			23.4			29.1	
Approach LOS		B			B			C			C	

Intersection Summary

Area Type: Other  
 Cycle Length: 80  
 Actuated Cycle Length: 80  
 Offset: 39 (49%), Referenced to phase 2:EBWB, Start of Green  
 Natural Cycle: 100  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.74  
 Intersection Signal Delay: 16.3      Intersection LOS: B  
 Intersection Capacity Utilization 105.5%      ICU Level of Service G  
 Analysis Period (min) 15

Splits and Phases: 2: Havenwood Dr & Bloor St





Queues  
2: Havenwood Dr & Bloor St

2029 FT SAT  
08/09/2024



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	109	937	26	885	50	51	77	168
v/c Ratio	0.39	0.74	0.11	0.70	0.26	0.18	0.36	0.56
Control Delay	8.4	13.5	11.2	16.0	31.5	15.4	33.8	27.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.4	13.5	11.2	16.0	31.5	15.4	33.8	27.0
Queue Length 50th (m)	7.2	76.4	1.1	69.9	6.9	2.4	10.8	15.7
Queue Length 95th (m)	m11.2	m170.6	m4.8	145.6	14.9	10.4	20.9	30.9
Internal Link Dist (m)		155.0		538.7		113.1		94.1
Turn Bay Length (m)	50.0		50.0		25.0		25.0	
Base Capacity (vph)	277	1265	240	1260	516	703	564	697
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.74	0.11	0.70	0.10	0.07	0.14	0.24

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lanes, Volumes, Timings  
3: Fieldgate Dr & Bloor St

2029 FT SAT  
08/09/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↖	↖	↗	↖	↖	↗		↖	↗	
Traffic Volume (vph)	129	684	63	66	608	103	62	28	55	131	50	139
Future Volume (vph)	129	684	63	66	608	103	62	28	55	131	50	139
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	80.0		75.0	92.0		92.0	45.0		0.0	25.0		0.0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (m)	50.0			55.0			30.0			30.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99			0.99			0.96	0.95		0.96	0.94	
Frt			0.850			0.850		0.900			0.890	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1825	1902	1601	1825	1902	1601	1755	1649	0	1825	1615	0
Flt Permitted	0.241			0.361			0.548			0.699		
Satd. Flow (perm)	457	1902	1601	683	1902	1601	969	1649	0	1283	1615	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			177			177		60			151	
Link Speed (k/h)		50			50			40			40	
Link Distance (m)		562.7			233.6			134.2			78.0	
Travel Time (s)		40.5			16.8			12.1			7.0	
Confl. Peds. (#/hr)	42		34	34		42	38		34	34		38
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	2%	0%	1%	2%	4%	0%	0%	0%	0%	0%
Adj. Flow (vph)	140	743	68	72	661	112	67	30	60	142	54	151
Shared Lane Traffic (%)												
Lane Group Flow (vph)	140	743	68	72	661	112	67	90	0	142	205	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane		Yes										
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	0	1	0	0	1	1	1		1	1	
Detector Template		Thru	Right	Left	Thru	Right						
Leading Detector (m)	21.0	0.0	2.0	0.0	0.0	2.0	6.5	6.5		7.5	6.0	
Trailing Detector (m)	12.0	0.0	0.0	0.0	0.0	0.0	-2.5	-2.5		-1.5	-3.0	
Detector 1 Position(m)	12.0	0.0	0.0	0.0	0.0	0.0	-2.5	-2.5		-1.5	-3.0	
Detector 1 Size(m)	9.0	0.6	2.0	2.0	0.6	2.0	9.0	9.0		9.0	9.0	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA	NA	Perm	NA	NA	Perm	NA		Perm	NA	
Protected Phases	5	2			6			4				8
Permitted Phases	2			6			4			8		
Detector Phase	5	2		6	6		4	4		8	8	
Switch Phase												

Lanes, Volumes, Timings  
3: Fieldgate Dr & Bloor St

2029 FT SAT  
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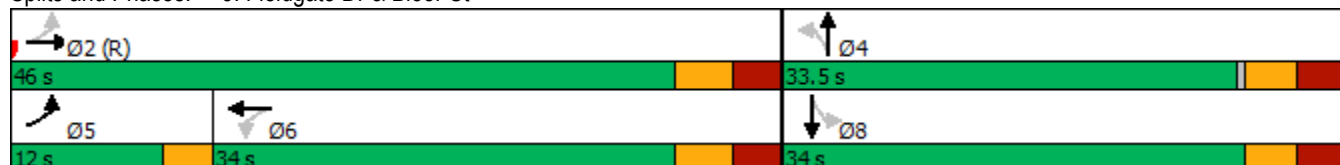


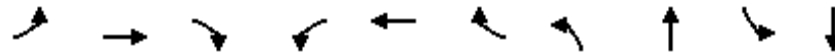
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	7.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	10.0	33.5		33.5	33.5		33.5	33.5		33.5	33.5	
Total Split (s)	12.0	46.0		34.0	34.0		33.5	33.5		34.0	34.0	
Total Split (%)	15.0%	57.5%		42.5%	42.5%		41.9%	41.9%		42.5%	42.5%	
Maximum Green (s)	9.0	39.5		27.5	27.5		27.0	27.0		27.5	27.5	
Yellow Time (s)	3.0	3.5		3.5	3.5		3.0	3.0		3.0	3.0	
All-Red Time (s)	0.0	3.0		3.0	3.0		3.5	3.5		3.5	3.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.0	6.5		6.5	6.5		6.5	6.5		6.5	6.5	
Lead/Lag	Lead			Lag			Lag			Lag		
Lead-Lag Optimize?	Yes			Yes			Yes			Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max		Max	Max		None	None		None	None	
Walk Time (s)		10.0		10.0	10.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)		17.0		17.0	17.0		22.0	22.0		22.0	22.0	
Pedestrian Calls (#/hr)		0		0	0		0	0		0	0	
Act Effct Green (s)	55.8	52.3	0.0	41.8	41.8	0.0	14.7	14.7		14.7	14.7	
Actuated g/C Ratio	0.70	0.65	0.00	0.52	0.52	0.00	0.18	0.18		0.18	0.18	
v/c Ratio	0.31	0.60	0.38	0.20	0.67	0.63	0.38	0.26		0.60	0.49	
Control Delay	8.1	16.8	4.6	14.2	19.9	18.8	33.4	13.1		40.1	12.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	8.1	16.8	4.6	14.2	19.9	18.8	33.4	13.1		40.1	12.7	
LOS	A	B	A	B	B	B	C	B		D	B	
Approach Delay		14.6			19.3			21.8			23.9	
Approach LOS		B			B			C			C	

Intersection Summary

Area Type:	Other
Cycle Length:	80
Actuated Cycle Length:	80
Offset:	17 (21%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle:	80
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.67
Intersection Signal Delay:	18.2
Intersection LOS:	B
Intersection Capacity Utilization:	94.3%
ICU Level of Service:	F
Analysis Period (min):	15

Splits and Phases: 3: Fieldgate Dr & Bloor St





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	140	743	68	72	661	112	67	90	142	205
v/c Ratio	0.31	0.60	0.38	0.20	0.67	0.63	0.38	0.26	0.60	0.49
Control Delay	8.1	16.8	4.6	14.2	19.9	18.8	33.4	13.1	40.1	12.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.1	16.8	4.6	14.2	19.9	18.8	33.4	13.1	40.1	12.7
Queue Length 50th (m)	10.6	126.8	0.0	5.3	67.1	0.0	9.1	3.9	20.1	7.1
Queue Length 95th (m)	m14.1	130.1	m0.0	16.0	#142.7	#9.3	18.6	14.1	34.3	22.5
Internal Link Dist (m)		538.7			209.6			110.2		54.0
Turn Bay Length (m)	80.0		75.0	92.0		92.0	45.0		25.0	
Base Capacity (vph)	473	1243	177	356	993	177	333	606	441	654
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.60	0.38	0.20	0.67	0.63	0.20	0.15	0.32	0.31

**Intersection Summary**

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lanes, Volumes, Timings  
6: Fieldgate Dr & Williamsport Dr/Site Access 1

2029 FT SAT  
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	21	0	55	75	0	41	42	146	84	55	149	17
Future Volume (vph)	21	0	55	75	0	41	42	146	84	55	149	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.902			0.952			0.958			0.990	
Flt Protected		0.986			0.969			0.992			0.988	
Satd. Flow (prot)	0	1709	0	0	1737	0	0	1806	0	0	1870	0
Flt Permitted		0.986			0.969			0.992			0.988	
Satd. Flow (perm)	0	1709	0	0	1737	0	0	1806	0	0	1870	0
Link Speed (k/h)		40			48			40			40	
Link Distance (m)		168.2			54.9			83.8			69.3	
Travel Time (s)		15.1			4.1			7.5			6.2	
Confl. Peds. (#/hr)	27		1	1		27	20					20
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	0%	2%	2%	2%	3%	0%	2%	2%	0%	0%
Adj. Flow (vph)	23	0	60	82	0	45	46	159	91	60	162	18
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	83	0	0	127	0	0	296	0	0	240	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 40.3% ICU Level of Service A

Analysis Period (min) 15

HCM Unsignalized Intersection Capacity Analysis  
6: Fieldgate Dr & Williamsport Dr/Site Access 1

2029 FT SAT  
08/09/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	21	0	55	75	0	41	42	146	84	55	149	17
Future Volume (Veh/h)	21	0	55	75	0	41	42	146	84	55	149	17
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	23	0	60	82	0	45	46	159	91	60	162	18
Pedestrians		20						1			27	
Lane Width (m)		3.7						3.7			3.7	
Walking Speed (m/s)		1.1						1.1			1.1	
Percent Blockage		2						0			3	
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (m)								162				
pX, platoon unblocked												
vC, conflicting volume	680	653	192	648	616	232	200			250		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	680	653	192	648	616	232	200			250		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	93	100	93	75	100	94	97			95		
cM capacity (veh/h)	307	349	837	329	367	786	1339			1316		
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>WB 1</b>	<b>NB 1</b>	<b>SB 1</b>								
Volume Total	83	127	296	240								
Volume Left	23	82	46	60								
Volume Right	60	45	91	18								
cSH	566	415	1339	1316								
Volume to Capacity	0.15	0.31	0.03	0.05								
Queue Length 95th (m)	3.9	9.7	0.8	1.1								
Control Delay (s)	12.5	17.5	1.5	2.3								
Lane LOS	B	C	A	A								
Approach Delay (s)	12.5	17.5	1.5	2.3								
Approach LOS	B	C										
<b>Intersection Summary</b>												
Average Delay			5.7									
Intersection Capacity Utilization			40.3%		ICU Level of Service					A		
Analysis Period (min)			15									

Lanes, Volumes, Timings  
7: Fieldgate Dr & Ponytrail Dr

2029 FT SAT  
08/09/2024



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	40	27	142	65	20	178
Future Volume (vph)	40	27	142	65	20	178
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	0.946		0.957			
Flt Protected	0.971					0.995
Satd. Flow (prot)	1765	0	1839	0	0	1912
Flt Permitted	0.971					0.995
Satd. Flow (perm)	1765	0	1839	0	0	1912
Link Speed (k/h)	30		40			30
Link Distance (m)	39.8		69.3			254.8
Travel Time (s)	4.8		6.2			30.6
Confl. Peds. (#/hr)	1	8		27	27	
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)	43	29	154	71	22	193
Shared Lane Traffic (%)						
Lane Group Flow (vph)	72	0	225	0	0	215
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.7		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	1.6		1.6			1.6
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24	14		14	24	
Sign Control	Stop		Stop			Stop

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	39.1%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis  
7: Fieldgate Dr & Ponytrail Dr

2029 FT SAT  
08/09/2024



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Stop			Stop
Traffic Volume (vph)	40	27	142	65	20	178
Future Volume (vph)	40	27	142	65	20	178
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	43	29	154	71	22	193
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total (vph)	72	225	215			
Volume Left (vph)	43	0	22			
Volume Right (vph)	29	71	0			
Hadj (s)	-0.12	-0.19	0.02			
Departure Headway (s)	4.7	4.1	4.3			
Degree Utilization, x	0.09	0.26	0.26			
Capacity (veh/h)	693	849	803			
Control Delay (s)	8.2	8.5	8.8			
Approach Delay (s)	8.2	8.5	8.8			
Approach LOS	A	A	A			
Intersection Summary						
Delay			8.6			
Level of Service			A			
Intersection Capacity Utilization			39.1%	ICU Level of Service	A	
Analysis Period (min)			15			





Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	85	0	0	67	0	0
Future Volume (vph)	85	0	0	67	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)	1921	0	0	1921	1921	0
Flt Permitted						
Satd. Flow (perm)	1921	0	0	1921	1921	0
Link Speed (k/h)	30			30	30	
Link Distance (m)	47.8			156.1	119.1	
Travel Time (s)	5.7			18.7	14.3	
Confl. Peds. (#/hr)		40	40		1	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)	92	0	0	73	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	92	0	0	73	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	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)		14	24		24	14
Sign Control	Free			Free	Stop	

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	21.9%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis  
 9: Site Access 2 & Ponytrail Dr

2029 FT SAT  
 08/09/2024



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↩			↩	↩	
Traffic Volume (veh/h)	85	0	0	67	0	0
Future Volume (Veh/h)	85	0	0	67	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	92	0	0	73	0	0
Pedestrians	1			3	40	
Lane Width (m)	3.7			3.7	3.7	
Walking Speed (m/s)	1.1			1.1	1.1	
Percent Blockage	0			0	4	
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			132		206	135
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			132		206	135
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1408		755	881
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>WB 1</b>	<b>NB 1</b>			
Volume Total	92	73	0			
Volume Left	0	0	0			
Volume Right	0	0	0			
cSH	1700	1408	1700			
Volume to Capacity	0.05	0.00	0.02			
Queue Length 95th (m)	0.0	0.0	0.0			
Control Delay (s)	0.0	0.0	0.0			
Lane LOS			A			
Approach Delay (s)	0.0	0.0	0.0			
Approach LOS			A			
<b>Intersection Summary</b>						
Average Delay			0.0			
Intersection Capacity Utilization			21.9%	ICU Level of Service	A	
Analysis Period (min)			15			

Lanes, Volumes, Timings  
10: Fieldgate Dr & Haven Glenn

2029 FT SAT  
08/09/2024



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	5	35	21	155	151	11
Future Volume (vph)	5	35	21	155	151	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
Ped Bike Factor						
Frt	0.881					0.991
Flt Protected	0.994					0.994
Satd. Flow (prot)	1682	0	0	1910	1904	0
Flt Permitted	0.994					0.994
Satd. Flow (perm)	1682	0	0	1910	1904	0
Link Speed (k/h)	40					30
Link Distance (m)	258.3					254.8
Travel Time (s)	23.2					30.6
Confl. Peds. (#/hr)	1	26	14			
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)	5	38	23	168	164	12
Shared Lane Traffic (%)						
Lane Group Flow (vph)	43	0	0	191	176	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7					3.7
Link Offset(m)	0.0					0.0
Crosswalk Width(m)	1.6					1.6
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24	14	24			
Sign Control	Stop					Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	39.4%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis  
 10: Fieldgate Dr & Haven Glenn

2029 FT SAT  
 08/09/2024



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	5	35	21	155	151	11
Future Volume (Veh/h)	5	35	21	155	151	11
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	38	23	168	164	12
Pedestrians	14			26	1	
Lane Width (m)	3.7			3.7	3.7	
Walking Speed (m/s)	1.1			1.1	1.1	
Percent Blockage	1			3	0	
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	399	210	190			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	399	210	190			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	95	98			
cM capacity (veh/h)	592	803	1377			
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>NB 1</b>	<b>SB 1</b>			
Volume Total	43	191	176			
Volume Left	5	23	0			
Volume Right	38	0	12			
cSH	771	1377	1700			
Volume to Capacity	0.06	0.02	0.10			
Queue Length 95th (m)	1.3	0.4	0.0			
Control Delay (s)	9.9	1.0	0.0			
Lane LOS	A	A				
Approach Delay (s)	9.9	1.0	0.0			
Approach LOS	A					
<b>Intersection Summary</b>						
Average Delay			1.5			
Intersection Capacity Utilization			39.4%	ICU Level of Service	A	
Analysis Period (min)			15			

Lanes, Volumes, Timings  
11: Fieldgate Dr & Burnhamthorpe Rd

2029 FT SAT  
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	62	1007	82	44	795	40	77	41	49	55	62	47
Future Volume (vph)	62	1007	82	44	795	40	77	41	49	55	62	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	30.0		25.0	30.0		30.0	15.0		0.0	65.0		65.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	30.0			45.0			40.0			75.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		0.97	1.00		0.97	0.99	0.99		0.99		0.97
Frt			0.850			0.850		0.919				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1825	3614	1633	1825	3614	1633	1825	1748	0	1825	1921	1633
Flt Permitted	0.319			0.238			0.713			0.694		
Satd. Flow (perm)	612	3614	1580	456	3614	1590	1352	1748	0	1326	1921	1591
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			130			130			53			109
Link Speed (k/h)		60			60			40				50
Link Distance (m)		499.8			675.9			440.5				226.9
Travel Time (s)		30.0			40.6			39.6				16.3
Confl. Peds. (#/hr)	5		10	10		5	14		6	6		14
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	67	1095	89	48	864	43	84	45	53	60	67	51
Shared Lane Traffic (%)												
Lane Group Flow (vph)	67	1095	89	48	864	43	84	98	0	60	67	51
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7				3.7
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	0	0	0	0	0	0	1	1		1	1	0
Detector Template												
Leading Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	7.0	7.0		7.0	7.0	0.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	-2.0	-2.0		-2.0	-2.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	-2.0	-2.0		-2.0	-2.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	9.0	9.0		9.0	9.0	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases		2			6			4				8
Permitted Phases	2		2	6		6	4			8		8
Detector Phase	2	2	2	6	6	6	4	4		8	8	8
Switch Phase												

Lane Group	Ø1	Ø3	Ø5	Ø7
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (m)				
Storage Lanes				
Taper Length (m)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (k/h)				
Link Distance (m)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(m)				
Link Offset(m)				
Crosswalk Width(m)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (k/h)				
Number of Detectors				
Detector Template				
Leading Detector (m)				
Trailing Detector (m)				
Detector 1 Position(m)				
Detector 1 Size(m)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Turn Type				
Protected Phases	1	3	5	7
Permitted Phases				
Detector Phase				
Switch Phase				

Lanes, Volumes, Timings  
11: Fieldgate Dr & Burnhamthorpe Rd

2029 FT SAT  
08/09/2024

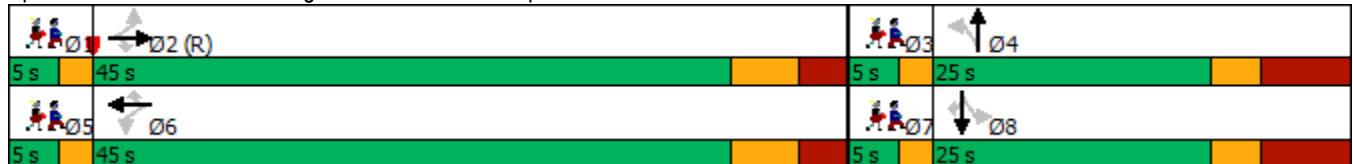


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	38.0	38.0	38.0	38.0	38.0	38.0	32.5	32.5		32.5	32.5	32.5
Total Split (s)	45.0	45.0	45.0	45.0	45.0	45.0	25.0	25.0		25.0	25.0	25.0
Total Split (%)	56.3%	56.3%	56.3%	56.3%	56.3%	56.3%	31.3%	31.3%		31.3%	31.3%	31.3%
Maximum Green (s)	38.0	38.0	38.0	38.0	38.0	38.0	16.5	16.5		16.5	16.5	16.5
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	5.5	5.5		5.5	5.5	5.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	8.5	8.5		8.5	8.5	8.5
Lead/Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lag		Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	C-Max	C-Max	C-Max	Max	Max	Max	None	None		None	None	None
Walk Time (s)	10.0	10.0	10.0	10.0	10.0	10.0	0.0	0.0		0.0	0.0	0.0
Flash Dont Walk (s)	21.0	21.0	21.0	21.0	21.0	21.0	24.0	24.0		24.0	24.0	24.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	0
Act Effct Green (s)	58.1	58.1	58.1	58.1	58.1	58.1	11.5	11.5		11.5	11.5	11.5
Actuated g/C Ratio	0.73	0.73	0.73	0.73	0.73	0.73	0.14	0.14		0.14	0.14	0.14
v/c Ratio	0.15	0.42	0.08	0.15	0.33	0.04	0.43	0.33		0.32	0.24	0.16
Control Delay	6.8	6.6	0.7	1.9	1.5	0.1	38.0	19.0		34.6	31.9	1.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	6.8	6.6	0.7	1.9	1.5	0.1	38.0	19.0		34.6	31.9	1.3
LOS	A	A	A	A	A	A	D	B		C	C	A
Approach Delay		6.2			1.4			27.7			24.1	
Approach LOS		A			A			C			C	

Intersection Summary

Area Type:	Other
Cycle Length:	80
Actuated Cycle Length:	80
Offset:	72 (90%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle:	80
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.43
Intersection Signal Delay:	7.2
Intersection LOS:	A
Intersection Capacity Utilization:	68.5%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 11: Fieldgate Dr & Burnhamthorpe Rd



Lane Group	Ø1	Ø3	Ø5	Ø7
Minimum Initial (s)	1.0	1.0	1.0	1.0
Minimum Split (s)	3.0	3.0	3.0	3.0
Total Split (s)	5.0	5.0	5.0	5.0
Total Split (%)	6%	6%	6%	6%
Maximum Green (s)	3.0	3.0	3.0	3.0
Yellow Time (s)	2.0	2.0	2.0	2.0
All-Red Time (s)	0.0	0.0	0.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None
Walk Time (s)				
Flash Dont Walk (s)				
Pedestrian Calls (#/hr)				
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Intersection Summary				



Queues  
11: Fieldgate Dr & Burnhamthorpe Rd

2029 FT SAT  
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	67	1095	89	48	864	43	84	98	60	67	51
v/c Ratio	0.15	0.42	0.08	0.15	0.33	0.04	0.43	0.33	0.32	0.24	0.16
Control Delay	6.8	6.6	0.7	1.9	1.5	0.1	38.0	19.0	34.6	31.9	1.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.8	6.6	0.7	1.9	1.5	0.1	38.0	19.0	34.6	31.9	1.3
Queue Length 50th (m)	3.2	34.7	0.0	0.4	3.8	0.0	12.0	6.2	8.4	9.3	0.0
Queue Length 95th (m)	9.5	56.0	2.3	m1.4	10.1	m0.0	23.8	18.0	18.2	19.0	1.0
Internal Link Dist (m)		475.8			651.9			416.5		202.9	
Turn Bay Length (m)	30.0		25.0	30.0		30.0	15.0		65.0		65.0
Base Capacity (vph)	444	2623	1182	331	2623	1190	278	402	273	396	414
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.42	0.08	0.15	0.33	0.04	0.30	0.24	0.22	0.17	0.12

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lanes, Volumes, Timings  
12: Ponytrail Dr & Burnhamthorpe Rd

2029 FT SAT  
08/09/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	73	974	22	78	805	446	22	42	49	372	48	121
Future Volume (vph)	73	974	22	78	805	446	22	42	49	372	48	121
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	35.0		30.0	35.0		30.0	15.0		0.0	40.0		0.0
Storage Lanes	1		1	1		1	1		0	2		1
Taper Length (m)	45.0			65.0			50.0			30.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Ped Bike Factor	1.00		0.96			0.98	1.00	0.99		0.98		0.98
Frt			0.850			0.850		0.920				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1825	3614	1633	1825	3614	1617	1825	1743	0	3506	1921	1633
Flt Permitted	0.092			0.270			0.723			0.950		
Satd. Flow (perm)	176	3614	1569	519	3614	1577	1383	1743	0	3431	1921	1606
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			116			178		38				132
Link Speed (k/h)		60			60			40				50
Link Distance (m)		675.9			242.1			944.6				165.5
Travel Time (s)		40.6			14.5			85.0				11.9
Confl. Peds. (#/hr)	9		8	8		9	3		10	10		3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	0%	0%	1%	1%	0%	0%	0%	1%	0%	0%
Adj. Flow (vph)	79	1059	24	85	875	485	24	46	53	404	52	132
Shared Lane Traffic (%)												
Lane Group Flow (vph)	79	1059	24	85	875	485	24	99	0	404	52	132
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			7.4				7.4
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2	1	1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0		2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6		2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4				9.4
Detector 2 Size(m)		0.6			0.6			0.6				0.6
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				0.0

Lane Group	Ø7	Ø9	Ø10	Ø11
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (m)				
Storage Lanes				
Taper Length (m)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (k/h)				
Link Distance (m)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(m)				
Link Offset(m)				
Crosswalk Width(m)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (k/h)				
Number of Detectors				
Detector Template				
Leading Detector (m)				
Trailing Detector (m)				
Detector 1 Position(m)				
Detector 1 Size(m)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(m)				
Detector 2 Size(m)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				

Lanes, Volumes, Timings  
12: Ponytrail Dr & Burnhamthorpe Rd

2029 FT SAT  
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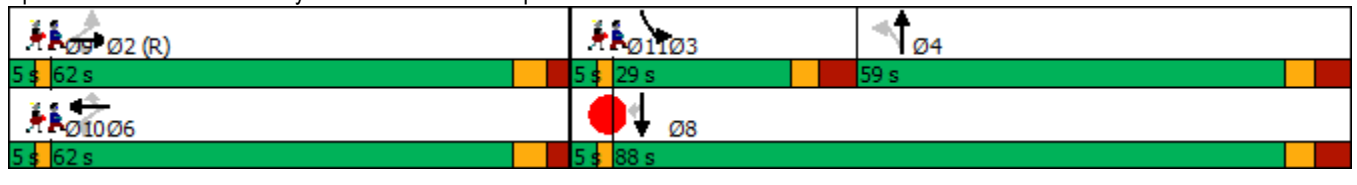


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Prot	NA	Perm
Protected Phases		2			6			4		3	8	
Permitted Phases	2		2	6		6	4					8
Detector Phase	2	2	2	6	6	6	4	4		3	8	8
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	40.0	40.0	40.0	42.0	42.0	42.0	41.0	41.0		18.0	41.0	41.0
Total Split (s)	62.0	62.0	62.0	62.0	62.0	62.0	59.0	59.0		29.0	88.0	88.0
Total Split (%)	38.8%	38.8%	38.8%	38.8%	38.8%	38.8%	36.9%	36.9%		18.1%	55.0%	55.0%
Maximum Green (s)	55.0	55.0	55.0	55.0	55.0	55.0	51.0	51.0		21.0	80.0	80.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	4.5	4.5		4.5	4.5	4.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	8.0	8.0		8.0	8.0	8.0
Lead/Lag												Lag
Lead-Lag Optimize?												Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	C-Max	C-Max	C-Max	Max	Max	Max	Min	Min		None	Min	Min
Walk Time (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0			10.0	10.0
Flash Dont Walk (s)	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0			23.0	23.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0			0	0
Act Effct Green (s)	91.6	91.6	91.6	55.0	55.0	55.0	12.3	12.3		20.6	40.9	40.9
Actuated g/C Ratio	0.57	0.57	0.57	0.34	0.34	0.34	0.08	0.08		0.13	0.26	0.26
v/c Ratio	0.79	0.51	0.03	0.48	0.70	0.74	0.23	0.59		0.90	0.11	0.26
Control Delay	72.4	19.8	0.2	52.1	49.2	36.1	73.3	57.4		91.2	45.1	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	72.4	19.8	0.2	52.1	49.2	36.1	73.3	57.4		91.2	45.1	7.7
LOS	E	B	A	D	D	D	E	E		F	D	A
Approach Delay		22.9			45.0			60.5			68.3	
Approach LOS		C			D			E			E	

Intersection Summary

Area Type: Other  
 Cycle Length: 160  
 Actuated Cycle Length: 160  
 Offset: 16 (10%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.90  
 Intersection Signal Delay: 42.0  
 Intersection LOS: D  
 Intersection Capacity Utilization 72.4%  
 ICU Level of Service C  
 Analysis Period (min) 15

Splits and Phases: 12: Ponytrail Dr & Burnhamthorpe Rd



Lane Group	Ø7	Ø9	Ø10	Ø11
Turn Type				
Protected Phases	7	9	10	11
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	1.0	1.0	1.0	1.0
Minimum Split (s)	3.0	3.0	3.0	3.0
Total Split (s)	5.0	5.0	5.0	5.0
Total Split (%)	3%	3%	3%	3%
Maximum Green (s)	3.0	3.0	3.0	3.0
Yellow Time (s)	2.0	2.0	2.0	2.0
All-Red Time (s)	0.0	0.0	0.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag				Lead
Lead-Lag Optimize?				Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0
Recall Mode	Ped	Ped	Ped	Ped
Walk Time (s)	0.0	0.0	0.0	0.0
Flash Dont Walk (s)	0.0	0.0	0.0	0.0
Pedestrian Calls (#/hr)	0	0	0	0
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Intersection Summary				

Queues  
12: Ponytrail Dr & Burnhamthorpe Rd

2029 FT SAT  
08/09/2024



























Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	79	1059	24	85	875	485	24	99	404	52	132
v/c Ratio	0.79	0.51	0.03	0.48	0.70	0.74	0.23	0.59	0.90	0.11	0.26
Control Delay	72.4	19.8	0.2	52.1	49.2	36.1	73.3	57.4	91.2	45.1	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	72.4	19.8	0.2	52.1	49.2	36.1	73.3	57.4	91.2	45.1	7.7
Queue Length 50th (m)	14.4	94.4	0.0	21.3	127.0	89.5	7.4	19.1	66.0	12.9	0.0
Queue Length 95th (m)	#57.8	113.3	0.5	40.5	150.9	134.5	16.9	38.0	#93.3	23.3	16.2
Internal Link Dist (m)		651.9			218.1			920.6		141.5	
Turn Bay Length (m)	35.0		30.0	35.0		30.0	15.0		40.0		
Base Capacity (vph)	100	2069	948	178	1242	658	440	581	460	960	869
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.79	0.51	0.03	0.48	0.70	0.74	0.05	0.17	0.88	0.05	0.15

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

Lanes, Volumes, Timings  
1: Dixie Rd & Bloor St

2029 FT AM Sensitivity  
12/04/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	137	470	173	291	397	266	57	974	204	194	1185	100
Future Volume (vph)	137	470	173	291	397	266	57	974	204	194	1185	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		15.0	60.0		1.0	75.0		0.0	100.0		85.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	85.0			60.0			90.0			50.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.91	0.91	1.00	0.91	1.00
Ped Bike Factor	0.97		0.98	1.00		0.93	0.99	1.00		1.00		0.95
Fr <sub>t</sub>			0.850			0.850		0.974				0.850
Fl <sub>t</sub> Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1738	3544	1617	1772	3444	1555	1722	4693	0	1722	4948	1555
Fl <sub>t</sub> Permitted	0.501			0.245			0.203			0.142		
Satd. Flow (perm)	889	3544	1582	455	3444	1452	365	4693	0	257	4948	1473
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			68			53			34			109
Link Speed (k/h)		50			50			60			60	
Link Distance (m)		302.0			339.9			615.3			434.7	
Travel Time (s)		21.7			24.5			36.9			26.1	
Confl. Peds. (#/hr)	45		8	8		45	35		14	14		35
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	5%	3%	1%	3%	6%	5%	6%	9%	5%	6%	6%	5%
Adj. Flow (vph)	149	511	188	316	432	289	62	1059	222	211	1288	109
Shared Lane Traffic (%)												
Lane Group Flow (vph)	149	511	188	316	432	289	62	1281	0	211	1288	109
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane					Yes							
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	2	1	1	1	1	1	1	0		1	0	0
Detector Template								Thru			Thru	Right
Leading Detector (m)	24.0	7.0	7.0	22.0	7.0	7.0	24.0	0.0		24.0	0.0	0.0
Trailing Detector (m)	-2.5	-2.0	-2.0	12.0	-2.0	-2.0	14.0	0.0		14.0	0.0	0.0
Detector 1 Position(m)	-2.5	-2.0	-2.0	12.0	-2.0	-2.0	14.0	0.0		14.0	0.0	0.0
Detector 1 Size(m)	10.0	9.0	9.0	10.0	9.0	9.0	10.0	0.6		10.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)	14.0											
Detector 2 Size(m)	10.0											
Detector 2 Type	Cl+Ex											
Detector 2 Channel												
Detector 2 Extend (s)	0.0											

Lanes, Volumes, Timings  
1: Dixie Rd & Bloor St

2029 FT AM Sensitivity  
12/04/2024

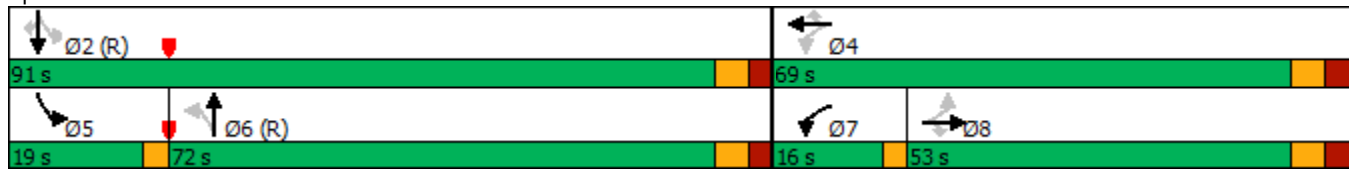


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	Perm	NA		pm+pt	NA	Perm
Protected Phases		8		7	4			6		5	2	
Permitted Phases	8		8	4		4	6			2		2
Detector Phase	8	8	8	7	4	4	6	6		5	2	2
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	7.0	10.0	10.0	10.0	10.0		7.0	10.0	10.0
Minimum Split (s)	46.4	46.4	46.4	10.0	46.4	46.4	46.9	46.9		10.0	46.9	46.9
Total Split (s)	53.0	53.0	53.0	16.0	69.0	69.0	72.0	72.0		19.0	91.0	91.0
Total Split (%)	33.1%	33.1%	33.1%	10.0%	43.1%	43.1%	45.0%	45.0%		11.9%	56.9%	56.9%
Maximum Green (s)	45.6	45.6	45.6	13.0	61.6	61.6	65.1	65.1		16.0	84.1	84.1
Yellow Time (s)	4.0	4.0	4.0	3.0	4.0	4.0	4.0	4.0		3.0	4.0	4.0
All-Red Time (s)	3.4	3.4	3.4	0.0	3.4	3.4	2.9	2.9		0.0	2.9	2.9
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.4	7.4	7.4	3.0	7.4	7.4	6.9	6.9		3.0	6.9	6.9
Lead/Lag	Lag	Lag	Lag	Lead			Lag	Lag		Lead		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	C-Max	C-Max		None	C-Max	C-Max
Walk Time (s)	10.0	10.0	10.0		10.0	10.0	10.0	10.0			10.0	10.0
Flash Dont Walk (s)	29.0	29.0	29.0		29.0	29.0	30.0	30.0			30.0	30.0
Pedestrian Calls (#/hr)	0	0	0		0	0	0	0			0	0
Act Effct Green (s)	34.5	34.5	34.5	54.9	50.5	50.5	78.2	78.2		99.1	95.2	95.2
Actuated g/C Ratio	0.22	0.22	0.22	0.34	0.32	0.32	0.49	0.49		0.62	0.60	0.60
v/c Ratio	0.78	0.67	0.48	1.20	0.40	0.59	0.35	0.55		0.74	0.44	0.12
Control Delay	84.0	61.1	36.8	160.3	43.0	40.9	36.9	30.6		32.3	19.3	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	84.0	61.1	36.8	160.3	43.0	40.9	36.9	30.6		32.3	19.3	3.2
LOS	F	E	D	F	D	D	D	C		C	B	A
Approach Delay		59.8			78.1			30.9			19.9	
Approach LOS		E			E			C			B	

Intersection Summary

Area Type: Other  
 Cycle Length: 160  
 Actuated Cycle Length: 160  
 Offset: 45 (28%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green  
 Natural Cycle: 115  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.20  
 Intersection Signal Delay: 42.4  
 Intersection LOS: D  
 Intersection Capacity Utilization 101.5%  
 ICU Level of Service G  
 Analysis Period (min) 15

Splits and Phases: 1: Dixie Rd & Bloor St





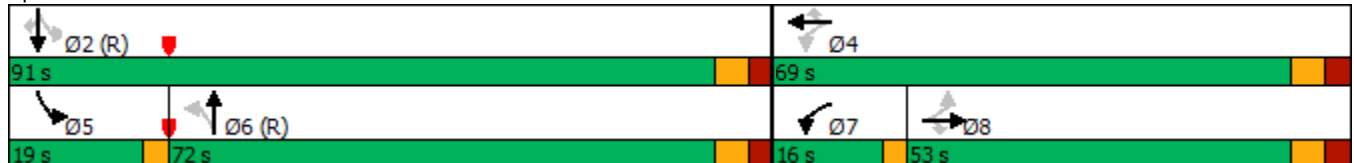
Timings  
1: Dixie Rd & Bloor St

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR	
Lane Configurations												
Traffic Volume (vph)	137	470	173	291	397	266	57	974	194	1185	100	
Future Volume (vph)	137	470	173	291	397	266	57	974	194	1185	100	
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	Perm	NA	pm+pt	NA	Perm	
Protected Phases		8		7	4			6	5	2		
Permitted Phases	8		8	4		4	6		2		2	
Detector Phase	8	8	8	7	4	4	6	6	5	2	2	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	7.0	10.0	10.0	10.0	10.0	7.0	10.0	10.0	
Minimum Split (s)	46.4	46.4	46.4	10.0	46.4	46.4	46.9	46.9	10.0	46.9	46.9	
Total Split (s)	53.0	53.0	53.0	16.0	69.0	69.0	72.0	72.0	19.0	91.0	91.0	
Total Split (%)	33.1%	33.1%	33.1%	10.0%	43.1%	43.1%	45.0%	45.0%	11.9%	56.9%	56.9%	
Yellow Time (s)	4.0	4.0	4.0	3.0	4.0	4.0	4.0	4.0	3.0	4.0	4.0	
All-Red Time (s)	3.4	3.4	3.4	0.0	3.4	3.4	2.9	2.9	0.0	2.9	2.9	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	7.4	7.4	7.4	3.0	7.4	7.4	6.9	6.9	3.0	6.9	6.9	
Lead/Lag	Lag	Lag	Lag	Lead			Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes	Yes	Yes			
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max	
Act Effct Green (s)	34.5	34.5	34.5	54.9	50.5	50.5	78.2	78.2	99.1	95.2	95.2	
Actuated g/C Ratio	0.22	0.22	0.22	0.34	0.32	0.32	0.49	0.49	0.62	0.60	0.60	
v/c Ratio	0.78	0.67	0.48	1.20	0.40	0.59	0.35	0.55	0.74	0.44	0.12	
Control Delay	84.0	61.1	36.8	160.3	43.0	40.9	36.9	30.6	32.3	19.3	3.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	84.0	61.1	36.8	160.3	43.0	40.9	36.9	30.6	32.3	19.3	3.2	
LOS	F	E	D	F	D	D	D	C	C	B	A	
Approach Delay		59.8			78.1			30.9		19.9		
Approach LOS		E			E			C		B		

Intersection Summary

Cycle Length: 160  
 Actuated Cycle Length: 160  
 Offset: 45 (28%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green  
 Natural Cycle: 115  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.20  
 Intersection Signal Delay: 42.4  
 Intersection LOS: D  
 Intersection Capacity Utilization 101.5%  
 ICU Level of Service G  
 Analysis Period (min) 15

Splits and Phases: 1: Dixie Rd & Bloor St



Queues  
1: Dixie Rd & Bloor St



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	149	511	188	316	432	289	62	1281	211	1288	109
v/c Ratio	0.78	0.67	0.48	1.20	0.40	0.59	0.35	0.55	0.74	0.44	0.12
Control Delay	84.0	61.1	36.8	160.3	43.0	40.9	36.9	30.6	32.3	19.3	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	84.0	61.1	36.8	160.3	43.0	40.9	36.9	30.6	32.3	19.3	3.2
Queue Length 50th (m)	45.0	79.0	33.3	~100.2	56.5	63.3	12.0	100.9	28.1	79.7	0.0
Queue Length 95th (m)	67.0	90.1	53.5	#146.7	65.0	85.6	30.0	134.1	#58.5	106.6	9.6
Internal Link Dist (m)		278.0			315.9			591.3		410.7	
Turn Bay Length (m)	40.0		15.0	60.0		1.0	75.0		100.0		85.0
Base Capacity (vph)	253	1010	499	263	1325	591	178	2311	310	2942	920
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.59	0.51	0.38	1.20	0.33	0.49	0.35	0.55	0.68	0.44	0.12

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Lanes, Volumes, Timings  
2: Havenwood Dr & Bloor St

2029 FT AM Sensitivity  
12/04/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	67	749	62	58	729	28	68	60	60	48	85	120
Future Volume (vph)	67	749	62	58	729	28	68	60	60	48	85	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0		0.0	50.0		0.0	25.0		0.0	25.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	65.0			80.0			40.0			35.0		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.97	1.00		0.99	0.99		0.92	0.92		0.87	0.93	
Frt		0.989			0.995			0.925			0.912	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1789	3455	0	1722	3475	0	1690	1598	0	1722	1543	0
Flt Permitted	0.325			0.302			0.459			0.674		
Satd. Flow (perm)	592	3455	0	542	3475	0	751	1598	0	1061	1543	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13			6			54			76	
Link Speed (k/h)		50			50			30			40	
Link Distance (m)		339.9			562.7			137.1			118.1	
Travel Time (s)		24.5			40.5			16.5			10.6	
Confl. Peds. (#/hr)	70		25	25		70	127		178	178		127
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	4%	4%	6%	4%	4%	8%	2%	2%	6%	6%	5%
Adj. Flow (vph)	73	814	67	63	792	30	74	65	65	52	92	130
Shared Lane Traffic (%)												
Lane Group Flow (vph)	73	881	0	63	822	0	74	130	0	52	222	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane		Yes										
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	0	0		0	0		1	1		1	1	
Detector Template		Thru		Left	Thru							
Leading Detector (m)	0.0	0.0		0.0	0.0		7.0	7.0		8.0	8.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		-2.0	-2.0		-2.0	-2.0	
Detector 1 Position(m)	11.5	0.0		0.0	0.0		-2.0	-2.0		-2.0	-2.0	
Detector 1 Size(m)	9.0	0.6		2.0	0.6		9.0	9.0		10.0	10.0	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Detector Phase	2	2		2	2		4	4		4	4	
Switch Phase												

Lanes, Volumes, Timings  
2: Havenwood Dr & Bloor St

2029 FT AM Sensitivity  
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	35.0	35.0		35.0	35.0		41.5	41.5		41.5	41.5	
Total Split (s)	59.0	59.0		59.0	59.0		41.0	41.0		41.0	41.0	
Total Split (%)	59.0%	59.0%		59.0%	59.0%		41.0%	41.0%		41.0%	41.0%	
Maximum Green (s)	53.0	53.0		53.0	53.0		33.5	33.5		33.5	33.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.5	2.5		2.5	2.5		4.5	4.5		4.5	4.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		7.5	7.5		7.5	7.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	
Walk Time (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Flash Dont Walk (s)	19.0	19.0		19.0	19.0		24.0	24.0		24.0	24.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	70.1	70.1		70.1	70.1		16.4	16.4		16.4	16.4	
Actuated g/C Ratio	0.70	0.70		0.70	0.70		0.16	0.16		0.16	0.16	
v/c Ratio	0.18	0.36		0.17	0.34		0.60	0.42		0.30	0.70	
Control Delay	7.7	7.0		6.4	5.4		57.6	25.1		39.0	37.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	7.7	7.0		6.4	5.4		57.6	25.1		39.0	37.1	
LOS	A	A		A	A		E	C		D	D	
Approach Delay		7.1			5.5			36.9			37.4	
Approach LOS		A			A			D			D	

Intersection Summary

Area Type: Other  
 Cycle Length: 100  
 Actuated Cycle Length: 100  
 Offset: 39 (39%), Referenced to phase 2:EBWB, Start of Green  
 Natural Cycle: 80  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.70  
 Intersection Signal Delay: 12.7  
 Intersection LOS: B  
 Intersection Capacity Utilization 91.6%  
 ICU Level of Service F  
 Analysis Period (min) 15

Splits and Phases: 2: Havenwood Dr & Bloor St



Timings  
2: Havenwood Dr & Bloor St



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↖	↗	↖	↗	↖	↗	↖	↗
Traffic Volume (vph)	67	749	58	729	68	60	48	85
Future Volume (vph)	67	749	58	729	68	60	48	85
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		2		2		4		4
Permitted Phases	2		2		4		4	
Detector Phase	2	2	2	2	4	4	4	4
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	35.0	35.0	35.0	35.0	41.5	41.5	41.5	41.5
Total Split (s)	59.0	59.0	59.0	59.0	41.0	41.0	41.0	41.0
Total Split (%)	59.0%	59.0%	59.0%	59.0%	41.0%	41.0%	41.0%	41.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.0	3.0	3.0	3.0
All-Red Time (s)	2.5	2.5	2.5	2.5	4.5	4.5	4.5	4.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	7.5	7.5	7.5	7.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None	None	None
Act Effct Green (s)	70.1	70.1	70.1	70.1	16.4	16.4	16.4	16.4
Actuated g/C Ratio	0.70	0.70	0.70	0.70	0.16	0.16	0.16	0.16
v/c Ratio	0.18	0.36	0.17	0.34	0.60	0.42	0.30	0.70
Control Delay	7.7	7.0	6.4	5.4	57.6	25.1	39.0	37.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.7	7.0	6.4	5.4	57.6	25.1	39.0	37.1
LOS	A	A	A	A	E	C	D	D
Approach Delay		7.1		5.5		36.9		37.4
Approach LOS		A		A		D		D

Intersection Summary

Cycle Length: 100  
 Actuated Cycle Length: 100  
 Offset: 39 (39%), Referenced to phase 2:EBWB, Start of Green  
 Natural Cycle: 80  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.70  
 Intersection Signal Delay: 12.7  
 Intersection Capacity Utilization 91.6%  
 Analysis Period (min) 15  
 Intersection LOS: B  
 ICU Level of Service F

Splits and Phases: 2: Havenwood Dr & Bloor St



Queues  
2: Havenwood Dr & Bloor St

2029 FT AM Sensitivity  
12/04/2024

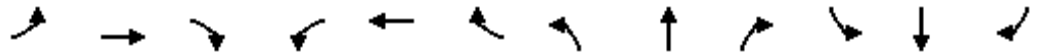


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	73	881	63	822	74	130	52	222
v/c Ratio	0.18	0.36	0.17	0.34	0.60	0.42	0.30	0.70
Control Delay	7.7	7.0	6.4	5.4	57.6	25.1	39.0	37.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.7	7.0	6.4	5.4	57.6	25.1	39.0	37.1
Queue Length 50th (m)	4.1	29.8	3.2	24.0	13.6	13.2	9.1	27.1
Queue Length 95th (m)	12.4	52.9	8.7	36.2	26.0	27.4	18.3	46.9
Internal Link Dist (m)		315.9		538.7		113.1		94.1
Turn Bay Length (m)	50.0		50.0		25.0		25.0	
Base Capacity (vph)	414	2426	380	2438	251	571	355	567
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.36	0.17	0.34	0.29	0.23	0.15	0.39

Intersection Summary

Lanes, Volumes, Timings  
3: Fieldgate Dr & Bloor St

2029 FT AM Sensitivity  
12/04/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	174	653	38	31	517	96	68	54	77	171	42	203
Future Volume (vph)	174	653	38	31	517	96	68	54	77	171	42	203
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0		0.0	45.0		0.0	45.0		0.0	25.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	100.0			100.0			30.0			30.0		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.98	0.99		0.97	0.99		0.97	0.95		0.94	0.95	
Frt		0.992			0.977			0.912			0.876	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1772	3463	0	1825	3357	0	1738	1600	0	1789	1502	0
Flt Permitted	0.345			0.367			0.395			0.657		
Satd. Flow (perm)	629	3463	0	683	3357	0	699	1600	0	1158	1502	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			26			77			221	
Link Speed (k/h)		50			50			40			40	
Link Distance (m)		562.7			97.8			134.2			78.0	
Travel Time (s)		40.5			7.0			12.1			7.0	
Confl. Peds. (#/hr)	37		47	47		37	54		84	84		54
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	4%	3%	0%	4%	9%	5%	2%	5%	2%	3%	7%
Adj. Flow (vph)	189	710	41	34	562	104	74	59	84	186	46	221
Shared Lane Traffic (%)												
Lane Group Flow (vph)	189	751	0	34	666	0	74	143	0	186	267	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	0		0	0		1	1		1	1	
Detector Template		Thru		Left	Thru							
Leading Detector (m)	21.0	0.0		0.0	0.0		6.5	6.5		7.5	6.0	
Trailing Detector (m)	12.0	0.0		0.0	0.0		-2.5	-2.5		-1.5	-3.0	
Detector 1 Position(m)	12.0	0.0		0.0	0.0		-2.5	-2.5		-1.5	-3.0	
Detector 1 Size(m)	9.0	0.6		2.0	0.6		9.0	9.0		9.0	9.0	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	5	2			6			4				8
Permitted Phases	2			6			4			8		
Detector Phase	5	2		6	6		4	4		8	8	
Switch Phase												

Lanes, Volumes, Timings  
3: Fieldgate Dr & Bloor St

2029 FT AM Sensitivity  
12/04/2024

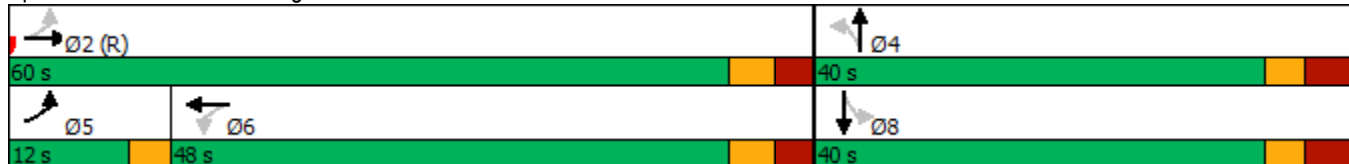


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	7.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	11.5	33.5		33.5	33.5		38.5	38.5		38.5	38.5	
Total Split (s)	12.0	60.0		48.0	48.0		40.0	40.0		40.0	40.0	
Total Split (%)	12.0%	60.0%		48.0%	48.0%		40.0%	40.0%		40.0%	40.0%	
Maximum Green (s)	9.0	53.5		41.5	41.5		33.5	33.5		33.5	33.5	
Yellow Time (s)	3.0	3.5		3.5	3.5		3.0	3.0		3.0	3.0	
All-Red Time (s)	0.0	3.0		3.0	3.0		3.5	3.5		3.5	3.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.0	6.5		6.5	6.5		6.5	6.5		6.5	6.5	
Lead/Lag	Lead			Lag			Lag			Lag		
Lead-Lag Optimize?	Yes			Yes			Yes			Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max		Max	Max		None	None		None	None	
Walk Time (s)		10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Flash Dont Walk (s)		17.0		17.0	17.0		22.0	22.0		22.0	22.0	
Pedestrian Calls (#/hr)		0		0	0		0	0		0	0	
Act Effct Green (s)	69.1	65.6		53.8	53.8		21.4	21.4		21.4	21.4	
Actuated g/C Ratio	0.69	0.66		0.54	0.54		0.21	0.21		0.21	0.21	
v/c Ratio	0.35	0.33		0.09	0.37		0.50	0.35		0.75	0.54	
Control Delay	14.1	15.5		15.7	15.0		44.0	17.1		54.3	11.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	14.1	15.5		15.7	15.0		44.0	17.1		54.3	11.1	
LOS	B	B		B	B		D	B		D	B	
Approach Delay		15.2			15.0			26.3			28.8	
Approach LOS		B			B			C			C	

