

Transportation Impact Study

PROPOSED RESIDENTIAL DEVELOPMENT

Coscorp Joshua Creek
OAKVILLE, ONTARIO

July 2022
Project No: NT-22-128

DRAFT

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CONSULTING ENGINEERS

NextEng Consulting Group Inc.

July 4, 2022

Attention: Tom Baskerville

Coscorp Inc.
6625 Kitimat Road, Unit 58
Mississauga, ON L5N 6J1

**Re: Transportation Impact Study
 Proposed Residential Development – Draft Plan of Subdivision
 Part of Lot 10 Concession 1, Town of Oakville
 Our Project No. NT-22-128**

Nextrans Consulting Engineers (a Division of NextEng Consulting Group Inc.) is pleased to present the enclosed Transportation Impact Study for the above noted site in support of a proposed draft plan of subdivision for a proposed residential development.

The proposed residential development is located south of Burnhamthorpe Road E, north of Dundas Street East between Eighth Line and Ninth Line in the North Oakville East Secondary Plan, in the Town of Oakville. The subject site is currently vacant. The proposed residential development consists of a total 181 residential dwelling units, with 129 single-detached and 52 street townhouse units. The proposed development access is provided via internal public streets connecting to Mattamy Joshua Creek Phase 3, and eventually to Burnhamthorpe Road E via future proposed draft plan of subdivisions to the north. Under the interim conditions where the proposed draft plans of subdivision to the north are not completed, the anticipated traffic from the proposed development will be routing primarily to and from Dundas Street via John McKay Boulevard, Meadowridge Drive and William Cutmore Boulevard, as well as Eighth Line via Wheat Boom Drive. The proposed development will also protect for future Street C and Street A extensions to the west and north, respectively.

The transportation impact study is prepared in accordance with the Town of Oakville and the Region of Halton Transportation Impact Study guidelines, and consistent with background transportation studies conducted in the area. Nextrans acknowledged that some of the information from this Study has utilized and referenced from the GHD Traffic Impact Study dated April, 2022 prepared on behalf of Mattamy Joshua Creek Phase 3 proposed plan of subdivision with permission from GHD and Mattamy. This is to ensure consistency. The Study concludes that the proposed development can adequately be accommodated by the existing and future transportation network, future transit services for the area, as well as the recommended measures identified in this report.

We trust the enclosed sufficiently addresses your needs. Should you have any questions, please do not hesitate to contact the undersigned.

Yours truly,

Nextrans Consulting Engineers

A Division of NextEng Consulting Group Inc.

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Report Submission Record

Identification	Date	Description of issued and/or revision
Draft Report	July 4, 2022	For Project Team Review

EXECUTIVE SUMMARY

Nextrans Consulting Engineers (A Division of NextEng Consulting Group Inc.) was retained by Coscorp Inc. (the 'Client') to undertake a Transportation Impact Study in support of a proposed draft plan of subdivision for a proposed residential development. The proposed residential development is located south of Burnhamthorpe Road E, north of Dundas Street East between Eighth Line and Ninth Line in the North Oakville East Secondary Plan, in the Town of Oakville.

The transportation impact study is prepared in accordance with the Town of Oakville and the Region of Halton Transportation Impact Study guidelines, and consistent with background transportation studies conducted in the area.

Nextrans acknowledged that some of the information from this Study has utilized and referenced from the GHD Traffic Impact Study dated April, 2022 prepared on behalf of Mattamy Joshua Creek Phase 3 proposed plan of subdivision with permission from GHD and Mattamy. This is to ensure consistency.

Proposed Development

The subject site is currently vacant. The proposed residential development consists of a total 181 residential dwelling units, with 129 single-detached and 52 street townhouse units.

Proposed Development Access

The proposed development access is provided via internal public streets connecting to Mattamy Joshua Creek Phase 3 proposed draft plan of subdivision, and eventually to Burnhamthorpe Road E via future proposed draft plan of subdivisions to the north.