Intersection Summary

Area Type: Other  
 Cycle Length: 100  
 Actuated Cycle Length: 100  
 Offset: 10 (10%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 85  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.75  
 Intersection Signal Delay: 18.9  
 Intersection LOS: B  
 Intersection Capacity Utilization 87.7%  
 ICU Level of Service E  
 Analysis Period (min) 15

Splits and Phases: 3: Fieldgate Dr & Bloor St





Timings  
3: Fieldgate Dr & Bloor St

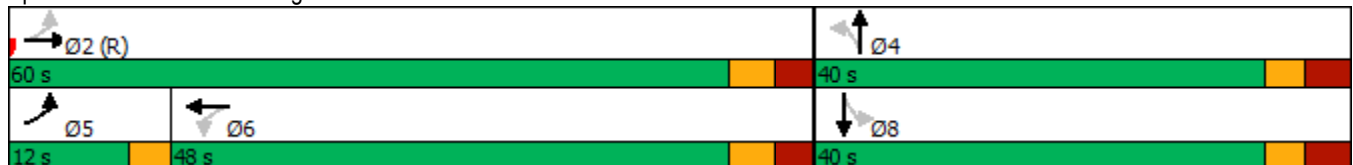


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↖	↕	↖	↕	↖	↕	↖	↕
Traffic Volume (vph)	174	653	31	517	68	54	171	42
Future Volume (vph)	174	653	31	517	68	54	171	42
Turn Type	pm+pt	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases	5	2		6		4		8
Permitted Phases	2		6		4		8	
Detector Phase	5	2	6	6	4	4	8	8
Switch Phase								
Minimum Initial (s)	7.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	11.5	33.5	33.5	33.5	38.5	38.5	38.5	38.5
Total Split (s)	12.0	60.0	48.0	48.0	40.0	40.0	40.0	40.0
Total Split (%)	12.0%	60.0%	48.0%	48.0%	40.0%	40.0%	40.0%	40.0%
Yellow Time (s)	3.0	3.5	3.5	3.5	3.0	3.0	3.0	3.0
All-Red Time (s)	0.0	3.0	3.0	3.0	3.5	3.5	3.5	3.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.0	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag	Lead		Lag	Lag				
Lead-Lag Optimize?	Yes		Yes	Yes				
Recall Mode	None	C-Max	Max	Max	None	None	None	None
Act Effct Green (s)	69.1	65.6	53.8	53.8	21.4	21.4	21.4	21.4
Actuated g/C Ratio	0.69	0.66	0.54	0.54	0.21	0.21	0.21	0.21
v/c Ratio	0.35	0.33	0.09	0.37	0.50	0.35	0.75	0.54
Control Delay	14.1	15.5	15.7	15.0	44.0	17.1	54.3	11.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.1	15.5	15.7	15.0	44.0	17.1	54.3	11.1
LOS	B	B	B	B	D	B	D	B
Approach Delay		15.2		15.0		26.3		28.8
Approach LOS		B		B		C		C

Intersection Summary

Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 10 (10%), Referenced to phase 2:EBTL, Start of Green	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 18.9	Intersection LOS: B
Intersection Capacity Utilization 87.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 3: Fieldgate Dr & Bloor St



Queues  
3: Fieldgate Dr & Bloor St

2029 FT AM Sensitivity  
12/04/2024



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	189	751	34	666	74	143	186	267
v/c Ratio	0.35	0.33	0.09	0.37	0.50	0.35	0.75	0.54
Control Delay	14.1	15.5	15.7	15.0	44.0	17.1	54.3	11.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.1	15.5	15.7	15.0	44.0	17.1	54.3	11.1
Queue Length 50th (m)	15.3	47.0	3.0	34.8	12.7	10.6	34.0	7.3
Queue Length 95th (m)	43.7	80.1	10.5	62.0	24.1	23.6	51.5	25.7
Internal Link Dist (m)		538.7		73.8		110.2		54.0
Turn Bay Length (m)	50.0		45.0		45.0		25.0	
Base Capacity (vph)	545	2273	367	1818	234	587	387	650
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.35	0.33	0.09	0.37	0.32	0.24	0.48	0.41

Intersection Summary

Lanes, Volumes, Timings  
6: Fieldgate Dr & Williamsport Dr

2029 FT AM Sensitivity  
12/04/2024




















Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	32	0	72	70	0	52	50	257	45	26	207	44
Future Volume (vph)	32	0	72	70	0	52	50	257	45	26	207	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.872			0.942			0.983			0.978	
Flt Protected	0.950	0.998			0.972			0.993			0.995	
Satd. Flow (prot)	1825	0	0	0	1725	0	0	1813	0	0	1791	0
Flt Permitted	0.950	0.998			0.972			0.993			0.995	
Satd. Flow (perm)	1825	0	0	0	1725	0	0	1813	0	0	1791	0
Link Speed (k/h)		40			48			40			40	
Link Distance (m)		168.2			49.1			83.8			69.3	
Travel Time (s)		15.1			3.7			7.5			6.2	
Confl. Peds. (#/hr)	23		7	7		23	68					68
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	0%	2%	2%	2%	2%	4%	2%	2%	5%	3%
Adj. Flow (vph)	35	0	78	76	0	57	54	279	49	28	225	48
Shared Lane Traffic (%)	10%											
Lane Group Flow (vph)	31	82	0	0	133	0	0	382	0	0	301	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	97		97	24		97	97		14
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

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










HCM Unsignalized Intersection Capacity Analysis  
6: Fieldgate Dr & Williamsport Dr

2029 FT AM Sensitivity  
12/04/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	0	72	70	0	52	50	257	45	26	207	44
Future Volume (Veh/h)	32	0	72	70	0	52	50	257	45	26	207	44
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	35	0	78	76	0	57	54	279	49	28	225	48
Pedestrians		68						7			23	
Lane Width (m)		3.7						3.7			3.7	
Walking Speed (m/s)		1.1						1.1			1.1	
Percent Blockage		7						1			2	
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (m)								162				
pX, platoon unblocked	0.99	0.99		0.99	0.99	0.99				0.99		
vC, conflicting volume	864	809	324	802	808	326	341			328		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	861	806	324	798	805	321	341			322		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	83	100	88	68	100	92	95			98		
cM capacity (veh/h)	208	273	669	239	273	700	1137			1232		
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>WB 1</b>	<b>NB 1</b>	<b>SB 1</b>								
Volume Total	113	133	382	301								
Volume Left	35	76	54	28								
Volume Right	78	57	49	48								
cSH	397	333	1137	1232								
Volume to Capacity	0.28	0.40	0.05	0.02								
Queue Length 95th (m)	8.8	14.1	1.1	0.5								
Control Delay (s)	17.6	22.8	1.6	0.9								
Lane LOS	C	C	A	A								
Approach Delay (s)	17.6	22.8	1.6	0.9								
Approach LOS	C	C										
<b>Intersection Summary</b>												
Average Delay			6.4									
Intersection Capacity Utilization			Err%		ICU Level of Service				H			
Analysis Period (min)			15									










Lanes, Volumes, Timings  
7: Fieldgate Dr & Ponytrail Dr

2029 FT AM Sensitivity  
12/04/2024

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	93	44	258	82	36	187
Future Volume (vph)	93	44	258	82	36	187
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	0.957		0.967			
Flt Protected	0.967					0.992
Satd. Flow (prot)	1665	0	1800	0	0	1854
Flt Permitted	0.967					0.992
Satd. Flow (perm)	1665	0	1800	0	0	1854
Link Speed (k/h)	30		40			30
Link Distance (m)	39.8		69.3			254.8
Travel Time (s)	4.8		6.2			30.6
Confl. Peds. (#/hr)	1	99		117	117	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	9%	2%	2%	7%	7%	2%
Adj. Flow (vph)	101	48	280	89	39	203
Shared Lane Traffic (%)						
Lane Group Flow (vph)	149	0	369	0	0	242
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.7		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	1.6		1.6			1.6
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24	14		14	24	
Sign Control	Stop		Stop			Stop
<b>Intersection Summary</b>						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	55.1%			ICU Level of Service B		
Analysis Period (min)	15					

HCM Unsignalized Intersection Capacity Analysis  
7: Fieldgate Dr & Ponytrail Dr

2029 FT AM Sensitivity  
12/04/2024

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Stop			Stop
Traffic Volume (vph)	93	44	258	82	36	187
Future Volume (vph)	93	44	258	82	36	187
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	101	48	280	89	39	203
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total (vph)	149	369	242			
Volume Left (vph)	101	0	39			
Volume Right (vph)	48	89	0			
Hadj (s)	0.06	-0.09	0.08			
Departure Headway (s)	5.4	4.5	4.8			
Degree Utilization, x	0.22	0.47	0.33			
Capacity (veh/h)	608	768	710			
Control Delay (s)	9.9	11.4	10.1			
Approach Delay (s)	9.9	11.4	10.1			
Approach LOS	A	B	B			
Intersection Summary						
Delay			10.7			
Level of Service			B			
Intersection Capacity Utilization			55.1%	ICU Level of Service	B	
Analysis Period (min)			15			

Lanes, Volumes, Timings  
9: Ponytrail Dr

2029 FT AM Sensitivity  
12/04/2024



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	116	0	7	136	0	21
Future Volume (vph)	116	0	7	136	0	21
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						0.865
Flt Protected				0.997		
Satd. Flow (prot)	1795	0	0	1796	1629	0
Flt Permitted				0.997		
Satd. Flow (perm)	1795	0	0	1796	1629	0
Link Speed (k/h)	30			30	48	
Link Distance (m)	52.6			151.3	88.9	
Travel Time (s)	6.3			18.2	6.7	
Confl. Peds. (#/hr)	101		101	3		4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	7%	2%	0%	7%	0%	2%
Adj. Flow (vph)	126	0	8	148	0	23
Shared Lane Traffic (%)						
Lane Group Flow (vph)	126	0	0	156	23	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	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	97		97	97		97
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	24.3%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis  
9: Ponytrail Dr

2029 FT AM Sensitivity  
12/04/2024



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↔	↔	
Traffic Volume (veh/h)	116	0	7	136	0	21
Future Volume (Veh/h)	116	0	7	136	0	21
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	126	0	8	148	0	23
Pedestrians	3			4	101	
Lane Width (m)	3.7			3.7	3.7	
Walking Speed (m/s)	1.1			1.1	1.1	
Percent Blockage	0			0	10	
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			227		394	231
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			227		394	231
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		100	97
cM capacity (veh/h)			1219		549	725
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>WB 1</b>	<b>NB 1</b>			
Volume Total	126	156	23			
Volume Left	0	8	0			
Volume Right	0	0	23			
cSH	1700	1219	725			
Volume to Capacity	0.07	0.01	0.03			
Queue Length 95th (m)	0.0	0.2	0.7			
Control Delay (s)	0.0	0.5	10.1			
Lane LOS		A	B			
Approach Delay (s)	0.0	0.5	10.1			
Approach LOS			B			
<b>Intersection Summary</b>						
Average Delay			1.0			
Intersection Capacity Utilization			24.3%	ICU Level of Service	A	
Analysis Period (min)			15			



Lanes, Volumes, Timings  
 10: Fieldgate Dr & Haven Glenn

2029 FT AM Sensitivity  
 12/04/2024



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	49	45	37	266	174	42
Future Volume (vph)	49	45	37	266	174	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
Ped Bike Factor						
Frt	0.935				0.974	
Flt Protected	0.975			0.994		
Satd. Flow (prot)	1724	0	0	1879	1782	0
Flt Permitted	0.975			0.994		
Satd. Flow (perm)	1724	0	0	1879	1782	0
Link Speed (k/h)	40			30	30	
Link Distance (m)	258.3			254.8	440.5	
Travel Time (s)	23.2			30.6	52.9	
Confl. Peds. (#/hr)	43	104	20			20
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	0%	6%	1%	5%	5%
Adj. Flow (vph)	53	49	40	289	189	46
Shared Lane Traffic (%)						
Lane Group Flow (vph)	102	0	0	329	235	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24	14	24			14
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	51.9%
	ICU Level of Service A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis  
 10: Fieldgate Dr & Haven Glenn

2029 FT AM Sensitivity  
 12/04/2024



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	49	45	37	266	174	42
Future Volume (Veh/h)	49	45	37	266	174	42
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	53	49	40	289	189	46
Pedestrians	20			104	43	
Lane Width (m)	3.7			3.7	3.7	
Walking Speed (m/s)	1.1			1.1	1.1	
Percent Blockage	2			10	4	
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	644	336	255			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	644	336	255			
tC, single (s)	6.4	6.2	4.2			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.3			
p0 queue free %	87	92	97			
cM capacity (veh/h)	396	626	1262			
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>NB 1</b>	<b>SB 1</b>			
Volume Total	102	329	235			
Volume Left	53	40	0			
Volume Right	49	0	46			
cSH	481	1262	1700			
Volume to Capacity	0.21	0.03	0.14			
Queue Length 95th (m)	6.0	0.7	0.0			
Control Delay (s)	14.5	1.2	0.0			
Lane LOS	B	A				
Approach Delay (s)	14.5	1.2	0.0			
Approach LOS	B					
<b>Intersection Summary</b>						
Average Delay			2.8			
Intersection Capacity Utilization			51.9%	ICU Level of Service	A	
Analysis Period (min)			15			

Lanes, Volumes, Timings  
11: Fieldgate Dr & Burnhamthorpe Rd

2029 FT AM Sensitivity  
12/04/2024

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	37	1046	194	49	715	30	180	120	83	65	81	58
Future Volume (vph)	37	1046	194	49	715	30	180	120	83	65	81	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	30.0		25.0	30.0		30.0	15.0		0.0	65.0		65.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	30.0			45.0			40.0			75.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.98		0.94	0.99		0.90	0.97	0.98		0.97		0.96
Frt			0.850			0.850		0.939				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1644	3544	1585	1755	3510	1633	1807	1716	0	1789	1847	1526
Flt Permitted	0.338			0.216			0.700			0.418		
Satd. Flow (perm)	572	3544	1486	397	3510	1472	1295	1716	0	763	1847	1461
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			84			65		21				63
Link Speed (k/h)		60			60			40				50
Link Distance (m)		499.8			675.9			440.5				226.9
Travel Time (s)		30.0			40.6			39.6				16.3
Confl. Peds. (#/hr)	31		17	17		31	22		34	34		22
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	11%	3%	3%	4%	4%	0%	1%	3%	2%	2%	4%	7%
Adj. Flow (vph)	40	1137	211	53	777	33	196	130	90	71	88	63
Shared Lane Traffic (%)												
Lane Group Flow (vph)	40	1137	211	53	777	33	196	220	0	71	88	63
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7				3.7
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	0	0	0	0	0	0	1	1		1	1	0
Detector Template												
Leading Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	7.0	7.0		7.0	7.0	0.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	-2.0	-2.0		-2.0	-2.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	-2.0	-2.0		-2.0	-2.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	9.0	9.0		9.0	9.0	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases		2			6			4				8
Permitted Phases	2		2	6		6	4			8		8
Detector Phase	2	2	2	6	6	6	4	4		8	8	8
Switch Phase												

Lane Group	Ø1	Ø3	Ø5	Ø7
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (m)				
Storage Lanes				
Taper Length (m)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (k/h)				
Link Distance (m)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(m)				
Link Offset(m)				
Crosswalk Width(m)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (k/h)				
Number of Detectors				
Detector Template				
Leading Detector (m)				
Trailing Detector (m)				
Detector 1 Position(m)				
Detector 1 Size(m)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Turn Type				
Protected Phases	1	3	5	7
Permitted Phases				
Detector Phase				
Switch Phase				

Lanes, Volumes, Timings  
11: Fieldgate Dr & Burnhamthorpe Rd

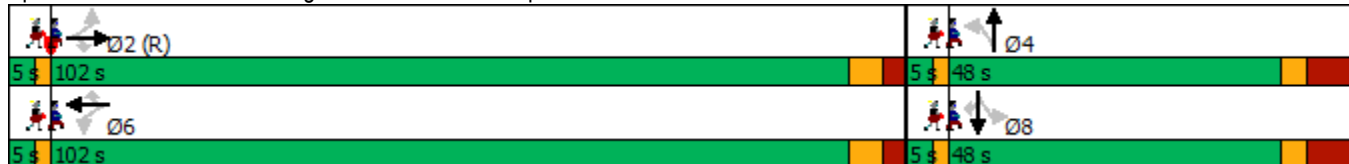


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	38.0	38.0	38.0	38.0	38.0	38.0	42.5	42.5		42.5	42.5	42.5
Total Split (s)	102.0	102.0	102.0	102.0	102.0	102.0	48.0	48.0		48.0	48.0	48.0
Total Split (%)	63.8%	63.8%	63.8%	63.8%	63.8%	63.8%	30.0%	30.0%		30.0%	30.0%	30.0%
Maximum Green (s)	95.0	95.0	95.0	95.0	95.0	95.0	39.5	39.5		39.5	39.5	39.5
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	5.5	5.5		5.5	5.5	5.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	8.5	8.5		8.5	8.5	8.5
Lead/Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lag		Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	C-Max	C-Max	C-Max	Max	Max	Max	None	None		None	None	None
Walk Time (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	10.0
Flash Dont Walk (s)	21.0	21.0	21.0	21.0	21.0	21.0	24.0	24.0		24.0	24.0	24.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	0
Act Effct Green (s)	114.9	114.9	114.9	114.9	114.9	114.9	29.6	29.6		29.6	29.6	29.6
Actuated g/C Ratio	0.72	0.72	0.72	0.72	0.72	0.72	0.18	0.18		0.18	0.18	0.18
v/c Ratio	0.10	0.45	0.19	0.19	0.31	0.03	0.82	0.66		0.50	0.26	0.20
Control Delay	9.2	10.8	5.5	9.9	8.2	0.3	87.5	63.1		69.2	55.6	11.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	9.2	10.8	5.5	9.9	8.2	0.3	87.5	63.1		69.2	55.6	11.7
LOS	A	B	A	A	A	A	F	E		E	E	B
Approach Delay		9.9			8.0			74.6			47.5	
Approach LOS		A			A			E			D	

Intersection Summary

Area Type:	Other
Cycle Length:	160
Actuated Cycle Length:	160
Offset:	40 (25%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle:	90
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.82
Intersection Signal Delay:	21.5
Intersection LOS:	C
Intersection Capacity Utilization:	92.3%
ICU Level of Service:	F
Analysis Period (min):	15

Splits and Phases: 11: Fieldgate Dr & Burnhamthorpe Rd



Lane Group	Ø1	Ø3	Ø5	Ø7
Minimum Initial (s)	1.0	1.0	1.0	1.0
Minimum Split (s)	3.0	3.0	3.0	3.0
Total Split (s)	5.0	5.0	5.0	5.0
Total Split (%)	3%	3%	3%	3%
Maximum Green (s)	3.0	3.0	3.0	3.0
Yellow Time (s)	2.0	2.0	2.0	2.0
All-Red Time (s)	0.0	0.0	0.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None
Walk Time (s)				
Flash Dont Walk (s)				
Pedestrian Calls (#/hr)				
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Intersection Summary				

Timings  
11: Fieldgate Dr & Burnhamthorpe Rd

2029 FT AM Sensitivity  
12/04/2024

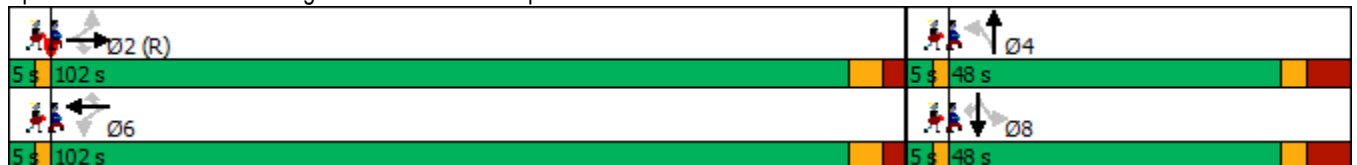


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR	Ø1
Lane Configurations	↖	↗	↘	↖	↗	↘	↖	↗	↘	↗	↘	
Traffic Volume (vph)	37	1046	194	49	715	30	180	120	65	81	58	
Future Volume (vph)	37	1046	194	49	715	30	180	120	65	81	58	
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	NA	Perm	
Protected Phases		2			6			4		8		1
Permitted Phases	2		2	6		6	4		8		8	
Detector Phase	2	2	2	6	6	6	4	4	8	8	8	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	1.0
Minimum Split (s)	38.0	38.0	38.0	38.0	38.0	38.0	42.5	42.5	42.5	42.5	42.5	3.0
Total Split (s)	102.0	102.0	102.0	102.0	102.0	102.0	48.0	48.0	48.0	48.0	48.0	5.0
Total Split (%)	63.8%	63.8%	63.8%	63.8%	63.8%	63.8%	30.0%	30.0%	30.0%	30.0%	30.0%	3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	5.5	5.5	5.5	5.5	5.5	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	8.5	8.5	8.5	8.5	8.5	
Lead/Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	C-Max	C-Max	C-Max	Max	Max	Max	None	None	None	None	None	None
Act Effct Green (s)	114.9	114.9	114.9	114.9	114.9	114.9	29.6	29.6	29.6	29.6	29.6	
Actuated g/C Ratio	0.72	0.72	0.72	0.72	0.72	0.72	0.18	0.18	0.18	0.18	0.18	
v/c Ratio	0.10	0.45	0.19	0.19	0.31	0.03	0.82	0.66	0.50	0.26	0.20	
Control Delay	9.2	10.8	5.5	9.9	8.2	0.3	87.5	63.1	69.2	55.6	11.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	9.2	10.8	5.5	9.9	8.2	0.3	87.5	63.1	69.2	55.6	11.7	
LOS	A	B	A	A	A	A	F	E	E	E	B	
Approach Delay		9.9			8.0			74.6		47.5		
Approach LOS		A			A			E		D		

Intersection Summary

Cycle Length: 160  
 Actuated Cycle Length: 160  
 Offset: 40 (25%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.82  
 Intersection Signal Delay: 21.5  
 Intersection Capacity Utilization 92.3%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service F

Splits and Phases: 11: Fieldgate Dr & Burnhamthorpe Rd



Lane Group	Ø3	Ø5	Ø7
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Turn Type			
Protected Phases	3	5	7
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	1.0	1.0	1.0
Minimum Split (s)	3.0	3.0	3.0
Total Split (s)	5.0	5.0	5.0
Total Split (%)	3%	3%	3%
Yellow Time (s)	2.0	2.0	2.0
All-Red Time (s)	0.0	0.0	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes
Recall Mode	None	None	None
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Intersection Summary			



Queues  
11: Fieldgate Dr & Burnhamthorpe Rd

2029 FT AM Sensitivity  
12/04/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	40	1137	211	53	777	33	196	220	71	88	63
v/c Ratio	0.10	0.45	0.19	0.19	0.31	0.03	0.82	0.66	0.50	0.26	0.20
Control Delay	9.2	10.8	5.5	9.9	8.2	0.3	87.5	63.1	69.2	55.6	11.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.2	10.8	5.5	9.9	8.2	0.3	87.5	63.1	69.2	55.6	11.7
Queue Length 50th (m)	3.6	72.9	11.5	4.6	36.0	0.0	60.6	59.6	20.6	24.3	0.0
Queue Length 95th (m)	9.7	106.8	25.6	10.0	47.8	m0.0	84.3	82.0	35.4	38.0	12.5
Internal Link Dist (m)		475.8			651.9			416.5		202.9	
Turn Bay Length (m)	30.0		25.0	30.0		30.0	15.0		65.0		65.0
Base Capacity (vph)	410	2545	1090	285	2520	1075	319	439	188	456	408
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.45	0.19	0.19	0.31	0.03	0.61	0.50	0.38	0.19	0.15

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lanes, Volumes, Timings  
12: Ponytrail Dr & Burnhamthorpe Rd

2029 FT AM Sensitivity  
12/04/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	1117	33	36	698	303	27	43	83	311	34	73
Future Volume (vph)	35	1117	33	36	698	303	27	43	83	311	34	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	35.0		30.0	35.0		30.0	15.0		0.0	40.0		45.0
Storage Lanes	1		1	1		1	1		0	2		1
Taper Length (m)	45.0			65.0			50.0			30.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Ped Bike Factor	0.99		0.96			0.93	1.00	0.98		0.97		0.98
Fr <sub>t</sub>			0.850			0.850		0.901				0.850
Fl <sub>t</sub> Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1630	3579	1471	1825	3476	1585	1755	1651	0	3471	1779	1555
Fl <sub>t</sub> Permitted	0.215			0.202			0.733			0.950		
Satd. Flow (perm)	364	3579	1417	388	3476	1478	1348	1651	0	3353	1779	1530
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			116			169		56				79
Link Speed (k/h)		60			60			40				50
Link Distance (m)		675.9			242.1			944.6				165.5
Travel Time (s)		40.6			14.5			85.0				11.9
Confl. Peds. (#/hr)	20		7	7		20	3		17	17		3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	12%	2%	11%	0%	5%	3%	4%	3%	2%	2%	8%	5%
Adj. Flow (vph)	38	1214	36	39	759	329	29	47	90	338	37	79
Shared Lane Traffic (%)												
Lane Group Flow (vph)	38	1214	36	39	759	329	29	137	0	338	37	79
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			7.4				7.4
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2	1	1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0		2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6		2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4				9.4
Detector 2 Size(m)		0.6			0.6			0.6				0.6
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				0.0

Lane Group	Ø7	Ø9	Ø10	Ø11
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (m)				
Storage Lanes				
Taper Length (m)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (k/h)				
Link Distance (m)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(m)				
Link Offset(m)				
Crosswalk Width(m)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (k/h)				
Number of Detectors				
Detector Template				
Leading Detector (m)				
Trailing Detector (m)				
Detector 1 Position(m)				
Detector 1 Size(m)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(m)				
Detector 2 Size(m)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				

Lanes, Volumes, Timings  
12: Ponytrail Dr & Burnhamthorpe Rd

2029 FT AM Sensitivity  
12/04/2024

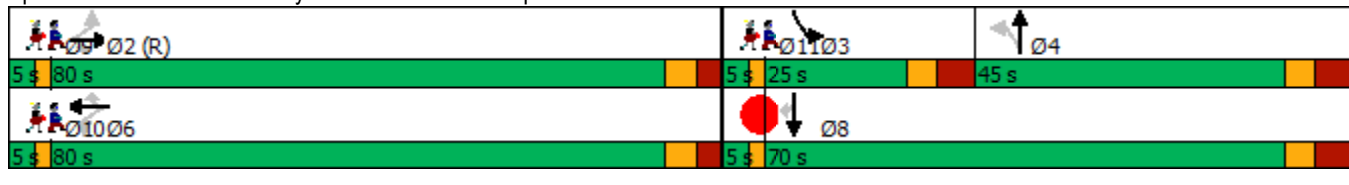


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Prot	NA	Perm
Protected Phases		2			6			4		3	8	
Permitted Phases	2		2	6		6	4					8
Detector Phase	2	2	2	6	6	6	4	4		3	8	8
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	40.0	40.0	40.0	42.0	42.0	42.0	41.0	41.0		18.0	41.0	41.0
Total Split (s)	80.0	80.0	80.0	80.0	80.0	80.0	45.0	45.0		25.0	70.0	70.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	28.1%	28.1%		15.6%	43.8%	43.8%
Maximum Green (s)	73.0	73.0	73.0	73.0	73.0	73.0	37.0	37.0		17.0	62.0	62.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	4.5	4.5		4.5	4.5	4.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	8.0	8.0		8.0	8.0	8.0
Lead/Lag												Lag
Lead-Lag Optimize?												Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	C-Max	C-Max	C-Max	Max	Max	Max	None	None		None	None	None
Walk Time (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0			10.0	10.0
Flash Dont Walk (s)	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0			23.0	23.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0			0	0
Act Effct Green (s)	93.3	93.3	93.3	73.0	73.0	73.0	14.2	14.2		17.0	39.2	39.2
Actuated g/C Ratio	0.58	0.58	0.58	0.46	0.46	0.46	0.09	0.09		0.11	0.24	0.24
v/c Ratio	0.18	0.58	0.04	0.22	0.48	0.43	0.24	0.70		0.92	0.08	0.18
Control Delay	15.3	16.0	0.1	30.6	31.5	15.3	70.9	59.2		100.2	45.4	9.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	15.3	16.0	0.1	30.6	31.5	15.3	70.9	59.2		100.2	45.4	9.2
LOS	B	B	A	C	C	B	E	E		F	D	A
Approach Delay		15.5			26.8			61.2			79.9	
Approach LOS		B			C			E			E	

Intersection Summary

Area Type: Other  
 Cycle Length: 160  
 Actuated Cycle Length: 160  
 Offset: 64 (40%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 110  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.92  
 Intersection Signal Delay: 31.8      Intersection LOS: C  
 Intersection Capacity Utilization 75.6%      ICU Level of Service D  
 Analysis Period (min) 15

Splits and Phases: 12: Ponytrail Dr & Burnhamthorpe Rd



Lane Group	Ø7	Ø9	Ø10	Ø11
Turn Type				
Protected Phases	7	9	10	11
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	1.0	1.0	1.0	1.0
Minimum Split (s)	3.0	3.0	3.0	3.0
Total Split (s)	5.0	5.0	5.0	5.0
Total Split (%)	3%	3%	3%	3%
Maximum Green (s)	3.0	3.0	3.0	3.0
Yellow Time (s)	2.0	2.0	2.0	2.0
All-Red Time (s)	0.0	0.0	0.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag				Lead
Lead-Lag Optimize?				Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0
Recall Mode	Ped	Ped	Ped	Ped
Walk Time (s)	0.0	0.0	0.0	0.0
Flash Dont Walk (s)	0.0	0.0	0.0	0.0
Pedestrian Calls (#/hr)	0	0	0	0
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Intersection Summary				



Lane Group	Ø9	Ø10	Ø11
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Turn Type			
Protected Phases	9	10	11
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	1.0	1.0	1.0
Minimum Split (s)	3.0	3.0	3.0
Total Split (s)	5.0	5.0	5.0
Total Split (%)	3%	3%	3%
Yellow Time (s)	2.0	2.0	2.0
All-Red Time (s)	0.0	0.0	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag			Lead
Lead-Lag Optimize?			Yes
Recall Mode	Ped	Ped	Ped
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Intersection Summary			

Queues  
12: Ponytrail Dr & Burnhamthorpe Rd

2029 FT AM Sensitivity  
12/04/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	38	1214	36	39	759	329	29	137	338	37	79
v/c Ratio	0.18	0.58	0.04	0.22	0.48	0.43	0.24	0.70	0.92	0.08	0.18
Control Delay	15.3	16.0	0.1	30.6	31.5	15.3	70.9	59.2	100.2	45.4	9.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.3	16.0	0.1	30.6	31.5	15.3	70.9	59.2	100.2	45.4	9.2
Queue Length 50th (m)	4.2	71.8	0.0	7.4	87.4	32.5	8.8	25.4	55.8	9.2	0.0
Queue Length 95th (m)	m8.4	79.3	m0.0	17.0	105.5	58.2	18.9	47.1	#84.4	18.2	12.8
Internal Link Dist (m)		651.9			218.1			920.6		141.5	
Turn Bay Length (m)	35.0		30.0	35.0		30.0	15.0		40.0		45.0
Base Capacity (vph)	212	2086	874	177	1585	766	311	424	368	689	641
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.58	0.04	0.22	0.48	0.43	0.09	0.32	0.92	0.05	0.12

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lanes, Volumes, Timings  
1: Dixie Rd & Bloor St

2029 FT PM Sensitivity  
12/04/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	132	473	179	320	719	201	272	1311	406	141	1435	219
Future Volume (vph)	132	473	179	320	719	201	272	1311	406	141	1435	219
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		15.0	60.0		1.0	75.0		0.0	100.0		85.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	85.0			60.0			90.0			50.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.91	0.91	1.00	0.91	1.00
Ped Bike Factor	0.98		0.96	0.99		0.90		0.99				0.93
Frt			0.850			0.850		0.965				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1789	3544	1601	1789	3579	1617	1825	4901	0	1789	5092	1617
Flt Permitted	0.123			0.315			0.064			0.067		
Satd. Flow (perm)	227	3544	1530	585	3579	1451	123	4901	0	126	5092	1502
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			88			88		59				169
Link Speed (k/h)		50			50			60				60
Link Distance (m)		302.0			339.9			615.3				434.7
Travel Time (s)		21.7			24.5			36.9				26.1
Confl. Peds. (#/hr)	75		27	27		75	50		24	24		50
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	3%	2%	2%	2%	1%	0%	3%	0%	2%	3%	1%
Adj. Flow (vph)	143	514	195	348	782	218	296	1425	441	153	1560	238
Shared Lane Traffic (%)												
Lane Group Flow (vph)	143	514	195	348	782	218	296	1866	0	153	1560	238
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7				3.7
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane					Yes							
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	2	1	1	1	1	1	1	0		1	0	0
Detector Template								Thru			Thru	Right
Leading Detector (m)	24.0	7.0	7.0	22.0	7.0	7.0	24.0	0.0		24.0	0.0	0.0
Trailing Detector (m)	-2.5	-2.0	-2.0	12.0	-2.0	-2.0	14.0	0.0		14.0	0.0	0.0
Detector 1 Position(m)	-2.5	-2.0	-2.0	12.0	-2.0	-2.0	14.0	0.0		14.0	0.0	0.0
Detector 1 Size(m)	10.0	9.0	9.0	10.0	9.0	9.0	10.0	0.6		10.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)	14.0											
Detector 2 Size(m)	10.0											
Detector 2 Type	Cl+Ex											
Detector 2 Channel												
Detector 2 Extend (s)	0.0											

Lanes, Volumes, Timings  
1: Dixie Rd & Bloor St

2029 FT PM Sensitivity  
12/04/2024

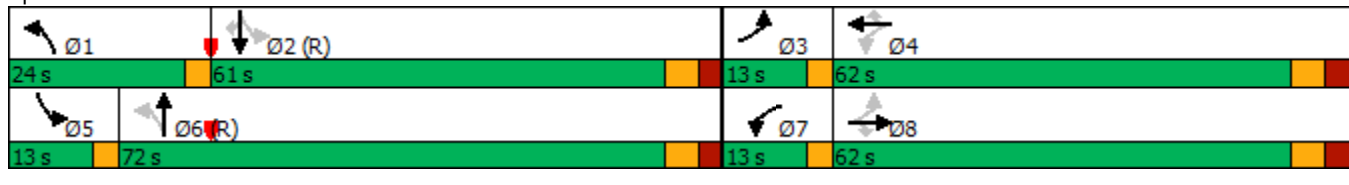


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	Perm
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8		8	4		4	6			2		2
Detector Phase	3	8	8	7	4	4	1	6		5	2	2
Switch Phase												
Minimum Initial (s)	7.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0		7.0	10.0	10.0
Minimum Split (s)	11.5	46.4	46.4	10.0	46.4	46.4	11.5	46.9		11.5	46.9	46.9
Total Split (s)	13.0	62.0	62.0	13.0	62.0	62.0	24.0	72.0		13.0	61.0	61.0
Total Split (%)	8.1%	38.8%	38.8%	8.1%	38.8%	38.8%	15.0%	45.0%		8.1%	38.1%	38.1%
Maximum Green (s)	10.0	54.6	54.6	10.0	54.6	54.6	21.0	65.1		10.0	54.1	54.1
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0		3.0	4.0	4.0
All-Red Time (s)	0.0	3.4	3.4	0.0	3.4	3.4	0.0	2.9		0.0	2.9	2.9
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	3.0	7.4	7.4	3.0	7.4	7.4	3.0	6.9		3.0	6.9	6.9
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	C-Max
Walk Time (s)		10.0	10.0		10.0	10.0		10.0			10.0	10.0
Flash Dont Walk (s)		29.0	29.0		29.0	29.0		30.0			30.0	30.0
Pedestrian Calls (#/hr)		0	0		0	0		0			0	0
Act Effct Green (s)	56.5	42.1	42.1	56.5	42.1	42.1	94.5	73.0		77.7	59.3	59.3
Actuated g/C Ratio	0.35	0.26	0.26	0.35	0.26	0.26	0.59	0.46		0.49	0.37	0.37
v/c Ratio	0.81	0.55	0.42	1.24	0.83	0.49	0.79	0.82		0.72	0.83	0.36
Control Delay	66.1	52.5	27.7	171.2	63.5	31.8	59.8	41.3		57.4	50.9	13.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	66.1	52.5	27.7	171.2	63.5	31.8	59.8	41.3		57.4	50.9	13.2
LOS	E	D	C	F	E	C	E	D		E	D	B
Approach Delay		49.1			86.2			43.8			46.8	
Approach LOS		D			F			D			D	

Intersection Summary

Area Type: Other  
 Cycle Length: 160  
 Actuated Cycle Length: 160  
 Offset: 74 (46%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.24  
 Intersection Signal Delay: 54.5  
 Intersection LOS: D  
 Intersection Capacity Utilization 109.3%  
 ICU Level of Service H  
 Analysis Period (min) 15

Splits and Phases: 1: Dixie Rd & Bloor St



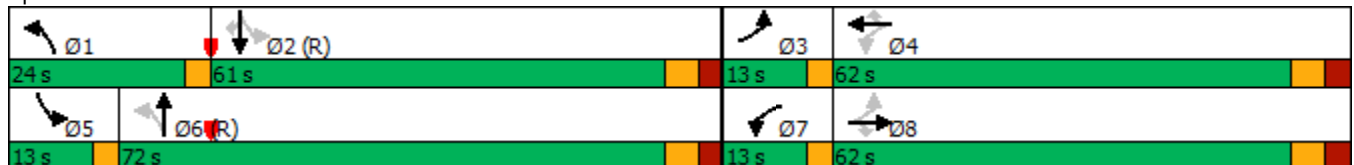
Timings  
1: Dixie Rd & Bloor St

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	132	473	179	320	719	201	272	1311	141	1435	219
Future Volume (vph)	132	473	179	320	719	201	272	1311	141	1435	219
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	3	8		7	4		1	6	5	2	
Permitted Phases	8		8	4		4	6		2		2
Detector Phase	3	8	8	7	4	4	1	6	5	2	2
Switch Phase											
Minimum Initial (s)	7.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0	7.0	10.0	10.0
Minimum Split (s)	11.5	46.4	46.4	10.0	46.4	46.4	11.5	46.9	11.5	46.9	46.9
Total Split (s)	13.0	62.0	62.0	13.0	62.0	62.0	24.0	72.0	13.0	61.0	61.0
Total Split (%)	8.1%	38.8%	38.8%	8.1%	38.8%	38.8%	15.0%	45.0%	8.1%	38.1%	38.1%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0	3.0	4.0	4.0
All-Red Time (s)	0.0	3.4	3.4	0.0	3.4	3.4	0.0	2.9	0.0	2.9	2.9
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.0	7.4	7.4	3.0	7.4	7.4	3.0	6.9	3.0	6.9	6.9
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	56.5	42.1	42.1	56.5	42.1	42.1	94.5	73.0	77.7	59.3	59.3
Actuated g/C Ratio	0.35	0.26	0.26	0.35	0.26	0.26	0.59	0.46	0.49	0.37	0.37
v/c Ratio	0.81	0.55	0.42	1.24	0.83	0.49	0.79	0.82	0.72	0.83	0.36
Control Delay	66.1	52.5	27.7	171.2	63.5	31.8	59.8	41.3	57.4	50.9	13.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.1	52.5	27.7	171.2	63.5	31.8	59.8	41.3	57.4	50.9	13.2
LOS	E	D	C	F	E	C	E	D	E	D	B
Approach Delay		49.1			86.2			43.8		46.8	
Approach LOS		D			F			D		D	

Intersection Summary

Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 74 (46%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.24	
Intersection Signal Delay: 54.5	Intersection LOS: D
Intersection Capacity Utilization 109.3%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 1: Dixie Rd & Bloor St



Queues  
1: Dixie Rd & Bloor St



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	143	514	195	348	782	218	296	1866	153	1560	238
v/c Ratio	0.81	0.55	0.42	1.24	0.83	0.49	0.79	0.82	0.72	0.83	0.36
Control Delay	66.1	52.5	27.7	171.2	63.5	31.8	59.8	41.3	57.4	50.9	13.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.1	52.5	27.7	171.2	63.5	31.8	59.8	41.3	57.4	50.9	13.2
Queue Length 50th (m)	30.9	74.5	27.6	~111.6	124.0	34.7	72.6	185.9	30.9	168.0	14.8
Queue Length 95th (m)	#51.1	87.0	48.3	#164.2	138.6	57.2	#128.7	221.7	#64.9	193.8	38.4
Internal Link Dist (m)		278.0			315.9			591.3		410.7	
Turn Bay Length (m)	40.0		15.0	60.0		1.0	75.0		100.0		85.0
Base Capacity (vph)	177	1209	580	281	1221	553	373	2268	212	1887	663
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.81	0.43	0.34	1.24	0.64	0.39	0.79	0.82	0.72	0.83	0.36

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.





















Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Lanes, Volumes, Timings  
2: Havenwood Dr & Bloor St

2029 FT PM Sensitivity  
12/04/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	107	861	58	47	1086	54	38	31	39	70	43	130
Future Volume (vph)	107	861	58	47	1086	54	38	31	39	70	43	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0		0.0	50.0		0.0	25.0		0.0	25.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	65.0			80.0			40.0			35.0		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99	1.00		0.99	1.00		0.98	0.97		0.96	0.97	
Frt		0.991			0.993			0.917			0.887	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1825	3535	0	1825	3543	0	1825	1705	0	1755	1650	0
Flt Permitted	0.193			0.264			0.537			0.708		
Satd. Flow (perm)	368	3535	0	502	3543	0	1007	1705	0	1252	1650	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			8			42			46	
Link Speed (k/h)		50			50			30			40	
Link Distance (m)		339.9			562.7			137.1			118.1	
Travel Time (s)		24.5			40.5			16.5			10.6	
Confl. Peds. (#/hr)	36		30	30		36	35		54	54		35
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	0%	0%	2%	0%	0%	0%	0%	4%	0%	0%
Adj. Flow (vph)	116	936	63	51	1180	59	41	34	42	76	47	141
Shared Lane Traffic (%)												
Lane Group Flow (vph)	116	999	0	51	1239	0	41	76	0	76	188	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane		Yes										
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	0	0		0	0		1	1		1	1	
Detector Template		Thru		Left	Thru							
Leading Detector (m)	0.0	0.0		0.0	0.0		7.0	7.0		8.0	8.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		-2.0	-2.0		-2.0	-2.0	
Detector 1 Position(m)	11.5	0.0		0.0	0.0		-2.0	-2.0		-2.0	-2.0	
Detector 1 Size(m)	9.0	0.6		2.0	0.6		9.0	9.0		10.0	10.0	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Detector Phase	2	2		2	2		4	4		4	4	
Switch Phase												

Lanes, Volumes, Timings  
2: Havenwood Dr & Bloor St

2029 FT PM Sensitivity  
12/04/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	35.0	35.0		35.0	35.0		41.5	41.5		41.5	41.5	
Total Split (s)	59.0	59.0		59.0	59.0		41.0	41.0		41.0	41.0	
Total Split (%)	59.0%	59.0%		59.0%	59.0%		41.0%	41.0%		41.0%	41.0%	
Maximum Green (s)	53.0	53.0		53.0	53.0		33.5	33.5		33.5	33.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.5	2.5		2.5	2.5		4.5	4.5		4.5	4.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		7.5	7.5		7.5	7.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	
Walk Time (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Flash Dont Walk (s)	19.0	19.0		19.0	19.0		24.0	24.0		24.0	24.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	71.4	71.4		71.4	71.4		15.1	15.1		15.1	15.1	
Actuated g/C Ratio	0.71	0.71		0.71	0.71		0.15	0.15		0.15	0.15	
v/c Ratio	0.44	0.40		0.14	0.49		0.27	0.26		0.40	0.66	
Control Delay	14.0	6.7		4.3	4.1		40.2	20.5		43.3	40.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	14.0	6.7		4.3	4.1		40.2	20.5		43.3	40.2	
LOS	B	A		A	A		D	C		D	D	
Approach Delay		7.4			4.1			27.4			41.1	
Approach LOS		A			A			C			D	

Intersection Summary

Area Type:	Other
Cycle Length:	100
Actuated Cycle Length:	100
Offset:	77 (77%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle:	90
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.66
Intersection Signal Delay:	9.9
Intersection LOS:	A
Intersection Capacity Utilization:	88.0%
ICU Level of Service:	E
Analysis Period (min):	15

Splits and Phases: 2: Havenwood Dr & Bloor St



Timings  
2: Havenwood Dr & Bloor St



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	107	861	47	1086	38	31	70	43
Future Volume (vph)	107	861	47	1086	38	31	70	43
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		2		2		4		4
Permitted Phases	2		2		4		4	
Detector Phase	2	2	2	2	4	4	4	4
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	35.0	35.0	35.0	35.0	41.5	41.5	41.5	41.5
Total Split (s)	59.0	59.0	59.0	59.0	41.0	41.0	41.0	41.0
Total Split (%)	59.0%	59.0%	59.0%	59.0%	41.0%	41.0%	41.0%	41.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.0	3.0	3.0	3.0
All-Red Time (s)	2.5	2.5	2.5	2.5	4.5	4.5	4.5	4.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	7.5	7.5	7.5	7.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None	None	None
Act Effct Green (s)	71.4	71.4	71.4	71.4	15.1	15.1	15.1	15.1
Actuated g/C Ratio	0.71	0.71	0.71	0.71	0.15	0.15	0.15	0.15
v/c Ratio	0.44	0.40	0.14	0.49	0.27	0.26	0.40	0.66
Control Delay	14.0	6.7	4.3	4.1	40.2	20.5	43.3	40.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.0	6.7	4.3	4.1	40.2	20.5	43.3	40.2
LOS	B	A	A	A	D	C	D	D
Approach Delay		7.4		4.1		27.4		41.1
Approach LOS		A		A		C		D

Intersection Summary

Cycle Length: 100  
 Actuated Cycle Length: 100  
 Offset: 77 (77%), Referenced to phase 2:EBWB, Start of Green  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.66  
 Intersection Signal Delay: 9.9  
 Intersection Capacity Utilization 88.0%  
 Analysis Period (min) 15  
 Intersection LOS: A  
 ICU Level of Service E

Splits and Phases: 2: Havenwood Dr & Bloor St



Queues  
2: Havenwood Dr & Bloor St



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	116	999	51	1239	41	76	76	188
v/c Ratio	0.44	0.40	0.14	0.49	0.27	0.26	0.40	0.66
Control Delay	14.0	6.7	4.3	4.1	40.2	20.5	43.3	40.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.0	6.7	4.3	4.1	40.2	20.5	43.3	40.2
Queue Length 50th (m)	7.9	33.7	1.9	24.7	7.2	5.8	13.6	26.3
Queue Length 95th (m)	27.2	57.3	m3.7	31.4	15.8	16.9	25.2	44.6
Internal Link Dist (m)		315.9		538.7		113.1		94.1
Turn Bay Length (m)	50.0		50.0		25.0		25.0	
Base Capacity (vph)	262	2527	358	2532	337	599	419	583
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.44	0.40	0.14	0.49	0.12	0.13	0.18	0.32

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lanes, Volumes, Timings  
3: Fieldgate Dr & Bloor St

2029 FT PM Sensitivity  
12/04/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	128	725	58	75	952	100	62	33	60	166	76	143
Future Volume (vph)	128	725	58	75	952	100	62	33	60	166	76	143
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0		0.0	45.0		0.0	45.0		0.0	25.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	100.0			100.0			30.0			30.0		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99	0.99		0.97	0.99		0.98	0.95		0.94	0.97	
Frt		0.989			0.986			0.903			0.902	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1825	3507	0	1825	3489	0	1789	1646	0	1807	1684	0
Flt Permitted	0.170			0.332			0.437			0.692		
Satd. Flow (perm)	322	3507	0	618	3489	0	805	1646	0	1238	1684	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13			14			65			101	
Link Speed (k/h)		50			50			40			40	
Link Distance (m)		562.7			97.8			134.2			78.0	
Travel Time (s)		40.5			7.0			12.1			7.0	
Confl. Peds. (#/hr)	65		56	56		65	34		73	73		34
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	2%	0%	2%	0%	2%	0%	0%	1%	0%	0%
Adj. Flow (vph)	139	788	63	82	1035	109	67	36	65	180	83	155
Shared Lane Traffic (%)												
Lane Group Flow (vph)	139	851	0	82	1144	0	67	101	0	180	238	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	0		0	0		1	1		1	1	
Detector Template		Thru		Left	Thru							
Leading Detector (m)	21.0	0.0		0.0	0.0		6.5	6.5		7.5	6.0	
Trailing Detector (m)	12.0	0.0		0.0	0.0		-2.5	-2.5		-1.5	-3.0	
Detector 1 Position(m)	12.0	0.0		0.0	0.0		-2.5	-2.5		-1.5	-3.0	
Detector 1 Size(m)	9.0	0.6		2.0	0.6		9.0	9.0		9.0	9.0	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	5	2			6			4				8
Permitted Phases	2			6			4			8		
Detector Phase	5	2		6	6		4	4		8	8	
Switch Phase												