Under the interim conditions where the proposed draft plans of subdivision to the north are not completed, the anticipated traffic from the proposed development will be routing primarily to and from Dundas Street via John McKay Boulevard, Meadowridge Drive and William Cutmore Boulevard, as well as Eighth Line via Wheat Boom Drive.

The proposed development will also protect for future Street C and Street A extensions to the west and north, respectively.

Capacity Analysis

The proposed development is expected to generate:

- 115 total two-way trips (31 inbound and 84 outbound) and 153 total two-way trips (94 inbound and 59 outbound) during the morning and afternoon peak hours, respectively;
- 21 total two-way non-auto trips (6 inbound and 15 outbound) and 28 total two-way non-auto trips (17 inbound and 11 outbound) during the morning and afternoon peak hours, respectively; and
- 94 total two-way auto trips (25 inbound and 69 outbound) and 125 total two-way auto trips (77 inbound and 48 outbound) during the morning and afternoon peak hours, respectively

Auto Mode Assessment

Based on the intersection capacity analysis, under the existing conditions, all intersections considered in the analysis are expected to operate at acceptable levels of service, with the exception of the westbound through movement at Dundas Street E/Ninth Line during the afternoon peak hour. This is due to the heavy through movement, however, it is a typical condition at the major arterial in the Region and in the Town of Oakville. This critical movement will be addressed through the completion of William Halton Parkway and Burnhamthorpe Road E in the future.

Based on the intersection capacity analysis, under the future background and future total traffic conditions, the analysis the analysis indicates that the intersections considered are expected to operate at acceptable levels of service. However, there is a number of critical movements. This can be explained with the following:

- The Secondary Plan Area fine grid road network is not completed at this time and under this horizon year
- Once the complete road network identified in the Secondary Plan Area is completed, it is expected that the traffic will not be concentrating at the critical movements
- Especially with the completion of the north-south collector roads such as Meadowridge Drive and John McKay Blvd, the traffic from the proposed draft plans of subdivision can use Burnhamthorpe Road E and William Halton Parkway
- It is expected that with the future improvements on Burnhamthorpe Road E, the North Oakville Secondary Plan subdivision east-west road south of Burnhamthorpe Road E, as well as the completion of William Halton Parkway, it will provide much needed east-west capacity for the area
- The intersection of Dundas Street E/Ninth Line is expected to operate near or at capacity. This is due to the heavy through traffic volumes in this direction coming from Highway 403 and Mississauga. However, this type of movement is typical at any major arterial intersections in the Great Toronto Area and in the Region of Halton. It is Nextrans' opinion that the east-west capacity will be addressed as part of the future improvements on Burnhamthorpe Road E and completion of William Halton Parkway

However, It is expected that with the future improvements on Burnhamthorpe Road E, the North Oakville Secondary Plan subdivision east-west road south of Burnhamthorpe Road E, as well as the completion of William Halton Parkway, it will provide much needed east-west capacity for the area. In addition, with the completion of the north-south collector roads such as Meadowridge Drive and John McKay Blvd, the traffic from the proposed draft plans of subdivision can use Burnhamthorpe Road E and William Halton Parkway.

Based on this assessment and provision, it is Nextrans' opinion that no improvements should be implement under this horizon year for the intersections located along Dundas Street E. Nextrans recommends that the Region and the Town monitor these intersections in the future and make appropriate signal timing adjustments in the interim conditions. A monitoring program is also required in the future once all the road network is completed to ensure that signal timing and lane configurations are appropriate for the area.

It should be noted that the proposed development has negligible or no impacts on the existing and future intersections along Dundas Street E. The internal intersections are also expected to have minimum traffic volumes and delay or queue.

Active Transportation Mode Assessment

Walking

Under the existing conditions, sidewalks are available on the established sides of the street such as Dundas Street E, Eighth Line, Postridge Drive, Trafalgar Road, Prince Michael Drive, Meadowridge Drive and Ninth Line. This sidewalk network is complete and appropriate for the existing communities; however, the future communities will need similar complete sidewalk network.

It is Nextrans' understanding that sidewalks will be provided on both sides of all internal streets within the North Oakville Secondary Plan to facilitate pedestrians. Therefore, in the future, a complete sidewalk network will be provided and constructed by the proposed developments in the area. For an illustration of the big picture in the Joshua's Meadows Community, **Figure 16** of this Study illustrates the Town of Oakville Proposed Pedestrian Network Phasing (*excerpt from the Town of Oakville 2017 ATMP, Map 8*). On this basis, sidewalks will be provided on all of the proposed internal roads within the subject development, as per the Town of Oakville requirements and standards.

Cycling

Currently, there are dedicated cycling routes along Ninth Line south of Dundas Street E. There are also multi-use trails along Dundas Street E in the vicinity of the study area. It is Nextrans' understanding that a complete active transportation network (sidewalk and cycling facilities) will be constructed as part of the North Oakville Secondary Plan communities in the future.

Similar to the walking network, it is Nexttrans' understanding that cycling facilities will be constructed in phases, as per the Town's proposed cycling network phasing and priority projects. For an illustration of the big picture in the Joshua's Meadows Community, **Figure 17** of this Study illustrates the Town of Oakville Proposed Cycling Network Phasing and Priority Projects (*excerpt from the Town of Oakville 2017 ATMP, Map 9*), with **Figure 18** of this Study illustrating the North Oakville Trails Plan (Updated as of 2019). On this basis, the proposed development will support the Town's initiative with regards to the cycling facility, where appropriate

Transit Mode Assessment

The area is current serviced by two existing Oakville Transit Bus Routes 1 Trafalgar, 24 South Common and 20 Northridge.

As indicated, the proposed development is expected to generate 21 total two-way non-auto trips (6 inbound and 15 outbound) and 28 total two-way non-auto trips (17 inbound and 11 outbound) during the morning and afternoon peak hours, respectively. It is Nexttrans' opinion that the proposed development transit ridership can be easily accommodated by the existing transit service, as well as the future proposed transit service in the area without additional improvements beyond what already been planned for the area.

Based on Nexttrans' review of the future proposed transit network to the Joshua's Meadows Community, there will be:

- Primary transit routes running along Burnhamthorpe Road E, Postridge Drive, Meadowridge Drive and Eighth Line
- Secondary transit routes running along Prince Michael Drive, Wheat Boom Drive, and new east-west collector road south of Burnhamthorpe Road E; and
- Inter-regional transit route along Highway 407

As the proposed development will be located close to the future primary route on Burnhamthorpe Road E, and secondary routes on the future east-west road and Prince Michael Drive, it is Nexttrans' opinion that the proposed development will have good transit service in the future.

Transportation Demand Management Measures and Incentives

The Report identifies and recommends appropriate Transportation Demand Management measures and incentives to support active transportation and transit, to meet the objectives and requirements of the Town and the Region. These potential measures are included in Section 8 of this Study.

Study Conclusions and Recommendations

Based on the findings of this Study, the following recommendations are provided:

- The Town approves the proposed draft plan of subdivision;
- The proposed development building sidewalks along both sides of the internal subdivision streets;
- The proposed development implements the TDM measures and incentives identified in this report to support active transportation and transit and to reduce the numbers of single-occupant-vehicle trips to and from the proposed development;
- Minimize pavement and lane width where possible to facilitate pedestrian/cyclist crossing; and
- No additional physical improvements for the area at this time to accommodate the proposed development, under the future background and future total conditions.