Lanes, Volumes, Timings  
3: Fieldgate Dr & Bloor St

2029 FT PM Sensitivity  
12/04/2024

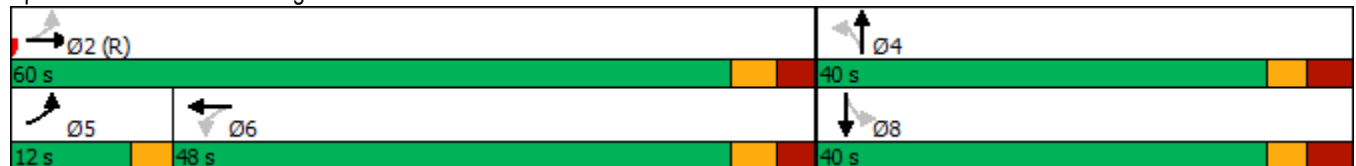


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	7.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	11.5	33.5		33.5	33.5		38.5	38.5		38.5	38.5	
Total Split (s)	12.0	60.0		48.0	48.0		40.0	40.0		40.0	40.0	
Total Split (%)	12.0%	60.0%		48.0%	48.0%		40.0%	40.0%		40.0%	40.0%	
Maximum Green (s)	9.0	53.5		41.5	41.5		33.5	33.5		33.5	33.5	
Yellow Time (s)	3.0	3.5		3.5	3.5		3.0	3.0		3.0	3.0	
All-Red Time (s)	0.0	3.0		3.0	3.0		3.5	3.5		3.5	3.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.0	6.5		6.5	6.5		6.5	6.5		6.5	6.5	
Lead/Lag	Lead			Lag								
Lead-Lag Optimize?	Yes			Yes								
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max		Max	Max		None	None		None	None	
Walk Time (s)		10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Flash Dont Walk (s)		17.0		17.0	17.0		22.0	22.0		22.0	22.0	
Pedestrian Calls (#/hr)		0		0	0		0	0		0	0	
Act Effct Green (s)	70.5	67.0		56.0	56.0		20.0	20.0		20.0	20.0	
Actuated g/C Ratio	0.70	0.67		0.56	0.56		0.20	0.20		0.20	0.20	
v/c Ratio	0.40	0.36		0.24	0.58		0.42	0.27		0.73	0.57	
Control Delay	14.0	14.4		16.3	17.2		40.9	14.6		53.6	24.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	14.0	14.4		16.3	17.2		40.9	14.6		53.6	24.7	
LOS	B	B		B	B		D	B		D	C	
Approach Delay		14.3			17.1			25.1			37.2	
Approach LOS		B			B			C			D	

Intersection Summary

Area Type: Other  
 Cycle Length: 100  
 Actuated Cycle Length: 100  
 Offset: 41 (41%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 85  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.73  
 Intersection Signal Delay: 19.6  
 Intersection LOS: B  
 Intersection Capacity Utilization 90.9%  
 ICU Level of Service E  
 Analysis Period (min) 15

Splits and Phases: 3: Fieldgate Dr & Bloor St



Timings  
3: Fieldgate Dr & Bloor St

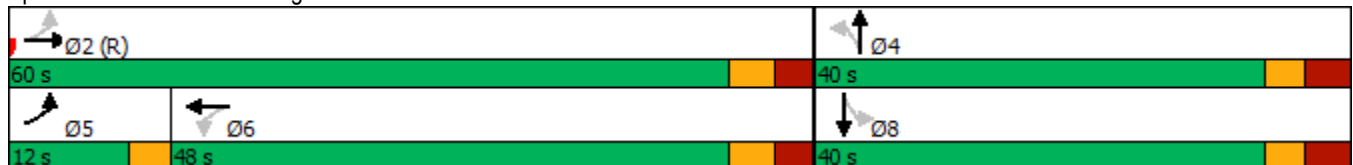


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↗	↕	↖	↕	↖	↕	↗	↕
Traffic Volume (vph)	128	725	75	952	62	33	166	76
Future Volume (vph)	128	725	75	952	62	33	166	76
Turn Type	pm+pt	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases	5	2		6		4		8
Permitted Phases	2		6		4		8	
Detector Phase	5	2	6	6	4	4	8	8
Switch Phase								
Minimum Initial (s)	7.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	11.5	33.5	33.5	33.5	38.5	38.5	38.5	38.5
Total Split (s)	12.0	60.0	48.0	48.0	40.0	40.0	40.0	40.0
Total Split (%)	12.0%	60.0%	48.0%	48.0%	40.0%	40.0%	40.0%	40.0%
Yellow Time (s)	3.0	3.5	3.5	3.5	3.0	3.0	3.0	3.0
All-Red Time (s)	0.0	3.0	3.0	3.0	3.5	3.5	3.5	3.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.0	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag	Lead		Lag	Lag				
Lead-Lag Optimize?	Yes		Yes	Yes				
Recall Mode	None	C-Max	Max	Max	None	None	None	None
Act Effct Green (s)	70.5	67.0	56.0	56.0	20.0	20.0	20.0	20.0
Actuated g/C Ratio	0.70	0.67	0.56	0.56	0.20	0.20	0.20	0.20
v/c Ratio	0.40	0.36	0.24	0.58	0.42	0.27	0.73	0.57
Control Delay	14.0	14.4	16.3	17.2	40.9	14.6	53.6	24.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.0	14.4	16.3	17.2	40.9	14.6	53.6	24.7
LOS	B	B	B	B	D	B	D	C
Approach Delay		14.3		17.1		25.1		37.2
Approach LOS		B		B		C		D

Intersection Summary

Cycle Length: 100  
 Actuated Cycle Length: 100  
 Offset: 41 (41%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 85  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.73  
 Intersection Signal Delay: 19.6  
 Intersection LOS: B  
 Intersection Capacity Utilization 90.9%  
 ICU Level of Service E  
 Analysis Period (min) 15

Splits and Phases: 3: Fieldgate Dr & Bloor St



Queues  
3: Fieldgate Dr & Bloor St

2029 FT PM Sensitivity  
12/04/2024



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	139	851	82	1144	67	101	180	238
v/c Ratio	0.40	0.36	0.24	0.58	0.42	0.27	0.73	0.57
Control Delay	14.0	14.4	16.3	17.2	40.9	14.6	53.6	24.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.0	14.4	16.3	17.2	40.9	14.6	53.6	24.7
Queue Length 50th (m)	14.4	54.8	7.4	69.0	11.4	5.8	32.9	23.4
Queue Length 95th (m)	29.0	81.4	21.4	116.4	22.1	17.2	50.5	42.3
Internal Link Dist (m)		538.7		73.8		110.2		54.0
Turn Bay Length (m)	50.0		45.0		45.0		25.0	
Base Capacity (vph)	368	2354	346	1959	269	594	414	631
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.36	0.24	0.58	0.25	0.17	0.43	0.38

Intersection Summary

Lanes, Volumes, Timings  
6: Fieldgate Dr & Williamsport Dr

2029 FT PM Sensitivity  
12/04/2024



















Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	29	0	68	67	0	37	46	153	81	53	215	27
Future Volume (vph)	29	0	68	67	0	37	46	153	81	53	215	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.906			0.952			0.961			0.988	
Flt Protected		0.985			0.969			0.992			0.991	
Satd. Flow (prot)	0	1694	0	0	1737	0	0	1801	0	0	1874	0
Flt Permitted		0.985			0.969			0.992			0.991	
Satd. Flow (perm)	0	1694	0	0	1737	0	0	1801	0	0	1874	0
Link Speed (k/h)		40			48			40			40	
Link Distance (m)		168.2			49.1			83.8			69.3	
Travel Time (s)		15.1			3.7			7.5			6.2	
Confl. Peds. (#/hr)	41					41	30					30
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	4%	2%	0%	2%	2%	2%	0%	2%	2%	2%	0%	0%
Adj. Flow (vph)	32	0	74	73	0	40	50	166	88	58	234	29
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	106	0	0	113	0	0	304	0	0	321	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	97		97	24		97	97		14
Sign Control		Stop			Stop			Free			Free	

Intersection Summary










Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	42.1%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis  
6: Fieldgate Dr & Williamsport Dr

2029 FT PM Sensitivity  
12/04/2024










												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	0	68	67	0	37	46	153	81	53	215	27
Future Volume (Veh/h)	29	0	68	67	0	37	46	153	81	53	215	27
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	32	0	74	73	0	40	50	166	88	58	234	29
Pedestrians		30										41
Lane Width (m)		3.7										3.7
Walking Speed (m/s)		1.1										1.1
Percent Blockage		3										4
Right turn flare (veh)												
Median type								None				None
Median storage veh												
Upstream signal (m)								162				
pX, platoon unblocked												
vC, conflicting volume	786	748	278	748	719	251	293			254		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	786	748	278	748	719	251	293			254		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	87	100	90	73	100	95	96			96		
cM capacity (veh/h)	249	303	743	271	315	756	1243			1311		
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>WB 1</b>	<b>NB 1</b>	<b>SB 1</b>								
Volume Total	106	113	304	321								
Volume Left	32	73	50	58								
Volume Right	74	40	88	29								
cSH	464	350	1243	1311								
Volume to Capacity	0.23	0.32	0.04	0.04								
Queue Length 95th (m)	6.6	10.4	1.0	1.1								
Control Delay (s)	15.0	20.1	1.6	1.8								
Lane LOS	C	C	A	A								
Approach Delay (s)	15.0	20.1	1.6	1.8								
Approach LOS	C	C										
<b>Intersection Summary</b>												
Average Delay			5.8									
Intersection Capacity Utilization			42.1%		ICU Level of Service				A			
Analysis Period (min)			15									

Lanes, Volumes, Timings  
7: Fieldgate Dr & Ponytrail Dr

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	48	28	144	78	27	246
Future Volume (vph)	48	28	144	78	27	246
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	0.951		0.953			
Flt Protected	0.969					0.995
Satd. Flow (prot)	1751	0	1789	0	0	1912
Flt Permitted	0.969					0.995
Satd. Flow (perm)	1751	0	1789	0	0	1912
Link Speed (k/h)	30		40			30
Link Distance (m)	39.8		69.3			254.8
Travel Time (s)	4.8		6.2			30.6
Confl. Peds. (#/hr)	1	18		31	31	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	3%	2%	3%	0%	0%
Adj. Flow (vph)	52	30	157	85	29	267
Shared Lane Traffic (%)						
Lane Group Flow (vph)	82	0	242	0	0	296
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.7		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	1.6		1.6			1.6
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24	14		14	24	
Sign Control	Stop		Stop			Stop
<b>Intersection Summary</b>						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	46.5%			ICU Level of Service A		
Analysis Period (min)	15					

HCM Unsignalized Intersection Capacity Analysis  
7: Fieldgate Dr & Ponytrail Dr

2029 FT PM Sensitivity  
12/04/2024

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Stop			Stop
Traffic Volume (vph)	48	28	144	78	27	246
Future Volume (vph)	48	28	144	78	27	246
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	52	30	157	85	29	267
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total (vph)	82	242	296			
Volume Left (vph)	52	0	29			
Volume Right (vph)	30	85	0			
Hadj (s)	-0.07	-0.17	0.02			
Departure Headway (s)	5.0	4.3	4.4			
Degree Utilization, x	0.11	0.29	0.36			
Capacity (veh/h)	650	816	794			
Control Delay (s)	8.6	9.0	9.9			
Approach Delay (s)	8.6	9.0	9.9			
Approach LOS	A	A	A			
Intersection Summary						
Delay			9.3			
Level of Service			A			
Intersection Capacity Utilization			46.5%	ICU Level of Service	A	
Analysis Period (min)			15			



Lanes, Volumes, Timings  
9: Ponytrail Dr

2029 FT PM Sensitivity  
12/04/2024



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	95	0	21	91	0	14
Future Volume (vph)	95	0	21	91	0	14
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						0.865
Flt Protected				0.991		
Satd. Flow (prot)	1902	0	0	1873	1662	0
Flt Permitted				0.991		
Satd. Flow (perm)	1902	0	0	1873	1662	0
Link Speed (k/h)	30			30	48	
Link Distance (m)	52.6			151.3	88.9	
Travel Time (s)	6.3			18.2	6.7	
Confl. Peds. (#/hr)	59		59	1		2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	0%	0%	2%	0%	0%
Adj. Flow (vph)	103	0	23	99	0	15
Shared Lane Traffic (%)						
Lane Group Flow (vph)	103	0	0	122	15	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	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	97		97	97		97
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	23.3%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis  
 9: Ponytrail Dr

2029 FT PM Sensitivity  
 12/04/2024



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↔	↔	
Traffic Volume (veh/h)	95	0	21	91	0	14
Future Volume (Veh/h)	95	0	21	91	0	14
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	103	0	23	99	0	15
Pedestrians	1			2	59	
Lane Width (m)	3.7			3.7	3.7	
Walking Speed (m/s)	1.1			1.1	1.1	
Percent Blockage	0			0	6	
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			162		308	164
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			162		308	164
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			98		100	98
cM capacity (veh/h)			1347		637	833
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>WB 1</b>	<b>NB 1</b>			
Volume Total	103	122	15			
Volume Left	0	23	0			
Volume Right	0	0	15			
cSH	1700	1347	833			
Volume to Capacity	0.06	0.02	0.02			
Queue Length 95th (m)	0.0	0.4	0.4			
Control Delay (s)	0.0	1.6	9.4			
Lane LOS		A	A			
Approach Delay (s)	0.0	1.6	9.4			
Approach LOS			A			
<b>Intersection Summary</b>						
Average Delay			1.4			
Intersection Capacity Utilization			23.3%	ICU Level of Service	A	
Analysis Period (min)			15			

Lanes, Volumes, Timings  
10: Fieldgate Dr & Haven Glenn

2029 FT PM Sensitivity  
12/04/2024



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	12	27	32	150	235	16
Future Volume (vph)	12	27	32	150	235	16
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	0.907				0.992	
Flt Protected	0.985			0.991		
Satd. Flow (prot)	1716	0	0	1881	1873	0
Flt Permitted	0.985			0.991		
Satd. Flow (perm)	1716	0	0	1881	1873	0
Link Speed (k/h)	40			30	30	
Link Distance (m)	258.3			254.8	440.5	
Travel Time (s)	23.2			30.6	52.9	
Confl. Peds. (#/hr)	2	28	4			4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	7%	0%	1%	13%
Adj. Flow (vph)	13	29	35	163	255	17
Shared Lane Traffic (%)						
Lane Group Flow (vph)	42	0	0	198	272	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24	14	24			14
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	42.7%
	ICU Level of Service A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis  
 10: Fieldgate Dr & Haven Glenn

2029 FT PM Sensitivity  
 12/04/2024



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	12	27	32	150	235	16
Future Volume (Veh/h)	12	27	32	150	235	16
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	13	29	35	163	255	17
Pedestrians	4			28	2	
Lane Width (m)	3.7			3.7	3.7	
Walking Speed (m/s)	1.1			1.1	1.1	
Percent Blockage	0			3	0	
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	502	296	276			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	502	296	276			
tC, single (s)	6.4	6.2	4.2			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.3			
p0 queue free %	97	96	97			
cM capacity (veh/h)	514	725	1254			
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>NB 1</b>	<b>SB 1</b>			
Volume Total	42	198	272			
Volume Left	13	35	0			
Volume Right	29	0	17			
cSH	644	1254	1700			
Volume to Capacity	0.07	0.03	0.16			
Queue Length 95th (m)	1.6	0.7	0.0			
Control Delay (s)	11.0	1.6	0.0			
Lane LOS	B	A				
Approach Delay (s)	11.0	1.6	0.0			
Approach LOS	B					
<b>Intersection Summary</b>						
Average Delay			1.5			
Intersection Capacity Utilization			42.7%	ICU Level of Service	A	
Analysis Period (min)			15			

Lanes, Volumes, Timings  
11: Fieldgate Dr & Burnhamthorpe Rd

2029 FT PM Sensitivity  
12/04/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	61	1030	135	53	1096	47	70	51	36	52	118	49
Future Volume (vph)	61	1030	135	53	1096	47	70	51	36	52	118	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	30.0		25.0	30.0		30.0	15.0		0.0	65.0		65.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	30.0			45.0			40.0			75.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99		0.93	0.99		0.93	0.98	0.99		0.99		0.96
Frt			0.850			0.850		0.938				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1825	3579	1617	1825	3579	1633	1738	1783	0	1825	1921	1633
Flt Permitted	0.218			0.237			0.572			0.696		
Satd. Flow (perm)	416	3579	1507	452	3579	1514	1026	1783	0	1321	1921	1575
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			65			65		21				55
Link Speed (k/h)		60			60			40				50
Link Distance (m)		499.8			675.9			440.5				226.9
Travel Time (s)		30.0			40.6			39.6				16.3
Confl. Peds. (#/hr)	21		19	19		21	17		10	10		17
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	1%	0%	2%	0%	5%	0%	0%	0%	0%	0%
Adj. Flow (vph)	66	1120	147	58	1191	51	76	55	39	57	128	53
Shared Lane Traffic (%)												
Lane Group Flow (vph)	66	1120	147	58	1191	51	76	94	0	57	128	53
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7				3.7
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	0	0	0	0	0	0	1	1		1	1	0
Detector Template												
Leading Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	7.0	7.0		7.0	7.0	0.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	-2.0	-2.0		-2.0	-2.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	-2.0	-2.0		-2.0	-2.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	9.0	9.0		9.0	9.0	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases		2			6			4				8
Permitted Phases	2		2	6		6	4			8		8
Detector Phase	2	2	2	6	6	6	4	4		8	8	8
Switch Phase												

Lane Group	Ø1	Ø3	Ø5	Ø7
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (m)				
Storage Lanes				
Taper Length (m)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (k/h)				
Link Distance (m)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(m)				
Link Offset(m)				
Crosswalk Width(m)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (k/h)				
Number of Detectors				
Detector Template				
Leading Detector (m)				
Trailing Detector (m)				
Detector 1 Position(m)				
Detector 1 Size(m)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Turn Type				
Protected Phases	1	3	5	7
Permitted Phases				
Detector Phase				
Switch Phase				

Lanes, Volumes, Timings  
11: Fieldgate Dr & Burnhamthorpe Rd

2029 FT PM Sensitivity  
12/04/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	38.0	38.0	38.0	38.0	38.0	38.0	42.5	42.5		42.5	42.5	42.5
Total Split (s)	102.0	102.0	102.0	102.0	102.0	102.0	48.0	48.0		48.0	48.0	48.0
Total Split (%)	63.8%	63.8%	63.8%	63.8%	63.8%	63.8%	30.0%	30.0%		30.0%	30.0%	30.0%
Maximum Green (s)	95.0	95.0	95.0	95.0	95.0	95.0	39.5	39.5		39.5	39.5	39.5
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	5.5	5.5		5.5	5.5	5.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	8.5	8.5		8.5	8.5	8.5
Lead/Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lag		Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	C-Max	C-Max	C-Max	Max	Max	Max	None	None		None	None	None
Walk Time (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	10.0
Flash Dont Walk (s)	21.0	21.0	21.0	21.0	21.0	21.0	24.0	24.0		24.0	24.0	24.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	0
Act Effct Green (s)	128.1	128.1	128.1	128.1	128.1	128.1	16.4	16.4		16.4	16.4	16.4
Actuated g/C Ratio	0.80	0.80	0.80	0.80	0.80	0.80	0.10	0.10		0.10	0.10	0.10
v/c Ratio	0.20	0.39	0.12	0.16	0.42	0.04	0.73	0.47		0.42	0.65	0.25
Control Delay	6.0	5.4	2.5	3.9	3.5	0.2	104.6	58.8		75.5	83.9	16.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	6.0	5.4	2.5	3.9	3.5	0.2	104.6	58.8		75.5	83.9	16.2
LOS	A	A	A	A	A	A	F	E		E	F	B
Approach Delay		5.1			3.4			79.3			66.8	
Approach LOS		A			A			E			E	

Intersection Summary

Area Type: Other  
 Cycle Length: 160  
 Actuated Cycle Length: 160  
 Offset: 117 (73%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.73  
 Intersection Signal Delay: 13.3  
 Intersection LOS: B  
 Intersection Capacity Utilization 75.6%  
 ICU Level of Service D  
 Analysis Period (min) 15

Splits and Phases: 11: Fieldgate Dr & Burnhamthorpe Rd



Lane Group	Ø1	Ø3	Ø5	Ø7
Minimum Initial (s)	1.0	1.0	1.0	1.0
Minimum Split (s)	3.0	3.0	3.0	3.0
Total Split (s)	5.0	5.0	5.0	5.0
Total Split (%)	3%	3%	3%	3%
Maximum Green (s)	3.0	3.0	3.0	3.0
Yellow Time (s)	2.0	2.0	2.0	2.0
All-Red Time (s)	0.0	0.0	0.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None
Walk Time (s)				
Flash Dont Walk (s)				
Pedestrian Calls (#/hr)				
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Intersection Summary				



Timings  
11: Fieldgate Dr & Burnhamthorpe Rd

2029 FT PM Sensitivity  
12/04/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR	Ø1
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘	↗	↘	↑	↗	↗
Traffic Volume (vph)	61	1030	135	53	1096	47	70	51	52	118	49	
Future Volume (vph)	61	1030	135	53	1096	47	70	51	52	118	49	
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	NA	Perm	
Protected Phases		2			6			4		8		1
Permitted Phases	2		2	6		6	4		8		8	
Detector Phase	2	2	2	6	6	6	4	4	8	8	8	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	1.0
Minimum Split (s)	38.0	38.0	38.0	38.0	38.0	38.0	42.5	42.5	42.5	42.5	42.5	3.0
Total Split (s)	102.0	102.0	102.0	102.0	102.0	102.0	48.0	48.0	48.0	48.0	48.0	5.0
Total Split (%)	63.8%	63.8%	63.8%	63.8%	63.8%	63.8%	30.0%	30.0%	30.0%	30.0%	30.0%	3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	5.5	5.5	5.5	5.5	5.5	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	8.5	8.5	8.5	8.5	8.5	
Lead/Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	C-Max	C-Max	C-Max	Max	Max	Max	None	None	None	None	None	None
Act Effct Green (s)	128.1	128.1	128.1	128.1	128.1	128.1	16.4	16.4	16.4	16.4	16.4	
Actuated g/C Ratio	0.80	0.80	0.80	0.80	0.80	0.80	0.10	0.10	0.10	0.10	0.10	
v/c Ratio	0.20	0.39	0.12	0.16	0.42	0.04	0.73	0.47	0.42	0.65	0.25	
Control Delay	6.0	5.4	2.5	3.9	3.5	0.2	104.6	58.8	75.5	83.9	16.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	6.0	5.4	2.5	3.9	3.5	0.2	104.6	58.8	75.5	83.9	16.2	
LOS	A	A	A	A	A	A	F	E	E	F	B	
Approach Delay		5.1			3.4			79.3		66.8		
Approach LOS		A			A			E		E		

Intersection Summary

Cycle Length: 160  
 Actuated Cycle Length: 160  
 Offset: 117 (73%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.73  
 Intersection Signal Delay: 13.3  
 Intersection LOS: B  
 Intersection Capacity Utilization 75.6%  
 ICU Level of Service D  
 Analysis Period (min) 15

Splits and Phases: 11: Fieldgate Dr & Burnhamthorpe Rd



Lane Group	Ø3	Ø5	Ø7
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Turn Type			
Protected Phases	3	5	7
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	1.0	1.0	1.0
Minimum Split (s)	3.0	3.0	3.0
Total Split (s)	5.0	5.0	5.0
Total Split (%)	3%	3%	3%
Yellow Time (s)	2.0	2.0	2.0
All-Red Time (s)	0.0	0.0	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes
Recall Mode	None	None	None
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Intersection Summary			

Queues  
11: Fieldgate Dr & Burnhamthorpe Rd

2029 FT PM Sensitivity  
12/04/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	66	1120	147	58	1191	51	76	94	57	128	53
v/c Ratio	0.20	0.39	0.12	0.16	0.42	0.04	0.73	0.47	0.42	0.65	0.25
Control Delay	6.0	5.4	2.5	3.9	3.5	0.2	104.6	58.8	75.5	83.9	16.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.0	5.4	2.5	3.9	3.5	0.2	104.6	58.8	75.5	83.9	16.2
Queue Length 50th (m)	4.3	46.3	4.7	2.3	25.9	0.0	23.9	22.2	17.3	39.9	0.0
Queue Length 95th (m)	11.0	68.7	11.6	m3.8	32.4	m0.2	41.2	39.7	31.3	59.7	12.5
Internal Link Dist (m)		475.8			651.9			416.5		202.9	
Turn Bay Length (m)	30.0		25.0	30.0		30.0	15.0		65.0		65.0
Base Capacity (vph)	333	2865	1219	361	2865	1225	253	455	326	474	430
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.39	0.12	0.16	0.42	0.04	0.30	0.21	0.17	0.27	0.12

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lanes, Volumes, Timings  
12: Ponytrail Dr & Burnhamthorpe Rd

2029 FT PM Sensitivity  
12/04/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	55	1001	27	70	1072	560	16	34	41	371	43	62
Future Volume (vph)	55	1001	27	70	1072	560	16	34	41	371	43	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	35.0		30.0	35.0		30.0	15.0		0.0	40.0		45.0
Storage Lanes	1		1	1		1	1		0	2		1
Taper Length (m)	45.0			65.0			50.0			30.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Ped Bike Factor			0.96			0.91	1.00	0.99		0.98		0.99
Frt			0.850			0.850		0.918				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1789	3579	1633	1722	3579	1601	1722	1738	0	3471	1921	1601
Flt Permitted	0.093			0.241			0.726			0.950		
Satd. Flow (perm)	175	3579	1565	437	3579	1462	1314	1738	0	3396	1921	1579
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			116			203		34				67
Link Speed (k/h)		60			60			40				50
Link Distance (m)		675.9			242.1			944.6				165.5
Travel Time (s)		40.6			14.5			85.0				11.9
Confl. Peds. (#/hr)	28		9	9		28	1		10	10		1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	0%	6%	2%	2%	6%	0%	0%	2%	0%	2%
Adj. Flow (vph)	60	1088	29	76	1165	609	17	37	45	403	47	67
Shared Lane Traffic (%)												
Lane Group Flow (vph)	60	1088	29	76	1165	609	17	82	0	403	47	67
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			7.4				7.4
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2	1	1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0		2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6		2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4				9.4
Detector 2 Size(m)		0.6			0.6			0.6				0.6
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				0.0

Lane Group	Ø7	Ø9	Ø10	Ø11
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (m)				
Storage Lanes				
Taper Length (m)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (k/h)				
Link Distance (m)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(m)				
Link Offset(m)				
Crosswalk Width(m)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (k/h)				
Number of Detectors				
Detector Template				
Leading Detector (m)				
Trailing Detector (m)				
Detector 1 Position(m)				
Detector 1 Size(m)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(m)				
Detector 2 Size(m)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				

Lanes, Volumes, Timings  
12: Ponytrail Dr & Burnhamthorpe Rd

2029 FT PM Sensitivity  
12/04/2024

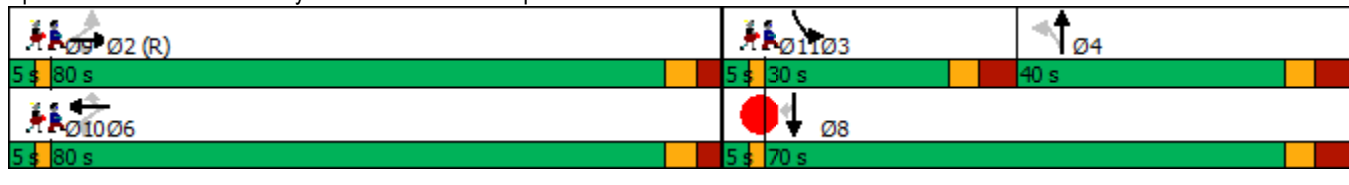


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Prot	NA	Perm
Protected Phases		2			6			4		3	8	
Permitted Phases	2		2	6		6	4					8
Detector Phase	2	2	2	6	6	6	4	4		3	8	8
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	40.0	40.0	40.0	42.0	42.0	42.0	41.0	41.0		18.0	41.0	41.0
Total Split (s)	80.0	80.0	80.0	80.0	80.0	80.0	40.0	40.0		30.0	70.0	70.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	25.0%	25.0%		18.8%	43.8%	43.8%
Maximum Green (s)	73.0	73.0	73.0	73.0	73.0	73.0	32.0	32.0		22.0	62.0	62.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	4.5	4.5		4.5	4.5	4.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	8.0	8.0		8.0	8.0	8.0
Lead/Lag												Lag
Lead-Lag Optimize?												Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	C-Max	C-Max	C-Max	Max	Max	Max	Min	Min		None	Min	Min
Walk Time (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0			10.0	10.0
Flash Dont Walk (s)	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0			23.0	23.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0			0	0
Act Effct Green (s)	91.8	91.8	91.8	73.0	73.0	73.0	11.4	11.4		21.3	40.7	40.7
Actuated g/C Ratio	0.57	0.57	0.57	0.46	0.46	0.46	0.07	0.07		0.13	0.25	0.25
v/c Ratio	0.60	0.53	0.03	0.38	0.71	0.78	0.18	0.53		0.87	0.10	0.15
Control Delay	47.2	18.8	0.1	35.8	38.1	32.1	73.5	55.1		87.3	45.1	9.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	47.2	18.8	0.1	35.8	38.1	32.1	73.5	55.1		87.3	45.1	9.7
LOS	D	B	A	D	D	C	E	E		F	D	A
Approach Delay		19.8			36.0			58.3			73.4	
Approach LOS		B			D			E			E	

Intersection Summary

Area Type: Other  
 Cycle Length: 160  
 Actuated Cycle Length: 160  
 Offset: 117 (73%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.87  
 Intersection Signal Delay: 36.7  
 Intersection LOS: D  
 Intersection Capacity Utilization 77.7%  
 ICU Level of Service D  
 Analysis Period (min) 15

Splits and Phases: 12: Ponytrail Dr & Burnhamthorpe Rd



Lane Group	Ø7	Ø9	Ø10	Ø11
Turn Type				
Protected Phases	7	9	10	11
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	1.0	1.0	1.0	1.0
Minimum Split (s)	3.0	3.0	3.0	3.0
Total Split (s)	5.0	5.0	5.0	5.0
Total Split (%)	3%	3%	3%	3%
Maximum Green (s)	3.0	3.0	3.0	3.0
Yellow Time (s)	2.0	2.0	2.0	2.0
All-Red Time (s)	0.0	0.0	0.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag				Lead
Lead-Lag Optimize?				Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0
Recall Mode	Ped	Ped	Ped	Ped
Walk Time (s)	0.0	0.0	0.0	0.0
Flash Dont Walk (s)	0.0	0.0	0.0	0.0
Pedestrian Calls (#/hr)	0	0	0	0
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Intersection Summary				

Timings  
12: Ponytrail Dr & Burnhamthorpe Rd

2029 FT PM Sensitivity  
12/04/2024

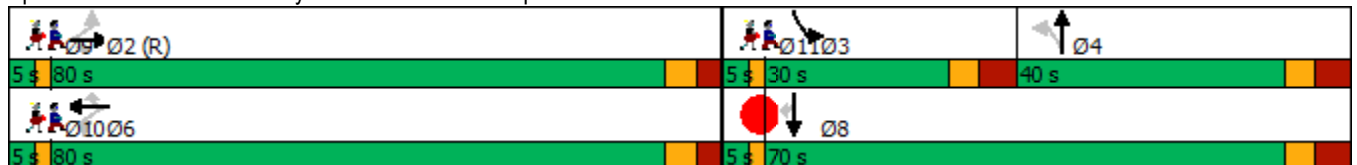


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR	Ø7
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘	↗	↘↗	↑	↗	
Traffic Volume (vph)	55	1001	27	70	1072	560	16	34	371	43	62	
Future Volume (vph)	55	1001	27	70	1072	560	16	34	371	43	62	
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Prot	NA	Perm	
Protected Phases		2			6			4	3	8		7
Permitted Phases	2		2	6		6	4					8
Detector Phase	2	2	2	6	6	6	4	4	3	8	8	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	1.0
Minimum Split (s)	40.0	40.0	40.0	42.0	42.0	42.0	41.0	41.0	18.0	41.0	41.0	3.0
Total Split (s)	80.0	80.0	80.0	80.0	80.0	80.0	40.0	40.0	30.0	70.0	70.0	5.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	25.0%	25.0%	18.8%	43.8%	43.8%	3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.5	3.5	3.5	3.5	3.5	2.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	4.5	4.5	4.5	4.5	4.5	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	8.0	8.0	8.0	8.0	8.0	
Lead/Lag												Lag
Lead-Lag Optimize?												Yes
Recall Mode	C-Max	C-Max	C-Max	Max	Max	Max	Min	Min	None	Min	Min	Ped
Act Effct Green (s)	91.8	91.8	91.8	73.0	73.0	73.0	11.4	11.4	21.3	40.7	40.7	
Actuated g/C Ratio	0.57	0.57	0.57	0.46	0.46	0.46	0.07	0.07	0.13	0.25	0.25	
v/c Ratio	0.60	0.53	0.03	0.38	0.71	0.78	0.18	0.53	0.87	0.10	0.15	
Control Delay	47.2	18.8	0.1	35.8	38.1	32.1	73.5	55.1	87.3	45.1	9.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	47.2	18.8	0.1	35.8	38.1	32.1	73.5	55.1	87.3	45.1	9.7	
LOS	D	B	A	D	D	C	E	E	F	D	A	
Approach Delay		19.8			36.0			58.3		73.4		
Approach LOS		B			D			E		E		

Intersection Summary

Cycle Length: 160  
 Actuated Cycle Length: 160  
 Offset: 117 (73%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.87  
 Intersection Signal Delay: 36.7  
 Intersection LOS: D  
 Intersection Capacity Utilization 77.7%  
 ICU Level of Service D  
 Analysis Period (min) 15

Splits and Phases: 12: Ponytrail Dr & Burnhamthorpe Rd





Lane Group	Ø9	Ø10	Ø11
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Turn Type			
Protected Phases	9	10	11
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	1.0	1.0	1.0
Minimum Split (s)	3.0	3.0	3.0
Total Split (s)	5.0	5.0	5.0
Total Split (%)	3%	3%	3%
Yellow Time (s)	2.0	2.0	2.0
All-Red Time (s)	0.0	0.0	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag			Lead
Lead-Lag Optimize?			Yes
Recall Mode	Ped	Ped	Ped
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Intersection Summary			

Queues  
12: Ponytrail Dr & Burnhamthorpe Rd

2029 FT PM Sensitivity  
12/04/2024



























Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	60	1088	29	76	1165	609	17	82	403	47	67
v/c Ratio	0.60	0.53	0.03	0.38	0.71	0.78	0.18	0.53	0.87	0.10	0.15
Control Delay	47.2	18.8	0.1	35.8	38.1	32.1	73.5	55.1	87.3	45.1	9.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.2	18.8	0.1	35.8	38.1	32.1	73.5	55.1	87.3	45.1	9.7
Queue Length 50th (m)	8.7	84.2	0.0	15.7	155.5	114.7	5.2	15.0	65.5	11.6	0.0
Queue Length 95th (m)	#39.1	94.0	0.0	31.7	181.1	170.4	13.4	32.7	#90.1	21.7	12.1
Internal Link Dist (m)		651.9			218.1			920.6		141.5	
Turn Bay Length (m)	35.0		30.0	35.0		30.0	15.0		40.0		45.0
Base Capacity (vph)	100	2052	946	199	1632	777	262	374	477	744	652
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.60	0.53	0.03	0.38	0.71	0.78	0.06	0.22	0.84	0.06	0.10

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

Lanes, Volumes, Timings  
1: Dixie Rd & Bloor St

2029 FT sat Sensitivity  
12/04/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	140	481	218	345	451	220	197	1172	359	141	1184	156
Future Volume (vph)	140	481	218	345	451	220	197	1172	359	141	1184	156
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		15.0	60.0		1.0	75.0		0.0	100.0		85.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	85.0			60.0			90.0			50.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.91	0.91	1.00	0.91	1.00
Ped Bike Factor	0.98		0.97	0.99		0.94	1.00	0.99		1.00		0.97
Frt			0.850			0.850		0.965				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1807	3614	1617	1807	3579	1617	1807	4960	0	1807	5142	1601
Flt Permitted	0.473			0.252			0.134			0.128		
Satd. Flow (perm)	877	3614	1574	477	3579	1519	254	4960	0	243	5142	1546
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			89			47			66			163
Link Speed (k/h)		50			50			60				60
Link Distance (m)		302.0			339.9			615.3				434.7
Travel Time (s)		21.7			24.5			36.9				26.1
Confl. Peds. (#/hr)	40		12	12		40	19		27	27		19
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	1%	1%	1%	2%	1%	1%	1%	1%	1%	2%	2%
Adj. Flow (vph)	152	523	237	375	490	239	214	1274	390	153	1287	170
Shared Lane Traffic (%)												
Lane Group Flow (vph)	152	523	237	375	490	239	214	1664	0	153	1287	170
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7				3.7
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane					Yes							
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	2	1	1	1	1	1	1	0		1	0	0
Detector Template								Thru			Thru	Right
Leading Detector (m)	24.0	7.0	7.0	22.0	7.0	7.0	24.0	0.0		24.0	0.0	0.0
Trailing Detector (m)	-2.5	-2.0	-2.0	12.0	-2.0	-2.0	14.0	0.0		14.0	0.0	0.0
Detector 1 Position(m)	-2.5	-2.0	-2.0	12.0	-2.0	-2.0	14.0	0.0		14.0	0.0	0.0
Detector 1 Size(m)	10.0	9.0	9.0	10.0	9.0	9.0	10.0	0.6		10.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)	14.0											
Detector 2 Size(m)	10.0											
Detector 2 Type	Cl+Ex											
Detector 2 Channel												
Detector 2 Extend (s)	0.0											

Lanes, Volumes, Timings  
1: Dixie Rd & Bloor St

2029 FT sat Sensitivity  
12/04/2024

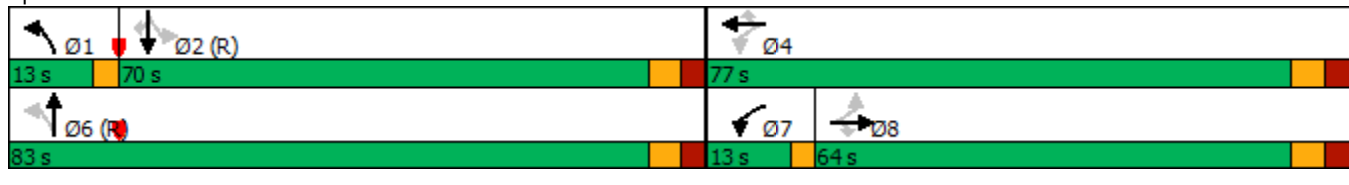


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		Perm	NA	Perm
Protected Phases		8		7	4		1	6			2	
Permitted Phases	8		8	4		4	6			2		2
Detector Phase	8	8	8	7	4	4	1	6		2	2	2
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0		10.0	10.0	10.0
Minimum Split (s)	46.4	46.4	46.4	10.0	46.4	46.4	10.0	46.9		46.9	46.9	46.9
Total Split (s)	64.0	64.0	64.0	13.0	77.0	77.0	13.0	83.0		70.0	70.0	70.0
Total Split (%)	40.0%	40.0%	40.0%	8.1%	48.1%	48.1%	8.1%	51.9%		43.8%	43.8%	43.8%
Maximum Green (s)	56.6	56.6	56.6	10.0	69.6	69.6	10.0	76.1		63.1	63.1	63.1
Yellow Time (s)	4.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0		4.0	4.0	4.0
All-Red Time (s)	3.4	3.4	3.4	0.0	3.4	3.4	0.0	2.9		2.9	2.9	2.9
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.4	7.4	7.4	3.0	7.4	7.4	3.0	6.9		6.9	6.9	6.9
Lead/Lag	Lag	Lag	Lag	Lead			Lead			Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes			Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	C-Max		C-Max	C-Max	C-Max
Walk Time (s)	10.0	10.0	10.0		10.0	10.0		10.0		10.0	10.0	10.0
Flash Dont Walk (s)	29.0	29.0	29.0		29.0	29.0		30.0		30.0	30.0	30.0
Pedestrian Calls (#/hr)	0	0	0		0	0		0		0	0	0
Act Effct Green (s)	36.7	36.7	36.7	54.1	49.7	49.7	99.9	96.0		74.5	74.5	74.5
Actuated g/C Ratio	0.23	0.23	0.23	0.34	0.31	0.31	0.62	0.60		0.47	0.47	0.47
v/c Ratio	0.76	0.63	0.55	1.54	0.44	0.47	0.63	0.55		1.35	0.54	0.21
Control Delay	78.9	58.0	36.5	294.9	45.6	39.0	25.5	20.5		242.1	32.7	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	78.9	58.0	36.5	294.9	45.6	39.0	25.5	20.5		242.1	32.7	5.2
LOS	E	E	D	F	D	D	C	C		F	C	A
Approach Delay		55.9			128.8			21.0			49.7	
Approach LOS		E			F			C			D	

Intersection Summary

Area Type: Other  
 Cycle Length: 160  
 Actuated Cycle Length: 160  
 Offset: 74 (46%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green  
 Natural Cycle: 115  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.54  
 Intersection Signal Delay: 56.8  
 Intersection LOS: E  
 Intersection Capacity Utilization 101.6%  
 ICU Level of Service G  
 Analysis Period (min) 15

Splits and Phases: 1: Dixie Rd & Bloor St



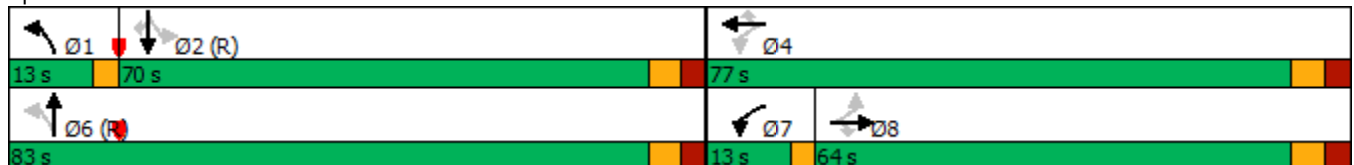
Timings  
1: Dixie Rd & Bloor St

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR	
Lane Configurations												
Traffic Volume (vph)	140	481	218	345	451	220	197	1172	141	1184	156	
Future Volume (vph)	140	481	218	345	451	220	197	1172	141	1184	156	
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	NA	Perm	
Protected Phases		8		7	4		1	6		2		
Permitted Phases	8		8	4		4	6		2		2	
Detector Phase	8	8	8	7	4	4	1	6	2	2	2	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	46.4	46.4	46.4	10.0	46.4	46.4	10.0	46.9	46.9	46.9	46.9	
Total Split (s)	64.0	64.0	64.0	13.0	77.0	77.0	13.0	83.0	70.0	70.0	70.0	
Total Split (%)	40.0%	40.0%	40.0%	8.1%	48.1%	48.1%	8.1%	51.9%	43.8%	43.8%	43.8%	
Yellow Time (s)	4.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	3.4	3.4	3.4	0.0	3.4	3.4	0.0	2.9	2.9	2.9	2.9	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	7.4	7.4	7.4	3.0	7.4	7.4	3.0	6.9	6.9	6.9	6.9	
Lead/Lag	Lag	Lag	Lag	Lead			Lead		Lag	Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes		Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max	
Act Effct Green (s)	36.7	36.7	36.7	54.1	49.7	49.7	99.9	96.0	74.5	74.5	74.5	
Actuated g/C Ratio	0.23	0.23	0.23	0.34	0.31	0.31	0.62	0.60	0.47	0.47	0.47	
v/c Ratio	0.76	0.63	0.55	1.54	0.44	0.47	0.63	0.55	1.35	0.54	0.21	
Control Delay	78.9	58.0	36.5	294.9	45.6	39.0	25.5	20.5	242.1	32.7	5.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	78.9	58.0	36.5	294.9	45.6	39.0	25.5	20.5	242.1	32.7	5.2	
LOS	E	E	D	F	D	D	C	C	F	C	A	
Approach Delay		55.9			128.8			21.0		49.7		
Approach LOS		E			F			C		D		

Intersection Summary

Cycle Length: 160  
 Actuated Cycle Length: 160  
 Offset: 74 (46%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green  
 Natural Cycle: 115  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.54  
 Intersection Signal Delay: 56.8  
 Intersection LOS: E  
 Intersection Capacity Utilization 101.6%  
 ICU Level of Service G  
 Analysis Period (min) 15

Splits and Phases: 1: Dixie Rd & Bloor St



Queues  
1: Dixie Rd & Bloor St



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	152	523	237	375	490	239	214	1664	153	1287	170
v/c Ratio	0.76	0.63	0.55	1.54	0.44	0.47	0.63	0.55	1.35	0.54	0.21
Control Delay	78.9	58.0	36.5	294.9	45.6	39.0	25.5	20.5	242.1	32.7	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	78.9	58.0	36.5	294.9	45.6	39.0	25.5	20.5	242.1	32.7	5.2
Queue Length 50th (m)	45.7	80.0	42.1	~161.9	61.4	46.0	27.5	106.4	~63.2	104.7	1.2
Queue Length 95th (m)	64.8	87.1	61.8	#208.0	81.2	74.9	#63.8	150.4	#116.7	136.5	16.6
Internal Link Dist (m)		278.0			315.9			591.3		410.7	
Turn Bay Length (m)	40.0		15.0	60.0		1.0	75.0		100.0		85.0
Base Capacity (vph)	310	1278	614	244	1556	687	338	3001	113	2393	806
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.41	0.39	1.54	0.31	0.35	0.63	0.55	1.35	0.54	0.21

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

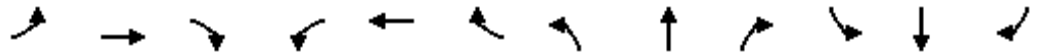
Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Lanes, Volumes, Timings  
2: Havenwood Dr & Bloor St

2029 FT sat Sensitivity  
12/04/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	100	808	54	24	758	56	46	17	30	71	24	131
Future Volume (vph)	100	808	54	24	758	56	46	17	30	71	24	131
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0		0.0	50.0		0.0	25.0		0.0	25.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	65.0			80.0			40.0			35.0		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99	1.00		0.99	0.99		0.99	0.98		0.98	0.98	
Frt		0.991			0.990			0.903				0.873
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1825	3570	0	1825	3554	0	1825	1657	0	1825	1606	0
Flt Permitted	0.303			0.283			0.651			0.724		
Satd. Flow (perm)	574	3570	0	541	3554	0	1241	1657	0	1365	1606	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			12			33			58	
Link Speed (k/h)		50			50			30			40	
Link Distance (m)		339.9			562.7			137.1			118.1	
Travel Time (s)		24.5			40.5			16.5			10.6	
Confl. Peds. (#/hr)	41		17	17		41	14		28	28		14
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	2%	0%	1%	3%	0%	0%	4%	0%	0%	3%
Adj. Flow (vph)	109	878	59	26	824	61	50	18	33	77	26	142
Shared Lane Traffic (%)												
Lane Group Flow (vph)	109	937	0	26	885	0	50	51	0	77	168	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane		Yes										
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	0	0		0	0		1	1		1	1	
Detector Template		Thru		Left	Thru							
Leading Detector (m)	0.0	0.0		0.0	0.0		7.0	7.0		8.0	8.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		-2.0	-2.0		-2.0	-2.0	
Detector 1 Position(m)	11.5	0.0		0.0	0.0		-2.0	-2.0		-2.0	-2.0	
Detector 1 Size(m)	9.0	0.6		2.0	0.6		9.0	9.0		10.0	10.0	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4				4
Permitted Phases	2			2			4			4		
Detector Phase	2	2		2	2		4	4		4	4	
Switch Phase												

Lanes, Volumes, Timings  
2: Havenwood Dr & Bloor St

2029 FT sat Sensitivity  
12/04/2024

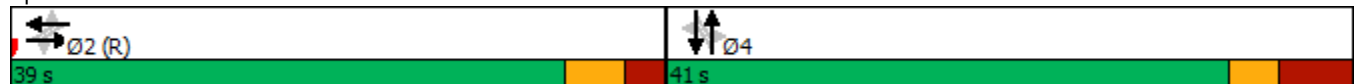


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	35.0	35.0		35.0	35.0		41.5	41.5		41.5	41.5	
Total Split (s)	39.0	39.0		39.0	39.0		41.0	41.0		41.0	41.0	
Total Split (%)	48.8%	48.8%		48.8%	48.8%		51.3%	51.3%		51.3%	51.3%	
Maximum Green (s)	33.0	33.0		33.0	33.0		33.5	33.5		33.5	33.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.5	2.5		2.5	2.5		4.5	4.5		4.5	4.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		7.5	7.5		7.5	7.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	
Walk Time (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Flash Dont Walk (s)	19.0	19.0		19.0	19.0		24.0	24.0		24.0	24.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	53.9	53.9		53.9	53.9		12.6	12.6		12.6	12.6	
Actuated g/C Ratio	0.67	0.67		0.67	0.67		0.16	0.16		0.16	0.16	
v/c Ratio	0.28	0.39		0.07	0.37		0.26	0.18		0.36	0.56	
Control Delay	5.3	4.2		7.9	7.2		31.6	15.4		33.8	26.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	5.3	4.2		7.9	7.2		31.6	15.4		33.8	26.9	
LOS	A	A		A	A		C	B		C	C	
Approach Delay		4.3			7.3			23.5			29.1	
Approach LOS		A			A			C			C	

Intersection Summary

Area Type: Other  
 Cycle Length: 80  
 Actuated Cycle Length: 80  
 Offset: 39 (49%), Referenced to phase 2:EBWB, Start of Green  
 Natural Cycle: 80  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.56  
 Intersection Signal Delay: 8.9  
 Intersection LOS: A  
 Intersection Capacity Utilization 83.8%  
 ICU Level of Service E  
 Analysis Period (min) 15

Splits and Phases: 2: Havenwood Dr & Bloor St





Timings  
2: Havenwood Dr & Bloor St

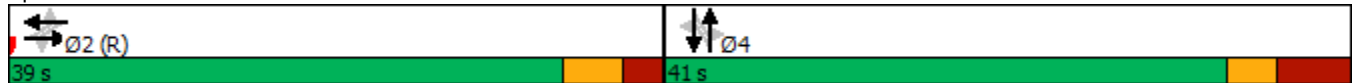


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	100	808	24	758	46	17	71	24
Future Volume (vph)	100	808	24	758	46	17	71	24
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		2		2		4		4
Permitted Phases	2		2		4		4	
Detector Phase	2	2	2	2	4	4	4	4
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	35.0	35.0	35.0	35.0	41.5	41.5	41.5	41.5
Total Split (s)	39.0	39.0	39.0	39.0	41.0	41.0	41.0	41.0
Total Split (%)	48.8%	48.8%	48.8%	48.8%	51.3%	51.3%	51.3%	51.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.0	3.0	3.0	3.0
All-Red Time (s)	2.5	2.5	2.5	2.5	4.5	4.5	4.5	4.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	7.5	7.5	7.5	7.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None	None	None
Act Effct Green (s)	53.9	53.9	53.9	53.9	12.6	12.6	12.6	12.6
Actuated g/C Ratio	0.67	0.67	0.67	0.67	0.16	0.16	0.16	0.16
v/c Ratio	0.28	0.39	0.07	0.37	0.26	0.18	0.36	0.56
Control Delay	5.3	4.2	7.9	7.2	31.6	15.4	33.8	26.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.3	4.2	7.9	7.2	31.6	15.4	33.8	26.9
LOS	A	A	A	A	C	B	C	C
Approach Delay		4.3		7.3		23.5		29.1
Approach LOS		A		A		C		C

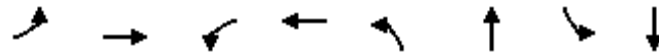
Intersection Summary

Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 39 (49%), Referenced to phase 2:EBWB, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.56	
Intersection Signal Delay: 8.9	Intersection LOS: A
Intersection Capacity Utilization 83.8%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 2: Havenwood Dr & Bloor St



Queues  
2: Havenwood Dr & Bloor St



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	109	937	26	885	50	51	77	168
v/c Ratio	0.28	0.39	0.07	0.37	0.26	0.18	0.36	0.56
Control Delay	5.3	4.2	7.9	7.2	31.6	15.4	33.8	26.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.3	4.2	7.9	7.2	31.6	15.4	33.8	26.9
Queue Length 50th (m)	6.7	31.8	1.0	20.5	6.9	2.4	10.8	15.6
Queue Length 95th (m)	m8.7	m28.7	m5.0	58.6	15.0	10.5	21.0	30.9
Internal Link Dist (m)		315.9		538.7		113.1		94.1
Turn Bay Length (m)	50.0		50.0		25.0		25.0	
Base Capacity (vph)	386	2408	364	2398	519	713	571	706
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.39	0.07	0.37	0.10	0.07	0.13	0.24

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lanes, Volumes, Timings  
3: Fieldgate Dr & Bloor St

2029 FT sat Sensitivity  
12/04/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	129	684	63	66	608	103	62	28	55	131	50	139
Future Volume (vph)	129	684	63	66	608	103	62	28	55	131	50	139
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0		0.0	45.0		0.0	45.0		0.0	25.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	100.0			100.0			30.0			30.0		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.98	0.99		0.98	0.99		0.97	0.97		0.97	0.97	
Frt		0.987			0.978			0.900				0.890
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1825	3543	0	1825	3488	0	1755	1681	0	1825	1653	0
Flt Permitted	0.298			0.346			0.546			0.699		
Satd. Flow (perm)	563	3543	0	654	3488	0	983	1681	0	1307	1653	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17			26			60			151	
Link Speed (k/h)		50			50			40			40	
Link Distance (m)		562.7			97.8			134.2			78.0	
Travel Time (s)		40.5			7.0			12.1			7.0	
Confl. Peds. (#/hr)	42		34	34		42	38		34	34		38
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	2%	0%	1%	2%	4%	0%	0%	0%	0%	0%
Adj. Flow (vph)	140	743	68	72	661	112	67	30	60	142	54	151
Shared Lane Traffic (%)												
Lane Group Flow (vph)	140	811	0	72	773	0	67	90	0	142	205	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	0		0	0		1	1		1	1	
Detector Template		Thru		Left	Thru							
Leading Detector (m)	21.0	0.0		0.0	0.0		6.5	6.5		7.5	6.0	
Trailing Detector (m)	12.0	0.0		0.0	0.0		-2.5	-2.5		-1.5	-3.0	
Detector 1 Position(m)	12.0	0.0		0.0	0.0		-2.5	-2.5		-1.5	-3.0	
Detector 1 Size(m)	9.0	0.6		2.0	0.6		9.0	9.0		9.0	9.0	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	5	2			6			4				8
Permitted Phases	2			6			4			8		
Detector Phase	5	2		6	6		4	4		8	8	
Switch Phase												

Lanes, Volumes, Timings  
3: Fieldgate Dr & Bloor St

2029 FT sat Sensitivity  
12/04/2024

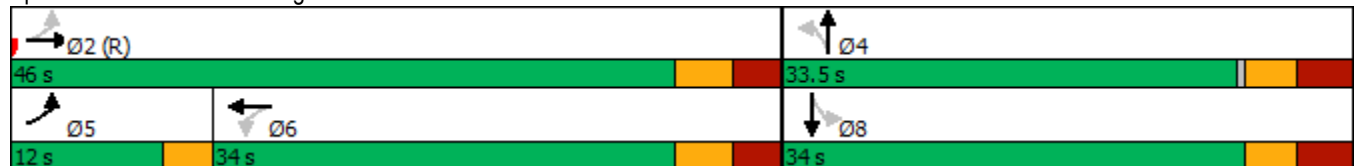


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	7.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	10.0	33.5		33.5	33.5		33.5	33.5		33.5	33.5	
Total Split (s)	12.0	46.0		34.0	34.0		33.5	33.5		34.0	34.0	
Total Split (%)	15.0%	57.5%		42.5%	42.5%		41.9%	41.9%		42.5%	42.5%	
Maximum Green (s)	9.0	39.5		27.5	27.5		27.0	27.0		27.5	27.5	
Yellow Time (s)	3.0	3.5		3.5	3.5		3.0	3.0		3.0	3.0	
All-Red Time (s)	0.0	3.0		3.0	3.0		3.5	3.5		3.5	3.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.0	6.5		6.5	6.5		6.5	6.5		6.5	6.5	
Lead/Lag	Lead			Lag			Lag			Lag		
Lead-Lag Optimize?	Yes			Yes			Yes			Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max		Max	Max		None	None		None	None	
Walk Time (s)		10.0		10.0	10.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)		17.0		17.0	17.0		22.0	22.0		22.0	22.0	
Pedestrian Calls (#/hr)		0		0	0		0	0		0	0	
Act Effct Green (s)	56.0	52.5		42.0	42.0		14.5	14.5		14.5	14.5	
Actuated g/C Ratio	0.70	0.66		0.52	0.52		0.18	0.18		0.18	0.18	
v/c Ratio	0.27	0.35		0.21	0.42		0.38	0.25		0.60	0.48	
Control Delay	11.8	15.2		14.3	12.9		33.5	13.2		40.1	12.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	11.8	15.2		14.3	12.9		33.5	13.2		40.1	12.6	
LOS	B	B		B	B		C	B		D	B	
Approach Delay		14.7			13.0			21.9			23.9	
Approach LOS		B			B			C			C	

Intersection Summary

Area Type:	Other
Cycle Length:	80
Actuated Cycle Length:	80
Offset:	17 (21%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle:	80
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.60
Intersection Signal Delay:	15.9
Intersection LOS:	B
Intersection Capacity Utilization:	80.8%
ICU Level of Service:	D
Analysis Period (min):	15

Splits and Phases: 3: Fieldgate Dr & Bloor St



Timings  
3: Fieldgate Dr & Bloor St

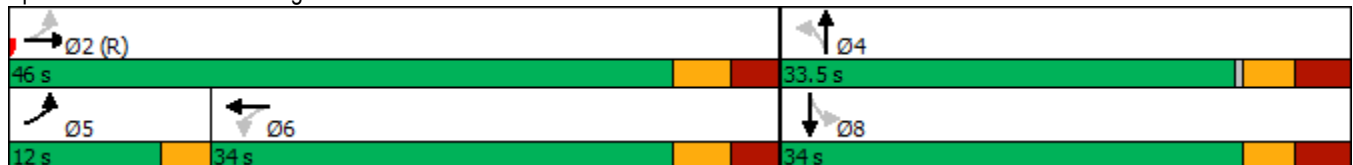


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↗	↗↘	↗	↗↘	↗	↗	↗	↗
Traffic Volume (vph)	129	684	66	608	62	28	131	50
Future Volume (vph)	129	684	66	608	62	28	131	50
Turn Type	pm+pt	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases	5	2		6		4		8
Permitted Phases	2		6		4		8	
Detector Phase	5	2	6	6	4	4	8	8
Switch Phase								
Minimum Initial (s)	7.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	10.0	33.5	33.5	33.5	33.5	33.5	33.5	33.5
Total Split (s)	12.0	46.0	34.0	34.0	33.5	33.5	34.0	34.0
Total Split (%)	15.0%	57.5%	42.5%	42.5%	41.9%	41.9%	42.5%	42.5%
Yellow Time (s)	3.0	3.5	3.5	3.5	3.0	3.0	3.0	3.0
All-Red Time (s)	0.0	3.0	3.0	3.0	3.5	3.5	3.5	3.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.0	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag	Lead		Lag	Lag				
Lead-Lag Optimize?	Yes		Yes	Yes				
Recall Mode	None	C-Max	Max	Max	None	None	None	None
Act Effct Green (s)	56.0	52.5	42.0	42.0	14.5	14.5	14.5	14.5
Actuated g/C Ratio	0.70	0.66	0.52	0.52	0.18	0.18	0.18	0.18
v/c Ratio	0.27	0.35	0.21	0.42	0.38	0.25	0.60	0.48
Control Delay	11.8	15.2	14.3	12.9	33.5	13.2	40.1	12.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.8	15.2	14.3	12.9	33.5	13.2	40.1	12.6
LOS	B	B	B	B	C	B	D	B
Approach Delay		14.7		13.0		21.9		23.9
Approach LOS		B		B		C		C

Intersection Summary

Cycle Length: 80  
 Actuated Cycle Length: 80  
 Offset: 17 (21%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 80  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.60  
 Intersection Signal Delay: 15.9  
 Intersection LOS: B  
 Intersection Capacity Utilization 80.8%  
 ICU Level of Service D  
 Analysis Period (min) 15

Splits and Phases: 3: Fieldgate Dr & Bloor St



Queues  
3: Fieldgate Dr & Bloor St



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	140	811	72	773	67	90	142	205
v/c Ratio	0.27	0.35	0.21	0.42	0.38	0.25	0.60	0.48
Control Delay	11.8	15.2	14.3	12.9	33.5	13.2	40.1	12.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.8	15.2	14.3	12.9	33.5	13.2	40.1	12.6
Queue Length 50th (m)	18.5	67.2	5.3	33.0	9.1	3.9	20.2	7.1
Queue Length 95th (m)	29.5	73.8	16.1	57.1	18.7	14.2	34.4	22.5
Internal Link Dist (m)		538.7		73.8		110.2		54.0
Turn Bay Length (m)	50.0		45.0		45.0		25.0	
Base Capacity (vph)	536	2330	342	1841	337	617	449	667
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.35	0.21	0.42	0.20	0.15	0.32	0.31

Intersection Summary

Lanes, Volumes, Timings  
6: Fieldgate Dr & Williamsport Dr

2029 FT sat Sensitivity  
12/04/2024



















Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	21	0	55	75	0	41	42	146	84	55	149	17
Future Volume (vph)	21	0	55	75	0	41	42	146	84	55	149	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.902			0.952			0.958			0.990	
Flt Protected		0.986			0.969			0.992			0.988	
Satd. Flow (prot)	0	1709	0	0	1737	0	0	1806	0	0	1870	0
Flt Permitted		0.986			0.969			0.992			0.988	
Satd. Flow (perm)	0	1709	0	0	1737	0	0	1806	0	0	1870	0
Link Speed (k/h)		40			48			40			40	
Link Distance (m)		168.2			49.1			83.8			69.3	
Travel Time (s)		15.1			3.7			7.5			6.2	
Confl. Peds. (#/hr)	27		1	1		27	20					20
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	0%	2%	2%	2%	3%	0%	2%	2%	0%	0%
Adj. Flow (vph)	23	0	60	82	0	45	46	159	91	60	162	18
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	83	0	0	127	0	0	296	0	0	240	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	40.3%
ICU Level of Service	A
Analysis Period (min)	15










HCM Unsignalized Intersection Capacity Analysis  
6: Fieldgate Dr & Williamsport Dr

2029 FT sat Sensitivity  
12/04/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	0	55	75	0	41	42	146	84	55	149	17
Future Volume (Veh/h)	21	0	55	75	0	41	42	146	84	55	149	17
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	23	0	60	82	0	45	46	159	91	60	162	18
Pedestrians		20						1			27	
Lane Width (m)		3.7						3.7			3.7	
Walking Speed (m/s)		1.1						1.1			1.1	
Percent Blockage		2						0			3	
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (m)								162				
pX, platoon unblocked												
vC, conflicting volume	680	653	192	648	616	232	200			250		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	680	653	192	648	616	232	200			250		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	93	100	93	75	100	94	97			95		
cM capacity (veh/h)	307	349	837	329	367	786	1339			1316		
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>WB 1</b>	<b>NB 1</b>	<b>SB 1</b>								
Volume Total	83	127	296	240								
Volume Left	23	82	46	60								
Volume Right	60	45	91	18								
cSH	566	415	1339	1316								
Volume to Capacity	0.15	0.31	0.03	0.05								
Queue Length 95th (m)	3.9	9.7	0.8	1.1								
Control Delay (s)	12.5	17.5	1.5	2.3								
Lane LOS	B	C	A	A								
Approach Delay (s)	12.5	17.5	1.5	2.3								
Approach LOS	B	C										
<b>Intersection Summary</b>												
Average Delay			5.7									
Intersection Capacity Utilization			40.3%		ICU Level of Service				A			
Analysis Period (min)			15									












Lanes, Volumes, Timings  
7: Fieldgate Dr & Ponytrail Dr

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	40	27	142	65	20	178
Future Volume (vph)	40	27	142	65	20	178
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	0.946		0.957			
Flt Protected	0.971					0.995
Satd. Flow (prot)	1765	0	1839	0	0	1912
Flt Permitted	0.971					0.995
Satd. Flow (perm)	1765	0	1839	0	0	1912
Link Speed (k/h)	30		40			30
Link Distance (m)	39.8		69.3			254.8
Travel Time (s)	4.8		6.2			30.6
Confl. Peds. (#/hr)	1	8		27	27	
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)	43	29	154	71	22	193
Shared Lane Traffic (%)						
Lane Group Flow (vph)	72	0	225	0	0	215
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.7		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	1.6		1.6			1.6
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24	14		14	24	
Sign Control	Stop		Stop			Stop
<b>Intersection Summary</b>						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	39.1%			ICU Level of Service A		
Analysis Period (min)	15					

HCM Unsignalized Intersection Capacity Analysis  
7: Fieldgate Dr & Ponytrail Dr

2029 FT sat Sensitivity  
12/04/2024

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Stop			Stop
Traffic Volume (vph)	40	27	142	65	20	178
Future Volume (vph)	40	27	142	65	20	178
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	43	29	154	71	22	193
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total (vph)	72	225	215			
Volume Left (vph)	43	0	22			
Volume Right (vph)	29	71	0			
Hadj (s)	-0.12	-0.19	0.02			
Departure Headway (s)	4.7	4.1	4.3			
Degree Utilization, x	0.09	0.26	0.26			
Capacity (veh/h)	693	849	803			
Control Delay (s)	8.2	8.5	8.8			
Approach Delay (s)	8.2	8.5	8.8			
Approach LOS	A	A	A			
Intersection Summary						
Delay			8.6			
Level of Service			A			
Intersection Capacity Utilization			39.1%	ICU Level of Service	A	
Analysis Period (min)			15			

Lanes, Volumes, Timings  
9: Ponytrail Dr



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	85	0	0	67	0	0
Future Volume (vph)	85	0	0	67	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)	1921	0	0	1921	1921	0
Flt Permitted						
Satd. Flow (perm)	1921	0	0	1921	1921	0
Link Speed (k/h)	30			30	48	
Link Distance (m)	52.6			151.3	88.9	
Travel Time (s)	6.3			18.2	6.7	
Confl. Peds. (#/hr)		40	40		1	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)	92	0	0	73	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	92	0	0	73	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	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)		14	24		24	14
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	21.9%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis  
 9: Ponytrail Dr

2029 FT sat Sensitivity  
 12/04/2024



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↔	↔	
Traffic Volume (veh/h)	85	0	0	67	0	0
Future Volume (Veh/h)	85	0	0	67	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	92	0	0	73	0	0
Pedestrians	1			3	40	
Lane Width (m)	3.7			3.7	3.7	
Walking Speed (m/s)	1.1			1.1	1.1	
Percent Blockage	0			0	4	
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			132		206	135
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			132		206	135
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1408		755	881
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>WB 1</b>	<b>NB 1</b>			
Volume Total	92	73	0			
Volume Left	0	0	0			
Volume Right	0	0	0			
cSH	1700	1408	1700			
Volume to Capacity	0.05	0.00	0.02			
Queue Length 95th (m)	0.0	0.0	0.0			
Control Delay (s)	0.0	0.0	0.0			
Lane LOS			A			
Approach Delay (s)	0.0	0.0	0.0			
Approach LOS			A			
<b>Intersection Summary</b>						
Average Delay			0.0			
Intersection Capacity Utilization			21.9%	ICU Level of Service	A	
Analysis Period (min)			15			

Lanes, Volumes, Timings  
10: Fieldgate Dr & Haven Glenn



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	5	35	21	155	151	11
Future Volume (vph)	5	35	21	155	151	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
Ped Bike Factor						
Frt	0.881				0.991	
Flt Protected	0.994			0.994		
Satd. Flow (prot)	1682	0	0	1910	1904	0
Flt Permitted	0.994			0.994		
Satd. Flow (perm)	1682	0	0	1910	1904	0
Link Speed (k/h)	40			30	30	
Link Distance (m)	258.3			254.8	440.5	
Travel Time (s)	23.2			30.6	52.9	
Confl. Peds. (#/hr)	1	26	14			14
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)	5	38	23	168	164	12
Shared Lane Traffic (%)						
Lane Group Flow (vph)	43	0	0	191	176	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24	14	24			14
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	39.4%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis  
 10: Fieldgate Dr & Haven Glenn

2029 FT sat Sensitivity  
 12/04/2024



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	5	35	21	155	151	11
Future Volume (Veh/h)	5	35	21	155	151	11
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	38	23	168	164	12
Pedestrians	14			26	1	
Lane Width (m)	3.7			3.7	3.7	
Walking Speed (m/s)	1.1			1.1	1.1	
Percent Blockage	1			3	0	
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	399	210	190			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	399	210	190			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	95	98			
cM capacity (veh/h)	592	803	1377			
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>NB 1</b>	<b>SB 1</b>			
Volume Total	43	191	176			
Volume Left	5	23	0			
Volume Right	38	0	12			
cSH	771	1377	1700			
Volume to Capacity	0.06	0.02	0.10			
Queue Length 95th (m)	1.3	0.4	0.0			
Control Delay (s)	9.9	1.0	0.0			
Lane LOS	A	A				
Approach Delay (s)	9.9	1.0	0.0			
Approach LOS	A					
<b>Intersection Summary</b>						
Average Delay			1.5			
Intersection Capacity Utilization			39.4%	ICU Level of Service	A	
Analysis Period (min)			15			

Lanes, Volumes, Timings  
11: Fieldgate Dr & Burnhamthorpe Rd

2029 FT sat Sensitivity  
12/04/2024

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	62	1007	82	44	795	40	77	41	49	55	62	47
Future Volume (vph)	62	1007	82	44	795	40	77	41	49	55	62	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	30.0		25.0	30.0		30.0	15.0		0.0	65.0		65.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	30.0			45.0			40.0			75.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		0.97	1.00		0.97	0.99	0.99		0.99		0.97
Frt			0.850			0.850		0.919				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1825	3614	1633	1825	3614	1633	1825	1748	0	1825	1921	1633
Flt Permitted	0.319			0.238			0.713			0.694		
Satd. Flow (perm)	612	3614	1580	456	3614	1590	1352	1748	0	1326	1921	1591
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			130			130			53			109
Link Speed (k/h)		60			60			40				50
Link Distance (m)		499.8			675.9			440.5				226.9
Travel Time (s)		30.0			40.6			39.6				16.3
Confl. Peds. (#/hr)	5		10	10		5	14		6	6		14
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	67	1095	89	48	864	43	84	45	53	60	67	51
Shared Lane Traffic (%)												
Lane Group Flow (vph)	67	1095	89	48	864	43	84	98	0	60	67	51
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7				3.7
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	0	0	0	0	0	0	1	1		1	1	0
Detector Template												
Leading Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	7.0	7.0		7.0	7.0	0.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	-2.0	-2.0		-2.0	-2.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	-2.0	-2.0		-2.0	-2.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	9.0	9.0		9.0	9.0	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases		2			6			4				8
Permitted Phases	2		2	6		6	4			8		8
Detector Phase	2	2	2	6	6	6	4	4		8	8	8
Switch Phase												

Lane Group	Ø1	Ø3	Ø5	Ø7
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (m)				
Storage Lanes				
Taper Length (m)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (k/h)				
Link Distance (m)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(m)				
Link Offset(m)				
Crosswalk Width(m)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (k/h)				
Number of Detectors				
Detector Template				
Leading Detector (m)				
Trailing Detector (m)				
Detector 1 Position(m)				
Detector 1 Size(m)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Turn Type				
Protected Phases	1	3	5	7
Permitted Phases				
Detector Phase				
Switch Phase				



Lanes, Volumes, Timings  
11: Fieldgate Dr & Burnhamthorpe Rd

2029 FT sat Sensitivity  
12/04/2024

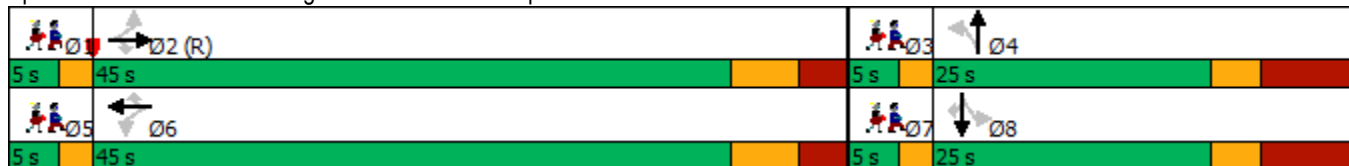


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	38.0	38.0	38.0	38.0	38.0	38.0	32.5	32.5		32.5	32.5	32.5
Total Split (s)	45.0	45.0	45.0	45.0	45.0	45.0	25.0	25.0		25.0	25.0	25.0
Total Split (%)	56.3%	56.3%	56.3%	56.3%	56.3%	56.3%	31.3%	31.3%		31.3%	31.3%	31.3%
Maximum Green (s)	38.0	38.0	38.0	38.0	38.0	38.0	16.5	16.5		16.5	16.5	16.5
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	5.5	5.5		5.5	5.5	5.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	8.5	8.5		8.5	8.5	8.5
Lead/Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lag		Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	C-Max	C-Max	C-Max	Max	Max	Max	None	None		None	None	None
Walk Time (s)	10.0	10.0	10.0	10.0	10.0	10.0	0.0	0.0		0.0	0.0	0.0
Flash Dont Walk (s)	21.0	21.0	21.0	21.0	21.0	21.0	24.0	24.0		24.0	24.0	24.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	0
Act Effct Green (s)	58.1	58.1	58.1	58.1	58.1	58.1	11.5	11.5		11.5	11.5	11.5
Actuated g/C Ratio	0.73	0.73	0.73	0.73	0.73	0.73	0.14	0.14		0.14	0.14	0.14
v/c Ratio	0.15	0.42	0.08	0.15	0.33	0.04	0.43	0.33		0.31	0.24	0.16
Control Delay	6.8	6.7	0.7	1.9	1.5	0.1	37.9	18.9		34.6	31.9	1.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	6.8	6.7	0.7	1.9	1.5	0.1	37.9	18.9		34.6	31.9	1.3
LOS	A	A	A	A	A	A	D	B		C	C	A
Approach Delay		6.2			1.4			27.7			24.0	
Approach LOS		A			A			C			C	

Intersection Summary

Area Type:	Other
Cycle Length:	80
Actuated Cycle Length:	80
Offset:	72 (90%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle:	80
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.43
Intersection Signal Delay:	7.2
Intersection LOS:	A
Intersection Capacity Utilization:	68.5%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 11: Fieldgate Dr & Burnhamthorpe Rd



Lane Group	Ø1	Ø3	Ø5	Ø7
Minimum Initial (s)	1.0	1.0	1.0	1.0
Minimum Split (s)	3.0	3.0	3.0	3.0
Total Split (s)	5.0	5.0	5.0	5.0
Total Split (%)	6%	6%	6%	6%
Maximum Green (s)	3.0	3.0	3.0	3.0
Yellow Time (s)	2.0	2.0	2.0	2.0
All-Red Time (s)	0.0	0.0	0.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None
Walk Time (s)				
Flash Dont Walk (s)				
Pedestrian Calls (#/hr)				
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Intersection Summary				

Timings  
11: Fieldgate Dr & Burnhamthorpe Rd

2029 FT sat Sensitivity  
12/04/2024

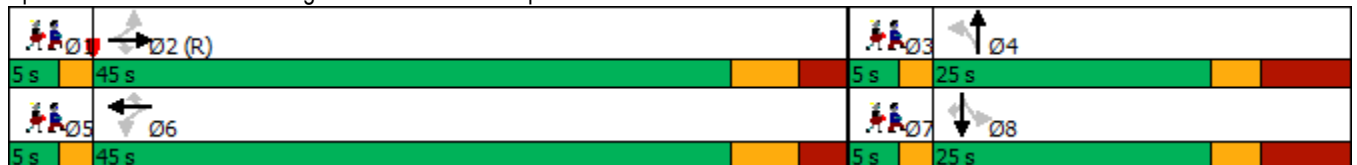


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR	Ø1
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘	↗	↘	↑	↗	
Traffic Volume (vph)	62	1007	82	44	795	40	77	41	55	62	47	
Future Volume (vph)	62	1007	82	44	795	40	77	41	55	62	47	
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	NA	Perm	
Protected Phases		2			6			4		8		1
Permitted Phases	2		2	6		6	4		8		8	
Detector Phase	2	2	2	6	6	6	4	4	8	8	8	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	1.0
Minimum Split (s)	38.0	38.0	38.0	38.0	38.0	38.0	32.5	32.5	32.5	32.5	32.5	3.0
Total Split (s)	45.0	45.0	45.0	45.0	45.0	45.0	25.0	25.0	25.0	25.0	25.0	5.0
Total Split (%)	56.3%	56.3%	56.3%	56.3%	56.3%	56.3%	31.3%	31.3%	31.3%	31.3%	31.3%	6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	5.5	5.5	5.5	5.5	5.5	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	8.5	8.5	8.5	8.5	8.5	
Lead/Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	C-Max	C-Max	C-Max	Max	Max	Max	None	None	None	None	None	None
Act Effct Green (s)	58.1	58.1	58.1	58.1	58.1	58.1	11.5	11.5	11.5	11.5	11.5	
Actuated g/C Ratio	0.73	0.73	0.73	0.73	0.73	0.73	0.14	0.14	0.14	0.14	0.14	
v/c Ratio	0.15	0.42	0.08	0.15	0.33	0.04	0.43	0.33	0.31	0.24	0.16	
Control Delay	6.8	6.7	0.7	1.9	1.5	0.1	37.9	18.9	34.6	31.9	1.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	6.8	6.7	0.7	1.9	1.5	0.1	37.9	18.9	34.6	31.9	1.3	
LOS	A	A	A	A	A	A	D	B	C	C	A	
Approach Delay		6.2			1.4			27.7		24.0		
Approach LOS		A			A			C		C		

Intersection Summary

Cycle Length: 80  
 Actuated Cycle Length: 80  
 Offset: 72 (90%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 80  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.43  
 Intersection Signal Delay: 7.2  
 Intersection Capacity Utilization 68.5%  
 Analysis Period (min) 15  
 Intersection LOS: A  
 ICU Level of Service C

Splits and Phases: 11: Fieldgate Dr & Burnhamthorpe Rd



Lane Group	Ø3	Ø5	Ø7
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Turn Type			
Protected Phases	3	5	7
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	1.0	1.0	1.0
Minimum Split (s)	3.0	3.0	3.0
Total Split (s)	5.0	5.0	5.0
Total Split (%)	6%	6%	6%
Yellow Time (s)	2.0	2.0	2.0
All-Red Time (s)	0.0	0.0	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes
Recall Mode	None	None	None
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Intersection Summary			

Queues  
11: Fieldgate Dr & Burnhamthorpe Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	67	1095	89	48	864	43	84	98	60	67	51
v/c Ratio	0.15	0.42	0.08	0.15	0.33	0.04	0.43	0.33	0.31	0.24	0.16
Control Delay	6.8	6.7	0.7	1.9	1.5	0.1	37.9	18.9	34.6	31.9	1.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.8	6.7	0.7	1.9	1.5	0.1	37.9	18.9	34.6	31.9	1.3
Queue Length 50th (m)	3.2	35.0	0.0	0.4	3.8	0.0	12.0	6.2	8.4	9.3	0.0
Queue Length 95th (m)	9.5	56.0	2.3	m1.4	10.1	m0.0	23.8	18.0	18.2	19.0	1.0
Internal Link Dist (m)		475.8			651.9			416.5		202.9	
Turn Bay Length (m)	30.0		25.0	30.0		30.0	15.0		65.0		65.0
Base Capacity (vph)	444	2623	1182	330	2623	1189	278	402	273	396	414
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.42	0.08	0.15	0.33	0.04	0.30	0.24	0.22	0.17	0.12

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lanes, Volumes, Timings  
12: Ponytrail Dr & Burnhamthorpe Rd

2029 FT sat Sensitivity  
12/04/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	73	974	22	78	805	446	22	42	49	372	48	121
Future Volume (vph)	73	974	22	78	805	446	22	42	49	372	48	121
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	35.0		30.0	35.0		30.0	15.0		0.0	40.0		45.0
Storage Lanes	1		1	1		1	1		0	2		1
Taper Length (m)	45.0			65.0			50.0			30.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Ped Bike Factor	1.00		0.96			0.96	1.00	0.99		0.98		0.98
Frt			0.850			0.850		0.920				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1825	3614	1633	1825	3614	1617	1825	1743	0	3506	1921	1633
Flt Permitted	0.092			0.270			0.723			0.950		
Satd. Flow (perm)	176	3614	1569	519	3614	1550	1383	1743	0	3431	1921	1606
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			116			178		38				132
Link Speed (k/h)		60			60			40				50
Link Distance (m)		675.9			242.1			944.6				165.5
Travel Time (s)		40.6			14.5			85.0				11.9
Confl. Peds. (#/hr)	9		8	8		9	3		10	10		3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	0%	0%	1%	1%	0%	0%	0%	1%	0%	0%
Adj. Flow (vph)	79	1059	24	85	875	485	24	46	53	404	52	132
Shared Lane Traffic (%)												
Lane Group Flow (vph)	79	1059	24	85	875	485	24	99	0	404	52	132
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			7.4				7.4
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2	1	1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0		2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6		2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4				9.4
Detector 2 Size(m)		0.6			0.6			0.6				0.6
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				0.0

Lane Group	Ø7	Ø9	Ø10	Ø11
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (m)				
Storage Lanes				
Taper Length (m)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (k/h)				
Link Distance (m)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(m)				
Link Offset(m)				
Crosswalk Width(m)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (k/h)				
Number of Detectors				
Detector Template				
Leading Detector (m)				
Trailing Detector (m)				
Detector 1 Position(m)				
Detector 1 Size(m)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(m)				
Detector 2 Size(m)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				

Lanes, Volumes, Timings  
12: Ponytrail Dr & Burnhamthorpe Rd

2029 FT sat Sensitivity  
12/04/2024

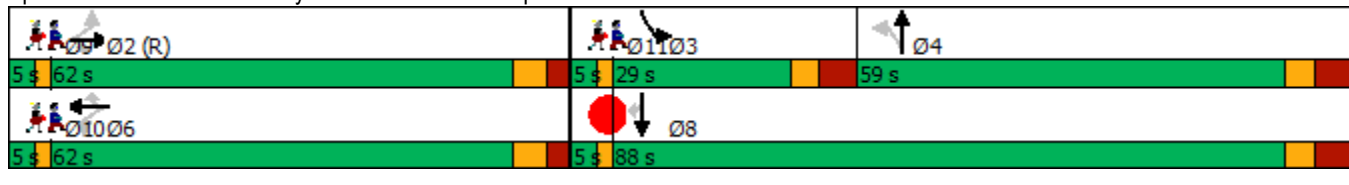


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Prot	NA	Perm
Protected Phases		2			6			4		3	8	
Permitted Phases	2		2	6		6	4					8
Detector Phase	2	2	2	6	6	6	4	4		3	8	8
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	40.0	40.0	40.0	42.0	42.0	42.0	41.0	41.0		18.0	41.0	41.0
Total Split (s)	62.0	62.0	62.0	62.0	62.0	62.0	59.0	59.0		29.0	88.0	88.0
Total Split (%)	38.8%	38.8%	38.8%	38.8%	38.8%	38.8%	36.9%	36.9%		18.1%	55.0%	55.0%
Maximum Green (s)	55.0	55.0	55.0	55.0	55.0	55.0	51.0	51.0		21.0	80.0	80.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	4.5	4.5		4.5	4.5	4.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	8.0	8.0		8.0	8.0	8.0
Lead/Lag												Lag
Lead-Lag Optimize?												Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	C-Max	C-Max	C-Max	Max	Max	Max	Min	Min		None	Min	Min
Walk Time (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0			10.0	10.0
Flash Dont Walk (s)	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0			23.0	23.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0			0	0
Act Effct Green (s)	91.6	91.6	91.6	55.0	55.0	55.0	12.3	12.3		20.6	40.9	40.9
Actuated g/C Ratio	0.57	0.57	0.57	0.34	0.34	0.34	0.08	0.08		0.13	0.26	0.26
v/c Ratio	0.79	0.51	0.03	0.48	0.70	0.75	0.23	0.59		0.90	0.11	0.26
Control Delay	72.4	19.8	0.2	52.1	49.2	36.7	73.3	57.4		91.2	45.1	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	72.4	19.8	0.2	52.1	49.2	36.7	73.3	57.4		91.2	45.1	7.7
LOS	E	B	A	D	D	D	E	E		F	D	A
Approach Delay		22.9			45.2			60.5			68.3	
Approach LOS		C			D			E			E	

Intersection Summary

Area Type: Other  
 Cycle Length: 160  
 Actuated Cycle Length: 160  
 Offset: 16 (10%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.90  
 Intersection Signal Delay: 42.1      Intersection LOS: D  
 Intersection Capacity Utilization 72.4%      ICU Level of Service C  
 Analysis Period (min) 15

Splits and Phases: 12: Ponytrail Dr & Burnhamthorpe Rd





Lane Group	Ø7	Ø9	Ø10	Ø11
Turn Type				
Protected Phases	7	9	10	11
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	1.0	1.0	1.0	1.0
Minimum Split (s)	3.0	3.0	3.0	3.0
Total Split (s)	5.0	5.0	5.0	5.0
Total Split (%)	3%	3%	3%	3%
Maximum Green (s)	3.0	3.0	3.0	3.0
Yellow Time (s)	2.0	2.0	2.0	2.0
All-Red Time (s)	0.0	0.0	0.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag				Lead
Lead-Lag Optimize?				Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0
Recall Mode	Ped	Ped	Ped	Ped
Walk Time (s)	0.0	0.0	0.0	0.0
Flash Dont Walk (s)	0.0	0.0	0.0	0.0
Pedestrian Calls (#/hr)	0	0	0	0
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Intersection Summary				



Lane Group	Ø9	Ø10	Ø11
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Turn Type			
Protected Phases	9	10	11
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	1.0	1.0	1.0
Minimum Split (s)	3.0	3.0	3.0
Total Split (s)	5.0	5.0	5.0
Total Split (%)	3%	3%	3%
Yellow Time (s)	2.0	2.0	2.0
All-Red Time (s)	0.0	0.0	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag			Lead
Lead-Lag Optimize?			Yes
Recall Mode	Ped	Ped	Ped
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Intersection Summary			

Queues  
12: Ponytrail Dr & Burnhamthorpe Rd

2029 FT sat Sensitivity  
12/04/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	79	1059	24	85	875	485	24	99	404	52	132
v/c Ratio	0.79	0.51	0.03	0.48	0.70	0.75	0.23	0.59	0.90	0.11	0.26
Control Delay	72.4	19.8	0.2	52.1	49.2	36.7	73.3	57.4	91.2	45.1	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	72.4	19.8	0.2	52.1	49.2	36.7	73.3	57.4	91.2	45.1	7.7
Queue Length 50th (m)	14.5	94.4	0.0	21.3	127.0	90.1	7.4	19.1	66.0	12.9	0.0
Queue Length 95th (m)	#57.8	113.3	0.5	40.5	150.9	136.0	16.9	38.0	#93.3	23.3	16.2
Internal Link Dist (m)		651.9			218.1			920.6		141.5	
Turn Bay Length (m)	35.0		30.0	35.0		30.0	15.0		40.0		45.0
Base Capacity (vph)	100	2069	948	178	1242	649	440	581	460	960	869
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.79	0.51	0.03	0.48	0.70	0.75	0.05	0.17	0.88	0.05	0.15

Intersection Summary

























# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

# APPENDIX N

## 2029 Future Total Detailed Capacity Analysis Optimized

Lanes, Volumes, Timings  
1: Dixie Rd & Bloor St

2029 FT AM Optimized  
08/09/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	137	470	173	291	397	266	57	974	204	194	1185	100
Future Volume (vph)	137	470	173	291	397	266	57	974	204	194	1185	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		15.0	60.0		10.0	75.0		0.0	100.0		85.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	85.0			60.0			90.0			50.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.91	0.91	1.00	0.91	1.00
Ped Bike Factor	0.97		0.98	1.00		0.93	0.99	1.00		1.00		0.95
Fr <sub>t</sub>			0.850			0.850		0.974				0.850
Fl <sub>t</sub> Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1738	3544	1617	1772	3444	1555	1722	4693	0	1722	4948	1555
Fl <sub>t</sub> Permitted	0.501			0.238			0.203			0.123		
Satd. Flow (perm)	889	3544	1582	442	3444	1452	365	4693	0	223	4948	1473
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			68			114		31				109
Link Speed (k/h)		50			50			60			60	
Link Distance (m)		302.0			160.9			615.3			434.7	
Travel Time (s)		21.7			11.6			36.9			26.1	
Confl. Peds. (#/hr)	45		8	8		45	35		14	14		35
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	5%	3%	1%	3%	6%	5%	6%	9%	5%	6%	6%	5%
Adj. Flow (vph)	149	511	188	316	432	289	62	1059	222	211	1288	109
Shared Lane Traffic (%)												
Lane Group Flow (vph)	149	511	188	316	432	289	62	1281	0	211	1288	109
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane					Yes							
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	2	1	1	1	1	1	1	0		1	0	0
Detector Template								Thru			Thru	Right
Leading Detector (m)	24.0	7.0	7.0	22.0	7.0	7.0	24.0	0.0		24.0	0.0	0.0
Trailing Detector (m)	-2.5	-0.2	-2.0	12.0	-2.0	-2.0	14.0	0.0		14.0	0.0	0.0
Detector 1 Position(m)	-2.5	-0.2	-2.0	12.0	-2.0	-2.0	14.0	0.0		14.0	0.0	0.0
Detector 1 Size(m)	10.0	7.2	9.0	10.0	9.0	9.0	10.0	0.6		10.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)	14.0											
Detector 2 Size(m)	10.0											
Detector 2 Type	Cl+Ex											
Detector 2 Channel												
Detector 2 Extend (s)	0.0											

Lanes, Volumes, Timings  
1: Dixie Rd & Bloor St

2029 FT AM Optimized  
08/09/2024

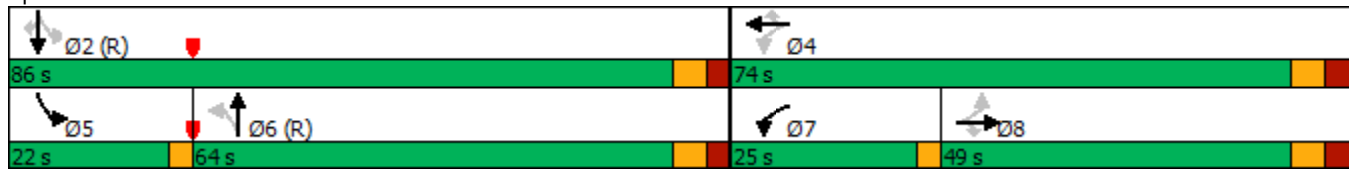


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	Perm	NA		pm+pt	NA	Perm
Protected Phases		8		7	4			6		5	2	
Permitted Phases	8		8	4		4	6			2		2
Detector Phase	8	8	8	7	4	4	6	6		5	2	2
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	7.0	10.0	10.0	10.0	10.0		7.0	10.0	10.0
Minimum Split (s)	46.4	46.4	46.4	10.0	46.4	46.4	46.9	46.9		10.0	46.9	46.9
Total Split (s)	49.0	49.0	49.0	25.0	74.0	74.0	64.0	64.0		22.0	86.0	86.0
Total Split (%)	30.6%	30.6%	30.6%	15.6%	46.3%	46.3%	40.0%	40.0%		13.8%	53.8%	53.8%
Maximum Green (s)	41.6	41.6	41.6	22.0	66.6	66.6	57.1	57.1		19.0	79.1	79.1
Yellow Time (s)	4.0	4.0	4.0	3.0	4.0	4.0	4.0	4.0		3.0	4.0	4.0
All-Red Time (s)	3.4	3.4	3.4	0.0	3.4	3.4	2.9	2.9		0.0	2.9	2.9
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.4	7.4	7.4	3.0	7.4	7.4	6.9	6.9		3.0	6.9	6.9
Lead/Lag	Lag	Lag	Lag	Lead			Lag	Lag		Lead		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	C-Max	C-Max		None	C-Max	C-Max
Walk Time (s)	10.0	10.0	10.0		10.0	10.0	10.0	10.0			10.0	10.0
Flash Dont Walk (s)	29.0	29.0	29.0		29.0	29.0	30.0	30.0			30.0	30.0
Pedestrian Calls (#/hr)	0	0	0		0	0	0	0			0	0
Act Effct Green (s)	33.6	33.6	33.6	63.0	58.6	58.6	68.1	68.1		91.0	87.1	87.1
Actuated g/C Ratio	0.21	0.21	0.21	0.39	0.37	0.37	0.43	0.43		0.57	0.54	0.54
v/c Ratio	0.80	0.69	0.49	0.89	0.34	0.48	0.40	0.64		0.76	0.48	0.13
Control Delay	88.2	62.6	37.9	62.0	36.7	24.4	46.5	38.7		41.2	24.0	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	88.2	62.6	37.9	62.0	36.7	24.4	46.5	38.7		41.2	24.0	3.7
LOS	F	E	D	E	D	C	D	D		D	C	A
Approach Delay		61.6			41.0			39.1			24.9	
Approach LOS		E			D			D			C	

Intersection Summary

Area Type: Other  
 Cycle Length: 160  
 Actuated Cycle Length: 160  
 Offset: 45 (28%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green  
 Natural Cycle: 115  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.89  
 Intersection Signal Delay: 38.7  
 Intersection LOS: D  
 Intersection Capacity Utilization 101.5%  
 ICU Level of Service G  
 Analysis Period (min) 15

Splits and Phases: 1: Dixie Rd & Bloor St



Queues  
1: Dixie Rd & Bloor St

2029 FT AM Optimized  
08/09/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	149	511	188	316	432	289	62	1281	211	1288	109
v/c Ratio	0.80	0.69	0.49	0.89	0.34	0.48	0.40	0.64	0.76	0.48	0.13
Control Delay	88.2	62.6	37.9	62.0	36.7	24.4	46.5	38.7	41.2	24.0	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	88.2	62.6	37.9	62.0	36.7	24.4	46.5	38.7	41.2	24.0	3.7
Queue Length 50th (m)	45.1	79.1	33.3	73.0	51.7	41.7	13.9	117.1	32.5	91.5	0.0
Queue Length 95th (m)	69.4	93.4	55.5	#99.6	61.4	64.5	32.6	146.5	64.0	114.2	10.2
Internal Link Dist (m)		278.0			136.9			591.3		410.7	
Turn Bay Length (m)	40.0		15.0	60.0		10.0	75.0		100.0		85.0
Base Capacity (vph)	231	921	461	357	1433	670	155	2015	308	2692	851
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.55	0.41	0.89	0.30	0.43	0.40	0.64	0.69	0.48	0.13

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.



Lanes, Volumes, Timings  
2: Havenwood Dr & Bloor St

2029 FT AM Optimized  
08/09/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	67	749	62	58	729	28	68	60	60	48	85	120
Future Volume (vph)	67	749	62	58	729	28	68	60	60	48	85	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0		0.0	50.0		0.0	25.0		0.0	25.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	65.0			80.0			40.0			35.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			0.99		0.87	0.86		0.78	0.88	
Frt		0.989			0.995			0.925			0.912	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1789	1818	0	1722	1829	0	1690	1501	0	1722	1464	0
Flt Permitted	0.256			0.225			0.466			0.674		
Satd. Flow (perm)	482	1818	0	408	1829	0	718	1501	0	955	1464	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6			3			54			76	
Link Speed (k/h)		50			50			30			40	
Link Distance (m)		179.0			562.7			137.1			118.1	
Travel Time (s)		12.9			40.5			16.5			10.6	
Confl. Peds. (#/hr)	70		25	25		70	127		178	178		127
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	4%	4%	6%	4%	4%	8%	2%	2%	6%	6%	5%
Adj. Flow (vph)	73	814	67	63	792	30	74	65	65	52	92	130
Shared Lane Traffic (%)												
Lane Group Flow (vph)	73	881	0	63	822	0	74	130	0	52	222	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	0	0		0	0		1	1		1	1	
Detector Template		Thru		Left	Thru							
Leading Detector (m)	0.0	0.0		0.0	0.0		7.0	7.0		8.0	8.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		-2.0	-2.0		-2.0	-2.0	
Detector 1 Position(m)	11.5	0.0		0.0	0.0		-2.0	-2.0		-2.0	-2.0	
Detector 1 Size(m)	9.0	0.6		2.0	0.6		9.0	9.0		10.0	10.0	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Detector Phase	2	2		2	2		4	4		4	4	
Switch Phase												

Lanes, Volumes, Timings  
2: Havenwood Dr & Bloor St

2029 FT AM Optimized  
08/09/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	35.0	35.0		35.0	35.0		41.5	41.5		41.5	41.5	
Total Split (s)	59.0	59.0		59.0	59.0		41.0	41.0		41.0	41.0	
Total Split (%)	59.0%	59.0%		59.0%	59.0%		41.0%	41.0%		41.0%	41.0%	
Maximum Green (s)	53.0	53.0		53.0	53.0		33.5	33.5		33.5	33.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.5	2.5		2.5	2.5		4.5	4.5		4.5	4.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		7.5	7.5		7.5	7.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	
Walk Time (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Flash Dont Walk (s)	19.0	19.0		19.0	19.0		24.0	24.0		24.0	24.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	69.6	69.6		69.6	69.6		16.9	16.9		16.9	16.9	
Actuated g/C Ratio	0.70	0.70		0.70	0.70		0.17	0.17		0.17	0.17	
v/c Ratio	0.22	0.70		0.22	0.65		0.61	0.44		0.32	0.72	
Control Delay	9.0	14.1		9.2	10.1		58.1	25.2		39.5	37.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	9.0	14.1		9.2	10.1		58.1	25.2		39.5	37.7	
LOS	A	B		A	B		E	C		D	D	
Approach Delay		13.7			10.0			37.1			38.0	
Approach LOS		B			A			D			D	

Intersection Summary

Area Type: Other  
 Cycle Length: 100  
 Actuated Cycle Length: 100  
 Offset: 39 (39%), Referenced to phase 2:EBWB, Start of Green  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.72  
 Intersection Signal Delay: 17.2  
 Intersection LOS: B  
 Intersection Capacity Utilization 109.8%  
 ICU Level of Service H  
 Analysis Period (min) 15

Splits and Phases: 2: Havenwood Dr & Bloor St



Queues  
2: Havenwood Dr & Bloor St

2029 FT AM Optimized  
08/09/2024



























Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	73	881	63	822	74	130	52	222
v/c Ratio	0.22	0.70	0.22	0.65	0.61	0.44	0.32	0.72
Control Delay	9.0	14.1	9.2	10.1	58.1	25.2	39.5	37.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.0	14.1	9.2	10.1	58.1	25.2	39.5	37.7
Queue Length 50th (m)	4.3	84.9	3.4	49.3	13.6	13.2	9.0	27.1
Queue Length 95th (m)	13.8	173.5	m10.7	96.8	26.0	27.3	18.3	46.9
Internal Link Dist (m)		155.0		538.7		113.1		94.1
Turn Bay Length (m)	50.0		50.0		25.0		25.0	
Base Capacity (vph)	335	1266	283	1273	240	538	319	540
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.70	0.22	0.65	0.31	0.24	0.16	0.41

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lanes, Volumes, Timings  
3: Fieldgate Dr & Bloor St

2029 FT AM Optimized  
08/09/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	174	653	38	31	517	96	68	54	77	171	42	203
Future Volume (vph)	174	653	38	31	517	96	68	54	77	171	42	203
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	80.0		75.0	92.0		92.0	45.0		0.0	25.0		0.0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (m)	50.0			55.0			30.0			30.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.98			0.97			0.95	0.91		0.89	0.92	
Fr <sub>t</sub>			0.850			0.850		0.912			0.876	
Fl <sub>t</sub> Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1772	1847	1585	1825	1847	1498	1738	1541	0	1789	1448	0
Fl <sub>t</sub> Permitted	0.311			0.360			0.405			0.659		
Satd. Flow (perm)	570	1847	1585	674	1847	1498	701	1541	0	1108	1448	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			142			142		77			221	
Link Speed (k/h)		50			50			40			40	
Link Distance (m)		562.7			233.6			134.2			78.0	
Travel Time (s)		40.5			16.8			12.1			7.0	
Confl. Peds. (#/hr)	37		47	47		37	54		84	84		54
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	4%	3%	0%	4%	9%	5%	2%	5%	2%	3%	7%
Adj. Flow (vph)	189	710	41	34	562	104	74	59	84	186	46	221
Shared Lane Traffic (%)												
Lane Group Flow (vph)	189	710	41	34	562	104	74	143	0	186	267	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane		Yes										
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	0	1	0	0	1	1	1		1	1	
Detector Template		Thru	Right	Left	Thru	Right						
Leading Detector (m)	21.0	0.0	2.0	0.0	0.0	2.0	6.5	6.5		7.5	6.0	
Trailing Detector (m)	12.0	0.0	0.0	0.0	0.0	0.0	-2.5	-2.5		-1.5	-3.0	
Detector 1 Position(m)	12.0	0.0	0.0	0.0	0.0	0.0	-2.5	-2.5		-1.5	-3.0	
Detector 1 Size(m)	9.0	0.6	2.0	2.0	0.6	2.0	9.0	9.0		9.0	9.0	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA	NA	Perm	NA	NA	Perm	NA		Perm	NA	
Protected Phases	5	2			6			4			8	
Permitted Phases	2			6			4			8		
Detector Phase	5	2		6	6		4	4		8	8	
Switch Phase												