TABLE OF CONTENTS

1.0	INTRODUCTION	1
2.0	EXISTING CONDITION ASSESSMENT	2
2.1.	Existing Road Network.....	2
2.2.	Existing and Previously Proposed Active Transportation Network and Assessment.....	3
2.3.	Existing Oakville Transit System.....	4
2.3.	Existing Area Context.....	5
2.4.	Existing Traffic Volumes	6
2.5.	Existing Condition Assessment	6
2.6.	Finding Summary.....	6
2.7.	Potential Mitigation Measures	8
3.0	TRANSPORTATION PLANNING CONTEXT IN THE AREA.....	8
3.1.	Existing Land Use Context and Amenities	8
3.2.	Transportation Planning Context	8
4.0	FUTURE BACKGROUND CONDITIONS	9
4.1.	Analysis Horizon.....	9
4.2.	Future Background Corridor Growth	9
4.3.	Background Development Applications	9
4.4.	Future Background Condition Assessment	10
4.5.	Finding Summary.....	12
4.6.	Potential Mitigation Measures	12
5.0	SITE TRAFFIC	12
5.1.	Proposed Development.....	12
5.2.	Non-auto Modal Split	13
5.3.	Sit Trip Generation.....	13
5.4.	Site Trip Distribution Based on Existing Site	14
6.0	FUTURE TOTAL TRAFFIC CONDITIONS	14
6.1.	Future Total Traffic Assessment for Auto Mode	14
6.2.	Finding Summary.....	16
6.3.	Potential Mitigation Measures	16
6.4.	Active Transportation Mode Assessment.....	17
6.5.	Transit Mode Assessment.....	19
7.0	DRAFT PLAN OF SUBDIVISION REVIEW	20
7.1.	Solid Waste Management.....	20
7.2.	Internal Intersection Traffic Control and Lane Configurations	20
7.3.	Traffic Calming	21
7.4.	On-Street Parking Assessment	21
8.0	TRANSPORTATION DEMAND MANAGEMENT.....	22
9.0	CONCLUSIONS / FINDINGS	22
9.1.	Study Conclusions.....	22
9.2.	Study Recommendations	24

LIST OF FIGURES

- Figure 1 – Proposed Development Location
- Figure 2 – Proposed Draft Plan of Subdivision
- Figure 3 - Existing lane configurations and traffic control devices
- Figure 4 – Existing and Previously Proposed Cycling Conditions
- Figure 6 – Existing Oakville Transit Network
- Figure 7 – North Oakville East Secondary Plan
- Figure 8 - Existing Traffic Volumes (Projected 2022)
- Figure 9 – North Oakville East Secondary Plan Transportation Network
- Figure 10 – Active Background Development General Locations
- Figures 11 – Background Development Traffic Volumes (Other Developments)
- Figures 12 – Background Development Traffic Volumes (Mattamy Joshua Creek Phase 3)
- Figure 13 – 2027 Future Background Traffic Volumes
- Figure 14 – Site Traffic Volumes
- Figure 15 – 2027 Future Total Traffic Volumes
- Figure 16 – Town of Oakville Proposed Pedestrian Network Phasing
- Figure 17 – Town of Oakville Proposed Cycling Network Phasing and Priority Projects
- Figure 18 – North Oakville Trails Plan
- Figure 19 – North Oakville East Secondary Plan Future Transit Network
- Figure 20 – Internal Intersection Traffic Control and Lane Configurations
- Figure 21 – On-Street Parking for the Internal Streets

LIST OF TABLES

- Table 1 – Summary of the Existing Road Network in the Study Area
- Table 2 – 2022 Existing Levels of Service
- Table 3 – Active Background Development Site Traffic Generation
- Table 4 – 2027 Future Background Levels of Service
- Table 5 – Modal Split based on 2016 TTS Data for Traffic Zones
- Table 6 – Site Traffic Trip Generation Based on ITE Trip Rates (11th Edition)
- Table 7 – General Trip Distribution for the Proposed Development
- Table 8 – Site Trip Assignment for the Proposed Development
- Table 9 – 2027 Future Total Levels of Service

APPENDICES

- Appendix A – Existing Traffic Data
- Appendix B – Existing Traffic Level of Service Calculations
- Appendix C – Background Developments
- Appendix D – Future Background Traffic Level of Service Calculations
- Appendix E – 2016 TTS Data Analysis
- Appendix F – Future Total Traffic Level of Service Calculations

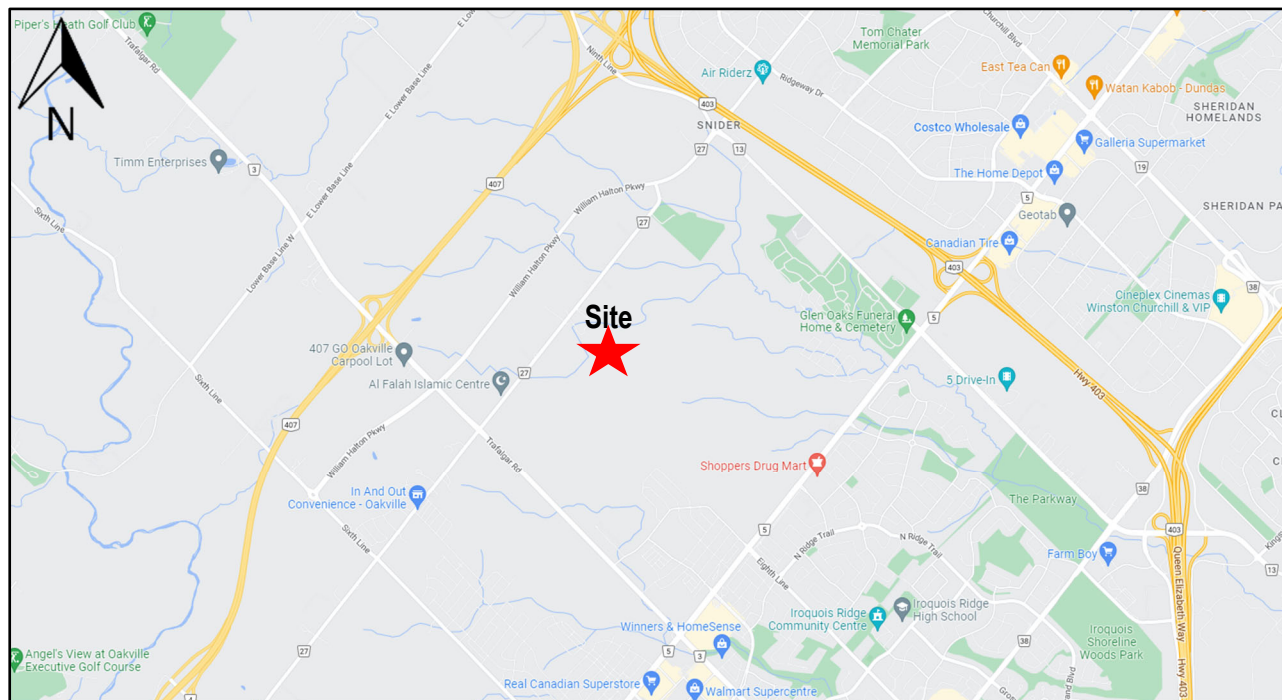
1.0 INTRODUCTION

Nextrans Consulting Engineers (A Division of NextEng Consulting Group Inc.) was retained by Coscorp Inc. (the ‘Client’) to undertake a Transportation Impact Study in support of a proposed draft plan of subdivision for a proposed residential development. The proposed residential development is located south of Burnhamthorpe Road E, north of Dundas Street East between Eighth Line and Ninth Line in the North Oakville East Secondary Plan, in the Town of Oakville. The location of the proposed development is illustrated in **Figure 1**.

The transportation impact study is prepared in accordance with the Town of Oakville and the Region of Halton Transportation Impact Study guidelines, and consistent with background transportation studies conducted in the area.

Nextrans acknowledged that some of the information from this Study, especially the traffic turning movement counts, have utilized and referenced from the GHD Traffic Impact Study dated April, 2022 that was prepared on behalf of Mattamy Joshua Creek Phase 3 proposed draft plan of subdivision with permission from GHD and Mattamy. This is to ensure consistency.

Figure 1 – Proposed Development Location



Source: Google Map

The subject site is currently vacant. The proposed residential development consists of a total 181 residential dwelling units, with 129 single-detached and 52 street townhouse units.