Lanes, Volumes, Timings  
3: Fieldgate Dr & Bloor St

2029 FT AM Optimized  
08/09/2024

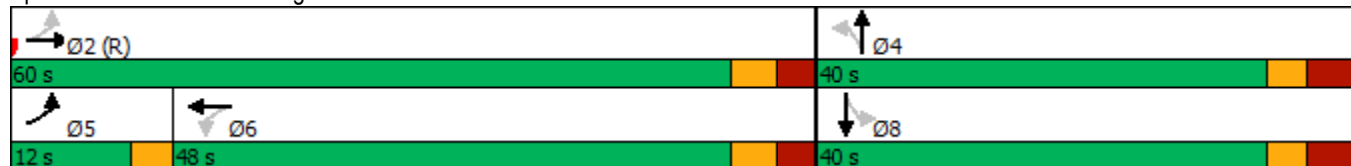


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	7.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	11.5	33.5		33.5	33.5		38.5	38.5		38.5	38.5	
Total Split (s)	12.0	60.0		48.0	48.0		40.0	40.0		40.0	40.0	
Total Split (%)	12.0%	60.0%		48.0%	48.0%		40.0%	40.0%		40.0%	40.0%	
Maximum Green (s)	9.0	53.5		41.5	41.5		33.5	33.5		33.5	33.5	
Yellow Time (s)	3.0	3.5		3.5	3.5		3.0	3.0		3.0	3.0	
All-Red Time (s)	0.0	3.0		3.0	3.0		3.5	3.5		3.5	3.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.0	6.5		6.5	6.5		6.5	6.5		6.5	6.5	
Lead/Lag	Lead			Lag			Lag			Lag		
Lead-Lag Optimize?	Yes			Yes			Yes			Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max		Max	Max		None	None		None	None	
Walk Time (s)		10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Flash Dont Walk (s)		17.0		17.0	17.0		22.0	22.0		22.0	22.0	
Pedestrian Calls (#/hr)		0		0	0		0	0		0	0	
Act Effct Green (s)	68.4	64.9	0.0	53.3	53.3	0.0	22.1	22.1		22.1	22.1	
Actuated g/C Ratio	0.68	0.65	0.00	0.53	0.53	0.00	0.22	0.22		0.22	0.22	
v/c Ratio	0.38	0.59	0.29	0.09	0.57	0.73	0.48	0.36		0.76	0.54	
Control Delay	12.5	21.3	3.9	16.1	20.8	32.7	42.1	16.8		54.9	11.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	12.5	21.3	3.9	16.1	20.8	32.7	42.1	16.8		54.9	11.0	
LOS	B	C	A	B	C	C	D	B		D	B	
Approach Delay		18.8			22.4			25.4			29.0	
Approach LOS		B			C			C			C	

Intersection Summary

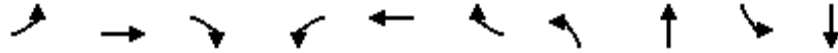
Area Type: Other  
 Cycle Length: 100  
 Actuated Cycle Length: 100  
 Offset: 10 (10%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 85  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.76  
 Intersection Signal Delay: 22.5  
 Intersection LOS: C  
 Intersection Capacity Utilization 99.5%  
 ICU Level of Service F  
 Analysis Period (min) 15

Splits and Phases: 3: Fieldgate Dr & Bloor St



Queues  
3: Fieldgate Dr & Bloor St

2029 FT AM Optimized  
08/09/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	189	710	41	34	562	104	74	143	186	267
v/c Ratio	0.38	0.59	0.29	0.09	0.57	0.73	0.48	0.36	0.76	0.54
Control Delay	12.5	21.3	3.9	16.1	20.8	32.7	42.1	16.8	54.9	11.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.5	21.3	3.9	16.1	20.8	32.7	42.1	16.8	54.9	11.0
Queue Length 50th (m)	19.6	116.7	0.0	3.1	68.9	0.0	12.6	10.5	34.0	7.2
Queue Length 95th (m)	m33.7	181.3	m0.0	10.5	129.6	#17.5	23.7	23.4	51.5	25.7
Internal Link Dist (m)		538.7			209.6			110.2		54.0
Turn Bay Length (m)	80.0		75.0	92.0		92.0	45.0		25.0	
Base Capacity (vph)	504	1197	142	358	983	142	234	567	371	632
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.59	0.29	0.09	0.57	0.73	0.32	0.25	0.50	0.42

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lanes, Volumes, Timings  
6: Fieldgate Dr & Williamsport Dr/Site Access 1

2029 FT AM Optimized  
08/09/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	32	0	72	70	0	52	50	257	45	26	207	44
Future Volume (vph)	32	0	72	70	0	52	50	257	45	26	207	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.907			0.942			0.983			0.978	
Flt Protected		0.985			0.972			0.993			0.995	
Satd. Flow (prot)	0	1716	0	0	1725	0	0	1813	0	0	1791	0
Flt Permitted		0.985			0.972			0.993			0.995	
Satd. Flow (perm)	0	1716	0	0	1725	0	0	1813	0	0	1791	0
Link Speed (k/h)		40			48			40			40	
Link Distance (m)		168.2			54.9			83.8			69.3	
Travel Time (s)		15.1			4.1			7.5			6.2	
Confl. Peds. (#/hr)	23		7	7		23	68					68
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	0%	2%	2%	2%	2%	4%	2%	2%	5%	3%
Adj. Flow (vph)	35	0	78	76	0	57	54	279	49	28	225	48
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	113	0	0	133	0	0	382	0	0	301	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	97		97	24		97	97		14
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	49.0%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis  
6: Fieldgate Dr & Williamsport Dr/Site Access 1

2029 FT AM Optimized  
08/09/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	32	0	72	70	0	52	50	257	45	26	207	44
Future Volume (Veh/h)	32	0	72	70	0	52	50	257	45	26	207	44
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	35	0	78	76	0	57	54	279	49	28	225	48
Pedestrians		68						7			23	
Lane Width (m)		3.7						3.7			3.7	
Walking Speed (m/s)		1.1						1.1			1.1	
Percent Blockage		7						1			2	
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (m)								162				
pX, platoon unblocked	0.99	0.99		0.99	0.99	0.99				0.99		
vC, conflicting volume	864	809	324	802	808	326	341			328		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	860	804	324	797	804	319	341			320		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	83	100	88	68	100	92	95			98		
cM capacity (veh/h)	208	273	669	239	273	701	1137			1232		
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>WB 1</b>	<b>NB 1</b>	<b>SB 1</b>								
Volume Total	113	133	382	301								
Volume Left	35	76	54	28								
Volume Right	78	57	49	48								
cSH	397	333	1137	1232								
Volume to Capacity	0.28	0.40	0.05	0.02								
Queue Length 95th (m)	8.8	14.1	1.1	0.5								
Control Delay (s)	17.6	22.8	1.6	0.9								
Lane LOS	C	C	A	A								
Approach Delay (s)	17.6	22.8	1.6	0.9								
Approach LOS	C	C										
<b>Intersection Summary</b>												
Average Delay			6.4									
Intersection Capacity Utilization			49.0%		ICU Level of Service				A			
Analysis Period (min)			15									



Lanes, Volumes, Timings  
7: Fieldgate Dr & Ponytrail Dr

2029 FT AM Optimized  
08/09/2024












Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	93	44	258	82	36	187
Future Volume (vph)	93	44	258	82	36	187
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	0.957		0.967			
Flt Protected	0.967					0.992
Satd. Flow (prot)	1665	0	1800	0	0	1854
Flt Permitted	0.967					0.992
Satd. Flow (perm)	1665	0	1800	0	0	1854
Link Speed (k/h)	30		40			30
Link Distance (m)	39.8		69.3			254.8
Travel Time (s)	4.8		6.2			30.6
Confl. Peds. (#/hr)	1	99		117	117	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	9%	2%	2%	7%	7%	2%
Adj. Flow (vph)	101	48	280	89	39	203
Shared Lane Traffic (%)						
Lane Group Flow (vph)	149	0	369	0	0	242
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.7		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	1.6		1.6			1.6
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24	14		14	24	
Sign Control	Stop		Stop			Stop

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	55.1%
ICU Level of Service	B
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis  
7: Fieldgate Dr & Ponytrail Dr

2029 FT AM Optimized  
08/09/2024

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Stop			Stop
Traffic Volume (vph)	93	44	258	82	36	187
Future Volume (vph)	93	44	258	82	36	187
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	101	48	280	89	39	203
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total (vph)	149	369	242			
Volume Left (vph)	101	0	39			
Volume Right (vph)	48	89	0			
Hadj (s)	0.06	-0.09	0.08			
Departure Headway (s)	5.4	4.5	4.8			
Degree Utilization, x	0.22	0.47	0.33			
Capacity (veh/h)	608	768	710			
Control Delay (s)	9.9	11.4	10.1			
Approach Delay (s)	9.9	11.4	10.1			
Approach LOS	A	B	B			
Intersection Summary						
Delay			10.7			
Level of Service			B			
Intersection Capacity Utilization			55.1%	ICU Level of Service	B	
Analysis Period (min)			15			

Lanes, Volumes, Timings  
9: Site Access 2 & Ponytrail Dr

2029 FT AM Optimized  
08/09/2024



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	116	0	7	136	0	21
Future Volume (vph)	116	0	7	136	0	21
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						0.865
Flt Protected				0.997		
Satd. Flow (prot)	1795	0	0	1796	1629	0
Flt Permitted				0.997		
Satd. Flow (perm)	1795	0	0	1796	1629	0
Link Speed (k/h)	30		30		30	
Link Distance (m)	47.8		156.1		119.1	
Travel Time (s)	5.7		18.7		14.3	
Confl. Peds. (#/hr)	101		101		3 4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	7%	2%	0%	7%	0%	2%
Adj. Flow (vph)	126	0	8	148	0	23
Shared Lane Traffic (%)						
Lane Group Flow (vph)	126	0	0	156	23	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		3.7	
Link Offset(m)	0.0		0.0		0.0	
Crosswalk Width(m)	1.6		1.6		1.6	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	14		24		24 14	
Sign Control	Free		Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	24.3%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis  
 9: Site Access 2 & Ponytrail Dr

2029 FT AM Optimized  
 08/09/2024



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	→			←	↔	↔
Traffic Volume (veh/h)	116	0	7	136	0	21
Future Volume (Veh/h)	116	0	7	136	0	21
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	126	0	8	148	0	23
Pedestrians	3			4	101	
Lane Width (m)	3.7			3.7	3.7	
Walking Speed (m/s)	1.1			1.1	1.1	
Percent Blockage	0			0	10	
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			227		394	231
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			227		394	231
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		100	97
cM capacity (veh/h)			1219		549	725
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>WB 1</b>	<b>NB 1</b>			
Volume Total	126	156	23			
Volume Left	0	8	0			
Volume Right	0	0	23			
cSH	1700	1219	725			
Volume to Capacity	0.07	0.01	0.03			
Queue Length 95th (m)	0.0	0.2	0.7			
Control Delay (s)	0.0	0.5	10.1			
Lane LOS			A			B
Approach Delay (s)	0.0	0.5	10.1			
Approach LOS				B		
<b>Intersection Summary</b>						
Average Delay			1.0			
Intersection Capacity Utilization			24.3%	ICU Level of Service	A	
Analysis Period (min)			15			

Lanes, Volumes, Timings  
10: Fieldgate Dr & Haven Glenn

2029 FT AM Optimized  
08/09/2024



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	49	45	37	266	174	42
Future Volume (vph)	49	45	37	266	174	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
Ped Bike Factor						
Frt	0.935			0.974		
Flt Protected	0.975			0.994		
Satd. Flow (prot)	1724	0	0	1879	1782	0
Flt Permitted	0.975			0.994		
Satd. Flow (perm)	1724	0	0	1879	1782	0
Link Speed (k/h)	40			30	30	
Link Distance (m)	258.3			254.8	440.5	
Travel Time (s)	23.2			30.6	52.9	
Confl. Peds. (#/hr)	43	104	20			20
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	0%	6%	1%	5%	5%
Adj. Flow (vph)	53	49	40	289	189	46
Shared Lane Traffic (%)						
Lane Group Flow (vph)	102	0	0	329	235	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24	14	24			14
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	51.9%
	ICU Level of Service A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis  
 10: Fieldgate Dr & Haven Glenn

2029 FT AM Optimized  
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Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	49	45	37	266	174	42
Future Volume (Veh/h)	49	45	37	266	174	42
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	53	49	40	289	189	46
Pedestrians	20			104	43	
Lane Width (m)	3.7			3.7	3.7	
Walking Speed (m/s)	1.1			1.1	1.1	
Percent Blockage	2			10	4	
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	644	336	255			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	644	336	255			
tC, single (s)	6.4	6.2	4.2			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.3			
p0 queue free %	87	92	97			
cM capacity (veh/h)	396	626	1262			
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>NB 1</b>	<b>SB 1</b>			
Volume Total	102	329	235			
Volume Left	53	40	0			
Volume Right	49	0	46			
cSH	481	1262	1700			
Volume to Capacity	0.21	0.03	0.14			
Queue Length 95th (m)	6.0	0.7	0.0			
Control Delay (s)	14.5	1.2	0.0			
Lane LOS	B	A				
Approach Delay (s)	14.5	1.2	0.0			
Approach LOS	B					
<b>Intersection Summary</b>						
Average Delay			2.8			
Intersection Capacity Utilization			51.9%	ICU Level of Service	A	
Analysis Period (min)			15			

Lanes, Volumes, Timings  
11: Fieldgate Dr & Burnhamthorpe Rd

2029 FT AM Optimized  
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	37	1046	194	49	715	30	180	120	83	65	81	58
Future Volume (vph)	37	1046	194	49	715	30	180	120	83	65	81	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	30.0		25.0	30.0		30.0	15.0		0.0	65.0		65.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	30.0			45.0			40.0			75.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.98		0.94	0.99		0.90	0.97	0.98		0.97		0.96
Fr <sub>t</sub>			0.850			0.850		0.939				0.850
Fl <sub>t</sub> Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1644	3544	1585	1755	3510	1633	1807	1716	0	1789	1847	1526
Fl <sub>t</sub> Permitted	0.338			0.216			0.700			0.419		
Satd. Flow (perm)	572	3544	1486	397	3510	1472	1295	1716	0	765	1847	1461
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			81			65		21				63
Link Speed (k/h)		60			60			40				50
Link Distance (m)		499.8			675.9			440.5				226.9
Travel Time (s)		30.0			40.6			39.6				16.3
Confl. Peds. (#/hr)	31		17	17		31	22		34	34		22
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	11%	3%	3%	4%	4%	0%	1%	3%	2%	2%	4%	7%
Adj. Flow (vph)	40	1137	211	53	777	33	196	130	90	71	88	63
Shared Lane Traffic (%)												
Lane Group Flow (vph)	40	1137	211	53	777	33	196	220	0	71	88	63
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7				3.7
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	0	0	0	0	0	0	1	1		1	1	0
Detector Template												
Leading Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	7.0	7.0		7.0	7.0	0.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	-2.0	-2.0		-2.0	-2.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	-2.0	-2.0		-2.0	-2.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	9.0	9.0		9.0	9.0	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases		2			6			4				8
Permitted Phases	2		2	6		6	4			8		8
Detector Phase	2	2	2	6	6	6	4	4		8	8	8
Switch Phase												

Lane Group	Ø1	Ø3	Ø5	Ø7
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (m)				
Storage Lanes				
Taper Length (m)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (k/h)				
Link Distance (m)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(m)				
Link Offset(m)				
Crosswalk Width(m)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (k/h)				
Number of Detectors				
Detector Template				
Leading Detector (m)				
Trailing Detector (m)				
Detector 1 Position(m)				
Detector 1 Size(m)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Turn Type				
Protected Phases	1	3	5	7
Permitted Phases				
Detector Phase				
Switch Phase				



Lanes, Volumes, Timings  
11: Fieldgate Dr & Burnhamthorpe Rd

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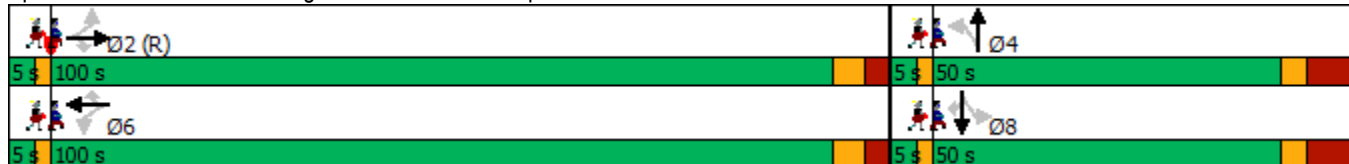


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	38.0	38.0	38.0	38.0	38.0	38.0	42.5	42.5		42.5	42.5	42.5
Total Split (s)	100.0	100.0	100.0	100.0	100.0	100.0	50.0	50.0		50.0	50.0	50.0
Total Split (%)	62.5%	62.5%	62.5%	62.5%	62.5%	62.5%	31.3%	31.3%		31.3%	31.3%	31.3%
Maximum Green (s)	93.0	93.0	93.0	93.0	93.0	93.0	41.5	41.5		41.5	41.5	41.5
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	5.5	5.5		5.5	5.5	5.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	8.5	8.5		8.5	8.5	8.5
Lead/Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lag		Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	C-Max	C-Max	C-Max	Max	Max	Max	None	None		None	None	None
Walk Time (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	10.0
Flash Dont Walk (s)	21.0	21.0	21.0	21.0	21.0	21.0	24.0	24.0		24.0	24.0	24.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	0
Act Effct Green (s)	114.8	114.8	114.8	114.8	114.8	114.8	29.7	29.7		29.7	29.7	29.7
Actuated g/C Ratio	0.72	0.72	0.72	0.72	0.72	0.72	0.19	0.19		0.19	0.19	0.19
v/c Ratio	0.10	0.45	0.19	0.19	0.31	0.03	0.82	0.66		0.50	0.26	0.20
Control Delay	9.2	10.8	5.6	10.8	8.8	0.9	87.0	62.9		69.0	55.5	11.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	9.2	10.8	5.6	10.8	8.8	0.9	87.0	62.9		69.0	55.5	11.7
LOS	A	B	A	B	A	A	F	E		E	E	B
Approach Delay		10.0			8.6			74.3			47.4	
Approach LOS		A			A			E			D	

Intersection Summary

Area Type: Other  
 Cycle Length: 160  
 Actuated Cycle Length: 160  
 Offset: 40 (25%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.82  
 Intersection Signal Delay: 21.7  
 Intersection LOS: C  
 Intersection Capacity Utilization 92.3%  
 ICU Level of Service F  
 Analysis Period (min) 15

Splits and Phases: 11: Fieldgate Dr & Burnhamthorpe Rd



Lane Group	Ø1	Ø3	Ø5	Ø7
Minimum Initial (s)	1.0	1.0	1.0	1.0
Minimum Split (s)	3.0	3.0	3.0	3.0
Total Split (s)	5.0	5.0	5.0	5.0
Total Split (%)	3%	3%	3%	3%
Maximum Green (s)	3.0	3.0	3.0	3.0
Yellow Time (s)	2.0	2.0	2.0	2.0
All-Red Time (s)	0.0	0.0	0.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None
Walk Time (s)				
Flash Dont Walk (s)				
Pedestrian Calls (#/hr)				
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Intersection Summary				

Queues  
11: Fieldgate Dr & Burnhamthorpe Rd

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	40	1137	211	53	777	33	196	220	71	88	63
v/c Ratio	0.10	0.45	0.19	0.19	0.31	0.03	0.82	0.66	0.50	0.26	0.20
Control Delay	9.2	10.8	5.6	10.8	8.8	0.9	87.0	62.9	69.0	55.5	11.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.2	10.8	5.6	10.8	8.8	0.9	87.0	62.9	69.0	55.5	11.7
Queue Length 50th (m)	3.6	73.1	11.9	4.8	37.6	0.0	60.6	59.6	20.5	24.3	0.0
Queue Length 95th (m)	9.7	107.1	26.1	11.4	54.5	m0.0	84.2	81.9	35.4	38.0	12.5
Internal Link Dist (m)		475.8			651.9			416.5		202.9	
Turn Bay Length (m)	30.0		25.0	30.0		30.0	15.0		65.0		65.0
Base Capacity (vph)	410	2543	1089	284	2518	1074	335	460	198	479	425
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.45	0.19	0.19	0.31	0.03	0.59	0.48	0.36	0.18	0.15

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lanes, Volumes, Timings  
12: Ponytrail Dr & Burnhamthorpe Rd

2029 FT AM Optimized  
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘	↗		↗↘	↑	↗
Traffic Volume (vph)	35	1117	33	36	698	303	27	43	83	311	34	73
Future Volume (vph)	35	1117	33	36	698	303	27	43	83	311	34	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	35.0		30.0	35.0		30.0	15.0		0.0	40.0		0.0
Storage Lanes	1		1	1		1	1		0	2		1
Taper Length (m)	45.0			65.0			50.0			30.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Ped Bike Factor	0.99		0.96			0.96	1.00	0.98		0.97		0.98
Frt			0.850			0.850		0.901				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1630	3579	1471	1825	3476	1585	1755	1651	0	3471	1779	1555
Flt Permitted	0.215			0.202			0.733			0.950		
Satd. Flow (perm)	366	3579	1417	388	3476	1521	1348	1651	0	3353	1779	1530
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			116			169			56			79
Link Speed (k/h)		60			60			40				50
Link Distance (m)		675.9			242.1			944.6				165.5
Travel Time (s)		40.6			14.5			85.0				11.9
Confl. Peds. (#/hr)	20		7	7		20	3		17	17		3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	12%	2%	11%	0%	5%	3%	4%	3%	2%	2%	8%	5%
Adj. Flow (vph)	38	1214	36	39	759	329	29	47	90	338	37	79
Shared Lane Traffic (%)												
Lane Group Flow (vph)	38	1214	36	39	759	329	29	137	0	338	37	79
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			7.4				7.4
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2	1	1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0		2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6		2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4				9.4
Detector 2 Size(m)		0.6			0.6			0.6				0.6
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				0.0

Lane Group	Ø7	Ø9	Ø10	Ø11
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (m)				
Storage Lanes				
Taper Length (m)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (k/h)				
Link Distance (m)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(m)				
Link Offset(m)				
Crosswalk Width(m)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (k/h)				
Number of Detectors				
Detector Template				
Leading Detector (m)				
Trailing Detector (m)				
Detector 1 Position(m)				
Detector 1 Size(m)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(m)				
Detector 2 Size(m)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				

Lanes, Volumes, Timings  
12: Ponytrail Dr & Burnhamthorpe Rd

2029 FT AM Optimized  
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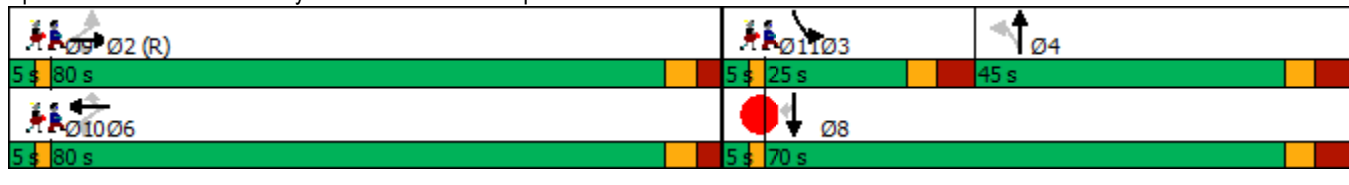


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Prot	NA	Perm
Protected Phases		2			6			4		3	8	
Permitted Phases	2		2	6		6	4					8
Detector Phase	2	2	2	6	6	6	4	4		3	8	8
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	40.0	40.0	40.0	42.0	42.0	42.0	41.0	41.0		18.0	41.0	41.0
Total Split (s)	80.0	80.0	80.0	80.0	80.0	80.0	45.0	45.0		25.0	70.0	70.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	28.1%	28.1%		15.6%	43.8%	43.8%
Maximum Green (s)	73.0	73.0	73.0	73.0	73.0	73.0	37.0	37.0		17.0	62.0	62.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	4.5	4.5		4.5	4.5	4.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	8.0	8.0		8.0	8.0	8.0
Lead/Lag												Lag
Lead-Lag Optimize?												Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	C-Max	C-Max	C-Max	Max	Max	Max	None	None		None	None	None
Walk Time (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0			10.0	10.0
Flash Dont Walk (s)	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0			23.0	23.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0			0	0
Act Effct Green (s)	93.3	93.3	93.3	73.0	73.0	73.0	14.2	14.2		17.0	39.2	39.2
Actuated g/C Ratio	0.58	0.58	0.58	0.46	0.46	0.46	0.09	0.09		0.11	0.24	0.24
v/c Ratio	0.18	0.58	0.04	0.22	0.48	0.42	0.24	0.70		0.92	0.08	0.18
Control Delay	15.0	16.0	0.1	30.6	31.5	15.1	70.9	59.2		100.2	45.4	9.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	15.0	16.0	0.1	30.6	31.5	15.1	70.9	59.2		100.2	45.4	9.2
LOS	B	B	A	C	C	B	E	E		F	D	A
Approach Delay		15.5			26.7			61.2			79.9	
Approach LOS		B			C			E			E	

Intersection Summary

Area Type: Other  
 Cycle Length: 160  
 Actuated Cycle Length: 160  
 Offset: 64 (40%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 110  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.92  
 Intersection Signal Delay: 31.8  
 Intersection LOS: C  
 Intersection Capacity Utilization 75.6%  
 ICU Level of Service D  
 Analysis Period (min) 15

Splits and Phases: 12: Ponytrail Dr & Burnhamthorpe Rd



Lane Group	Ø7	Ø9	Ø10	Ø11
Turn Type				
Protected Phases	7	9	10	11
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	1.0	1.0	1.0	1.0
Minimum Split (s)	3.0	3.0	3.0	3.0
Total Split (s)	5.0	5.0	5.0	5.0
Total Split (%)	3%	3%	3%	3%
Maximum Green (s)	3.0	3.0	3.0	3.0
Yellow Time (s)	2.0	2.0	2.0	2.0
All-Red Time (s)	0.0	0.0	0.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag				Lead
Lead-Lag Optimize?				Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0
Recall Mode	Ped	Ped	Ped	Ped
Walk Time (s)	0.0	0.0	0.0	0.0
Flash Dont Walk (s)	0.0	0.0	0.0	0.0
Pedestrian Calls (#/hr)	0	0	0	0
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Intersection Summary				

Queues  
12: Ponytrail Dr & Burnhamthorpe Rd

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	38	1214	36	39	759	329	29	137	338	37	79
v/c Ratio	0.18	0.58	0.04	0.22	0.48	0.42	0.24	0.70	0.92	0.08	0.18
Control Delay	15.0	16.0	0.1	30.6	31.5	15.1	70.9	59.2	100.2	45.4	9.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.0	16.0	0.1	30.6	31.5	15.1	70.9	59.2	100.2	45.4	9.2
Queue Length 50th (m)	4.0	69.5	0.0	7.4	87.4	32.2	8.8	25.4	55.8	9.2	0.0
Queue Length 95th (m)	8.1	76.7	0.0	17.0	105.5	57.5	18.9	47.1	#84.4	18.2	12.8
Internal Link Dist (m)		651.9			218.1			920.6		141.5	
Turn Bay Length (m)	35.0		30.0	35.0		30.0	15.0		40.0		
Base Capacity (vph)	213	2086	874	177	1585	785	311	424	368	689	641
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.58	0.04	0.22	0.48	0.42	0.09	0.32	0.92	0.05	0.12






























Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.



Lanes, Volumes, Timings  
1: Dixie Rd & Bloor St

2029 FT PM Optimized  
08/09/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 			  			  	
Traffic Volume (vph)	132	473	179	320	719	201	272	1311	406	141	1435	219
Future Volume (vph)	132	473	179	320	719	201	272	1311	406	141	1435	219
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		15.0	60.0		10.0	75.0		0.0	100.0		85.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	85.0			60.0			90.0			50.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.91	0.91	1.00	0.91	1.00
Ped Bike Factor	0.97		0.96	0.99		0.90		0.99				0.93
Frt			0.850			0.850		0.965				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1789	3544	1601	1789	3579	1617	1825	4901	0	1789	5092	1617
Flt Permitted	0.176			0.198			0.065			0.069		
Satd. Flow (perm)	323	3544	1530	368	3579	1451	125	4901	0	130	5092	1502
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			108			88			58			171
Link Speed (k/h)		50			50			60				60
Link Distance (m)		302.0			160.9			615.3				434.7
Travel Time (s)		21.7			11.6			36.9				26.1
Confl. Peds. (#/hr)	75		27	27		75	50		24	24		50
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	3%	2%	2%	2%	1%	0%	3%	0%	2%	3%	1%
Adj. Flow (vph)	143	514	195	348	782	218	296	1425	441	153	1560	238
Shared Lane Traffic (%)												
Lane Group Flow (vph)	143	514	195	348	782	218	296	1866	0	153	1560	238
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7				3.7
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane					Yes							
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	2	1	1	1	1	1	1	0		1	0	0
Detector Template								Thru			Thru	Right
Leading Detector (m)	24.0	7.0	7.0	22.0	7.0	7.0	24.0	0.0		24.0	0.0	0.0
Trailing Detector (m)	-2.5	-0.2	-2.0	12.0	-2.0	-2.0	14.0	0.0		14.0	0.0	0.0
Detector 1 Position(m)	-2.5	-0.2	-2.0	12.0	-2.0	-2.0	14.0	0.0		14.0	0.0	0.0
Detector 1 Size(m)	10.0	7.2	9.0	10.0	9.0	9.0	10.0	0.6		10.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)	14.0											
Detector 2 Size(m)	10.0											
Detector 2 Type	Cl+Ex											
Detector 2 Channel												
Detector 2 Extend (s)	0.0											

Lanes, Volumes, Timings  
1: Dixie Rd & Bloor St

2029 FT PM Optimized  
08/09/2024

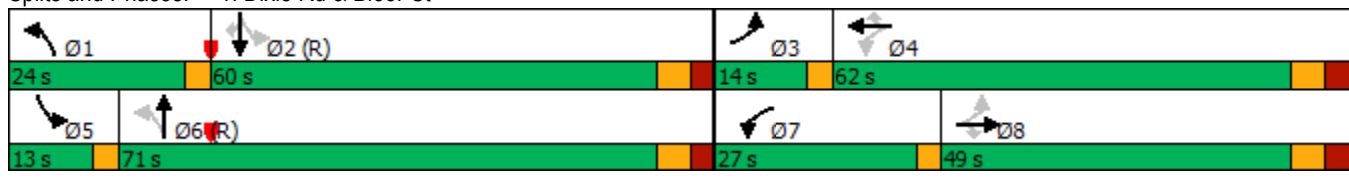


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	Perm
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8		8	4		4	6			2		2
Detector Phase	3	8	8	7	4	4	1	6		5	2	2
Switch Phase												
Minimum Initial (s)	7.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0		7.0	10.0	10.0
Minimum Split (s)	11.5	46.4	46.4	10.0	46.4	46.4	11.5	46.9		11.5	46.9	46.9
Total Split (s)	14.0	49.0	49.0	27.0	62.0	62.0	24.0	71.0		13.0	60.0	60.0
Total Split (%)	8.8%	30.6%	30.6%	16.9%	38.8%	38.8%	15.0%	44.4%		8.1%	37.5%	37.5%
Maximum Green (s)	11.0	41.6	41.6	24.0	54.6	54.6	21.0	64.1		10.0	53.1	53.1
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0		3.0	4.0	4.0
All-Red Time (s)	0.0	3.4	3.4	0.0	3.4	3.4	0.0	2.9		0.0	2.9	2.9
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	3.0	7.4	7.4	3.0	7.4	7.4	3.0	6.9		3.0	6.9	6.9
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	C-Max
Walk Time (s)		10.0	10.0		10.0	10.0		10.0			10.0	10.0
Flash Dont Walk (s)		29.0	29.0		29.0	29.0		30.0			30.0	30.0
Pedestrian Calls (#/hr)		0	0		0	0		0			0	0
Act Effct Green (s)	44.8	29.5	29.5	60.5	42.2	42.2	93.5	72.1		76.8	58.3	58.3
Actuated g/C Ratio	0.28	0.18	0.18	0.38	0.26	0.26	0.58	0.45		0.48	0.36	0.36
v/c Ratio	0.76	0.79	0.53	1.00	0.83	0.49	0.79	0.83		0.72	0.84	0.36
Control Delay	59.3	70.9	30.0	87.9	63.4	31.8	59.4	42.4		56.5	52.3	13.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	59.3	70.9	30.0	87.9	63.4	31.8	59.4	42.4		56.5	52.3	13.2
LOS	E	E	C	F	E	C	E	D		E	D	B
Approach Delay		59.6			64.6			44.7			47.8	
Approach LOS		E			E			D			D	

Intersection Summary

Area Type:	Other
Cycle Length:	160
Actuated Cycle Length:	160
Offset:	74 (46%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle:	120
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	1.00
Intersection Signal Delay:	51.9
Intersection LOS:	D
Intersection Capacity Utilization	109.3%
ICU Level of Service	H
Analysis Period (min)	15

Splits and Phases: 1: Dixie Rd & Bloor St



Queues  
1: Dixie Rd & Bloor St



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	143	514	195	348	782	218	296	1866	153	1560	238
v/c Ratio	0.76	0.79	0.53	1.00	0.83	0.49	0.79	0.83	0.72	0.84	0.36
Control Delay	59.3	70.9	30.0	87.9	63.4	31.8	59.4	42.4	56.5	52.3	13.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.3	70.9	30.0	87.9	63.4	31.8	59.4	42.4	56.5	52.3	13.2
Queue Length 50th (m)	30.6	83.2	24.7	85.0	123.9	34.7	72.7	188.5	30.7	170.0	14.5
Queue Length 95th (m)	#45.2	97.8	48.2	#137.0	138.6	57.2	#128.7	224.3	#64.5	195.8	38.2
Internal Link Dist (m)		278.0			136.9			591.3		410.7	
Turn Bay Length (m)	40.0		15.0	60.0		10.0	75.0		100.0		85.0
Base Capacity (vph)	191	921	477	352	1221	553	374	2239	213	1855	655
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.75	0.56	0.41	0.99	0.64	0.39	0.79	0.83	0.72	0.84	0.36

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

Lanes, Volumes, Timings  
2: Havenwood Dr & Bloor St

2029 FT PM Optimized  
08/09/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	107	861	58	47	1086	54	38	31	39	70	43	130
Future Volume (vph)	107	861	58	47	1086	54	38	31	39	70	43	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0		0.0	50.0		0.0	25.0		0.0	25.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	65.0			80.0			40.0			35.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			1.00		0.95	0.94		0.92	0.94	
Frt		0.991			0.993			0.917			0.887	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1825	1860	0	1825	1865	0	1825	1653	0	1755	1603	0
Flt Permitted	0.059			0.233			0.507			0.708		
Satd. Flow (perm)	113	1860	0	448	1865	0	929	1653	0	1198	1603	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6			4			42			135	
Link Speed (k/h)		50			50			30			40	
Link Distance (m)		179.0			562.7			137.1			118.1	
Travel Time (s)		12.9			40.5			16.5			10.6	
Confl. Peds. (#/hr)	36		30	30		36	35		54	54		35
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	0%	0%	2%	0%	0%	0%	0%	4%	0%	0%
Adj. Flow (vph)	116	936	63	51	1180	59	41	34	42	76	47	141
Shared Lane Traffic (%)												
Lane Group Flow (vph)	116	999	0	51	1239	0	41	76	0	76	188	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	0	0		0	0		1	1		1	1	
Detector Template		Thru		Left	Thru							
Leading Detector (m)	0.0	0.0		0.0	0.0		7.0	7.0		8.0	8.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		-2.0	-2.0		-2.0	-2.0	
Detector 1 Position(m)	11.5	0.0		0.0	0.0		-2.0	-2.0		-2.0	-2.0	
Detector 1 Size(m)	9.0	0.6		2.0	0.6		9.0	9.0		10.0	10.0	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	1	6			2			4				4
Permitted Phases	6			2			4			4		
Detector Phase	1	6		2	2		4	4		4	4	
Switch Phase												

Lanes, Volumes, Timings  
2: Havenwood Dr & Bloor St

2029 FT PM Optimized  
08/09/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	5.0	5.0		5.0	5.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	8.0	35.0		35.0	35.0		36.5	36.5		36.5	36.5	
Total Split (s)	8.0	63.5		55.5	55.5		36.5	36.5		36.5	36.5	
Total Split (%)	8.0%	63.5%		55.5%	55.5%		36.5%	36.5%		36.5%	36.5%	
Maximum Green (s)	5.0	60.5		52.5	52.5		29.0	29.0		29.0	29.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	0.0	0.0		0.0	0.0		4.5	4.5		4.5	4.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.0	3.0		3.0	3.0		7.5	7.5		7.5	7.5	
Lead/Lag	Lead			Lag								
Lead-Lag Optimize?	Yes			Yes								
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	Max		C-Max	C-Max		None	None		None	None	
Walk Time (s)		10.0		10.0	10.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)		19.0		19.0	19.0		24.0	24.0		24.0	24.0	
Pedestrian Calls (#/hr)		0		0	0		0	0		0	0	
Act Effct Green (s)	76.6	76.6		65.3	65.3		12.9	12.9		12.9	12.9	
Actuated g/C Ratio	0.77	0.77		0.65	0.65		0.13	0.13		0.13	0.13	
v/c Ratio	0.51	0.70		0.17	1.02		0.34	0.30		0.49	0.58	
Control Delay	19.8	10.0		2.8	35.7		46.4	23.0		50.6	20.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	19.8	10.0		2.8	35.7		46.4	23.0		50.6	20.4	
LOS	B	A		A	D		D	C		D	C	
Approach Delay		11.0			34.4			31.2			29.1	
Approach LOS		B			C			C			C	

Intersection Summary

Area Type:	Other
Cycle Length:	100
Actuated Cycle Length:	100
Offset:	0 (0%), Referenced to phase 2:WBTL, Start of Green
Natural Cycle:	140
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	1.02
Intersection Signal Delay:	24.4
Intersection LOS:	C
Intersection Capacity Utilization:	111.0%
ICU Level of Service:	H
Analysis Period (min):	15

Splits and Phases: 2: Havenwood Dr & Bloor St



Queues  
2: Havenwood Dr & Bloor St

2029 FT PM Optimized  
08/09/2024



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	116	999	51	1239	41	76	76	188
v/c Ratio	0.51	0.70	0.17	1.02	0.34	0.30	0.49	0.58
Control Delay	19.8	10.0	2.8	35.7	46.4	23.0	50.6	20.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.8	10.0	2.8	35.7	46.4	23.0	50.6	20.4
Queue Length 50th (m)	4.8	74.7	0.4	230.3	7.4	6.0	14.1	9.5
Queue Length 95th (m)	23.2	155.2	m1.1	m#308.4	16.7	17.7	26.6	28.4
Internal Link Dist (m)		155.0		538.7		113.1		94.1
Turn Bay Length (m)	50.0		50.0		25.0		25.0	
Base Capacity (vph)	228	1425	292	1219	269	509	347	560
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.70	0.17	1.02	0.15	0.15	0.22	0.34

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lanes, Volumes, Timings  
3: Fieldgate Dr & Bloor St

2029 FT PM Optimized  
08/09/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	128	725	58	75	952	100	62	33	60	166	76	143
Future Volume (vph)	128	725	58	75	952	100	62	33	60	166	76	143
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	80.0		75.0	92.0		92.0	45.0		0.0	25.0		0.0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (m)	50.0			55.0			30.0			30.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor			0.88	0.98		0.86	0.96	0.92		0.90	0.95	
Frt			0.850			0.850		0.903			0.902	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1825	1883	1601	1825	1883	1633	1789	1588	0	1807	1652	0
Flt Permitted	0.069			0.312			0.443			0.692		
Satd. Flow (perm)	133	1883	1406	585	1883	1408	804	1588	0	1186	1652	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			63			88		65			99	
Link Speed (k/h)		50			50			40			40	
Link Distance (m)		562.7			233.6			134.2			78.0	
Travel Time (s)		40.5			16.8			12.1			7.0	
Confl. Peds. (#/hr)	65		56	56		65	34		73	73		34
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	2%	0%	2%	0%	2%	0%	0%	1%	0%	0%
Adj. Flow (vph)	139	788	63	82	1035	109	67	36	65	180	83	155
Shared Lane Traffic (%)												
Lane Group Flow (vph)	139	788	63	82	1035	109	67	101	0	180	238	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane		Yes										
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	0	1	0	0	1	1	1		1	1	
Detector Template		Thru	Right	Left	Thru	Right						
Leading Detector (m)	21.0	0.0	2.0	0.0	0.0	2.0	6.5	6.5		7.5	6.0	
Trailing Detector (m)	12.0	0.0	0.0	0.0	0.0	0.0	-2.5	-2.5		-1.5	-3.0	
Detector 1 Position(m)	12.0	0.0	0.0	0.0	0.0	0.0	-2.5	-2.5		-1.5	-3.0	
Detector 1 Size(m)	9.0	0.6	2.0	2.0	0.6	2.0	9.0	9.0		9.0	9.0	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	5	2			6			4				8
Permitted Phases	2		2	6		6	4			8		
Detector Phase	5	2	2	6	6	6	4	4		8	8	
Switch Phase												

Lanes, Volumes, Timings  
3: Fieldgate Dr & Bloor St

2029 FT PM Optimized  
08/09/2024

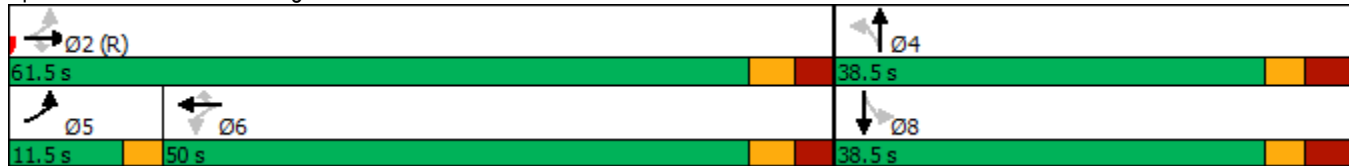


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	7.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	11.5	33.5	33.5	33.5	33.5	33.5	38.5	38.5		38.5	38.5	
Total Split (s)	11.5	61.5	61.5	50.0	50.0	50.0	38.5	38.5		38.5	38.5	
Total Split (%)	11.5%	61.5%	61.5%	50.0%	50.0%	50.0%	38.5%	38.5%		38.5%	38.5%	
Maximum Green (s)	8.5	55.0	55.0	43.5	43.5	43.5	32.0	32.0		32.0	32.0	
Yellow Time (s)	3.0	3.5	3.5	3.5	3.5	3.5	3.0	3.0		3.0	3.0	
All-Red Time (s)	0.0	3.0	3.0	3.0	3.0	3.0	3.5	3.5		3.5	3.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.0	6.5	6.5	6.5	6.5	6.5	6.5	6.5		6.5	6.5	
Lead/Lag	Lead			Lag			Lag					
Lead-Lag Optimize?	Yes			Yes			Yes					
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max	C-Max	Max	Max	Max	None	None		None	None	
Walk Time (s)		10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	
Flash Dont Walk (s)		17.0	17.0	17.0	17.0	17.0	22.0	22.0		22.0	22.0	
Pedestrian Calls (#/hr)		0	0	0	0	0	0	0		0	0	
Act Effct Green (s)	70.0	66.5	66.5	55.3	55.3	55.3	20.5	20.5		20.5	20.5	
Actuated g/C Ratio	0.70	0.66	0.66	0.55	0.55	0.55	0.20	0.20		0.20	0.20	
v/c Ratio	0.60	0.63	0.07	0.25	1.00	0.13	0.41	0.27		0.74	0.57	
Control Delay	22.4	12.4	1.3	17.4	51.8	5.1	39.8	14.5		54.4	24.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	22.4	12.4	1.3	17.4	51.8	5.1	39.8	14.5		54.4	24.7	
LOS	C	B	A	B	D	A	D	B		D	C	
Approach Delay		13.1			45.3			24.6			37.5	
Approach LOS		B			D			C			D	

Intersection Summary

Area Type: Other  
 Cycle Length: 100  
 Actuated Cycle Length: 100  
 Offset: 41 (41%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 125  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.00  
 Intersection Signal Delay: 31.5  
 Intersection LOS: C  
 Intersection Capacity Utilization 111.1%  
 ICU Level of Service H  
 Analysis Period (min) 15

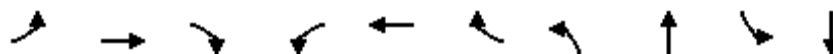
Splits and Phases: 3: Fieldgate Dr & Bloor St





Queues  
3: Fieldgate Dr & Bloor St

2029 FT PM Optimized  
08/09/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	139	788	63	82	1035	109	67	101	180	238
v/c Ratio	0.60	0.63	0.07	0.25	1.00	0.13	0.41	0.27	0.74	0.57
Control Delay	22.4	12.4	1.3	17.4	51.8	5.1	39.8	14.5	54.4	24.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.4	12.4	1.3	17.4	51.8	5.1	39.8	14.5	54.4	24.7
Queue Length 50th (m)	6.7	98.8	0.7	7.6	182.8	1.7	11.3	5.7	32.9	23.7
Queue Length 95th (m)	m21.9	153.8	m1.4	22.3	#327.9	11.9	21.9	17.0	50.5	42.3
Internal Link Dist (m)		538.7			209.6			110.2		54.0
Turn Bay Length (m)	80.0		75.0	92.0		92.0	45.0		25.0	
Base Capacity (vph)	247	1251	955	323	1040	817	257	552	379	595
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.56	0.63	0.07	0.25	1.00	0.13	0.26	0.18	0.47	0.40

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lanes, Volumes, Timings  
6: Fieldgate Dr & Williamsport Dr/Site Access 1

2029 FT PM Optimized  
08/09/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	29	0	68	67	0	37	46	153	81	53	215	27
Future Volume (vph)	29	0	68	67	0	37	46	153	81	53	215	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.906			0.952			0.961			0.988	
Flt Protected		0.985			0.969			0.992			0.991	
Satd. Flow (prot)	0	1694	0	0	1737	0	0	1801	0	0	1874	0
Flt Permitted		0.985			0.969			0.992			0.991	
Satd. Flow (perm)	0	1694	0	0	1737	0	0	1801	0	0	1874	0
Link Speed (k/h)		40			48			40			40	
Link Distance (m)		168.2			54.9			83.8			69.3	
Travel Time (s)		15.1			4.1			7.5			6.2	
Confl. Peds. (#/hr)	41					41	30					30
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	4%	2%	0%	2%	2%	2%	0%	2%	2%	2%	0%	0%
Adj. Flow (vph)	32	0	74	73	0	40	50	166	88	58	234	29
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	106	0	0	113	0	0	304	0	0	321	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	97		97	24		97	97		14
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	42.1%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis  
6: Fieldgate Dr & Williamsport Dr/Site Access 1










2029 FT PM Optimized  
08/09/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	29	0	68	67	0	37	46	153	81	53	215	27
Future Volume (Veh/h)	29	0	68	67	0	37	46	153	81	53	215	27
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	32	0	74	73	0	40	50	166	88	58	234	29
Pedestrians		30										41
Lane Width (m)		3.7										3.7
Walking Speed (m/s)		1.1										1.1
Percent Blockage		3										4
Right turn flare (veh)												
Median type								None				None
Median storage veh												
Upstream signal (m)								162				
pX, platoon unblocked												
vC, conflicting volume	786	748	278	748	719	251	293			254		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	786	748	278	748	719	251	293			254		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	87	100	90	73	100	95	96			96		
cM capacity (veh/h)	249	303	743	271	315	756	1243			1311		
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>WB 1</b>	<b>NB 1</b>	<b>SB 1</b>								
Volume Total	106	113	304	321								
Volume Left	32	73	50	58								
Volume Right	74	40	88	29								
cSH	464	350	1243	1311								
Volume to Capacity	0.23	0.32	0.04	0.04								
Queue Length 95th (m)	6.6	10.4	1.0	1.1								
Control Delay (s)	15.0	20.1	1.6	1.8								
Lane LOS	C	C	A	A								
Approach Delay (s)	15.0	20.1	1.6	1.8								
Approach LOS	C	C										
<b>Intersection Summary</b>												
Average Delay			5.8									
Intersection Capacity Utilization			42.1%		ICU Level of Service					A		
Analysis Period (min)			15									










Lanes, Volumes, Timings  
7: Fieldgate Dr & Ponytrail Dr

2029 FT PM Optimized  
08/09/2024

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	48	28	144	78	27	246
Future Volume (vph)	48	28	144	78	27	246
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	0.951		0.953			
Flt Protected	0.969					0.995
Satd. Flow (prot)	1751	0	1789	0	0	1912
Flt Permitted	0.969					0.995
Satd. Flow (perm)	1751	0	1789	0	0	1912
Link Speed (k/h)	30		40			30
Link Distance (m)	39.8		69.3			254.8
Travel Time (s)	4.8		6.2			30.6
Confl. Peds. (#/hr)	1	18		31	31	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	3%	2%	3%	0%	0%
Adj. Flow (vph)	52	30	157	85	29	267
Shared Lane Traffic (%)						
Lane Group Flow (vph)	82	0	242	0	0	296
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.7		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	1.6		1.6			1.6
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24	14		14	24	
Sign Control	Stop		Stop			Stop
<b>Intersection Summary</b>						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	46.5%			ICU Level of Service A		
Analysis Period (min)	15					

HCM Unsignalized Intersection Capacity Analysis  
7: Fieldgate Dr & Ponytrail Dr

2029 FT PM Optimized  
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Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Stop			Stop
Traffic Volume (vph)	48	28	144	78	27	246
Future Volume (vph)	48	28	144	78	27	246
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	52	30	157	85	29	267
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total (vph)	82	242	296			
Volume Left (vph)	52	0	29			
Volume Right (vph)	30	85	0			
Hadj (s)	-0.07	-0.17	0.02			
Departure Headway (s)	5.0	4.3	4.4			
Degree Utilization, x	0.11	0.29	0.36			
Capacity (veh/h)	650	816	794			
Control Delay (s)	8.6	9.0	9.9			
Approach Delay (s)	8.6	9.0	9.9			
Approach LOS	A	A	A			
Intersection Summary						
Delay			9.3			
Level of Service			A			
Intersection Capacity Utilization			46.5%	ICU Level of Service	A	
Analysis Period (min)			15			



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	95	0	21	91	0	14
Future Volume (vph)	95	0	21	91	0	14
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						0.865
Flt Protected						0.991
Satd. Flow (prot)	1902	0	0	1873	1662	0
Flt Permitted						0.991
Satd. Flow (perm)	1902	0	0	1873	1662	0
Link Speed (k/h)	30		30		30	
Link Distance (m)	47.8		156.1		119.1	
Travel Time (s)	5.7		18.7		14.3	
Confl. Peds. (#/hr)	59		59		1 2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	0%	0%	2%	0%	0%
Adj. Flow (vph)	103	0	23	99	0	15
Shared Lane Traffic (%)						
Lane Group Flow (vph)	103	0	0	122	15	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		3.7	
Link Offset(m)	0.0		0.0		0.0	
Crosswalk Width(m)	1.6		1.6		1.6	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	14		24		24 14	
Sign Control	Free		Free		Stop	

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	23.3%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis  
 9: Site Access 2 & Ponytrail Dr

2029 FT PM Optimized  
 08/09/2024



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↔	↔	
Traffic Volume (veh/h)	95	0	21	91	0	14
Future Volume (Veh/h)	95	0	21	91	0	14
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	103	0	23	99	0	15
Pedestrians	1			2	59	
Lane Width (m)	3.7			3.7	3.7	
Walking Speed (m/s)	1.1			1.1	1.1	
Percent Blockage	0			0	6	
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			162		308	164
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			162		308	164
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			98		100	98
cM capacity (veh/h)			1347		637	833
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>WB 1</b>	<b>NB 1</b>			
Volume Total	103	122	15			
Volume Left	0	23	0			
Volume Right	0	0	15			
cSH	1700	1347	833			
Volume to Capacity	0.06	0.02	0.02			
Queue Length 95th (m)	0.0	0.4	0.4			
Control Delay (s)	0.0	1.6	9.4			
Lane LOS		A	A			
Approach Delay (s)	0.0	1.6	9.4			
Approach LOS			A			
<b>Intersection Summary</b>						
Average Delay			1.4			
Intersection Capacity Utilization			23.3%	ICU Level of Service	A	
Analysis Period (min)			15			