The proposed development access is provided via internal public streets connecting to Mattamy Joshua Creek Phase 3 proposed draft plan of subdivision, and eventually to Burnhamthorpe Road E via future proposed draft plan of subdivisions to the north. The proposed development will protect for future Street C and Street A extensions to the west and north, respectively.

Under the interim conditions where the proposed draft plans of subdivision to the north are not completed, the anticipated traffic from the proposed development will be routing primarily to and from Dundas Street via John McKay Boulevard, Meadowridge Drive and William Cutmore Boulevard, as well as Eighth Line via Wheat Boom Drive. The proposed development will also protect for future Street C and Street A extensions to the west and north, respectively.

Figure 2 illustrates the proposed development site plan.

Figure 2 – Proposed Draft Plan of Subdivision



2.0 EXISTING CONDITION ASSESSMENT

2.1. Existing Road Network

As indicated, the proposed residential development is located south of Burnhamthorpe Road E, north of Dundas Street East between Eighth Line and Ninth Line in the North Oakville East Secondary Plan, in the Town of Oakville. The description of the existing road network in the study area is summarized in **Table 1** below.

Table 1 – Summary of the Existing Road Network in the Study Area

Road Name	Jurisdiction	Number of Lanes	Posted/Assumed Speed	Road Type	Sidewalk/Cycling
Dundas Street E	Halton Region	5	70 km/h	Major Arterial	Sidewalk on south side only
Eighth Line	Town of Oakville	4 south of Dundas St and 2 north of Dundas St	50 km/h	Collector Road	Sidewalk on both sides of the street south of Dundas/north side is under construction
Wheat Boom Drive	Town of Oakville	2	50 km/h	Collector Road	Sidewalk on both sides of the street/under construction
Meadowridge Drive	Town of Oakville	2	50 km/h	Minor Collector	Sidewalk on both sides of the street
William Cutmore Boulevard	Town of Oakville	2	50 km/h	Minor Collector	Under construction
Ninth Line	Halton Region	4	60 km/h	Major Arterial	No sidewalk north of Dundas Street, sidewalk on the east side south of Dundas Street and bicycle lanes
Prince Michael Drive	Town of Oakville	2	50 km/h	Major Collector	Under construction

Figure 3 illustrates the existing lane configurations and traffic control devices for the intersections considered in the analysis.

2.2. Existing and Previously Proposed Active Transportation Network and Assessment

Nextrans has reviewed the existing active transportation network in the area based on site visit and review of the Town of Oakville 2017 Active Transportation Master Plan (ATMP). As the North Oakville Secondary Plan Area is under construction, the inclusion of the ATMP maps is appropriate at this time.

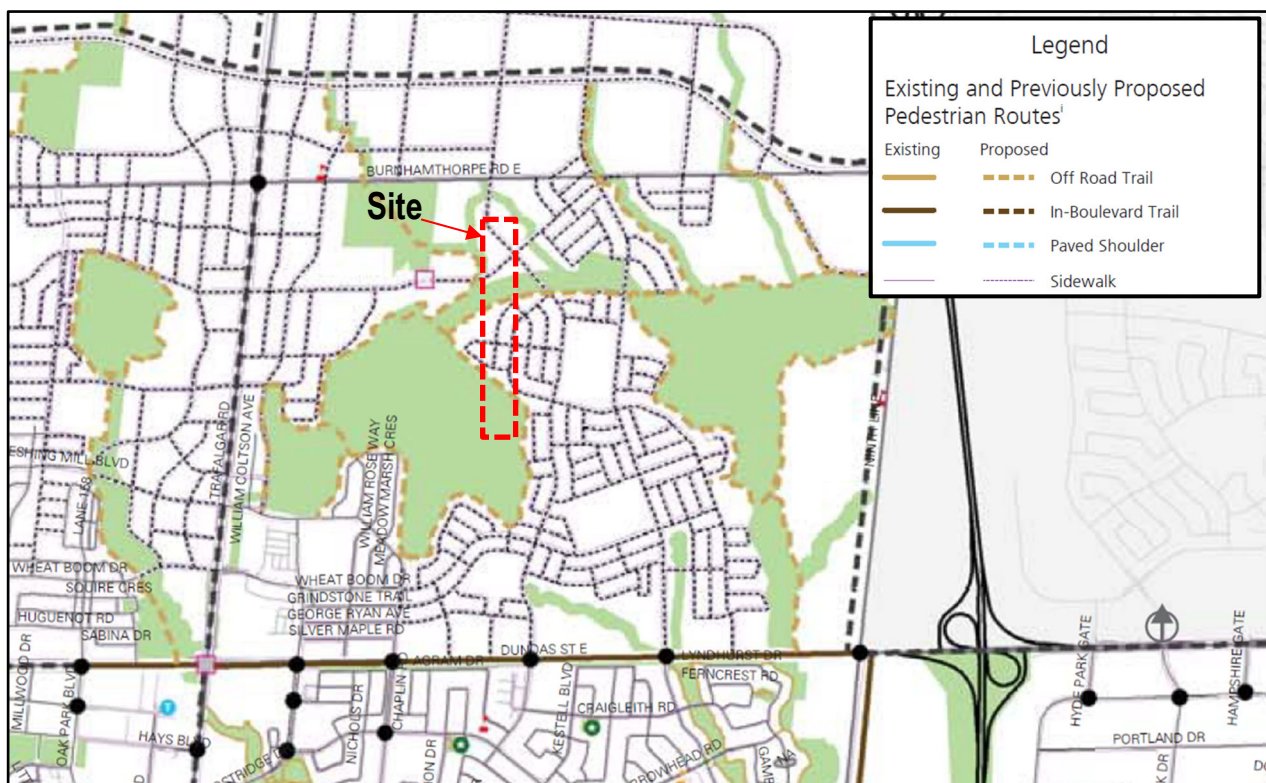
Figures 4 and 5 illustrate the existing and previously proposed active transportation network in the study area, based on the excerpt from the Town of Oakville 2017 ATMP.

Walking

Under the existing conditions, sidewalks are available on the established sides of the street such as Dundas Street E, Eighth Line, Postridge Drive, Trafalgar Road, Prince Michael Drive, Meadowridge Drive and Ninth Line.

As other streets are currently under construction, sidewalks will be available once these streets are completed as part of the proposed developments in the North Oakville Secondary Plan.

Figure 4 – Existing and Previously Proposed Pedestrian Conditions



Cycling

Currently, there are dedicated cycling routes along Ninth Line south of Dundas Street E. There are also multi-use trails along Dundas Street E in the vicinity of the study area. It is Nextrans' understanding that a complete active transportation network (sidewalk and cycling facilities) will be constructed as part of the North Oakville Secondary Plan communities in the future.