Lanes, Volumes, Timings  
10: Fieldgate Dr & Haven Glenn

2029 FT PM Optimized  
08/09/2024



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	12	27	32	150	235	16
Future Volume (vph)	12	27	32	150	235	16
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	0.907			0.992		
Flt Protected	0.985			0.991		
Satd. Flow (prot)	1716	0	0	1881	1873	0
Flt Permitted	0.985			0.991		
Satd. Flow (perm)	1716	0	0	1881	1873	0
Link Speed (k/h)	40			30	30	
Link Distance (m)	258.3			254.8	440.5	
Travel Time (s)	23.2			30.6	52.9	
Confl. Peds. (#/hr)	2	28	4			4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	7%	0%	1%	13%
Adj. Flow (vph)	13	29	35	163	255	17
Shared Lane Traffic (%)						
Lane Group Flow (vph)	42	0	0	198	272	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24	14	24			14
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	42.7%
	ICU Level of Service A
Analysis Period (min)	15



HCM Unsignalized Intersection Capacity Analysis  
 10: Fieldgate Dr & Haven Glenn

2029 FT PM Optimized  
 08/09/2024



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	12	27	32	150	235	16
Future Volume (Veh/h)	12	27	32	150	235	16
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	13	29	35	163	255	17
Pedestrians	4			28	2	
Lane Width (m)	3.7			3.7	3.7	
Walking Speed (m/s)	1.1			1.1	1.1	
Percent Blockage	0			3	0	
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	502	296	276			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	502	296	276			
tC, single (s)	6.4	6.2	4.2			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.3			
p0 queue free %	97	96	97			
cM capacity (veh/h)	514	725	1254			
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>NB 1</b>	<b>SB 1</b>			
Volume Total	42	198	272			
Volume Left	13	35	0			
Volume Right	29	0	17			
cSH	644	1254	1700			
Volume to Capacity	0.07	0.03	0.16			
Queue Length 95th (m)	1.6	0.7	0.0			
Control Delay (s)	11.0	1.6	0.0			
Lane LOS	B	A				
Approach Delay (s)	11.0	1.6	0.0			
Approach LOS	B					
<b>Intersection Summary</b>						
Average Delay			1.5			
Intersection Capacity Utilization			42.7%	ICU Level of Service	A	
Analysis Period (min)			15			

Lanes, Volumes, Timings  
11: Fieldgate Dr & Burnhamthorpe Rd

2029 FT PM Optimized  
08/09/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	61	1030	135	53	1096	47	70	51	36	52	118	49
Future Volume (vph)	61	1030	135	53	1096	47	70	51	36	52	118	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	30.0		25.0	30.0		30.0	15.0		0.0	65.0		65.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	30.0			45.0			40.0			75.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99		0.93	0.99		0.93	0.98	0.99		0.99		0.96
Frt			0.850			0.850		0.938				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1825	3579	1617	1825	3579	1633	1738	1783	0	1825	1921	1633
Flt Permitted	0.218			0.237			0.572			0.696		
Satd. Flow (perm)	416	3579	1507	452	3579	1514	1026	1783	0	1321	1921	1575
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			65			65		21				55
Link Speed (k/h)		60			60			40				50
Link Distance (m)		499.8			675.9			440.5				226.9
Travel Time (s)		30.0			40.6			39.6				16.3
Confl. Peds. (#/hr)	21		19	19		21	17		10	10		17
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	1%	0%	2%	0%	5%	0%	0%	0%	0%	0%
Adj. Flow (vph)	66	1120	147	58	1191	51	76	55	39	57	128	53
Shared Lane Traffic (%)												
Lane Group Flow (vph)	66	1120	147	58	1191	51	76	94	0	57	128	53
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7				3.7
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	0	0	0	0	0	0	1	1		1	1	0
Detector Template												
Leading Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	7.0	7.0		7.0	7.0	0.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	-2.0	-2.0		-2.0	-2.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	-2.0	-2.0		-2.0	-2.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	9.0	9.0		9.0	9.0	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases		2			6			4				8
Permitted Phases	2		2	6		6	4			8		8
Detector Phase	2	2	2	6	6	6	4	4		8	8	8
Switch Phase												

Lane Group	Ø1	Ø3	Ø5	Ø7
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (m)				
Storage Lanes				
Taper Length (m)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (k/h)				
Link Distance (m)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(m)				
Link Offset(m)				
Crosswalk Width(m)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (k/h)				
Number of Detectors				
Detector Template				
Leading Detector (m)				
Trailing Detector (m)				
Detector 1 Position(m)				
Detector 1 Size(m)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Turn Type				
Protected Phases	1	3	5	7
Permitted Phases				
Detector Phase				
Switch Phase				

Lanes, Volumes, Timings  
11: Fieldgate Dr & Burnhamthorpe Rd

2029 FT PM Optimized  
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	38.0	38.0	38.0	38.0	38.0	38.0	42.5	42.5		42.5	42.5	42.5
Total Split (s)	102.0	102.0	102.0	102.0	102.0	102.0	48.0	48.0		48.0	48.0	48.0
Total Split (%)	63.8%	63.8%	63.8%	63.8%	63.8%	63.8%	30.0%	30.0%		30.0%	30.0%	30.0%
Maximum Green (s)	95.0	95.0	95.0	95.0	95.0	95.0	39.5	39.5		39.5	39.5	39.5
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	5.5	5.5		5.5	5.5	5.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	8.5	8.5		8.5	8.5	8.5
Lead/Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lag		Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	C-Max	C-Max	C-Max	Max	Max	Max	None	None		None	None	None
Walk Time (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	10.0
Flash Dont Walk (s)	21.0	21.0	21.0	21.0	21.0	21.0	24.0	24.0		24.0	24.0	24.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	0
Act Effct Green (s)	128.1	128.1	128.1	128.1	128.1	128.1	16.4	16.4		16.4	16.4	16.4
Actuated g/C Ratio	0.80	0.80	0.80	0.80	0.80	0.80	0.10	0.10		0.10	0.10	0.10
v/c Ratio	0.20	0.39	0.12	0.16	0.42	0.04	0.73	0.47		0.42	0.65	0.25
Control Delay	6.0	5.4	2.5	3.9	3.5	0.2	104.6	58.8		75.5	83.9	16.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	6.0	5.4	2.5	3.9	3.5	0.2	104.6	58.8		75.5	83.9	16.2
LOS	A	A	A	A	A	A	F	E		E	F	B
Approach Delay		5.1			3.4			79.3			66.8	
Approach LOS		A			A			E			E	

Intersection Summary

Area Type:	Other
Cycle Length:	160
Actuated Cycle Length:	160
Offset:	117 (73%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle:	90
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.73
Intersection Signal Delay:	13.3
Intersection LOS:	B
Intersection Capacity Utilization:	75.6%
ICU Level of Service:	D
Analysis Period (min):	15

Splits and Phases: 11: Fieldgate Dr & Burnhamthorpe Rd



Lane Group	Ø1	Ø3	Ø5	Ø7
Minimum Initial (s)	1.0	1.0	1.0	1.0
Minimum Split (s)	3.0	3.0	3.0	3.0
Total Split (s)	5.0	5.0	5.0	5.0
Total Split (%)	3%	3%	3%	3%
Maximum Green (s)	3.0	3.0	3.0	3.0
Yellow Time (s)	2.0	2.0	2.0	2.0
All-Red Time (s)	0.0	0.0	0.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None
Walk Time (s)				
Flash Dont Walk (s)				
Pedestrian Calls (#/hr)				
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Intersection Summary				

Queues  
11: Fieldgate Dr & Burnhamthorpe Rd

2029 FT PM Optimized  
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	66	1120	147	58	1191	51	76	94	57	128	53
v/c Ratio	0.20	0.39	0.12	0.16	0.42	0.04	0.73	0.47	0.42	0.65	0.25
Control Delay	6.0	5.4	2.5	3.9	3.5	0.2	104.6	58.8	75.5	83.9	16.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.0	5.4	2.5	3.9	3.5	0.2	104.6	58.8	75.5	83.9	16.2
Queue Length 50th (m)	4.3	46.3	4.7	2.3	25.9	0.0	23.9	22.2	17.3	39.9	0.0
Queue Length 95th (m)	11.0	68.7	11.6	m3.8	32.4	m0.2	41.2	39.7	31.3	59.7	12.5
Internal Link Dist (m)		475.8			651.9			416.5		202.9	
Turn Bay Length (m)	30.0		25.0	30.0		30.0	15.0		65.0		65.0
Base Capacity (vph)	333	2865	1219	361	2865	1225	253	455	326	474	430
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.39	0.12	0.16	0.42	0.04	0.30	0.21	0.17	0.27	0.12

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lanes, Volumes, Timings  
12: Ponytrail Dr & Burnhamthorpe Rd

2029 FT PM Optimized  
08/09/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	55	1001	27	70	1072	560	16	34	41	371	43	62
Future Volume (vph)	55	1001	27	70	1072	560	16	34	41	371	43	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	35.0		30.0	35.0		30.0	15.0		0.0	40.0		0.0
Storage Lanes	1		1	1		1	1		0	2		1
Taper Length (m)	45.0			65.0			50.0			30.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Ped Bike Factor			0.96			0.95	1.00	0.99		0.98		0.99
Fr <sub>t</sub>			0.850			0.850		0.918				0.850
Fl <sub>t</sub> Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1789	3579	1633	1722	3579	1601	1722	1738	0	3471	1921	1601
Fl <sub>t</sub> Permitted	0.093			0.241			0.726			0.950		
Satd. Flow (perm)	175	3579	1565	437	3579	1518	1314	1738	0	3396	1921	1579
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			116			203		34				67
Link Speed (k/h)		60			60			40				50
Link Distance (m)		675.9			242.1			944.6				165.5
Travel Time (s)		40.6			14.5			85.0				11.9
Confl. Peds. (#/hr)	28		9	9		28	1		10	10		1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	0%	6%	2%	2%	6%	0%	0%	2%	0%	2%
Adj. Flow (vph)	60	1088	29	76	1165	609	17	37	45	403	47	67
Shared Lane Traffic (%)												
Lane Group Flow (vph)	60	1088	29	76	1165	609	17	82	0	403	47	67
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			7.4				7.4
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2	1	1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0		2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6		2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4				9.4
Detector 2 Size(m)		0.6			0.6			0.6				0.6
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				0.0

Lane Group	Ø7	Ø9	Ø10	Ø11
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (m)				
Storage Lanes				
Taper Length (m)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (k/h)				
Link Distance (m)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(m)				
Link Offset(m)				
Crosswalk Width(m)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (k/h)				
Number of Detectors				
Detector Template				
Leading Detector (m)				
Trailing Detector (m)				
Detector 1 Position(m)				
Detector 1 Size(m)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(m)				
Detector 2 Size(m)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				



Lanes, Volumes, Timings  
12: Ponytrail Dr & Burnhamthorpe Rd

2029 FT PM Optimized  
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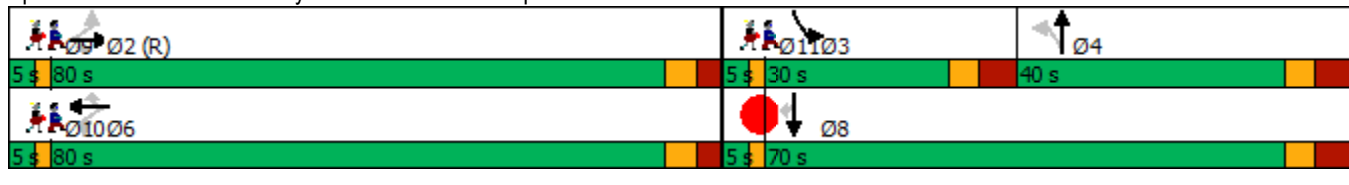


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Prot	NA	Perm
Protected Phases		2			6			4		3	8	
Permitted Phases	2		2	6		6	4					8
Detector Phase	2	2	2	6	6	6	4	4		3	8	8
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	40.0	40.0	40.0	42.0	42.0	42.0	41.0	41.0		18.0	41.0	41.0
Total Split (s)	80.0	80.0	80.0	80.0	80.0	80.0	40.0	40.0		30.0	70.0	70.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	25.0%	25.0%		18.8%	43.8%	43.8%
Maximum Green (s)	73.0	73.0	73.0	73.0	73.0	73.0	32.0	32.0		22.0	62.0	62.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	4.5	4.5		4.5	4.5	4.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	8.0	8.0		8.0	8.0	8.0
Lead/Lag												Lag
Lead-Lag Optimize?												Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	C-Max	C-Max	C-Max	Max	Max	Max	Min	Min		None	Min	Min
Walk Time (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0			10.0	10.0
Flash Dont Walk (s)	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0			23.0	23.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0			0	0
Act Effct Green (s)	91.8	91.8	91.8	73.0	73.0	73.0	11.4	11.4		21.3	40.7	40.7
Actuated g/C Ratio	0.57	0.57	0.57	0.46	0.46	0.46	0.07	0.07		0.13	0.25	0.25
v/c Ratio	0.60	0.53	0.03	0.38	0.71	0.76	0.18	0.53		0.87	0.10	0.15
Control Delay	47.2	18.8	0.1	35.8	38.1	30.4	73.5	55.1		87.3	45.1	9.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	47.2	18.8	0.1	35.8	38.1	30.4	73.5	55.1		87.3	45.1	9.7
LOS	D	B	A	D	D	C	E	E		F	D	A
Approach Delay		19.8			35.5			58.3			73.4	
Approach LOS		B			D			E			E	

Intersection Summary

Area Type: Other  
 Cycle Length: 160  
 Actuated Cycle Length: 160  
 Offset: 117 (73%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.87  
 Intersection Signal Delay: 36.4  
 Intersection LOS: D  
 Intersection Capacity Utilization 77.7%  
 ICU Level of Service D  
 Analysis Period (min) 15

Splits and Phases: 12: Ponytrail Dr & Burnhamthorpe Rd



Lane Group	Ø7	Ø9	Ø10	Ø11
Turn Type				
Protected Phases	7	9	10	11
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	1.0	1.0	1.0	1.0
Minimum Split (s)	3.0	3.0	3.0	3.0
Total Split (s)	5.0	5.0	5.0	5.0
Total Split (%)	3%	3%	3%	3%
Maximum Green (s)	3.0	3.0	3.0	3.0
Yellow Time (s)	2.0	2.0	2.0	2.0
All-Red Time (s)	0.0	0.0	0.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag				Lead
Lead-Lag Optimize?				Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0
Recall Mode	Ped	Ped	Ped	Ped
Walk Time (s)	0.0	0.0	0.0	0.0
Flash Dont Walk (s)	0.0	0.0	0.0	0.0
Pedestrian Calls (#/hr)	0	0	0	0
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Intersection Summary				

Queues  
12: Ponytrail Dr & Burnhamthorpe Rd

2029 FT PM Optimized  
08/09/2024



























Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	60	1088	29	76	1165	609	17	82	403	47	67
v/c Ratio	0.60	0.53	0.03	0.38	0.71	0.76	0.18	0.53	0.87	0.10	0.15
Control Delay	47.2	18.8	0.1	35.8	38.1	30.4	73.5	55.1	87.3	45.1	9.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.2	18.8	0.1	35.8	38.1	30.4	73.5	55.1	87.3	45.1	9.7
Queue Length 50th (m)	8.7	84.2	0.0	15.7	155.5	111.8	5.2	15.0	65.5	11.6	0.0
Queue Length 95th (m)	#39.1	94.0	0.0	31.7	181.1	164.5	13.4	32.7	#90.1	21.7	12.1
Internal Link Dist (m)		651.9			218.1			920.6		141.5	
Turn Bay Length (m)	35.0		30.0	35.0		30.0	15.0		40.0		
Base Capacity (vph)	100	2052	946	199	1632	802	262	374	477	744	652
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.60	0.53	0.03	0.38	0.71	0.76	0.06	0.22	0.84	0.06	0.10

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

Lanes, Volumes, Timings  
1: Dixie Rd & Bloor St

2029 FT SAT Optimized  
08/09/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	140	481	218	345	451	220	197	1172	359	141	1184	156
Future Volume (vph)	140	481	218	345	451	220	197	1172	359	141	1184	156
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		15.0	60.0		10.0	75.0		0.0	100.0		85.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	85.0			60.0			90.0			50.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.91	0.91	1.00	0.91	1.00
Ped Bike Factor	0.98		0.97	0.99		0.94	1.00	0.99		1.00		0.97
Frt			0.850			0.850		0.965				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1807	3614	1617	1807	3579	1617	1807	4960	0	1807	5142	1601
Flt Permitted	0.473			0.228			0.115			0.061		
Satd. Flow (perm)	877	3614	1574	431	3579	1519	218	4960	0	116	5142	1546
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			98			83			56			151
Link Speed (k/h)		50			50			60				60
Link Distance (m)		302.0			160.9			615.3				434.7
Travel Time (s)		21.7			11.6			36.9				26.1
Confl. Peds. (#/hr)	40		12	12		40	19		27	27		19
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	1%	1%	1%	2%	1%	1%	1%	1%	1%	2%	2%
Adj. Flow (vph)	152	523	237	375	490	239	214	1274	390	153	1287	170
Shared Lane Traffic (%)												
Lane Group Flow (vph)	152	523	237	375	490	239	214	1664	0	153	1287	170
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7				3.7
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane					Yes							
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	2	1	1	1	1	1	1	0		1	0	0
Detector Template								Thru			Thru	Right
Leading Detector (m)	24.0	7.0	7.0	22.0	7.0	7.0	24.0	0.0		24.0	0.0	0.0
Trailing Detector (m)	-2.5	-0.2	-2.0	12.0	-2.0	-2.0	14.0	0.0		14.0	0.0	0.0
Detector 1 Position(m)	-2.5	-0.2	-2.0	12.0	-2.0	-2.0	14.0	0.0		14.0	0.0	0.0
Detector 1 Size(m)	10.0	7.2	9.0	10.0	9.0	9.0	10.0	0.6		10.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)	14.0											
Detector 2 Size(m)	10.0											
Detector 2 Type	Cl+Ex											
Detector 2 Channel												
Detector 2 Extend (s)	0.0											

Lanes, Volumes, Timings  
1: Dixie Rd & Bloor St

2029 FT SAT Optimized  
08/09/2024

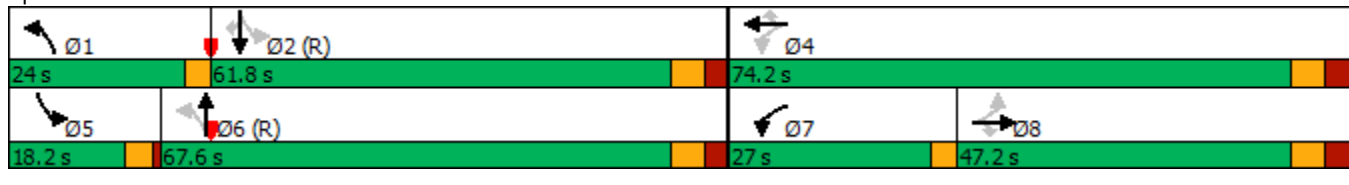


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	Perm
Protected Phases		8		7	4		1	6		5	2	
Permitted Phases	8		8	4		4	6			2		2
Detector Phase	8	8	8	7	4	4	1	6		5	2	2
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0		5.0	10.0	10.0
Minimum Split (s)	46.4	46.4	46.4	10.0	46.4	46.4	10.0	46.9		9.5	46.9	46.9
Total Split (s)	47.2	47.2	47.2	27.0	74.2	74.2	24.0	67.6		18.2	61.8	61.8
Total Split (%)	29.5%	29.5%	29.5%	16.9%	46.4%	46.4%	15.0%	42.3%		11.4%	38.6%	38.6%
Maximum Green (s)	39.8	39.8	39.8	24.0	66.8	66.8	21.0	60.7		13.7	54.9	54.9
Yellow Time (s)	4.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0		3.5	4.0	4.0
All-Red Time (s)	3.4	3.4	3.4	0.0	3.4	3.4	0.0	2.9		1.0	2.9	2.9
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.4	7.4	7.4	3.0	7.4	7.4	3.0	6.9		4.5	6.9	6.9
Lead/Lag	Lag	Lag	Lag	Lead			Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	C-Max
Walk Time (s)	10.0	10.0	10.0		10.0	10.0		10.0			10.0	10.0
Flash Dont Walk (s)	29.0	29.0	29.0		29.0	29.0		30.0			30.0	30.0
Pedestrian Calls (#/hr)	0	0	0		0	0		0			0	0
Act Effct Green (s)	33.7	33.7	33.7	65.1	60.7	60.7	88.3	68.7		79.5	65.3	65.3
Actuated g/C Ratio	0.21	0.21	0.21	0.41	0.38	0.38	0.55	0.43		0.50	0.41	0.41
v/c Ratio	0.83	0.69	0.58	0.98	0.36	0.38	0.75	0.77		0.84	0.61	0.24
Control Delay	92.1	62.7	37.5	80.1	39.4	27.6	40.8	41.8		74.1	40.6	7.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	92.1	62.7	37.5	80.1	39.4	27.6	40.8	41.8		74.1	40.6	7.9
LOS	F	E	D	F	D	C	D	D		E	D	A
Approach Delay		61.0			50.7			41.7			40.3	
Approach LOS		E			D			D			D	

Intersection Summary

Area Type: Other  
 Cycle Length: 160  
 Actuated Cycle Length: 160  
 Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green  
 Natural Cycle: 115  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.98  
 Intersection Signal Delay: 46.3      Intersection LOS: D  
 Intersection Capacity Utilization 101.6%      ICU Level of Service G  
 Analysis Period (min) 15

Splits and Phases: 1: Dixie Rd & Bloor St



Queues  
1: Dixie Rd & Bloor St



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	152	523	237	375	490	239	214	1664	153	1287	170
v/c Ratio	0.83	0.69	0.58	0.98	0.36	0.38	0.75	0.77	0.84	0.61	0.24
Control Delay	92.1	62.7	37.5	80.1	39.4	27.6	40.8	41.8	74.1	40.6	7.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	92.1	62.7	37.5	80.1	39.4	27.6	40.8	41.8	74.1	40.6	7.9
Queue Length 50th (m)	45.9	80.3	39.4	85.6	59.7	38.1	34.5	166.3	32.3	121.7	3.7
Queue Length 95th (m)	#75.1	97.0	66.0	#137.6	76.7	63.3	65.0	194.4	#69.8	148.9	21.1
Internal Link Dist (m)		278.0			136.9			591.3		410.7	
Turn Bay Length (m)	40.0		15.0	60.0		10.0	75.0		100.0		85.0
Base Capacity (vph)	218	898	465	381	1494	682	329	2161	203	2098	720
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.70	0.58	0.51	0.98	0.33	0.35	0.65	0.77	0.75	0.61	0.24

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

Lanes, Volumes, Timings  
2: Havenwood Dr & Bloor St

2029 FT SAT Optimized  
08/09/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	100	808	54	24	758	56	46	17	30	71	24	131
Future Volume (vph)	100	808	54	24	758	56	46	17	30	71	24	131
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0		0.0	50.0		0.0	25.0		0.0	25.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	65.0			80.0			40.0			35.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			0.99		0.99	0.97		0.97	0.97	
Frt		0.991			0.990			0.903			0.873	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1825	1879	0	1825	1871	0	1825	1634	0	1825	1586	0
Flt Permitted	0.215			0.186			0.651			0.724		
Satd. Flow (perm)	413	1879	0	357	1871	0	1234	1634	0	1348	1586	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			6			33			58	
Link Speed (k/h)		50			50			30			40	
Link Distance (m)		179.0			562.7			137.1			118.1	
Travel Time (s)		12.9			40.5			16.5			10.6	
Confl. Peds. (#/hr)	41		17	17		41	14		28	28		14
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	2%	0%	1%	3%	0%	0%	4%	0%	0%	3%
Adj. Flow (vph)	109	878	59	26	824	61	50	18	33	77	26	142
Shared Lane Traffic (%)												
Lane Group Flow (vph)	109	937	0	26	885	0	50	51	0	77	168	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	0	0		0	0		1	1		1	1	
Detector Template		Thru		Left	Thru							
Leading Detector (m)	0.0	0.0		0.0	0.0		7.0	7.0		8.0	8.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		-2.0	-2.0		-2.0	-2.0	
Detector 1 Position(m)	11.5	0.0		0.0	0.0		-2.0	-2.0		-2.0	-2.0	
Detector 1 Size(m)	9.0	0.6		2.0	0.6		9.0	9.0		10.0	10.0	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Detector Phase	2	2		2	2		4	4		4	4	
Switch Phase												





Queues  
2: Havenwood Dr & Bloor St



























Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	109	937	26	885	50	51	77	168
v/c Ratio	0.39	0.74	0.11	0.70	0.26	0.18	0.36	0.56
Control Delay	6.6	13.7	11.2	16.0	31.5	15.4	33.8	27.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.6	13.7	11.2	16.0	31.5	15.4	33.8	27.0
Queue Length 50th (m)	3.8	70.0	1.1	69.9	6.9	2.4	10.8	15.7
Queue Length 95th (m)	m9.4	146.5	m4.8	145.6	14.9	10.4	20.9	30.9
Internal Link Dist (m)		155.0		538.7		113.1		94.1
Turn Bay Length (m)	50.0		50.0		25.0		25.0	
Base Capacity (vph)	277	1265	240	1260	516	703	564	697
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.74	0.11	0.70	0.10	0.07	0.14	0.24

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lanes, Volumes, Timings  
3: Fieldgate Dr & Bloor St

2029 FT SAT Optimized  
08/09/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	129	684	63	66	608	103	62	28	55	131	50	139
Future Volume (vph)	129	684	63	66	608	103	62	28	55	131	50	139
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	80.0		75.0	92.0		92.0	45.0		0.0	25.0		0.0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (m)	50.0			55.0			30.0			30.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99			0.99			0.96	0.95		0.96	0.94	
Frt			0.850			0.850		0.900			0.890	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1825	1902	1601	1825	1902	1601	1755	1649	0	1825	1615	0
Flt Permitted	0.241			0.361			0.548			0.699		
Satd. Flow (perm)	457	1902	1601	683	1902	1601	969	1649	0	1283	1615	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			177			177		60			151	
Link Speed (k/h)		50			50			40			40	
Link Distance (m)		562.7			233.6			134.2			78.0	
Travel Time (s)		40.5			16.8			12.1			7.0	
Confl. Peds. (#/hr)	42		34	34		42	38		34	34		38
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	2%	0%	1%	2%	4%	0%	0%	0%	0%	0%
Adj. Flow (vph)	140	743	68	72	661	112	67	30	60	142	54	151
Shared Lane Traffic (%)												
Lane Group Flow (vph)	140	743	68	72	661	112	67	90	0	142	205	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane		Yes										
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	0	1	0	0	1	1	1		1	1	
Detector Template		Thru	Right	Left	Thru	Right						
Leading Detector (m)	21.0	0.0	2.0	0.0	0.0	2.0	6.5	6.5		7.5	6.0	
Trailing Detector (m)	12.0	0.0	0.0	0.0	0.0	0.0	-2.5	-2.5		-1.5	-3.0	
Detector 1 Position(m)	12.0	0.0	0.0	0.0	0.0	0.0	-2.5	-2.5		-1.5	-3.0	
Detector 1 Size(m)	9.0	0.6	2.0	2.0	0.6	2.0	9.0	9.0		9.0	9.0	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA	NA	Perm	NA	NA	Perm	NA		Perm	NA	
Protected Phases	5	2			6			4				8
Permitted Phases	2			6			4			8		
Detector Phase	5	2		6	6		4	4		8	8	
Switch Phase												



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	7.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	10.0	33.5		33.5	33.5		33.5	33.5		33.5	33.5	
Total Split (s)	12.0	46.0		34.0	34.0		33.5	33.5		34.0	34.0	
Total Split (%)	15.0%	57.5%		42.5%	42.5%		41.9%	41.9%		42.5%	42.5%	
Maximum Green (s)	9.0	39.5		27.5	27.5		27.0	27.0		27.5	27.5	
Yellow Time (s)	3.0	3.5		3.5	3.5		3.0	3.0		3.0	3.0	
All-Red Time (s)	0.0	3.0		3.0	3.0		3.5	3.5		3.5	3.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.0	6.5		6.5	6.5		6.5	6.5		6.5	6.5	
Lead/Lag	Lead			Lag			Lag			Lag		
Lead-Lag Optimize?	Yes			Yes			Yes			Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max		Max	Max		None	None		None	None	
Walk Time (s)		10.0		10.0	10.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)		17.0		17.0	17.0		22.0	22.0		22.0	22.0	
Pedestrian Calls (#/hr)		0		0	0		0	0		0	0	
Act Effct Green (s)	55.8	52.3	0.0	41.8	41.8	0.0	14.7	14.7		14.7	14.7	
Actuated g/C Ratio	0.70	0.65	0.00	0.52	0.52	0.00	0.18	0.18		0.18	0.18	
v/c Ratio	0.31	0.60	0.38	0.20	0.67	0.63	0.38	0.26		0.60	0.49	
Control Delay	6.7	13.7	4.6	14.2	19.9	18.8	33.4	13.1		40.1	12.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	6.7	13.7	4.6	14.2	19.9	18.8	33.4	13.1		40.1	12.7	
LOS	A	B	A	B	B	B	C	B		D	B	
Approach Delay		12.0			19.3			21.8			23.9	
Approach LOS		B			B			C			C	

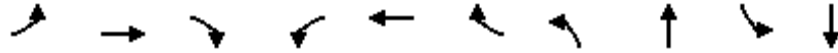
Intersection Summary

Area Type:	Other
Cycle Length:	80
Actuated Cycle Length:	80
Offset:	17 (21%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle:	80
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.67
Intersection Signal Delay:	17.1
Intersection LOS:	B
Intersection Capacity Utilization:	94.3%
ICU Level of Service:	F
Analysis Period (min):	15

Splits and Phases: 3: Fieldgate Dr & Bloor St



Queues  
3: Fieldgate Dr & Bloor St



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	140	743	68	72	661	112	67	90	142	205
v/c Ratio	0.31	0.60	0.38	0.20	0.67	0.63	0.38	0.26	0.60	0.49
Control Delay	6.7	13.7	4.6	14.2	19.9	18.8	33.4	13.1	40.1	12.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.7	13.7	4.6	14.2	19.9	18.8	33.4	13.1	40.1	12.7
Queue Length 50th (m)	11.0	106.5	0.0	5.3	67.1	0.0	9.1	3.9	20.1	7.1
Queue Length 95th (m)	m14.1	130.2	m0.0	16.0	#142.7	#9.3	18.6	14.1	34.3	22.5
Internal Link Dist (m)		538.7			209.6			110.2		54.0
Turn Bay Length (m)	80.0		75.0	92.0		92.0	45.0		25.0	
Base Capacity (vph)	473	1243	177	356	993	177	333	606	441	654
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.60	0.38	0.20	0.67	0.63	0.20	0.15	0.32	0.31

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lanes, Volumes, Timings  
6: Fieldgate Dr & Williamsport Dr/Site Access 1

2029 FT SAT Optimized  
08/09/2024



















Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	21	0	55	75	0	41	42	146	84	55	149	17
Future Volume (vph)	21	0	55	75	0	41	42	146	84	55	149	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.902			0.952			0.958			0.990	
Flt Protected		0.986			0.969			0.992			0.988	
Satd. Flow (prot)	0	1709	0	0	1737	0	0	1806	0	0	1870	0
Flt Permitted		0.986			0.969			0.992			0.988	
Satd. Flow (perm)	0	1709	0	0	1737	0	0	1806	0	0	1870	0
Link Speed (k/h)		40			48			40			40	
Link Distance (m)		168.2			54.9			83.8			69.3	
Travel Time (s)		15.1			4.1			7.5			6.2	
Confl. Peds. (#/hr)	27		1	1		27	20					20
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	0%	2%	2%	2%	3%	0%	2%	2%	0%	0%
Adj. Flow (vph)	23	0	60	82	0	45	46	159	91	60	162	18
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	83	0	0	127	0	0	296	0	0	240	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Sign Control		Stop			Stop			Free			Free	

Intersection Summary










Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	40.3%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis  
6: Fieldgate Dr & Williamsport Dr/Site Access 1

2029 FT SAT Optimized  
08/09/2024










												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	0	55	75	0	41	42	146	84	55	149	17
Future Volume (Veh/h)	21	0	55	75	0	41	42	146	84	55	149	17
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	23	0	60	82	0	45	46	159	91	60	162	18
Pedestrians		20						1			27	
Lane Width (m)		3.7						3.7			3.7	
Walking Speed (m/s)		1.1						1.1			1.1	
Percent Blockage		2						0			3	
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (m)								162				
pX, platoon unblocked												
vC, conflicting volume	680	653	192	648	616	232	200			250		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	680	653	192	648	616	232	200			250		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	93	100	93	75	100	94	97			95		
cM capacity (veh/h)	307	349	837	329	367	786	1339			1316		
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>WB 1</b>	<b>NB 1</b>	<b>SB 1</b>								
Volume Total	83	127	296	240								
Volume Left	23	82	46	60								
Volume Right	60	45	91	18								
cSH	566	415	1339	1316								
Volume to Capacity	0.15	0.31	0.03	0.05								
Queue Length 95th (m)	3.9	9.7	0.8	1.1								
Control Delay (s)	12.5	17.5	1.5	2.3								
Lane LOS	B	C	A	A								
Approach Delay (s)	12.5	17.5	1.5	2.3								
Approach LOS	B	C										
<b>Intersection Summary</b>												
Average Delay			5.7									
Intersection Capacity Utilization			40.3%		ICU Level of Service				A			
Analysis Period (min)			15									

Lanes, Volumes, Timings  
7: Fieldgate Dr & Ponytrail Dr

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	40	27	142	65	20	178
Future Volume (vph)	40	27	142	65	20	178
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	0.946		0.957			
Flt Protected	0.971					0.995
Satd. Flow (prot)	1765	0	1839	0	0	1912
Flt Permitted	0.971					0.995
Satd. Flow (perm)	1765	0	1839	0	0	1912
Link Speed (k/h)	30		40			30
Link Distance (m)	39.8		69.3			254.8
Travel Time (s)	4.8		6.2			30.6
Confl. Peds. (#/hr)	1	8		27	27	
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)	43	29	154	71	22	193
Shared Lane Traffic (%)						
Lane Group Flow (vph)	72	0	225	0	0	215
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.7		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	1.6		1.6			1.6
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24	14		14	24	
Sign Control	Stop		Stop			Stop
<b>Intersection Summary</b>						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	39.1%			ICU Level of Service A		
Analysis Period (min)	15					

HCM Unsignalized Intersection Capacity Analysis  
7: Fieldgate Dr & Ponytrail Dr

2029 FT SAT Optimized  
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Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Stop			Stop
Traffic Volume (vph)	40	27	142	65	20	178
Future Volume (vph)	40	27	142	65	20	178
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	43	29	154	71	22	193
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total (vph)	72	225	215			
Volume Left (vph)	43	0	22			
Volume Right (vph)	29	71	0			
Hadj (s)	-0.12	-0.19	0.02			
Departure Headway (s)	4.7	4.1	4.3			
Degree Utilization, x	0.09	0.26	0.26			
Capacity (veh/h)	693	849	803			
Control Delay (s)	8.2	8.5	8.8			
Approach Delay (s)	8.2	8.5	8.8			
Approach LOS	A	A	A			
Intersection Summary						
Delay			8.6			
Level of Service			A			
Intersection Capacity Utilization			39.1%	ICU Level of Service	A	
Analysis Period (min)			15			





Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	85	0	0	67	0	0
Future Volume (vph)	85	0	0	67	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)	1921	0	0	1921	1921	0
Flt Permitted						
Satd. Flow (perm)	1921	0	0	1921	1921	0
Link Speed (k/h)	30			30	30	
Link Distance (m)	47.8			156.1	119.1	
Travel Time (s)	5.7			18.7	14.3	
Confl. Peds. (#/hr)		40	40		1	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)	92	0	0	73	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	92	0	0	73	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	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)		14	24		24	14
Sign Control	Free			Free	Stop	

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	21.9%
ICU Level of Service	A
Analysis Period (min)	15



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↻			↻	↻	
Traffic Volume (veh/h)	85	0	0	67	0	0
Future Volume (Veh/h)	85	0	0	67	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	92	0	0	73	0	0
Pedestrians	1			3	40	
Lane Width (m)	3.7			3.7	3.7	
Walking Speed (m/s)	1.1			1.1	1.1	
Percent Blockage	0			0	4	
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			132		206	135
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			132		206	135
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1408		755	881
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>WB 1</b>	<b>NB 1</b>			
Volume Total	92	73	0			
Volume Left	0	0	0			
Volume Right	0	0	0			
cSH	1700	1408	1700			
Volume to Capacity	0.05	0.00	0.02			
Queue Length 95th (m)	0.0	0.0	0.0			
Control Delay (s)	0.0	0.0	0.0			
Lane LOS			A			
Approach Delay (s)	0.0	0.0	0.0			
Approach LOS			A			
<b>Intersection Summary</b>						
Average Delay			0.0			
Intersection Capacity Utilization			21.9%	ICU Level of Service	A	
Analysis Period (min)			15			



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	5	35	21	155	151	11
Future Volume (vph)	5	35	21	155	151	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
Ped Bike Factor						
Frt	0.881					0.991
Flt Protected	0.994					0.994
Satd. Flow (prot)	1682	0	0	1910	1904	0
Flt Permitted	0.994					0.994
Satd. Flow (perm)	1682	0	0	1910	1904	0
Link Speed (k/h)	40					30
Link Distance (m)	258.3					254.8
Travel Time (s)	23.2					30.6
Confl. Peds. (#/hr)	1	26	14			
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)	5	38	23	168	164	12
Shared Lane Traffic (%)						
Lane Group Flow (vph)	43	0	0	191	176	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7					3.7
Link Offset(m)	0.0					0.0
Crosswalk Width(m)	1.6					1.6
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24	14	24			
Sign Control	Stop				Free	Free

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	39.4%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis  
 10: Fieldgate Dr & Haven Glenn

2029 FT SAT Optimized  
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Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	5	35	21	155	151	11
Future Volume (Veh/h)	5	35	21	155	151	11
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	38	23	168	164	12
Pedestrians	14			26	1	
Lane Width (m)	3.7			3.7	3.7	
Walking Speed (m/s)	1.1			1.1	1.1	
Percent Blockage	1			3	0	
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	399	210	190			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	399	210	190			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	95	98			
cM capacity (veh/h)	592	803	1377			
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>NB 1</b>	<b>SB 1</b>			
Volume Total	43	191	176			
Volume Left	5	23	0			
Volume Right	38	0	12			
cSH	771	1377	1700			
Volume to Capacity	0.06	0.02	0.10			
Queue Length 95th (m)	1.3	0.4	0.0			
Control Delay (s)	9.9	1.0	0.0			
Lane LOS	A	A				
Approach Delay (s)	9.9	1.0	0.0			
Approach LOS	A					
<b>Intersection Summary</b>						
Average Delay			1.5			
Intersection Capacity Utilization			39.4%	ICU Level of Service	A	
Analysis Period (min)			15			

Lanes, Volumes, Timings  
11: Fieldgate Dr & Burnhamthorpe Rd

2029 FT SAT Optimized  
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	62	1007	82	44	795	40	77	41	49	55	62	47
Future Volume (vph)	62	1007	82	44	795	40	77	41	49	55	62	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	30.0		25.0	30.0		30.0	15.0		0.0	65.0		65.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	30.0			45.0			40.0			75.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		0.97	1.00		0.97	0.99	0.99		0.99		0.97
Fr <sub>t</sub>			0.850			0.850		0.919				0.850
Fl <sub>t</sub> Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1825	3614	1633	1825	3614	1633	1825	1748	0	1825	1921	1633
Fl <sub>t</sub> Permitted	0.319			0.238			0.713			0.694		
Satd. Flow (perm)	612	3614	1580	456	3614	1590	1352	1748	0	1326	1921	1591
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			130			130		53				109
Link Speed (k/h)		60			60			40				50
Link Distance (m)		499.8			675.9			440.5				226.9
Travel Time (s)		30.0			40.6			39.6				16.3
Confl. Peds. (#/hr)	5		10	10		5	14		6	6		14
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	67	1095	89	48	864	43	84	45	53	60	67	51
Shared Lane Traffic (%)												
Lane Group Flow (vph)	67	1095	89	48	864	43	84	98	0	60	67	51
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7				3.7
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	0	0	0	0	0	0	1	1		1	1	0
Detector Template												
Leading Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	7.0	7.0		7.0	7.0	0.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	-2.0	-2.0		-2.0	-2.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	-2.0	-2.0		-2.0	-2.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	9.0	9.0		9.0	9.0	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases		2			6			4				8
Permitted Phases	2		2	6		6	4			8		8
Detector Phase	2	2	2	6	6	6	4	4		8	8	8
Switch Phase												

Lane Group	Ø1	Ø3	Ø5	Ø7
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (m)				
Storage Lanes				
Taper Length (m)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (k/h)				
Link Distance (m)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(m)				
Link Offset(m)				
Crosswalk Width(m)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (k/h)				
Number of Detectors				
Detector Template				
Leading Detector (m)				
Trailing Detector (m)				
Detector 1 Position(m)				
Detector 1 Size(m)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Turn Type				
Protected Phases	1	3	5	7
Permitted Phases				
Detector Phase				
Switch Phase				

Lanes, Volumes, Timings  
11: Fieldgate Dr & Burnhamthorpe Rd

2029 FT SAT Optimized  
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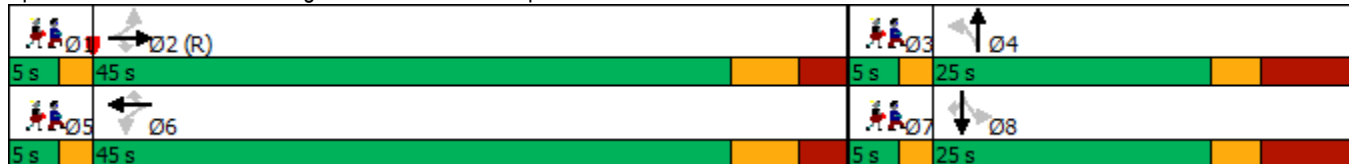


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	38.0	38.0	38.0	38.0	38.0	38.0	32.5	32.5		32.5	32.5	32.5
Total Split (s)	45.0	45.0	45.0	45.0	45.0	45.0	25.0	25.0		25.0	25.0	25.0
Total Split (%)	56.3%	56.3%	56.3%	56.3%	56.3%	56.3%	31.3%	31.3%		31.3%	31.3%	31.3%
Maximum Green (s)	38.0	38.0	38.0	38.0	38.0	38.0	16.5	16.5		16.5	16.5	16.5
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	5.5	5.5		5.5	5.5	5.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	8.5	8.5		8.5	8.5	8.5
Lead/Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lag		Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	C-Max	C-Max	C-Max	Max	Max	Max	None	None		None	None	None
Walk Time (s)	10.0	10.0	10.0	10.0	10.0	10.0	0.0	0.0		0.0	0.0	0.0
Flash Dont Walk (s)	21.0	21.0	21.0	21.0	21.0	21.0	24.0	24.0		24.0	24.0	24.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	0
Act Effct Green (s)	58.1	58.1	58.1	58.1	58.1	58.1	11.5	11.5		11.5	11.5	11.5
Actuated g/C Ratio	0.73	0.73	0.73	0.73	0.73	0.73	0.14	0.14		0.14	0.14	0.14
v/c Ratio	0.15	0.42	0.08	0.15	0.33	0.04	0.43	0.33		0.32	0.24	0.16
Control Delay	6.8	6.6	0.7	1.9	1.5	0.1	38.0	19.0		34.6	31.9	1.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	6.8	6.6	0.7	1.9	1.5	0.1	38.0	19.0		34.6	31.9	1.3
LOS	A	A	A	A	A	A	D	B		C	C	A
Approach Delay		6.2			1.4			27.7			24.1	
Approach LOS		A			A			C			C	

Intersection Summary

Area Type:	Other
Cycle Length:	80
Actuated Cycle Length:	80
Offset:	72 (90%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle:	80
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.43
Intersection Signal Delay:	7.2
Intersection LOS:	A
Intersection Capacity Utilization:	68.5%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 11: Fieldgate Dr & Burnhamthorpe Rd



Lane Group	Ø1	Ø3	Ø5	Ø7
Minimum Initial (s)	1.0	1.0	1.0	1.0
Minimum Split (s)	3.0	3.0	3.0	3.0
Total Split (s)	5.0	5.0	5.0	5.0
Total Split (%)	6%	6%	6%	6%
Maximum Green (s)	3.0	3.0	3.0	3.0
Yellow Time (s)	2.0	2.0	2.0	2.0
All-Red Time (s)	0.0	0.0	0.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None
Walk Time (s)				
Flash Dont Walk (s)				
Pedestrian Calls (#/hr)				
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Intersection Summary				



Queues  
11: Fieldgate Dr & Burnhamthorpe Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	67	1095	89	48	864	43	84	98	60	67	51
v/c Ratio	0.15	0.42	0.08	0.15	0.33	0.04	0.43	0.33	0.32	0.24	0.16
Control Delay	6.8	6.6	0.7	1.9	1.5	0.1	38.0	19.0	34.6	31.9	1.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.8	6.6	0.7	1.9	1.5	0.1	38.0	19.0	34.6	31.9	1.3
Queue Length 50th (m)	3.2	34.7	0.0	0.4	3.8	0.0	12.0	6.2	8.4	9.3	0.0
Queue Length 95th (m)	9.5	56.0	2.3	m1.4	10.1	m0.0	23.8	18.0	18.2	19.0	1.0
Internal Link Dist (m)	475.8			651.9			416.5			202.9	
Turn Bay Length (m)	30.0		25.0	30.0		30.0	15.0		65.0		65.0
Base Capacity (vph)	444	2623	1182	331	2623	1190	278	402	273	396	414
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.42	0.08	0.15	0.33	0.04	0.30	0.24	0.22	0.17	0.12

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lanes, Volumes, Timings  
12: Ponytrail Dr & Burnhamthorpe Rd

2029 FT SAT Optimized  
08/09/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↗	↘	↘	↗	↘	↘	↗		↗	↗	↘
Traffic Volume (vph)	73	974	22	78	805	446	22	42	49	372	48	121
Future Volume (vph)	73	974	22	78	805	446	22	42	49	372	48	121
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	35.0		30.0	35.0		30.0	15.0		0.0	40.0		0.0
Storage Lanes	1		1	1		1	1		0	2		1
Taper Length (m)	45.0			65.0			50.0			30.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Ped Bike Factor	1.00		0.96			0.98	1.00	0.99		0.98		0.98
Frt			0.850			0.850		0.920				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1825	3614	1633	1825	3614	1617	1825	1743	0	3506	1921	1633
Flt Permitted	0.092			0.270			0.723			0.950		
Satd. Flow (perm)	176	3614	1569	519	3614	1577	1383	1743	0	3431	1921	1606
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			116			178		38				132
Link Speed (k/h)		60			60			40				50
Link Distance (m)		675.9			242.1			944.6				165.5
Travel Time (s)		40.6			14.5			85.0				11.9
Confl. Peds. (#/hr)	9		8	8		9	3		10	10		3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	0%	0%	1%	1%	0%	0%	0%	1%	0%	0%
Adj. Flow (vph)	79	1059	24	85	875	485	24	46	53	404	52	132
Shared Lane Traffic (%)												
Lane Group Flow (vph)	79	1059	24	85	875	485	24	99	0	404	52	132
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			7.4				7.4
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2	1	1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0		2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6		2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4				9.4
Detector 2 Size(m)		0.6			0.6			0.6				0.6
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				0.0

Lane Group	Ø7	Ø9	Ø10	Ø11
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (m)				
Storage Lanes				
Taper Length (m)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (k/h)				
Link Distance (m)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(m)				
Link Offset(m)				
Crosswalk Width(m)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (k/h)				
Number of Detectors				
Detector Template				
Leading Detector (m)				
Trailing Detector (m)				
Detector 1 Position(m)				
Detector 1 Size(m)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(m)				
Detector 2 Size(m)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				

Lanes, Volumes, Timings  
12: Ponytrail Dr & Burnhamthorpe Rd

2029 FT SAT Optimized  
08/09/2024

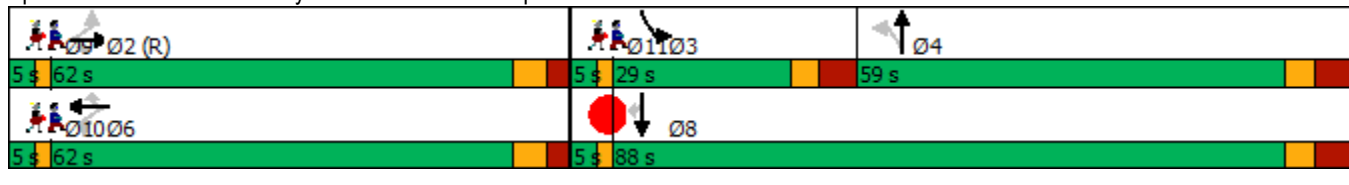


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Prot	NA	Perm
Protected Phases		2			6			4		3	8	
Permitted Phases	2		2	6		6	4					8
Detector Phase	2	2	2	6	6	6	4	4		3	8	8
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	40.0	40.0	40.0	42.0	42.0	42.0	41.0	41.0		18.0	41.0	41.0
Total Split (s)	62.0	62.0	62.0	62.0	62.0	62.0	59.0	59.0		29.0	88.0	88.0
Total Split (%)	38.8%	38.8%	38.8%	38.8%	38.8%	38.8%	36.9%	36.9%		18.1%	55.0%	55.0%
Maximum Green (s)	55.0	55.0	55.0	55.0	55.0	55.0	51.0	51.0		21.0	80.0	80.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	4.5	4.5		4.5	4.5	4.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	8.0	8.0		8.0	8.0	8.0
Lead/Lag												Lag
Lead-Lag Optimize?												Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	C-Max	C-Max	C-Max	Max	Max	Max	Min	Min		None	Min	Min
Walk Time (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0			10.0	10.0
Flash Dont Walk (s)	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0			23.0	23.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0			0	0
Act Effct Green (s)	91.6	91.6	91.6	55.0	55.0	55.0	12.3	12.3		20.6	40.9	40.9
Actuated g/C Ratio	0.57	0.57	0.57	0.34	0.34	0.34	0.08	0.08		0.13	0.26	0.26
v/c Ratio	0.79	0.51	0.03	0.48	0.70	0.74	0.23	0.59		0.90	0.11	0.26
Control Delay	72.4	19.8	0.2	52.1	49.2	36.1	73.3	57.4		91.2	45.1	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	72.4	19.8	0.2	52.1	49.2	36.1	73.3	57.4		91.2	45.1	7.7
LOS	E	B	A	D	D	D	E	E		F	D	A
Approach Delay		22.9			45.0			60.5			68.3	
Approach LOS		C			D			E			E	

Intersection Summary

Area Type: Other  
 Cycle Length: 160  
 Actuated Cycle Length: 160  
 Offset: 16 (10%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.90  
 Intersection Signal Delay: 42.0  
 Intersection LOS: D  
 Intersection Capacity Utilization 72.4%  
 ICU Level of Service C  
 Analysis Period (min) 15

Splits and Phases: 12: Ponytrail Dr & Burnhamthorpe Rd



Lane Group	Ø7	Ø9	Ø10	Ø11
Turn Type				
Protected Phases	7	9	10	11
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	1.0	1.0	1.0	1.0
Minimum Split (s)	3.0	3.0	3.0	3.0
Total Split (s)	5.0	5.0	5.0	5.0
Total Split (%)	3%	3%	3%	3%
Maximum Green (s)	3.0	3.0	3.0	3.0
Yellow Time (s)	2.0	2.0	2.0	2.0
All-Red Time (s)	0.0	0.0	0.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag				Lead
Lead-Lag Optimize?				Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0
Recall Mode	Ped	Ped	Ped	Ped
Walk Time (s)	0.0	0.0	0.0	0.0
Flash Dont Walk (s)	0.0	0.0	0.0	0.0
Pedestrian Calls (#/hr)	0	0	0	0
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Intersection Summary				

Queues  
12: Ponytrail Dr & Burnhamthorpe Rd

2029 FT SAT Optimized  
08/09/2024



























Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	79	1059	24	85	875	485	24	99	404	52	132
v/c Ratio	0.79	0.51	0.03	0.48	0.70	0.74	0.23	0.59	0.90	0.11	0.26
Control Delay	72.4	19.8	0.2	52.1	49.2	36.1	73.3	57.4	91.2	45.1	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	72.4	19.8	0.2	52.1	49.2	36.1	73.3	57.4	91.2	45.1	7.7
Queue Length 50th (m)	14.4	94.4	0.0	21.3	127.0	89.5	7.4	19.1	66.0	12.9	0.0
Queue Length 95th (m)	#57.8	113.3	0.5	40.5	150.9	134.5	16.9	38.0	#93.3	23.3	16.2
Internal Link Dist (m)		651.9			218.1			920.6		141.5	
Turn Bay Length (m)	35.0		30.0	35.0		30.0	15.0		40.0		
Base Capacity (vph)	100	2069	948	178	1242	658	440	581	460	960	869
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.79	0.51	0.03	0.48	0.70	0.74	0.05	0.17	0.88	0.05	0.15

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

Lanes, Volumes, Timings  
1: Dixie Rd & Bloor St

2029 FT AM Sensitivity Opt  
12/04/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	137	470	173	291	397	266	57	974	204	194	1185	100
Future Volume (vph)	137	470	173	291	397	266	57	974	204	194	1185	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		15.0	60.0		1.0	75.0		0.0	100.0		85.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	85.0			60.0			90.0			50.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.91	0.91	1.00	0.91	1.00
Ped Bike Factor	0.97		0.98	1.00		0.93	0.99	1.00		1.00		0.95
Fr <sub>t</sub>			0.850			0.850		0.974				0.850
Fl <sub>t</sub> Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1738	3544	1617	1772	3444	1555	1722	4693	0	1722	4948	1555
Fl <sub>t</sub> Permitted	0.501			0.238			0.203			0.123		
Satd. Flow (perm)	889	3544	1582	442	3444	1452	365	4693	0	223	4948	1473
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			68			56		31				109
Link Speed (k/h)		50			50			60			60	
Link Distance (m)		302.0			339.9			615.3			434.7	
Travel Time (s)		21.7			24.5			36.9			26.1	
Confl. Peds. (#/hr)	45		8	8		45	35		14	14		35
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	5%	3%	1%	3%	6%	5%	6%	9%	5%	6%	6%	5%
Adj. Flow (vph)	149	511	188	316	432	289	62	1059	222	211	1288	109
Shared Lane Traffic (%)												
Lane Group Flow (vph)	149	511	188	316	432	289	62	1281	0	211	1288	109
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane					Yes							
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	2	1	1	1	1	1	1	0		1	0	0
Detector Template								Thru			Thru	Right
Leading Detector (m)	24.0	7.0	7.0	22.0	7.0	7.0	24.0	0.0		24.0	0.0	0.0
Trailing Detector (m)	-2.5	-2.0	-2.0	12.0	-2.0	-2.0	14.0	0.0		14.0	0.0	0.0
Detector 1 Position(m)	-2.5	-2.0	-2.0	12.0	-2.0	-2.0	14.0	0.0		14.0	0.0	0.0
Detector 1 Size(m)	10.0	9.0	9.0	10.0	9.0	9.0	10.0	0.6		10.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)	14.0											
Detector 2 Size(m)	10.0											
Detector 2 Type	Cl+Ex											
Detector 2 Channel												
Detector 2 Extend (s)	0.0											

Lanes, Volumes, Timings  
1: Dixie Rd & Bloor St

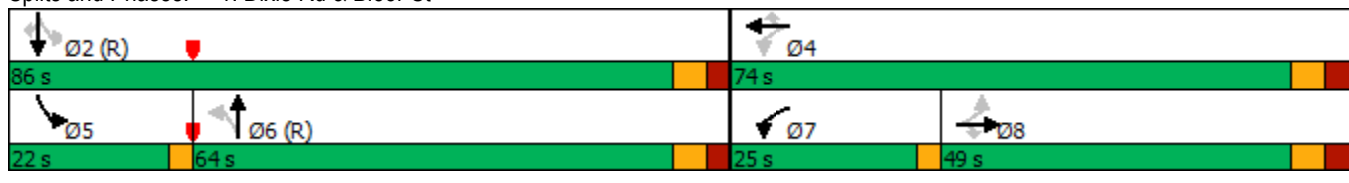


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	Perm	NA		pm+pt	NA	Perm
Protected Phases		8		7	4			6		5	2	
Permitted Phases	8		8	4		4	6			2		2
Detector Phase	8	8	8	7	4	4	6	6		5	2	2
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	7.0	10.0	10.0	10.0	10.0		7.0	10.0	10.0
Minimum Split (s)	46.4	46.4	46.4	10.0	46.4	46.4	46.9	46.9		10.0	46.9	46.9
Total Split (s)	49.0	49.0	49.0	25.0	74.0	74.0	64.0	64.0		22.0	86.0	86.0
Total Split (%)	30.6%	30.6%	30.6%	15.6%	46.3%	46.3%	40.0%	40.0%		13.8%	53.8%	53.8%
Maximum Green (s)	41.6	41.6	41.6	22.0	66.6	66.6	57.1	57.1		19.0	79.1	79.1
Yellow Time (s)	4.0	4.0	4.0	3.0	4.0	4.0	4.0	4.0		3.0	4.0	4.0
All-Red Time (s)	3.4	3.4	3.4	0.0	3.4	3.4	2.9	2.9		0.0	2.9	2.9
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.4	7.4	7.4	3.0	7.4	7.4	6.9	6.9		3.0	6.9	6.9
Lead/Lag	Lag	Lag	Lag	Lead			Lag	Lag		Lead		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	C-Max	C-Max		None	C-Max	C-Max
Walk Time (s)	10.0	10.0	10.0		10.0	10.0	10.0	10.0			10.0	10.0
Flash Dont Walk (s)	29.0	29.0	29.0		29.0	29.0	30.0	30.0			30.0	30.0
Pedestrian Calls (#/hr)	0	0	0		0	0	0	0			0	0
Act Effct Green (s)	33.6	33.6	33.6	63.0	58.6	58.6	68.1	68.1		91.0	87.1	87.1
Actuated g/C Ratio	0.21	0.21	0.21	0.39	0.37	0.37	0.43	0.43		0.57	0.54	0.54
v/c Ratio	0.80	0.69	0.49	0.89	0.34	0.51	0.40	0.64		0.76	0.48	0.13
Control Delay	88.2	62.6	37.9	62.0	36.7	33.7	46.5	38.7		41.2	24.0	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	88.2	62.6	37.9	62.0	36.7	33.7	46.5	38.7		41.2	24.0	3.7
LOS	F	E	D	E	D	C	D	D		D	C	A
Approach Delay		61.6			43.6			39.1			24.9	
Approach LOS		E			D			D			C	

Intersection Summary

Area Type:	Other
Cycle Length:	160
Actuated Cycle Length:	160
Offset:	45 (28%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle:	115
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.89
Intersection Signal Delay:	39.3
Intersection LOS:	D
Intersection Capacity Utilization:	101.5%
ICU Level of Service:	G
Analysis Period (min):	15

Splits and Phases: 1: Dixie Rd & Bloor St





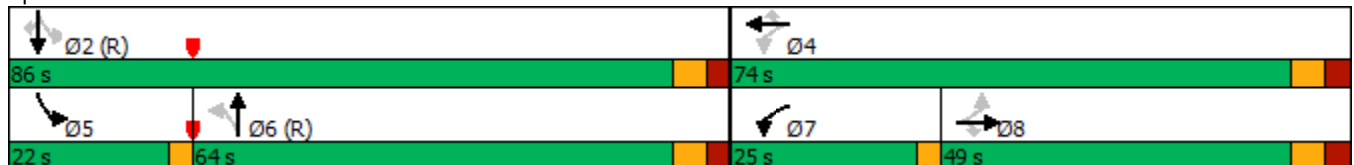
Timings  
1: Dixie Rd & Bloor St

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	137	470	173	291	397	266	57	974	194	1185	100
Future Volume (vph)	137	470	173	291	397	266	57	974	194	1185	100
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	Perm	NA	pm+pt	NA	Perm
Protected Phases		8		7	4			6	5	2	
Permitted Phases	8		8	4		4	6		2		2
Detector Phase	8	8	8	7	4	4	6	6	5	2	2
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	7.0	10.0	10.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	46.4	46.4	46.4	10.0	46.4	46.4	46.9	46.9	10.0	46.9	46.9
Total Split (s)	49.0	49.0	49.0	25.0	74.0	74.0	64.0	64.0	22.0	86.0	86.0
Total Split (%)	30.6%	30.6%	30.6%	15.6%	46.3%	46.3%	40.0%	40.0%	13.8%	53.8%	53.8%
Yellow Time (s)	4.0	4.0	4.0	3.0	4.0	4.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	3.4	3.4	3.4	0.0	3.4	3.4	2.9	2.9	0.0	2.9	2.9
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.4	7.4	7.4	3.0	7.4	7.4	6.9	6.9	3.0	6.9	6.9
Lead/Lag	Lag	Lag	Lag	Lead			Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes	Yes	Yes		
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	33.6	33.6	33.6	63.0	58.6	58.6	68.1	68.1	91.0	87.1	87.1
Actuated g/C Ratio	0.21	0.21	0.21	0.39	0.37	0.37	0.43	0.43	0.57	0.54	0.54
v/c Ratio	0.80	0.69	0.49	0.89	0.34	0.51	0.40	0.64	0.76	0.48	0.13
Control Delay	88.2	62.6	37.9	62.0	36.7	33.7	46.5	38.7	41.2	24.0	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	88.2	62.6	37.9	62.0	36.7	33.7	46.5	38.7	41.2	24.0	3.7
LOS	F	E	D	E	D	C	D	D	D	C	A
Approach Delay		61.6			43.6			39.1		24.9	
Approach LOS		E			D			D		C	

Intersection Summary

Cycle Length: 160  
 Actuated Cycle Length: 160  
 Offset: 45 (28%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green  
 Natural Cycle: 115  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.89  
 Intersection Signal Delay: 39.3  
 Intersection LOS: D  
 Intersection Capacity Utilization 101.5%  
 ICU Level of Service G  
 Analysis Period (min) 15

Splits and Phases: 1: Dixie Rd & Bloor St



Queues  
1: Dixie Rd & Bloor St



























Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	149	511	188	316	432	289	62	1281	211	1288	109
v/c Ratio	0.80	0.69	0.49	0.89	0.34	0.51	0.40	0.64	0.76	0.48	0.13
Control Delay	88.2	62.6	37.9	62.0	36.7	33.7	46.5	38.7	41.2	24.0	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	88.2	62.6	37.9	62.0	36.7	33.7	46.5	38.7	41.2	24.0	3.7
Queue Length 50th (m)	45.1	79.1	33.3	73.0	51.7	57.0	13.9	117.1	32.5	91.5	0.0
Queue Length 95th (m)	69.4	93.4	55.5	#99.6	61.4	80.1	32.6	146.5	64.0	114.2	10.2
Internal Link Dist (m)		278.0			315.9			591.3		410.7	
Turn Bay Length (m)	40.0		15.0	60.0		1.0	75.0		100.0		85.0
Base Capacity (vph)	231	921	461	357	1433	637	155	2015	308	2692	851
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.55	0.41	0.89	0.30	0.45	0.40	0.64	0.69	0.48	0.13

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

Lanes, Volumes, Timings  
1: Dixie Rd & Bloor St

2029 FT PM Sensitivity Opt  
12/04/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	132	473	179	320	719	201	272	1311	406	141	1435	219
Future Volume (vph)	132	473	179	320	719	201	272	1311	406	141	1435	219
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		15.0	60.0		1.0	75.0		0.0	100.0		85.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	85.0			60.0			90.0			50.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.91	0.91	1.00	0.91	1.00
Ped Bike Factor	0.98		0.96	0.99		0.90		0.99		1.00		0.93
Fr <sub>t</sub>			0.850			0.850		0.965				0.850
Fl <sub>t</sub> Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1789	3544	1601	1789	3579	1617	1825	4901	0	1789	5092	1617
Fl <sub>t</sub> Permitted	0.146			0.224			0.062			0.065		
Satd. Flow (perm)	268	3544	1530	417	3579	1451	119	4901	0	122	5092	1502
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			108			88			60			174
Link Speed (k/h)		50			50			60				60
Link Distance (m)		302.0			339.9			615.3				434.7
Travel Time (s)		21.7			24.5			36.9				26.1
Confl. Peds. (#/hr)	75		27	27		75	50		24	24		50
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	3%	2%	2%	2%	1%	0%	3%	0%	2%	3%	1%
Adj. Flow (vph)	143	514	195	348	782	218	296	1425	441	153	1560	238
Shared Lane Traffic (%)												
Lane Group Flow (vph)	143	514	195	348	782	218	296	1866	0	153	1560	238
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7				3.7
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane					Yes							
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	2	1	1	1	1	1	1	0		1	0	0
Detector Template								Thru			Thru	Right
Leading Detector (m)	24.0	7.0	7.0	22.0	7.0	7.0	24.0	0.0		24.0	0.0	0.0
Trailing Detector (m)	-2.5	-2.0	-2.0	12.0	-2.0	-2.0	14.0	0.0		14.0	0.0	0.0
Detector 1 Position(m)	-2.5	-2.0	-2.0	12.0	-2.0	-2.0	14.0	0.0		14.0	0.0	0.0
Detector 1 Size(m)	10.0	9.0	9.0	10.0	9.0	9.0	10.0	0.6		10.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)	14.0											
Detector 2 Size(m)	10.0											
Detector 2 Type	Cl+Ex											
Detector 2 Channel												
Detector 2 Extend (s)	0.0											

Lanes, Volumes, Timings  
1: Dixie Rd & Bloor St

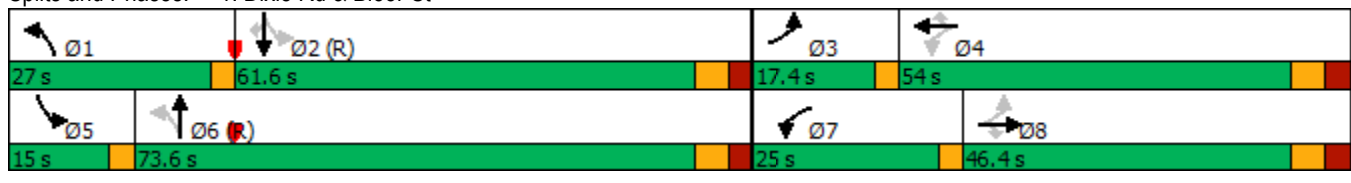


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	Perm
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8		8	4		4	6			2		2
Detector Phase	3	8	8	7	4	4	1	6		5	2	2
Switch Phase												
Minimum Initial (s)	7.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0		7.0	10.0	10.0
Minimum Split (s)	11.5	46.4	46.4	10.0	46.4	46.4	11.5	46.9		11.5	46.9	46.9
Total Split (s)	17.4	46.4	46.4	25.0	54.0	54.0	27.0	73.6		15.0	61.6	61.6
Total Split (%)	10.9%	29.0%	29.0%	15.6%	33.8%	33.8%	16.9%	46.0%		9.4%	38.5%	38.5%
Maximum Green (s)	14.4	39.0	39.0	22.0	46.6	46.6	24.0	66.7		12.0	54.7	54.7
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0		3.0	4.0	4.0
All-Red Time (s)	0.0	3.4	3.4	0.0	3.4	3.4	0.0	2.9		0.0	2.9	2.9
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	3.0	7.4	7.4	3.0	7.4	7.4	3.0	6.9		3.0	6.9	6.9
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	C-Max
Walk Time (s)		10.0	10.0		10.0	10.0		10.0			10.0	10.0
Flash Dont Walk (s)		29.0	29.0		29.0	29.0		30.0			30.0	30.0
Pedestrian Calls (#/hr)		0	0		0	0		0			0	0
Act Effct Green (s)	49.9	32.3	32.3	61.7	41.1	41.1	92.3	73.2		77.3	61.2	61.2
Actuated g/C Ratio	0.31	0.20	0.20	0.39	0.26	0.26	0.58	0.46		0.48	0.38	0.38
v/c Ratio	0.68	0.72	0.49	1.00	0.85	0.50	0.91	0.82		0.83	0.80	0.35
Control Delay	49.8	65.1	27.8	86.2	66.1	32.8	77.2	41.2		71.9	49.0	12.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	49.8	65.1	27.8	86.2	66.1	32.8	77.2	41.2		71.9	49.0	12.4
LOS	D	E	C	F	E	C	E	D		E	D	B
Approach Delay		54.0			65.9			46.1			46.4	
Approach LOS		D			E			D			D	

Intersection Summary

Area Type: Other  
 Cycle Length: 160  
 Actuated Cycle Length: 160  
 Offset: 74 (46%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.00  
 Intersection Signal Delay: 51.5  
 Intersection LOS: D  
 Intersection Capacity Utilization 109.3%  
 ICU Level of Service H  
 Analysis Period (min) 15

Splits and Phases: 1: Dixie Rd & Bloor St



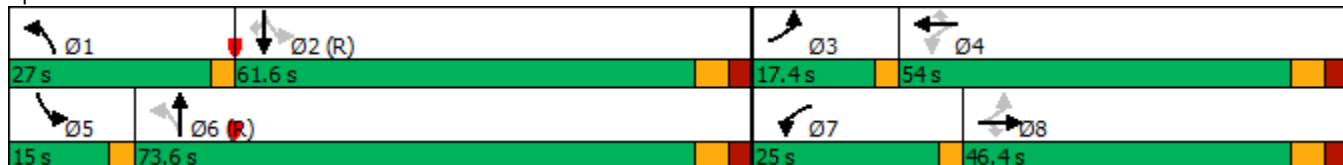
Timings  
1: Dixie Rd & Bloor St

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	132	473	179	320	719	201	272	1311	141	1435	219
Future Volume (vph)	132	473	179	320	719	201	272	1311	141	1435	219
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	3	8		7	4		1	6	5	2	
Permitted Phases	8		8	4		4	6		2		2
Detector Phase	3	8	8	7	4	4	1	6	5	2	2
Switch Phase											
Minimum Initial (s)	7.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0	7.0	10.0	10.0
Minimum Split (s)	11.5	46.4	46.4	10.0	46.4	46.4	11.5	46.9	11.5	46.9	46.9
Total Split (s)	17.4	46.4	46.4	25.0	54.0	54.0	27.0	73.6	15.0	61.6	61.6
Total Split (%)	10.9%	29.0%	29.0%	15.6%	33.8%	33.8%	16.9%	46.0%	9.4%	38.5%	38.5%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0	3.0	4.0	4.0
All-Red Time (s)	0.0	3.4	3.4	0.0	3.4	3.4	0.0	2.9	0.0	2.9	2.9
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.0	7.4	7.4	3.0	7.4	7.4	3.0	6.9	3.0	6.9	6.9
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	49.9	32.3	32.3	61.7	41.1	41.1	92.3	73.2	77.3	61.2	61.2
Actuated g/C Ratio	0.31	0.20	0.20	0.39	0.26	0.26	0.58	0.46	0.48	0.38	0.38
v/c Ratio	0.68	0.72	0.49	1.00	0.85	0.50	0.91	0.82	0.83	0.80	0.35
Control Delay	49.8	65.1	27.8	86.2	66.1	32.8	77.2	41.2	71.9	49.0	12.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.8	65.1	27.8	86.2	66.1	32.8	77.2	41.2	71.9	49.0	12.4
LOS	D	E	C	F	E	C	E	D	E	D	B
Approach Delay		54.0			65.9			46.1		46.4	
Approach LOS		D			E			D		D	

Intersection Summary

Cycle Length: 160  
 Actuated Cycle Length: 160  
 Offset: 74 (46%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.00  
 Intersection Signal Delay: 51.5  
 Intersection LOS: D  
 Intersection Capacity Utilization 109.3%  
 ICU Level of Service H  
 Analysis Period (min) 15

Splits and Phases: 1: Dixie Rd & Bloor St



Queues  
1: Dixie Rd & Bloor St



























Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	143	514	195	348	782	218	296	1866	153	1560	238
v/c Ratio	0.68	0.72	0.49	1.00	0.85	0.50	0.91	0.82	0.83	0.80	0.35
Control Delay	49.8	65.1	27.8	86.2	66.1	32.8	77.2	41.2	71.9	49.0	12.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.8	65.1	27.8	86.2	66.1	32.8	77.2	41.2	71.9	49.0	12.4
Queue Length 50th (m)	29.7	80.1	23.7	82.6	124.7	35.0	75.2	191.9	32.4	171.5	13.9
Queue Length 95th (m)	43.5	96.3	47.4	#132.1	143.4	59.2	#134.8	217.6	#74.6	192.7	36.7
Internal Link Dist (m)		278.0			315.9			591.3		410.7	
Turn Bay Length (m)	40.0		15.0	60.0		1.0	75.0		100.0		85.0
Base Capacity (vph)	222	863	454	349	1042	484	338	2275	194	1946	681
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.64	0.60	0.43	1.00	0.75	0.45	0.88	0.82	0.79	0.80	0.35

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

Lanes, Volumes, Timings  
1: Dixie Rd & Bloor St

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	140	481	218	345	451	220	197	1172	359	141	1184	156
Future Volume (vph)	140	481	218	345	451	220	197	1172	359	141	1184	156
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0		15.0	60.0		1.0	75.0		0.0	100.0		85.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	85.0			60.0			90.0			50.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.91	0.91	1.00	0.91	1.00
Ped Bike Factor	0.98		0.97	0.99		0.94	1.00	0.99		1.00		0.97
Fr <sub>t</sub>			0.850			0.850		0.965				0.850
Fl <sub>t</sub> Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1807	3614	1617	1807	3579	1617	1807	4960	0	1807	5142	1601
Fl <sub>t</sub> Permitted	0.473			0.228			0.115			0.064		
Satd. Flow (perm)	877	3614	1574	431	3579	1519	218	4960	0	122	5142	1546
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			88			68			56			151
Link Speed (k/h)		50			50			60				60
Link Distance (m)		302.0			339.9			615.3				434.7
Travel Time (s)		21.7			24.5			36.9				26.1
Confl. Peds. (#/hr)	40		12	12		40	19		27	27		19
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	1%	1%	1%	2%	1%	1%	1%	1%	1%	2%	2%
Adj. Flow (vph)	152	523	237	375	490	239	214	1274	390	153	1287	170
Shared Lane Traffic (%)												
Lane Group Flow (vph)	152	523	237	375	490	239	214	1664	0	153	1287	170
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7				3.7
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		1.6			1.6			1.6				1.6
Two way Left Turn Lane					Yes							
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	2	1	1	1	1	1	1	0		1	0	0
Detector Template								Thru			Thru	Right
Leading Detector (m)	24.0	7.0	7.0	22.0	7.0	7.0	24.0	0.0		24.0	0.0	0.0
Trailing Detector (m)	-2.5	-2.0	-2.0	12.0	-2.0	-2.0	14.0	0.0		14.0	0.0	0.0
Detector 1 Position(m)	-2.5	-2.0	-2.0	12.0	-2.0	-2.0	14.0	0.0		14.0	0.0	0.0
Detector 1 Size(m)	10.0	9.0	9.0	10.0	9.0	9.0	10.0	0.6		10.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)	14.0											
Detector 2 Size(m)	10.0											
Detector 2 Type	Cl+Ex											
Detector 2 Channel												
Detector 2 Extend (s)	0.0											

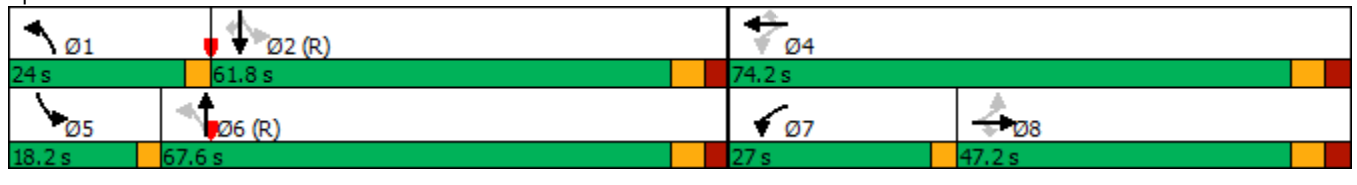
Lanes, Volumes, Timings  
1: Dixie Rd & Bloor St

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	Perm
Protected Phases		8		7	4		1	6		5	2	
Permitted Phases	8		8	4		4	6			2		2
Detector Phase	8	8	8	7	4	4	1	6		5	2	2
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0		7.0	10.0	10.0
Minimum Split (s)	46.4	46.4	46.4	10.0	46.4	46.4	10.0	46.9		11.5	46.9	46.9
Total Split (s)	47.2	47.2	47.2	27.0	74.2	74.2	24.0	67.6		18.2	61.8	61.8
Total Split (%)	29.5%	29.5%	29.5%	16.9%	46.4%	46.4%	15.0%	42.3%		11.4%	38.6%	38.6%
Maximum Green (s)	39.8	39.8	39.8	24.0	66.8	66.8	21.0	60.7		15.2	54.9	54.9
Yellow Time (s)	4.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0		3.0	4.0	4.0
All-Red Time (s)	3.4	3.4	3.4	0.0	3.4	3.4	0.0	2.9		0.0	2.9	2.9
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.4	7.4	7.4	3.0	7.4	7.4	3.0	6.9		3.0	6.9	6.9
Lead/Lag	Lag	Lag	Lag	Lead			Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	C-Max
Walk Time (s)	10.0	10.0	10.0		10.0	10.0		10.0			10.0	10.0
Flash Dont Walk (s)	29.0	29.0	29.0		29.0	29.0		30.0			30.0	30.0
Pedestrian Calls (#/hr)	0	0	0		0	0		0			0	0
Act Effct Green (s)	33.7	33.7	33.7	65.1	60.7	60.7	88.8	69.9		81.3	65.2	65.2
Actuated g/C Ratio	0.21	0.21	0.21	0.41	0.38	0.38	0.56	0.44		0.51	0.41	0.41
v/c Ratio	0.83	0.69	0.59	0.98	0.36	0.39	0.75	0.76		0.81	0.61	0.24
Control Delay	92.0	62.6	40.4	83.8	38.8	29.9	40.7	40.8		66.8	40.6	7.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	92.0	62.6	40.4	83.8	38.8	29.9	40.7	40.8		66.8	40.6	7.9
LOS	F	E	D	F	D	C	D	D		E	D	A
Approach Delay		61.7			52.2			40.8			39.7	
Approach LOS		E			D			D			D	

Intersection Summary

Area Type: Other  
 Cycle Length: 160  
 Actuated Cycle Length: 160  
 Offset: 74 (46%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green  
 Natural Cycle: 115  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.98  
 Intersection Signal Delay: 46.2      Intersection LOS: D  
 Intersection Capacity Utilization 101.6%      ICU Level of Service G  
 Analysis Period (min) 15

Splits and Phases: 1: Dixie Rd & Bloor St





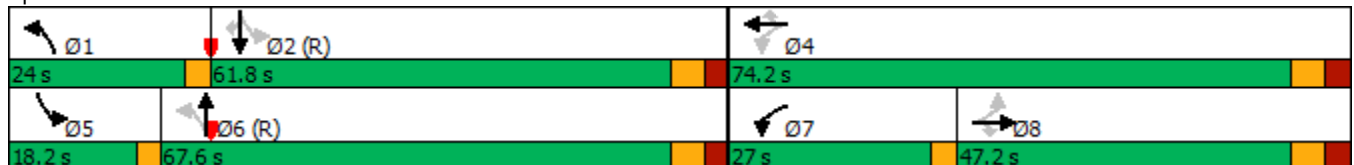
Timings  
1: Dixie Rd & Bloor St

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR	
Lane Configurations												
Traffic Volume (vph)	140	481	218	345	451	220	197	1172	141	1184	156	
Future Volume (vph)	140	481	218	345	451	220	197	1172	141	1184	156	
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm	
Protected Phases		8		7	4		1	6	5	2		
Permitted Phases	8		8	4		4	6		2		2	
Detector Phase	8	8	8	7	4	4	1	6	5	2	2	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0	7.0	10.0	10.0	
Minimum Split (s)	46.4	46.4	46.4	10.0	46.4	46.4	10.0	46.9	11.5	46.9	46.9	
Total Split (s)	47.2	47.2	47.2	27.0	74.2	74.2	24.0	67.6	18.2	61.8	61.8	
Total Split (%)	29.5%	29.5%	29.5%	16.9%	46.4%	46.4%	15.0%	42.3%	11.4%	38.6%	38.6%	
Yellow Time (s)	4.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0	3.0	4.0	4.0	
All-Red Time (s)	3.4	3.4	3.4	0.0	3.4	3.4	0.0	2.9	0.0	2.9	2.9	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	7.4	7.4	7.4	3.0	7.4	7.4	3.0	6.9	3.0	6.9	6.9	
Lead/Lag	Lag	Lag	Lag	Lead			Lead	Lag	Lead	Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Max	None	C-Max	C-Max	
Act Effct Green (s)	33.7	33.7	33.7	65.1	60.7	60.7	88.8	69.9	81.3	65.2	65.2	
Actuated g/C Ratio	0.21	0.21	0.21	0.41	0.38	0.38	0.56	0.44	0.51	0.41	0.41	
v/c Ratio	0.83	0.69	0.59	0.98	0.36	0.39	0.75	0.76	0.81	0.61	0.24	
Control Delay	92.0	62.6	40.4	83.8	38.8	29.9	40.7	40.8	66.8	40.6	7.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	92.0	62.6	40.4	83.8	38.8	29.9	40.7	40.8	66.8	40.6	7.9	
LOS	F	E	D	F	D	C	D	D	E	D	A	
Approach Delay		61.7			52.2			40.8		39.7		
Approach LOS		E			D			D		D		

Intersection Summary

Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 74 (46%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green	
Natural Cycle: 115	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.98	
Intersection Signal Delay: 46.2	Intersection LOS: D
Intersection Capacity Utilization 101.6%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 1: Dixie Rd & Bloor St



Queues  
1: Dixie Rd & Bloor St



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	152	523	237	375	490	239	214	1664	153	1287	170
v/c Ratio	0.83	0.69	0.59	0.98	0.36	0.39	0.75	0.76	0.81	0.61	0.24
Control Delay	92.0	62.6	40.4	83.8	38.8	29.9	40.7	40.8	66.8	40.6	7.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	92.0	62.6	40.4	83.8	38.8	29.9	40.7	40.8	66.8	40.6	7.9
Queue Length 50th (m)	45.8	80.2	42.5	86.6	59.7	41.1	34.5	162.7	31.2	121.8	3.7
Queue Length 95th (m)	#75.1	97.0	69.2	#141.9	81.1	46.2	65.0	194.4	#61.9	148.9	21.1
Internal Link Dist (m)		278.0			315.9			591.3		410.7	
Turn Bay Length (m)	40.0		15.0	60.0		1.0	75.0		100.0		85.0
Base Capacity (vph)	218	898	457	381	1494	673	329	2197	224	2096	719
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.70	0.58	0.52	0.98	0.33	0.36	0.65	0.76	0.68	0.61	0.24

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

# APPENDIX O

## TAC GDGCR Excerpts

Stopping sight distance is the sum of the distance travelled during the perception and reaction time and the braking distance.

$$SSD = 0.278Vt + 0.039 \frac{V^2}{a} \quad (2.5.2)$$

Where:

- SSD = Stopping sight distance (m)
- t = Brake reaction time, 2.5 s
- V = Design speed (km/h)
- a = Deceleration rate (m/s<sup>2</sup>)

**Table 2.5.2** gives the minimum stopping sight distances on level grade, on wet pavement, for a range of design speeds. These values are used for vertical curve design, intersection geometry and the placement of traffic control devices. The stopping sight distances quoted in **Table 2.5.2** may need to be increased for a variety of reasons related to grade and vehicle type as noted below.

**Table 2.5.2: Stopping Sight Distance on level roadways for Automobiles<sup>54</sup>**

Design speed (km/h)	Brake reaction distance (m)	Braking distance on level (m)	Stopping sight distance	
			Calculated (m)	Design (m)
20	13.9	4.6	18.5	20
30	20.9	10.3	31.2	35
40	27.8	18.4	46.2	50
50	34.8	28.7	63.5	65
60	41.7	41.3	83.0	85
70	48.7	56.2	104.9	105
80	55.6	73.4	129.0	130
90	62.6	92.9	155.5	160
100	69.5	114.7	184.2	185
110	76.5	138.8	215.3	220
120	83.4	165.2	248.6	250
130	90.4	193.8	284.2	285

Note: Brake reaction distance predicated on a time of 2.5 s; deceleration rate of 3.4 m/s<sup>2</sup> used to determine calculated sight distance.

**Table 9.9.3: Time Gap for Case B1, Left Turn from Stop**

Design Vehicle	Time Gap ( $t_g$ )(s) at Design Speed of Major Road
Passenger car	7.5
Single-unit truck	9.5
Combination truck (WB 19 and WB 20 )	11.5
Longer truck	To be established by road authority

Notes: Time gaps are for a stopped vehicle to turn left onto a two-lane highway with no median and with grades of 3% or less. The table values should be adjusted as follows:

- For multi-lane highways: For left turns onto two-lane highways with more than two lanes, add 0.5 s for passenger cars and 0.7 s for trucks for each additional lane, from the left, in excess of one, to be crossed by the turning vehicle.
- For minor approach grades: If the approach grade is an upgrade that exceeds 3%, add 0.2 s for each percent grade for left turns.
- Some road authorities use higher values for certain specialized vehicles (e.g., Alberta uses 22 s for very long log trucks).

The intersection sight distance along the major road (distance b in **Figure 9.9.2**) is determined by:

$$ISD = 0.278 V_{\text{major}} t_g \quad (9.9.1)$$

Where:

ISD = intersection sight distance (length of the leg of sight triangle along the major road) (m)

$V_{\text{major}}$  = design speed of the major road (km/h)

$t_g$  = time gap for minor road vehicle to enter the major road (s)

For example, a passenger car turning left onto a two-lane major road should be provided sight distance equivalent to a time gap of 7.5 s in major-road traffic. If the design speed of the major road is 100 km/h, this corresponds to a sight distance of  $0.278(100)(7.5) = 208.5$  or 210 m, rounded for design.

A passenger car turning left onto a four-lane undivided roadway will need to cross two near lanes, rather than one. This increases the recommended gap in major-road traffic from 7.5 to 8.0 s. The corresponding value of sight distance for this example would be 223 m. If the minor-road approach to such an intersection is located on a 4% upgrade, then the time gap selected for intersection sight distance design for left turns should be increased from 8.0 to 8.8 s, equivalent to an increase of 0.2 s for each percent grade.

The design values for intersection sight distance for passenger cars are shown in **Table 9.9.4**. **Figure 9.9.4** includes design values, based on the time gaps for the design vehicles included in **Table 9.9.3**.

No adjustment of the recommended sight distance values for the major-road grade is generally needed because both the major- and minor-road vehicle will be on the same grade when departing from the intersection. However, if the minor-road design vehicle is a heavy truck and the intersection is located near a sag vertical curve with grades over 3%, then an adjustment to extend the recommended sight distance based on the major-road grade should be considered.

**Table 9.9.4: Design Intersection Sight Distance – Case B1, Left Turn From Stop**

Design Speed (km/h)	Stopping Sight Distance (m)	Intersection Sight Distance for Passenger Cars	
		Calculated (m)	Design (m)
20	20	41.7	45
30	35	62.6	65
40	50	83.4	85
50	65	104.3	105
60	85	125.1	130
70	105	146.0	150
80	130	166.8	170
90	160	187.7	190
100	185	208.5	210
110	220	229.4	230
120	250	250.2	255
130	285	271.1	275

Note: Intersection sight distance shown is for a stopped passenger car to turn left onto a two-lane highway with no median and grades 3% or less. For other conditions, the time gap should be adjusted and the sight distance recalculated.

Sight distance design for left turns at divided-highway intersections should consider multiple design vehicles and median width. If the design vehicle used to determine sight distance for a divided-highway intersection is larger than a passenger car, then sight distance for left turns will need to be checked for that selected design vehicle and for smaller design vehicles as well. If the divided-highway median is wide enough to store the design vehicle with a clearance to the through lanes of approximately 1 m at both ends of the vehicle, no separate analysis for the departure sight triangle for left turns is needed on the minor-road approach for the near roadway to the left. In most cases, the departure sight triangle for right turns (case B2) will provide sufficient sight distance for a passenger car to cross the near roadway to reach the median. Possible exceptions are addressed in the discussion of case B3.

The time gaps in **Table 9.9.3** can be decreased by 1.0 s for right-turn maneuvers without undue interference with major-road traffic. These adjusted time gaps for the right turn from the minor road are shown in **Table 9.9.5**. Design values based on these adjusted time gaps are shown in **Table 9.9.6** for passenger cars. **Figure 9.9.5** includes the design values for the design vehicles for each of the time gaps in **Table 9.9.5**.

**Table 9.9.5: Time Gap for Case B2—Right Turn from Stop and Case B3—Crossing Maneuver**

Design Vehicle	Time Gap ( $t_g$ )(s) at Design Speed of Major Road
Passenger car	6.5
Single-unit truck	8.5
Combination truck (WB 19 and WB 20 )	10.5

Note: Time gaps are for a stopped vehicle to turn left onto a two-lane highway with no median and with grades of 3% or less. The table values should be adjusted as follows:

- For multi-lane highways: For left turns onto two-lane highways with more than two lanes, add 0.5 s for passenger cars and 0.7 s for trucks for each additional lane, from the left, in excess of one, to be crossed by the turning vehicle.
- For minor approach grades: If the approach grade is an upgrade that exceeds 3%, add 0.1 s for each percent grade for left turns.



Table 9.9.6: Design Intersection Sight Distance – Case B2, Right Turn from Stop, and Case B3, Crossing Maneuver

Design Speed (km/h)	Stopping Sight Distance (m)	Intersection Sight Distance for Passenger Cars	
		Calculated (m)	Design (m)
20	20	36.1	40
30	35	54.2	55
40	50	72.3	75
50	65	90.4	95
60	85	108.4	110
70	105	126.5	130
80	130	144.6	145
90	160	162.6	165
100	185	180.7	185
110	220	198.8	200
120	250	216.8	220
130	285	234.9	235

Note: Intersection sight distance shown is for a stopped passenger car to turn right onto or to cross a two-lane highway with no median and with grades of 3% or less. For other conditions, the time gap should be adjusted and the sight distance recalculated.

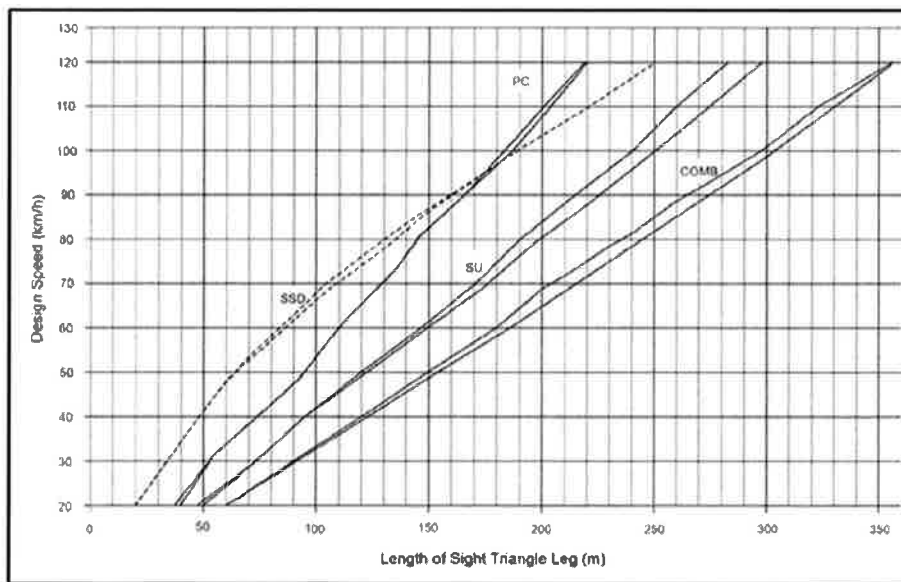


Figure 9.9.5: Intersection Sight Distance – Case B2, Right Turn from Stop, and Case B3, Crossing Maneuver (Calculated and Design Values Plotted)



**Case F – Left Turns from the Major Road**

All locations along a major highway from which vehicles are permitted to turn left across opposing traffic, including intersections and driveways, should have sufficient sight distance to accommodate the left-turn maneuver. Left-turning drivers need sufficient sight distance to decide when to turn left across the lane(s) used by opposing traffic. Sight distance design should be based on a left turn by a stopped vehicle, since a vehicle that turns left without stopping would need less sight distance. The sight distance along the major road to accommodate left turns is the distance traversed at the design speed of the major road in the travel time for the design vehicle given in **Table 9.9.11**.

**Table 9.9.11: Time Gap for Case F, Left Turns from the Major Road**

Design Vehicle	Time Gap ( $t_g$ )(s) at Design Speed of Major Road
Passenger car	5.5
Single-unit truck	6.5
Combination truck (WB 19 and WB 20)	7.5

Note: Adjustment for multi-lane highways: For turning vehicles that cross more than one opposing lane, add 0.5 s for passenger cars and 0.7 s for trucks for each additional lane to be crossed.

The table also contains appropriate adjustment factors for the number of major-road lanes to be crossed by the turning vehicle. The unadjusted time gap in **Table 9.9.11** for passenger cars was used to develop the sight distances in **Table 9.9.12** and is illustrated in **Figure 9.9.8**.

Table 9.9.12: Intersection Sight Distance – Case F, Left Turn from the Major Road

Design Speed (km/h)	Stopping Sight Distance (m)	Intersection Sight Distance	
		Passenger Cars	
		Calculated (m)	Design (m)
20	20	30.6	35
30	35	45.9	50
40	50	61.2	65
50	65	76.5	80
60	85	91.7	95
70	105	107.0	110
80	130	122.3	125
90	160	137.6	140
100	185	152.9	155
110	220	168.2	170
120	250	183.5	185
130	285	198.8	200

Note: Intersection sight distance shown is for a passenger car making a left turn from an undivided highway. For other conditions and design vehicles, the time gap should be adjusted and the sight distance recalculated.

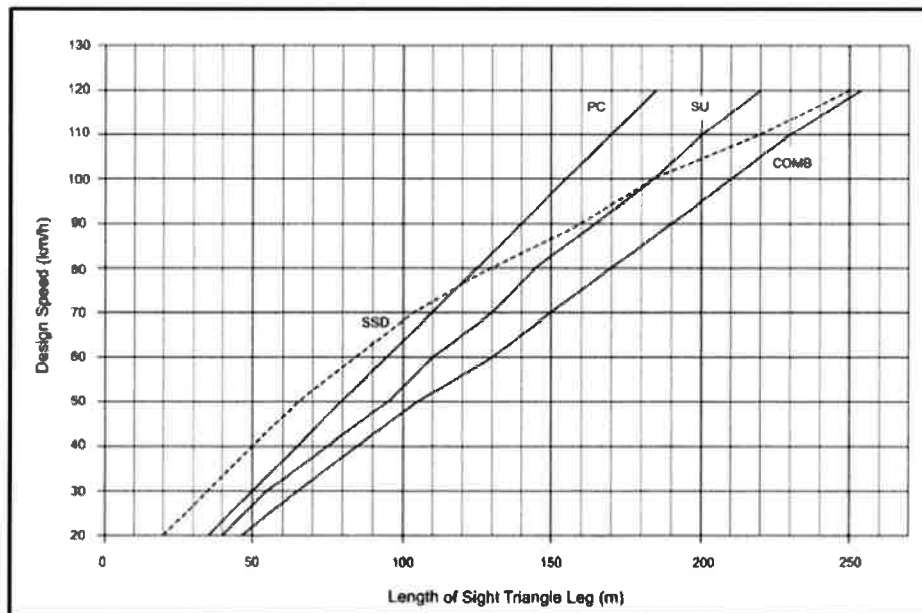
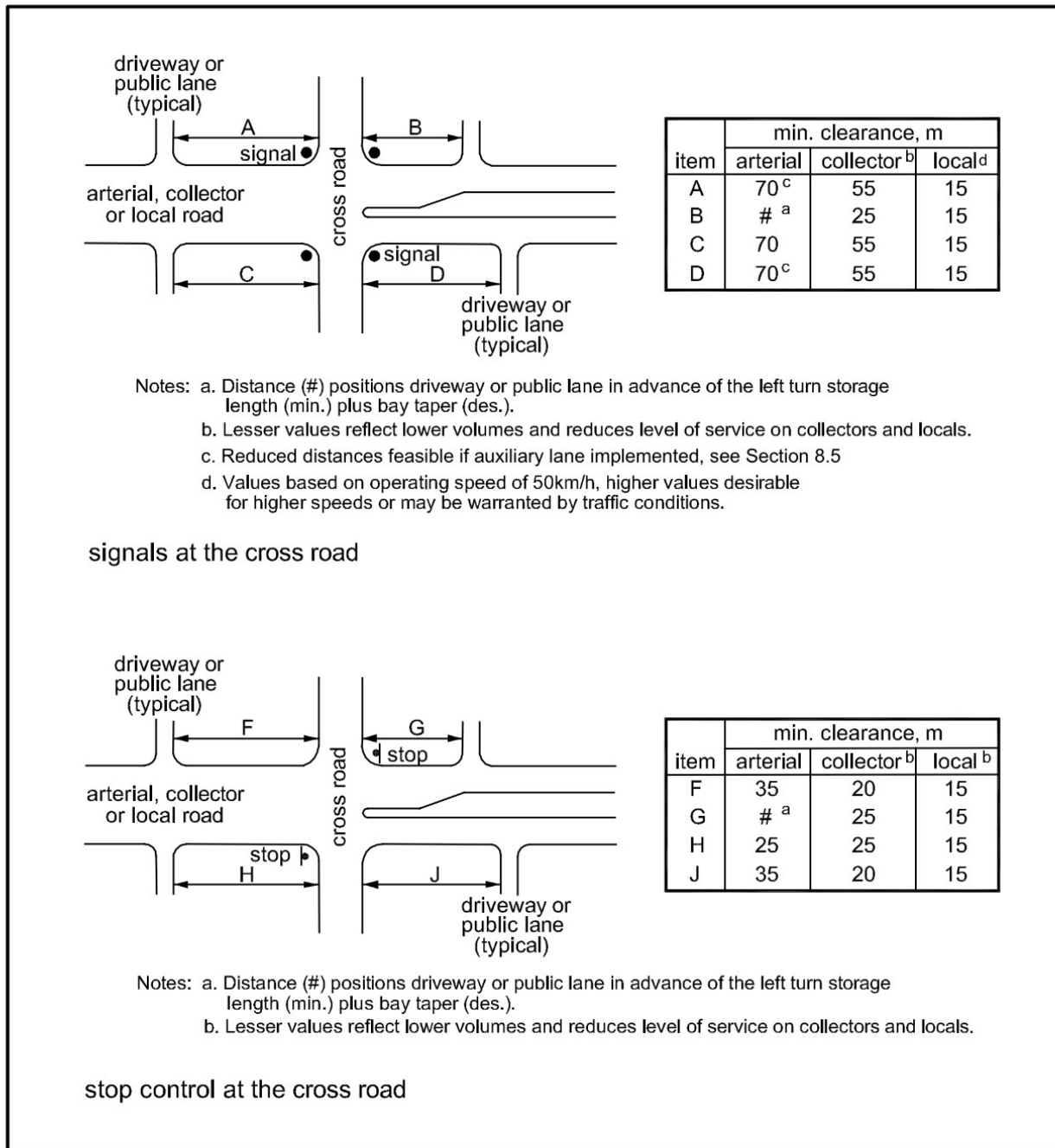


Figure 9.9.8: Intersection Sight Distance – Case F, Left Turn from the Major Road



**Figure 8.8.2: Suggested Minimum Corner Clearances to Accesses or Public Lanes at Major Intersections**

Inadequate corner clearance between accesses and signalized intersections along a major road, such as a major arterial, can create serious operational problems including:

intersection. Refer to **Chapter 8** for access design guidelines. An at-grade intersection differs from a grade-separated interchange in terms of capacity, operation, cost of construction and maintenance, safety, complexities of design features, signing, and traffic signals. Guidelines for interchange design are provided in **Chapter 10**.

## 9.2.2 BASIC TYPES

### 9.2.2.1 Open-Throat Intersection

An open-throat intersection is one where the normal lane width of the main roadway is maintained through the intersection and minimum corner radii are provided. Such intersections do not have tapers or auxiliary lanes. This is discussed in detail in **Section 9.13**.

### 9.2.2.2 Flared Intersection

A flared intersection has tapers and/or auxiliary lanes. This is discussed in detail in **Section 9.13** and **9.14**.

### 9.2.2.3 Channelized Intersection

Channelization of an at-grade intersection separates and directs traffic movements and pedestrian crossings into defined paths. To do so, it uses geometric features, pavement markings, traffic control devices, and other positive guidance elements, as needed. This is discussed in detail in **Section 9.15**.

## 9.2.3 RETROFIT CONSIDERATIONS

An intersection retrofit is an improvement or change to an existing intersection. Retrofitting urban at-grade intersections is often needed to meet changing traffic demands or to implement operational improvements that increase safety and efficiency. An intersection retrofit may involve many alterations to geometric elements, such as adding auxiliary lanes, introducing or modifying channelization, improving undesirable geometric conditions that affect vehicular and pedestrian safety, incorporating pedestrian ramps and refuge areas, implementing traffic calming measures, and adding facilities to accommodate cyclists. In retrofitting, the desired geometric design features must often be compromised due to the limitations imposed by physical constraints and economic considerations.

## 9.2.4 BASIC INTERSECTION CONFIGURATIONS

Each road radiating from an intersection is an intersecting leg. There are four basic intersection configurations, as illustrated in **Figure 9.2.1** and described below.

- **Three-legged intersection:** This type of intersection has three intersecting approach legs and is named a T-intersection or a Y-intersection, depending on which letter more closely represents the general configuration of the intersection as shown in plan.
- **Four-legged intersection:** This type of intersection has four intersecting approach legs, is the most common, and may be divided into three categories: right-angled (or cross), oblique, and offset (right or left). These terms indicate the general configuration of the intersection in plan.
- **Multi-legged intersection:** This type of intersection has more than four intersecting approach legs.
- **Roundabout intersection:** This type of intersection has three or more approach legs that do not intersect but are connected by a continuous one-way road, generally shaped as a circle.

When designing an intersection, three- or four-legged configurations are generally preferred. Providing more than four legs may introduce capacity limitations, operational problems, and safety concerns. Retrofitting is often warranted on the basis of collision experience and delay. Sometimes, opposing legs of four-legged intersections are offset from one another. Offsets equal to or less than 1.5 m do not normally pose any difficulties and offsets greater than 40 m usually operate acceptably as successive T-intersections. However, intersection offsets between 1.5 m and 40 m often create more conflict points, difficult maneuvers, and unsafe conditions for vehicles and pedestrians in the intersection area. These should be avoided whenever possible. The 40 m dimension applies to the spacing between local-to-local intersections. Greater distances are required for successive T-intersections along higher classification roadways and are often based on traffic requirements. Roundabouts are becoming more common in Canada as they can reduce traffic delays, speeds on through roads, and can have substantial safety benefits. Where significant pedestrian or cyclist volumes are expected (e.g., near high schools and transit stations), specialized designs may be required to adequately accommodate these modes. Designers should refer to the TAC *Canadian Roundabout Design Guide* for additional details.

# APPENDIX P

## Parking Excerpts

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**3.1.2 Required Number of Parking Spaces**

**3.1.2.1 Required Number of Parking Spaces for Residential Uses**

3.1.2.1.1 Off-street **parking spaces** for residential **uses** shall be provided in accordance with Table 3.1.2.1 - Required Number of Off-Street Parking Spaces for Residential Uses. (0117-2022)

**Table 3.1.2.1 - Required Number of Off-Street Parking Spaces for Residential Uses**  
(0207-2008), (0297-2013), (0174-2017), (0179-2018), (0181-2018/LPAT Order 2019 February 15), (0111-2019/LPAT Order 2021 March 09), (0018-2021), (0117-2022), (0213-2022), (0196-2023)

Column A		B	C	D	E	F
Line 1.0	TYPE OF USE	UNIT OF MEASUREMENT	PRECINCT 1	PRECINCT 2	PRECINCT 3	PRECINCT 4
2.0	Condominium Apartment	resident spaces per unit	0.8	0.9	1.0	1.1
		visitor spaces per unit	0.2	0.2	0.2	0.2
3.0	Rental Apartment	resident spaces per unit	0.8	0.8	0.9	1.0
		visitor spaces per unit	0.2	0.2	0.2	0.2
4.0	Public authority dwelling unit or dwelling unit provided by a non-profit housing provider in a rental apartment	resident spaces per unit	0.4	0.6	0.65	0.7
		visitor spaces per unit	0.2	0.2	0.2	0.2
5.0	Apartment (within CC1 to CC4 zones)	0.8 resident spaces per unit 0.15 visitor spaces per unit <sup>(1)</sup>				
6.0	Detached Dwelling, Linked Dwelling, Semi-Detached, Street Townhouse	spaces per unit	2.0	2.0	2.0	2.0
7.0	Condominium Detached Dwelling, Condominium Semi-Detached, Condominium Townhouse, Detached Dwelling on a CEC - Road, Semi-Detached on a CEC - Road, Townhouse on a CEC - Road	resident spaces per unit	2.0	2.0	2.0	2.0
		visitor spaces per unit	0.25	0.25	0.25	0.25
8.0	Duplex, Triplex	spaces per unit	1.25	1.25	1.25	1.25
8.1	Fourplex	spaces per unit	0.5	0.5	0.5	0.5
9.0	Dwelling units located above a commercial development with a maximum height of three storeys	spaces per unit	1.0	1.0	1.0	1.0
10.0	Group Home	spaces per unit	2.0	2.0	2.0	2.0
11.0	Back to Back and Stacked Townhouse without exclusive use garage and driveway	resident spaces per unit	1.0	1.1	1.3	1.5
		visitor spaces per unit	0.25	0.25	0.25	0.25

Table 3.1.2.1 continued on next page

Column	A	B	C	D	E	F
Line 1.0	TYPE OF USE	UNIT OF MEASUREMENT	PRECINCT 1	PRECINCT 2	PRECINCT 3	PRECINCT 4
<b>Table 3.1.2.1 continued from previous page</b>						
12.0	<b>Back to Back and Stacked Townhouse with exclusive use garage and driveway</b>	resident spaces per unit	2.0	2.0	2.0	2.0
		visitor spaces per unit	0.25	0.25	0.25	0.25
13.0	<b>Long-Term Care Building</b>	spaces per bed	0.33	0.33	0.33	0.33
14.0	<b>Retirement Building</b>	spaces per unit	0.5	0.5	0.5	0.5
15.0	<b>Public authority dwelling unit or dwelling unit provided by a non-profit housing provider in a retirement building</b>	spaces per unit	0.25	0.35	0.35	0.35
16.0	<b>Transitional Housing</b>	spaces per unit or sleeping rooms, whichever is greater	0.1	0.1	0.1	0.1
17.0	All other housing forms not identified above with more than two <b>dwelling units</b>	resident spaces per unit	2.0	2.0	2.0	2.0
		visitor spaces per unit	0.25	0.25	0.25	0.25

**NOTES:** (1) See Sentence 3.1.2.1.2 of this By-law.  
(2) *deleted by 0117-2022*

3.1.2.1.2 Visitor **parking spaces** shall not be required for an **apartment** legally **existing** within CC1 to CC4 zones for which a building permit has been issued on or before May 29, 2009. *(0207-2008), (0174-2017), (0018-2021), (0117-2022)*

**3.1.2.1.3 Shared Arrangement for Residential Visitor and Non-Residential Parking Component**

For the purpose of Article 3.1.2.1 of this By-law, a shared parking arrangement may be used for the calculation of required residential visitor/non-residential parking in accordance with the following:  
*(0117-2022)*

the greater of

- (1) Visitor spaces per unit in accordance with applicable regulations contained in Table 3.1.2.1 of this By-law;
- or
- (2) Parking required for all non-residential **uses**, located in the same **building** or on the same **lot** as the residential **use**, except **banquet hall/conference centre/convention centre, entertainment establishment, overnight accommodation, place of religious assembly, recreational establishment and restaurant over 220 m<sup>2</sup> GFA - non-residential.**

Parking for **banquet hall/conference centre/convention centre, entertainment establishment, overnight accommodation, place of religious assembly, recreational establishment and restaurant over 220 m<sup>2</sup> GFA - non-residential** shall not be included in the above shared parking arrangement and shall be provided in accordance with applicable regulations contained in Table 3.1.2.2 of this By-law.

3.1.2.1.4 Notwithstanding the regulations contained in Table 3.1.2.1 of this By-law, the required number of off-street **parking spaces** for **dwelling units** that are **affordable ownership housing units** or **affordable rental housing units** located within the Inclusionary Zoning Overlay Area boundaries identified on Schedule B of Part 13 of this By-law shall be subject to a parking rate of:  
(0213-2022)

- (1) Precinct 1: 50% of the required number of **parking spaces** for the corresponding residential **uses** as otherwise required pursuant to this By-law;
- (2) Precincts 2, 3 and 4: 70% of the required number of **parking spaces** for the corresponding residential **use** as otherwise required pursuant to this By-law.

**3.1.2.2 Required Number of Parking Spaces for Non-Residential Uses**

Off-street **parking spaces** for non-residential **uses** shall be provided in accordance with Table 3.1.2.2. - Required Number of Off-Street Parking Spaces for Non-Residential Uses. (0117-2022)

**Table 3.1.2.2 - Required Number of Off-Street Parking Spaces for Non-Residential Uses**  
(0358-2007), (0207-2008), (0325-2008), (0379-2009), (0308-2011), (0190-2014), (0050-2013/LPAT Order 2020 June 08), (0018-2015), (0055-2015), (0212-2015), (0111-2019/LPAT Order 2021 March 09), (0018-2021), (0117-2022), (0100-2023)

Column A		B	C	D	E	F
Line 1.0	TYPE OF USE	UNIT OF MEASUREMENT	PRECINCT 1	PRECINCT 2	PRECINCT 3	PRECINCT 4
2.0	Active Recreational Use	spaces per 100 m <sup>2</sup> GFA - <b>non-residential</b> , except for an arena or a <b>marina</b>	4.5	4.5	4.5	4.5
3.0	Adult Entertainment Establishment	spaces per 100 m <sup>2</sup> GFA - <b>non-residential</b>	16.3	16.3	16.3	16.3
4.0	Animal Services:					
4.1	Animal Boarding Establishment	spaces per 100 m <sup>2</sup> GFA - <b>non-residential</b>	3.0	3.0	3.6	3.6
4.2	Animal Care Establishment	spaces per 100 m <sup>2</sup> GFA - <b>non-residential</b>	3.0	3.0	4.0	5.0
5.0	Arena	space per four seats of permanent fixed seating <sup>(1)</sup>	1.0	1.0	1.0	1.0
6.0	Art Gallery, Museum	spaces per 100 m <sup>2</sup> GFA - <b>non-residential</b>	3.0	3.0	3.6	3.6
7.0	Banquet Hall/ Conference Centre/ Convention Centre	spaces per 100 m <sup>2</sup> GFA - <b>non-residential</b>	10.8	10.8	10.8	10.8
8.0	Commercial School	spaces per 100 m <sup>2</sup> GFA - <b>non-residential</b>	5.0	5.0	5.0	5.0
9.0	Community Centre	spaces per 100 m <sup>2</sup> GFA - <b>non-residential</b> , except for an arena	4.5	4.5	4.5	4.5
10.0	Composting Facility	spaces per 100 m <sup>2</sup> GFA - <b>non-residential</b> up to 2 325 m <sup>2</sup> GFA - <b>non-residential</b> ;	1.6	1.6	1.6	1.6
		and				
		spaces per 100 m <sup>2</sup> GFA - <b>non-residential</b> between 2 325 m <sup>2</sup> and 9 300 m <sup>2</sup> GFA - <b>non-residential</b> ;	1.1	1.1	1.1	1.1
		and				
		spaces per 100 m <sup>2</sup> GFA - <b>non-residential</b> over 9 300 m <sup>2</sup> GFA - <b>non-residential</b> .	0.6	0.6	0.6	0.6

Table 3.1.2.2 continued on next page

**Part 3 - Parking, Loading and Stacking Lane Regulations**

Column A		B	C	D	E	F
Line 1.0	TYPE OF USE	UNIT OF MEASUREMENT	PRECINCT 1	PRECINCT 2	PRECINCT 3	PRECINCT 4
<b>Table 3.1.2.2 continued from previous page</b>						
37.0	Place of Religious Assembly	space per 4.5 seats for permanent fixed seating <sup>(1)</sup> ;	1.0	1.0	1.0	1.0
		plus				
		spaces for any non-fixed moveable seating per 100 m <sup>2</sup> GFA - <b>non-residential</b> , all in the <b>worship area</b> ;	27.1	27.1	27.1	27.1
		or				
		spaces for all non-fixed moveable seating per 100 m <sup>2</sup> GFA - <b>non-residential</b> , in the <b>worship area</b> ;	27.1	27.1	27.1	27.1
		or				
		spaces per 100 m <sup>2</sup> GFA - <b>non-residential</b> , whichever is greater.	10.0	10.0	10.0	10.0
<p>Where the <b>worship area</b> of a <b>place of religious assembly</b> includes permanent fixed seating or non-fixed moveable seating for clergy, leaders, choirs, or musicians, such seating or area shall be included in the calculation of seating for the purpose of calculating required parking.</p> <p>Where a community/multi-use hall is equal to or less than the <b>gross floor area</b> of the <b>worship area</b>, no additional parking shall be required for that use.</p>						
38.0	Power Generating Facility	space per staff on duty with a minimum of 2.0 spaces	1.0	1.0	1.0	1.0
39.0	Private Club	spaces per 100 m <sup>2</sup> GFA - <b>non-residential</b>	4.5	4.5	4.5	4.5
40.0	Recreational Establishment	spaces per 100 m <sup>2</sup> GFA - <b>non-residential</b> , except for an arena	4.5	4.5	4.5	4.5
41.0	Repair Establishment	spaces per 100 m <sup>2</sup> GFA - <b>non-residential</b>	3.0	3.0	4.0	5.0
42.0	Retail Centre:					
42.1	Retail Centre (Less than or equal to 2 000 m <sup>2</sup> GFA - <b>non-residential</b> )	spaces per 100 m <sup>2</sup> GFA - <b>non-residential</b>	3.0	3.0	3.5	4.3
		Parking for <b>restaurant</b> and <b>convenience restaurant</b> over 220 m <sup>2</sup> GFA - <b>non-residential</b> , <b>place of religious assembly</b> , <b>funeral establishment</b> , <b>overnight accommodation</b> , <b>banquet hall/ conference centre/convention centre</b> and <b>entertainment establishment</b> uses will be provided in accordance with the applicable regulations contained in Table 3.1.2.2 of this By-law.				
42.2	Retail Centre (Greater than 2 000 m <sup>2</sup> GFA - <b>non-residential</b> )	spaces per 100 m <sup>2</sup> GFA - <b>non-residential</b>	3.8	3.8	4.5	5.4

Table 3.1.2.2 continued on next page

**Part 3 - Parking, Loading and Stacking Lane Regulations**

Column A		B	C	D	E	F
Line 1.0	TYPE OF USE	UNIT OF MEASUREMENT	PRECINCT 1	PRECINCT 2	PRECINCT 3	PRECINCT 4
<b>Table 3.1.2.2 continued from previous page</b>						
43.0	<b>Retail Store</b>	spaces per 100 m <sup>2</sup> GFA - <b>non-residential</b>	3.0	3.0	4.0	5.0
44.0	<b>Restaurants:</b>					
44.1	<b>Convenience Restaurant</b>	spaces per 100 m <sup>2</sup> GFA - <b>non-residential</b>				
		Less than or equal to 220 m <sup>2</sup> GFA - <b>non-residential</b>	3.0	3.0	4.0	5.0
		Over 220 m <sup>2</sup> GFA - <b>non-residential</b> plus a stacking lane <sup>(2)</sup>	6.0	6.0	9.0	9.0
44.2	<b>Restaurant</b>	spaces per 100 m <sup>2</sup> GFA - <b>non-residential</b>				
		Less than or equal to 220 m <sup>2</sup> GFA - <b>non-residential</b>	3.0	3.0	4.0	5.0
		Over 220 m <sup>2</sup> GFA - <b>non-residential</b>	6.0	6.0	9.0	9.0
44.3	<b>Take-out Restaurant</b>	spaces per 100 m <sup>2</sup> GFA - <b>non-residential</b>	3.0	3.0	4.0	5.0
45.0	<b>Schools:</b>					
45.1	College, University	spaces per 100 m <sup>2</sup> GFA - <b>non-residential</b> used for academic purposes;	1.1	1.1	1.1	1.1
		plus spaces per resident student and/or staff.	0.15	0.15	0.15	0.15
45.2	<b>Public/Private School</b> (up to and including Grade 8)	space per 100 m <sup>2</sup> GFA - <b>non-residential</b> (excluding portables)	1.0	1.0	1.0	1.0
		plus spaces per portable classroom <sup>(3)</sup>	1.0	1.0	1.0	1.0
45.3	<b>Public/Private School</b> (Grade 9 and above)	spaces per 100 m <sup>2</sup> GFA - <b>non-residential</b> (excluding portables)	1.5	1.5	1.5	1.5
		plus spaces per portable classroom <sup>(3)</sup>	1.0	1.0	1.0	1.0
46.0	<b>Science and Technology Facility</b>	spaces per 100 m <sup>2</sup> GFA - <b>non-residential</b>	2.0	2.5	2.8	3.0
47.0	Self Storage Facility	spaces per 100 m <sup>2</sup> GFA - <b>non-residential</b> (exclusive of storage parking)	0.25	0.25	0.25	0.25

Table 3.1.2.2 continued on next page

Column A		B	C	D	E
Line 1.0	TYPE OF USE	PERCENTAGE OF PEAK PERIOD (WEEKDAY)			
Table 3.1.2.4 continued from previous page					
2.0	TYPE OF USE	PERCENTAGE OF PEAK PERIOD (SATURDAY)			
		Morning	Noon	Afternoon	Evening
2.1	Office/Medical Office/Financial Institution	10	10	10	10
2.2	Retail Centre/ Retail Store/Service Establishment	80	100	100	70
2.3	Restaurant/ Convenience Restaurant/ Take-out Restaurant	20	100	50	100
2.4	Overnight Accommodation	70	70	70	100
2.5	Residential - Resident <sup>(1)</sup> Residential - Visitor	90 20	65 20	90 60	100 100

NOTES: (1) See Sentence 3.1.2.4.1 of this By-law.  
 (2) See Sentence 3.1.1.1.7 of this By-law.

3.1.2.4.1 For the purpose of Article 3.1.2.4 of this By-law, the calculation for residential **uses** shall exclude **retirement buildings** and **long-term care buildings**. (0174-2017), (0111-2019/ LPAT Order 2021 March 09), (0117-2022)

**3.1.3 Accessible Parking Spaces**

**3.1.3.1 Required Number of Accessible Parking Spaces**

3.1.3.1A **Accessible parking spaces** for non-residential **uses** shall be provided in compliance with Table 3.1.3.1 - Accessible Parking Regulations. (0144-2016)

3.1.3.1B **Accessible parking spaces** for residential **uses** shall only apply to the total number of visitor **parking spaces** required and shall be provided in compliance with Table 3.1.3.1 - Accessible Parking Regulations. (0144-2016)

**Table 3.1.3.1 - Accessible Parking Regulations**  
 (0190-2014), (0144-2016), (0018-2021)

Column A		B	C
Line 1.0	TOTAL NUMBER OF REQUIRED NON-RESIDENTIAL PARKING SPACES	TOTAL NUMBER OF REQUIRED VISITOR PARKING SPACES	MINIMUM NUMBER OF REQUIRED ACCESSIBLE PARKING SPACES
2.0	1-12	1-12	1.0 space <sup>(1)</sup>
3.0	13-100	13-100	4% of the total <sup>(1)(2)</sup>
4.0	101-200	101-200	1.0 space plus 3% of the total <sup>(2)</sup>
5.0	201-1 000	201-1 000	2.0 spaces plus 2% of the total <sup>(2)</sup>
6.0	1 001 and greater	1 001 and greater	11.0 spaces plus 1% of the total <sup>(2)</sup>

NOTES: (1) See Sentence 3.1.3.1.1 of this By-law.  
 (2) See Sentence 3.1.3.1.2 of this By-law.  
 (3) *deleted by 0018-2021.*

3.1.3.1.1 Where only one **accessible parking space** is required, a Type A **accessible parking space** shall be provided. (0018-2021)

3.1.3.1.2 Where more than one **accessible parking space** is required:  
(0018-2021)

- (1) if an even number of **accessible parking spaces** is required, an equal number of Type A and Type B **accessible parking spaces** must be provided;
- (2) if an odd number of **accessible parking spaces** is required, an equal number of Type A and Type B **accessible parking spaces** must be provided and the odd space may be a Type B **accessible parking space**.

See Illustration No. 15 - Section 1.3 - Illustrations

3.1.3.1.3 Where a shared parking arrangement is used for the calculation of required visitor/ non-residential parking, the required **accessible parking space** requirement will be calculated on either the visitor component or non-residential component. (0144-2016), (0018-2021)

**3.1.3.2 Location of Accessible Parking Spaces**

**Accessible parking spaces** shall be provided and maintained on the same **lot** in proximity to the main entrances to a **building** or **structure**.

3.1.3.3 *deleted by 0117-2022*

**3.1.4 Loading Regulations**

**3.1.4.1 Loading Space Regulations**

**Loading spaces** shall be required for the following **uses**:

- (1) **Retail Store**
- (2) Retail Centre (0379-2009)
- (3) **Office**
- (4) **Medical Office**
- (5) **Overnight Accommodation**
- (6) **Restaurant**
- (7) **Convenience Restaurant**
- (8) **Manufacturing Facility**
- (9) **Warehouse/Distribution Facility**
- (10) **Wholesaling Facility**

**3.1.4.2 Required Number of Loading Spaces for Office and/or Medical Office Buildings**

Where required for **office** and/or **medical office uses**, **loading spaces** shall be provided in accordance with Table 3.1.4.2 - Required Number of Loading Spaces for Office and/or Medical Office Buildings.

**Table 3.1.4.2 - Required Number of Loading Spaces for Office and/or Medical Office Buildings**  
(0297-2013)

Column A		Column B
Line	GROSS FLOOR AREA - NON-RESIDENTIAL OF BUILDING	MINIMUM NUMBER OF OFF - STREET LOADING SPACES
1.0	Less than or equal to 2 350 m <sup>2</sup>	None Required
2.0	Greater than 2 350 m <sup>2</sup> but less than or equal to 11 600 m <sup>2</sup>	1.0 space
3.0	Greater than 11 600 m <sup>2</sup>	1.0 space plus 1.0 additional space for each 9 300 m <sup>2</sup> <b>gross floor area - non-residential</b> or portion thereof
4.0		



**3.1.4.3 Required Number of Loading Spaces**

Where required, **loading spaces** for **uses** other than **office** and/or **medical office uses**, shall be provided in accordance with Table 3.1.4.3 - Required Number of Loading Spaces.

**Table 3.1.4.3 - Required Number of Loading Spaces**  
(0297-2013)

Column A		B
Line 1.0	GROSS FLOOR AREA - NON-RESIDENTIAL OF BUILDING	MINIMUM NUMBER OF OFF-STREET LOADING SPACES
2.0	Less than or equal to 250 m <sup>2</sup>	None required
3.0	Greater than 250 m <sup>2</sup> but less than or equal to 2 350 m <sup>2</sup>	1.0 space
4.0	Greater than 2 350 m <sup>2</sup> but less than or equal to 7 500 m <sup>2</sup>	2.0 spaces
5.0	Greater than 7 500 m <sup>2</sup> but less than or equal to 14 000 m <sup>2</sup>	3.0 spaces
6.0	Greater than 14 000 m <sup>2</sup>	3.0 spaces plus 1.0 additional space for each 9 300 m <sup>2</sup> <b>GFA - non-residential</b> or portion thereof

**3.1.4.4 Loading Space Dimensions**

Required **loading spaces** shall have an unobstructed rectangular area with a minimum width of 3.5 m and a minimum length of 9.0 m.

**3.1.4.5 Required Number of Loading Spaces for Apartment and/or Retirement Buildings**

One **loading space** per **apartment** and/or **retirement building** containing a minimum of 30 **dwelling units**, shall be required. (0174-2017)

**3.1.5 Stacking Lane Regulations**

3.1.5.1 The following regulations shall apply to **uses** that have a **stacking lane** component:

3.1.5.1.1 A **stacking lane** associated with a **convenience restaurant, convenience retail and service kiosk, financial institution, motor vehicle wash facility - commercial motor vehicle** or a **motor vehicle wash facility - restricted** shall be provided in accordance with Table 3.1.5.1.1 - Required Number of Stacking Lane Parking Spaces. (0379-2009)

**Table 3.1.5.1.1 - Required Number of Stacking Lane Parking Spaces**

Column A		B
Line 1.0	TYPE OF USE	MINIMUM NUMBER OF STACKING LANE TANDEM PARKING SPACES REQUIRED
2.0	Convenience Restaurant	10.0 spaces
3.0	Convenience Retail and Service Kiosk	5.0 spaces
4.0	Financial Institution	5.0 spaces
5.0	Motor Vehicle Wash Facility - Commercial Motor Vehicle (0379-2009)	10.0 spaces per wash bay
6.0	Motor Vehicle Wash Facility - Restricted	10.0 spaces per wash bay

3.1.5.1.2 A **stacking lane** associated with a **convenience restaurant** or **convenience retail and service kiosk** shall be measured from a point located 2.0 m beyond the middle of the drive-through window used for the receipt of goods.

3.1.5.1.3 A **stacking lane** associated with a **financial institution** shall be measured from a point located 2.0 m beyond the middle of the drive-through bank machine.

3.1.5.1.4 A **stacking lane** associated with a **motor vehicle wash facility - commercial motor vehicle** or **motor vehicle wash facility - restricted** shall be measured from the entrance to the wash bay. (0379-2009)

### **3.1.6 Bicycle Parking Regulations** (0118-2022)

#### **3.1.6.1 General Bicycle Parking Regulations**

3.1.6.1.1 Notwithstanding Articles 3.1.6.5 and 3.1.6.6 of this By-law, required off-street **bicycle parking spaces** shall only be required for the construction of new **buildings** or portions thereof, effective June 8, 2023.

3.1.6.1.2 Notwithstanding Article 3.1.6.5 of this By-law, **bicycle parking spaces** shall not be required for residential **uses** with less than 20 **dwelling units**.

3.1.6.1.3 Notwithstanding Article 3.1.6.6 of this By-law, **bicycle parking spaces** shall not be required for non-residential **uses** with less than 1 000 m<sup>2</sup> of **gross floor area - non-residential**.

#### **3.1.6.2 Location of Bicycle Parking**

3.1.6.2.1 A **bicycle parking space** shall be located on the same **lot** as the **use** for which it is required.

3.1.6.2.2 Required **bicycle parking spaces** shall not be located in a **dwelling unit**, storage locker or on a **balcony**.

#### **3.1.6.3 Bicycle Parking Space Dimensions**

3.1.6.3.1 A **bicycle parking space** is to be provided in either the following sizes:

- (1) minimum length of 1.8 m, a minimum width of 0.6 m, and a minimum vertical clearance from the ground of 1.9 m; or,
- (2) minimum clearance from the wall of 1.2 m, minimum width of 0.6 m, and a minimum vertical clearance from the ground of 1.9 m.

See Illustration No. 18 - Section 1.3 Illustrations

3.1.6.3.2 Notwithstanding Sentence 3.1.6.3.1 of this By-law, a **bicycle parking space - stacked** shall have a minimum vertical clearance of 1.2 m.

#### **3.1.6.4 Bicycle Parking Aisles**

3.1.6.4.1 The minimum **bicycle parking aisle** width shall be 1.5 m.

3.1.6.4.2 Access to and from **bicycle parking spaces** shall be provided by unobstructed on-site **driveways** or **bicycle parking aisles**.

**3.1.6.5 Required Number of Bicycle Parking Spaces**

**3.1.6.5.1 Required Number of Bicycle Parking Spaces for Residential Uses**

Off-street **bicycle parking spaces** for residential **uses** shall be provided in accordance with Table 3.1.6.5.1 - Required Number of Bicycle Parking Spaces for Residential Uses.

**Table 3.1.6.5.1 - Required Number of Bicycle Parking Spaces for Residential Uses**

Column A		B	C
Line 1.0	TYPE OF USE	BICYCLE PARKING - CLASS A	BICYCLE PARKING - CLASS B
2.0	Apartment and stacked townhouse without exclusive garages	0.6 spaces per unit	The greater of 0.05 spaces per unit or 6.0 spaces
3.0	Apartment and stacked townhouse without exclusive garages (within CC1 to CC4 and CCO zones)	0.8 spaces per unit	The greater of 0.1 spaces per unit or 6.0 spaces
4.0	Long-Term Care Building	0.2 spaces per 100 m <sup>2</sup> GFA - residential	0.2 spaces per 100 m <sup>2</sup> GFA - residential
5.0	Long-Term Care Building (within CC1 to CC4 and CCO zones)	0.3 spaces per 100 m <sup>2</sup> GFA - residential	0.3 spaces per 100 m <sup>2</sup> GFA - residential
6.0	Retirement Building	0.3 spaces per unit	The greater of 0.03 spaces per unit or 6.0 spaces
7.0	Retirement Building (within CC1 to CC4 and CCO zones)	0.4 spaces per unit	The greater of 0.05 spaces per unit or 6.0 spaces

**3.1.6.6 Required Number of Bicycle Parking Spaces for Non-Residential Uses**

Off-street **bicycle parking spaces** for non-residential **uses** shall be provided in accordance with Table 3.1.6.6 - Required Number of Bicycle Parking Spaces for Non-Residential Uses.

**Table 3.1.6.6 - Required Number of Bicycle Parking Spaces for Non-Residential Uses**

Column A		B	C
Line 1.0	TYPE OF USE	BICYCLE PARKING - CLASS A	BICYCLE PARKING - CLASS B
2.0	Active Recreational Use, Community Centre, Hospital, Library, Place of Religious Assembly, and Recreational Establishment	0.1 spaces per 100 m <sup>2</sup> GFA - non-residential	0.1 spaces per 100 m <sup>2</sup> GFA - non-residential
3.0	Active Recreational Use, Community Centre, Hospital, Library, Place of Religious Assembly, and Recreational Establishment (within CC1 to CC4 and CCO zones)	0.3 spaces per 100 m <sup>2</sup> GFA - non-residential	0.3 spaces per 100 m <sup>2</sup> GFA - non-residential

Table 3.1.6.6 continued on next page

**Part 3 - Parking, Loading and Stacking Lane Regulations**

Column A		B	C
Line 1.0	TYPE OF USE	BICYCLE PARKING - CLASS A	BICYCLE PARKING - CLASS B
<b>Table 3.1.6.6 continued from previous page</b>			
4.0	College, University	1.0 spaces per 100 m <sup>2</sup> GFA - <b>non-residential</b>	1.2 spaces per 100 m <sup>2</sup> GFA - <b>non-residential</b>
5.0	Contractor's Yard, <b>Essential Emergency Service, Power Generating Facility</b> , Self Storage Facility, Utilities ( <b>Electric Transformer and Distribution Facility, Sewage Treatment Plant, Utility Building, Water Treatment Facility</b> ) and Waste Transfer Station	n/a	2.0 spaces
6.0	<b>Education and Training Facility, Financial Institution, Manufacturing Facility, Science and Technology Facility, Warehouse/Distribution Facility, and Wholesaling Facility</b>	0.1 spaces per 100 m <sup>2</sup> GFA - <b>non-residential</b>	2.0 spaces
7.0	<b>Education and Training Facility, Financial Institution, Manufacturing Facility, Science and Technology Facility, Warehouse/Distribution Facility, and Wholesaling Facility</b> (within CC1 to CC4 and CCO zones)	0.15 spaces per 100 m <sup>2</sup> GFA - <b>non-residential</b>	0.15 spaces per 100 m <sup>2</sup> GFA - <b>non-residential</b>
8.0	<b>Entertainment Establishment, Restaurant, Convenience Restaurant, Take-out Restaurant Retail Centre, Retail Store, and Service Establishment</b>	0.15 spaces per 100 m <sup>2</sup> GFA - <b>non-residential</b>	0.2 spaces per 100 m <sup>2</sup> GFA - <b>non-residential</b>
9.0	<b>Entertainment Establishment, Restaurant, Convenience Restaurant, Take-out Restaurant, Retail Centre, Retail Store, and Service Establishment</b> (within CC1 to CC4 and CCO zones)	0.15 spaces per 100 m <sup>2</sup> GFA - <b>non-residential</b>	0.3 spaces per 100 m <sup>2</sup> GFA - <b>non-residential</b>
10.0	<b>Medical Office and Medical Office - Restricted</b>	0.1 spaces per 100 m <sup>2</sup> GFA - <b>non-residential</b>	0.1 spaces per 100 m <sup>2</sup> GFA - <b>non-residential</b>
11.0	<b>Medical Office and Medical Office - Restricted</b> (within CC1 to CC4 and CCO zones)	0.15 spaces per 100 m <sup>2</sup> GFA - <b>non-residential</b>	0.2 spaces per 100 m <sup>2</sup> GFA - <b>non-residential</b>
12.0	<b>Office</b>	0.1 spaces per 100 m <sup>2</sup> GFA - <b>non-residential</b>	0.1 spaces per 100 m <sup>2</sup> GFA - <b>non-residential</b>
13.0	<b>Office</b> (within CC1 to CC4 and CCO zones)	0.2 spaces per 100 m <sup>2</sup> GFA - <b>non-residential</b>	0.15 spaces per 100 m <sup>2</sup> GFA - <b>non-residential</b>
14.0	<b>Public/Private School</b>	0.1 spaces per 100 m <sup>2</sup> GFA - <b>non-residential</b>	0.4 spaces per 100 m <sup>2</sup> GFA - <b>non-residential</b>
15.0	All other non-residential uses	0.05 spaces per 100 m <sup>2</sup> GFA - <b>non-residential</b>	0.1 spaces per 100 m <sup>2</sup> GFA - <b>non-residential</b>

# TRAFFIC IMPACT STUDY & PARKING STUDY

Proposed Residential Apartment Addition  
1785 Bloor Street  
City of Mississauga, Region of Peel

June 2022

Prepared for  
1785 Bloor Holdings Inc.

c/o Sajecki Planning



**TRANS-PLAN**  
Transportation Engineering



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expected to have a significant impact on the roadway, in the form of queueing through the adjacent driveway accesses, or the PXO (which is to be removed for a full signal control intersection in the future).

## 10. PARKING STUDY

### 10.1 Existing Parking Requirements

A parking study was conducted to determine the parking demands of the existing residential development and to compare the demand with the parking supply and City of Mississauga Zoning By-law requirements for parking. The existing site parking requirements, based on the City Zoning By-law 0225-2007 (see Appendix E), are summarized in Table 9.

Table 9 – Existing Site Parking Requirements, City of Mississauga By-law 0225-2007

Land Use	Size (units)	Minimum Requirements		Existing Supply
		Rate	Spaces	
Bachelor (studio unit)	20	1.00 spaces per unit	20	88
1-Bedroom	18	1.18 spaces per unit	21	
2-Bedroom	38	1.36 spaces per unit	52	
Visitor	76	0.20 spaces per unit	15	11
Total	76		108	99

Source: City of Mississauga Zoning By-law 0225-2007

The City’s Zoning By-law parking requirement for the proposed uses is 108 spaces, whereas 99 spaces are provided on-site, resulting in a shortfall of 9 parking spaces. It should be noted there are 3 existing parking spaces designated for service vehicles, which were not included in the total count of residential spaces as they are not intended for residents or visitors to the building.

### 10.2 Proposed Parking Supply for New Development

Auto parking is provided at-grade, and an underground parking garage with 2 parking levels, broken down as follows:

- At-Grade (Visitor Parking Only): 19 spaces
- P1 and P2 Levels: 29 visitor parking on P1 level and 241 resident spaces

The total parking supply is 289 parking spaces. 15 tandem parking spaces are also provided for residents on the underground parking levels, but are not included in the parking supply count towards the requirements.

### 10.3 Auto Parking Requirements for New Development

Per the parking requirements in the City’s By-law, the site is required to provide a total of 471 spaces, as calculated below in Table 10. The relevant excerpt of the By-law is provided in Appendix E.

Table 10 – Parking Requirements for New Development, City of Mississauga By-law 0225-2007

Land Use	Size (units)	Minimum Requirements		Proposed Supply
		Rate	Spaces	
Bachelor (studio unit)	20	1.00 spaces per unit	20	241
1-Bedroom	91	1.18 spaces per unit	107	
2-Bedroom	164	1.36 spaces per unit	223	
3-Bedroom	39	1.50 spaces per unit	59	
Visitor	314	0.20 spaces per unit	63	48
Total	314		472	289

Source: City of Mississauga Zoning By-law 0225-2007

Compared to the 472 space requirement, the proposed parking supply of 289 parking spaces results in a shortfall of 183 parking spaces.

#### 10.4 Parking Utilization Survey

To better understand parking needs for the site, a parking utilization survey was conducted by Trans-Plan to determine the demand of the existing residential building.

The existing 76 unit apartment building provides 11 visitor parking spaces (~0.15 visitor spaces / unit), and 88 resident parking spaces (~1.15 resident spaces / unit).

The parking demand survey was conducted on a regular weekday (Thursday). Parking demands were recorded in 30 minute intervals for a 24-hour period. The detailed parking survey results are provided in Appendix D. A summary of parking demand results for the apartment building on the weekday surveyed is shown in Table 11.

Table 11 – Parking Utilization Survey Results, Peak Demands

1785 Bloor Street (76 units) Thursday November 25, 2021	AM	PM
Peak Time	4:00 AM	12:00 AM
Peak Demand (spaces)	64	70
Parking Utilization	0.84	0.92

The peak parking demand of the existing mixed-use building was 70 spaces, occurring at midnight. The peak rate was 0.92 spaces per unit. The parking rates generated from the existing development were utilized to generate estimated parking demand for the future development based on the new total number of dwelling units.

#### 10.5 Expected Peak Parking Demand

To depict the peak parking demand of the future development more accurately, with the addition of the new residential building, parking rates and projected demand generated based on city by-law requirements were compared those generated by the surveyed peak parking rates.

Table 12 below shows a comparison of projected parking demands, generated using parking rates based on city by-law requirements, to those generated by the surveyed parking rate.

Table 12 – Comparison of Projected Parking Demand

1785 Bloor Street Parking Statistics	Existing Apartment (76 units)		Existing + Additional Development (314 units)	
	Required (City By-law)	Existing	Required (City By-law)	Proposed
Supply	108	99	472	289
Rate	$108 / 76 =$ 1.42	$99 / 76 =$ 1.30	$472 / 314 =$ 1.50	$289 / 314 =$ 0.92

As noted above, the City parking requirements generate a parking rate of 1.42 for the existing development, and 1.50 with the addition of the new residential development. The surveyed 0.92 rate generated from the current parking utilization survey estimates a peak demand of 289 total parking spaces.

### 10.6 Parking Supply Allocation

Based on the surveyed rate of 0.92 parking spaces / unit, 289 parking spaces are proposed for the residential development.

Table 13 – Parking Space Count

314 units	Resident Parking	Visitor Parking	Total	Tandem Spaces
<b>Supply</b>	241	48	289	15
<b>Parking Rate</b>	0.77 spaces / unit	0.15 spaces / unit	0.92 spaces / unit	0.05 spaces / unit

To match the existing visitor parking rate of 0.15 spaces / unit, 48 visitor parking spaces are proposed for the 314 residential units. The remaining 241 parking spaces are to be provided for residents. Although each unit would not have a vehicle parking space, the residential units would be catered to those who do not own a personal vehicle. In addition, 15 tandem spaces are provided for residents for an additional 0.05 resident spaces / unit. Although not included in the parking supply count for requirements, the additional spaces would allow residents who require additional spaces to purchase the tandem spaces.





## **APPENDIX F**

Parking Utilization Survey Results

**1785 Bloor Street - Parking  
Utilization Study**



Site: 1785 Bloor Street, Mississauga  
 Land Use: 76-unit Rental Apartment  
 Start time, date: Thursday, November 25, 2021  
 Parking Supply: 99 parking spaces

Start Time	Occupied Spots	Start Time	Occupied Spots
0:00	62	12:00	37
0:30	62	12:30	36
1:00	63	13:00	30
1:30	64	13:30	30
2:00	63	14:00	31
2:30	63	14:30	33
3:00	64	15:00	33
3:30	64	15:30	36
4:00	64	16:00	31
4:30	63	16:30	33
5:00	63	17:00	35
5:30	60	17:30	37
6:00	55	18:00	46
6:30	54	18:30	51
7:00	52	19:00	54
7:30	51	19:30	56
8:00	43	20:00	56
8:30	40	20:30	54
9:00	40	21:00	58
9:30	39	21:30	60
10:00	36	22:00	61
10:30	34	22:30	62
11:00	33	23:00	65
11:30	33	23:30	70



**BA Group**

# **21-51 QUEEN STREET NORTH PROPOSED MIXED-USE DEVELOPMENT**

Urban Transportation Considerations  
Zoning By-law Amendment Application  
City of Mississauga

Prepared For: Miss B JL Corporation

December 2021



#### 5.3.1.4 Proxy Site Observed Parking Demand

In order to assess the residential parking demand at other similar buildings in the area, BA Group conducted an overnight resident parking survey for three proxy sites listed below:

- 1<sup>st</sup> Proxy Site: 1575 Lakeshore Road West
  - Survey Dates: Wednesday, September 1st, 2021; and
  - Friday, September 3, 2021.
  
- 2<sup>nd</sup> Proxy Site: 4011 Brickstone Mews & 510 Curran Place
  - Survey Dates: Wednesday, February 26, 2020;
  - Thursday, February 27, 2020;
  - Friday, February 28, 2020; and
  - Monday, March 2, 2020.
  
- 3<sup>rd</sup> Proxy Site: 3975 Grand Park Drive
  - Survey Dates: Monday, March 2, 2020;
  - Tuesday February 11, 2020;
  - Friday, February 21, 2020; and
  - Monday, February 24, 2020.

The surveys were completed at a time when most residents are likely to be home (i.e. at night). The results of this study are summarized in **Table 7**.

**TABLE 7 EXISTING RESIDENTIAL PARKING DEMAND STUDIES**

Address	Major Intersection	Study Date	Peak Hour	Occupied Units	Resident Parking	
					Demand (spaces)	Ratio (spaces / unit)
1575 Lakeshore Road W	Royal Windsor Dr / Southdown Rd	Wed, Sept 1, 2021	3:00 am	292 units	298	0.83
		Fri, Sept 3, 2021	3:00 am		294	0.82
4011 Brickstone Mews & 510 Curran Place	Confederation Pkwy/ Burnhamthorpe Road W	Wed, Feb 26, 2020	1:30 am	1008 units	786	0.78
		Thurs, Feb 27, 2020	1:30 am		784	0.78
		Fri, Feb 28, 2020	1:30 am		784	0.78
		Mon, March 2, 2020	3:00 am		786	0.78
3975 Grand Park Drive	Grand Park Dr /Burnhamthorpe Road W	Mon, March 2, 2020	2:30 am	790 units	681	0.86
		Tues, Feb 11, 2020	2:00 am		665	0.84
		Fri, Feb 21, 2020	2:00 am		664	0.84
		Mon, Feb 24, 2020	2:00 am		674	0.85

The observed overall resident parking demand at the proxy sites are in the range of 0.78 – 0.86 spaces per unit. The proposed residential parking rate of 1.16 spaces per unit is higher than the observed range.

### 5.3.1.5 Residential Parking Space Sales Data

BA Group has reviewed parking sales data at three condominium developments near Erin Mills Town Centre, as summarized in **Table 8**. These developments have comparable levels of access to transit and other non-automobile focused mobility infrastructure (i.e., bicycle facilities) as the Site.

A review of the recorded parking sales information indicates that demands for on-site parking range from 1.02 to 1.11 spaces per unit.

While it is acknowledged that sales information does not necessarily reflect the ultimate demand information at a condominium building, it does provide a useful indication of the level of parking sought by the marketplace for condominium units in highly urban contexts. Parking sales per unit and by unit type varies from each development, depending upon a number of factors including geographic location, Site context, unit size, and transit accessibility.

It is noteworthy that the range of parking sales demand information recorded at the three reviewed condominium buildings is significantly below the Zoning By-law requirements that would apply in each case.



Starlight Investments  
3480 Havenwood Drive & 1485 Williamsport Drive  
**Transportation Impact Study**  
Proposed Residential Redevelopment

## 6 PARKING REVIEW

This section will review the vehicular and bicycle parking standards based on the applicable requirements for the study area.

### 6.1 BICYCLE PARKING

The City of Mississauga Zoning By-law does not specify any bicycle parking requirements. However, given the extent of the vehicular parking reduction proposed (discussed in **Section 6.2**), the bicycle parking rates provided in the Parking Strategy for Mississauga City Centre are recommended to be applied to the subject site. The recommended and provided bicycle parking supply is outlined in **Table 6-1**.

Subject Site Bicycle Parking						
Land Use	Recommended Rates		Recommended Spaces		Provided Spaces	
	Resident	Visitor	Resident	Visitor	Resident	Visitor
Residential	0.6 spaces/unit	0.15 spaces/unit	280	70	280	70

**Table 6-1: Bicycle Parking Requirements**

As per the bicycle parking rates provide in the Parking Strategy for Mississauga City Centre, the subject site should provide a total supply of 280 resident spaces and 70 short-term spaces. This recommended supply will be provided on-site.

### 6.2 VEHICLE PARKING

The Subject Site is governed by the requirements of City of Mississauga Zoning By-law 0225-2007. The parking requirements for the existing buildings and the proposed residential expansion, as well as the proposed parking supply is summarized in **Table 6-2**.

Type	Units	By-Law 0225-2007		Proposed Supply
		Parking Rate (spaces/unit)	Required Parking	
Bachelor	22	1.0	22	257
1-Bed	206	1.18	243	
2-Bed	145	1.36	197	
3-Bed	93	1.5	140	
Sub-Total Resident			602	
Visitor	466	0.2	93	46
<b>Total Parking</b>			<b>695</b>	<b>303</b>

**Table 6-2: Zoning By-Law Parking Requirements**

Based on the parking review, the subject site is required to provide a total of 695 spaces, consisting of 602 resident spaces and 93 visitor spaces. The proposed parking supply is 303 total spaces. A justification of the proposed supply based on the existing parking demand is provided in the section below.

### 6.3 PARKING JUSTIFICATION

In support of the parking reduction, an analysis of the existing parking utilization was conducted to determine the current parking demand and project the future parking demand of the residential expansion. Based on the information provided by the owner, the existing apartment buildings at 3480

Havenwood Drive and 1485 Williamsport Drive each consist of 132 rental units, all of which are currently rented and occupied. The existing resident and visitor parking demand is outlined below.

### 6.3.1 Resident Parking Demand

To understand the resident parking demand at the subject site, recent parking rental information was provided by the owner. The parking utilization is summarized in **Table 6-3**, with detailed information provided in **Appendix G**.

Location	Tenant Spaces Provided	Occupied Spaces			Vacant Spaces
		3480 Havenwood	1485 Williamsport	Combined	
Surface	139	37	41	78	61
Underground	156	37	28	65	91
Total	295	74	69	143	152

**Table 6-3: Existing Rental Parking Information**

Based on the tenant parking information obtained, a total of 143 parking spaces are utilized by the two existing buildings on-site. This results in a maximum resident parking demand of 0.56 spaces/unit and 0.52 spaces per unit for 3480 Havenwood Drive and 1485 Williamsport Drive respectively.

### 6.3.2 Visitor Parking Demand

To determine the visitor parking demand, a parking utilization survey was completed for the two existing residential buildings. The parking demand survey was conducted by NexTrans Consulting on Friday, April 21, 2017 and Sunday, April 23, 2017 between 5:00pm – 10:00pm and 2:00pm – 8:00 pm at 30-minute intervals, respectively. **Table 6-4** outlines the results of the survey.



Time	Visitor			Utilization Rate	Residual Supply
	3480 Havenwood	1485 Williamsport	Total Demand		
<b>Existing Supply = 16 spaces</b>					
<b>Friday, April 21, 2017</b>					
5:00 PM	2	2	4	25%	12
5:30 PM	1	1	2	13%	14
6:00 PM	1	3	4	25%	12
6:30 PM	1	3	4	25%	12
7:00 PM	1	3	4	25%	12
7:30 PM	1	2	3	19%	13
8:00 PM	1	2	3	19%	13
8:30 PM	1	2	3	19%	13
9:00 PM	0	4	4	25%	12
9:30 PM	0	4	4	25%	12
10:00 PM	0	3	3	19%	13
<b>Maximum</b>	<b>2</b>	<b>4</b>	<b>4</b>	<b>25%</b>	<b>14</b>
<b>Sunday, April 23, 2017</b>					
2:00 PM	1	4	5	31%	11
2:30 PM	0	4	4	25%	12
3:00 PM	1	4	5	31%	11
3:30 PM	0	3	3	19%	13
4:00 PM	0	3	3	19%	13
4:30 PM	0	3	3	19%	13
5:00 PM	0	5	5	31%	11
5:30 PM	0	4	4	25%	12
6:00 PM	0	4	4	25%	12
6:30 PM	0	4	4	25%	12
7:00 PM	0	5	5	31%	11
7:30 PM	0	4	4	25%	12
8:00 PM	1	3	4	25%	12
<b>Maximum</b>	<b>1</b>	<b>5</b>	<b>5</b>	<b>31%</b>	<b>13</b>

**Table 6-4: Existing Visitor Parking Utilization**

The visitor parking demand survey reveals a maximum demand of 1 and 5 spaces for 3480 Havenwood Drive and 1485 Williamsport Drive respectively. This results in a visitor parking demand rate of 0.02 spaces/unit and 0.04 spaces/unit.

### 6.3.3 Existing Parking Demand Summary

The overall units, current parking supply, occupied parking spaces and parking demand rates are summarized in in **Table 6-5**, with detailed information provided in **Appendix G**.

Type	Building	Occupied Units	Parking Supply	Occupied Spaces	Demand Rate (spaces/unit)
Resident	3480 Havenwood	132	148	74	<b>0.56</b>
	1485 Williamsport	132	147	69	0.52
Visitor	3480 Havenwood	132	8	2	0.02
	1485 Williamsport	132	8	5	<b>0.04</b>

**Table 6-5: Existing Parking Demand**

Based on the information above, the current maximum residential parking demand observed on-site is 0.56 spaces per occupied unit, while the visitor parking demand rate is 0.04 spaces per unit. This results in an overall parking rate of 0.60 spaces per unit, which is substantially lower than the Zoning By-law rates required of the subject site.

#### 6.3.4 Future Parking Demand

To determine the future parking demand of the proposed development, the existing parking demand rates were applied to the residential expansion and are summarized in **Table 6-6**. The visitor demand rate of 0.04 spaces/unit was determined to be atypical and thus a visitor parking rate of 0.10 spaces/unit has been applied to the entire site to be conservative. Based on the existing demand rates, Building C would require 68 parking spaces and Building D would require 66 parking spaces.

Building	Units	Resident		Visitor		Total Spaces
		Demand Rate	Projected Demand	Demand Rate	Projected Demand	
Building C	103	0.56	58	0.1	10	68
Building D	99	0.56	56	0.1	10	66

**Table 6-6: Projected Future Parking Demand**

A summary of the proposed parking supply for the entire site is provided in **Table 6-7**.

Building	Units	Resident		Visitor		Total Spaces
		Demand Rate	Demand	Demand Rate	Demand	
<b>Existing Buildings</b>						
Building A (3480 Havenwood)	132	0.56	74	0.1	13	87
Building B (1485 Williamsport)	132	0.52	69	0.1	13	82
<b>Proposed Buildings</b>						
Building C	103	0.56	58	0.1	10	68
Building D	99	0.56	56	0.1	10	66
<b>TOTAL</b>						<b>303</b>

**Table 6-7: Parking Summary**

It is evident that the City's By-law requirements overestimate the parking required to satisfy the projected parking demand at the subject site. As such, a parking reduction is recommended to satisfy the parking demand for the existing buildings as well as those proposed and to provide an appropriate amount of parking. To complement the parking reduction and ensure that other modes of transportation can accommodate the multi-modal behaviours of the existing and planned future residents, a number of Transportation Demand Management (TDM) measures are proposed, which includes the considerable amount of resident and bicycle parking proposed.