Figure 5 – Existing and Previously Proposed Cycling Conditions



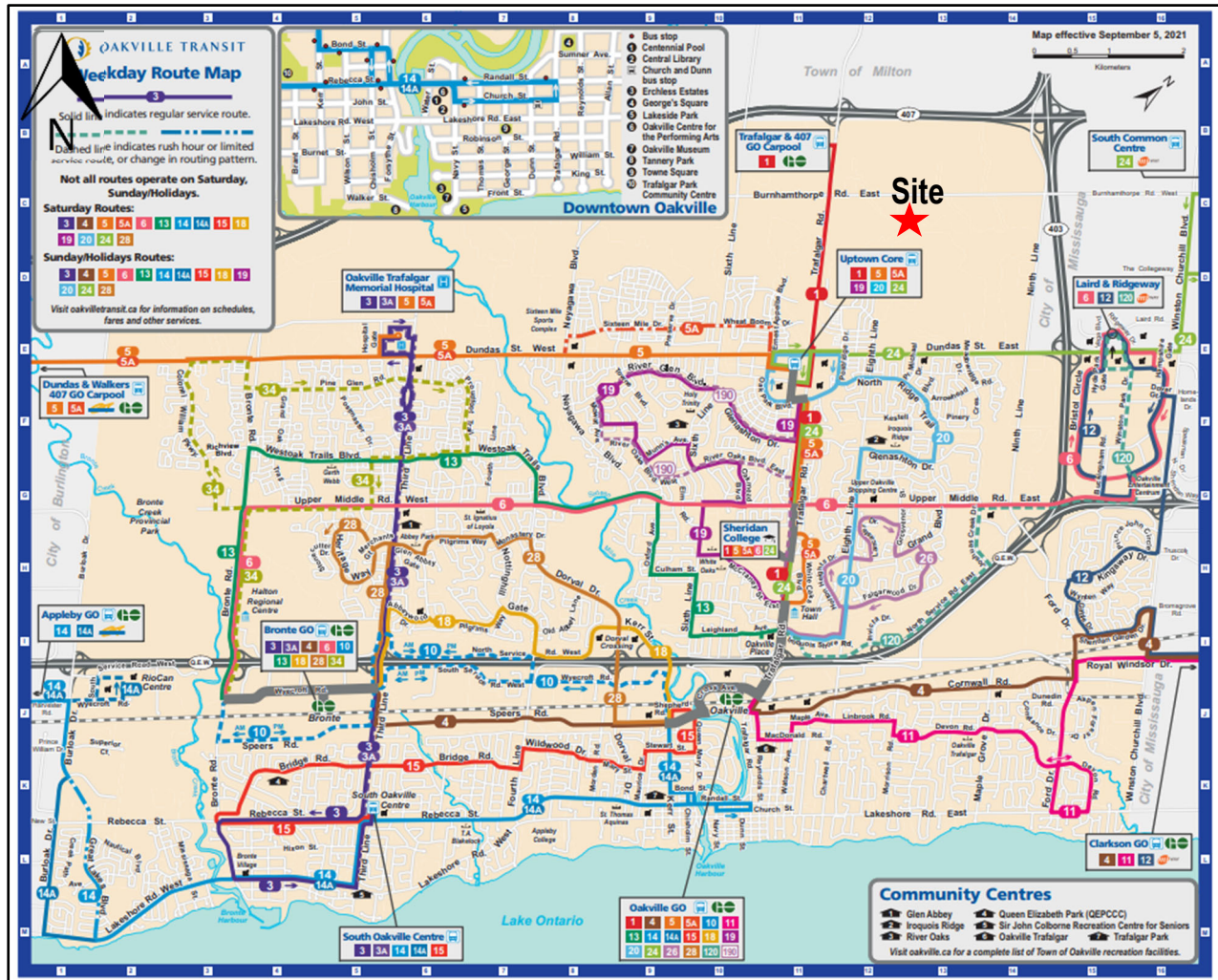
2.3. Existing Oakville Transit System

The area is current serviced by two existing Oakville Transit Bus Routes 1 Trafalgar, 24 South Common and 20 Northridge. **Figure 6** illustrates the existing Oakville Transit System.

Below are the bus route descriptions based on the information provided on the Oakville Transit Website (<https://www.oakvilletransit.ca/schedules-and-maps.html>):

- **Route 1 Trafalgar** – The Trafalgar Route travels generally in the north-south direction from Oakville GO Train Station to Highway 407 GO Oakville Carpool Lot. This service runs early in the morning until after midnight during the weekday. The service frequency is approximately 60-minute all day.
- **Route 20 Northridge** – The Northridge route travels north - south and east-west from Oakville GO Train Station to Walmart Supercentre located south-west of the Trafalgar Road/Dundas Street E intersection. This service runs 7 days a week from the early morning until 11 pm. The service frequency is approximately 30-minute during the weekday peak periods and approximately 60-minute during the weekend.
- **Route 24 South Common** – The South Common route travels north - south and east-west from Oakville GO Train Station to South Common Centre in the City of Mississauga located near Erin Mills Parkway and Burnhamthorpe Road W. This service runs 7 days a week from the early morning until midnight. The service frequency is approximately 15-minute during the weekday peak periods and approximately 30-minute during the weekend.

Figure 6 – Existing Oakville Transit Network



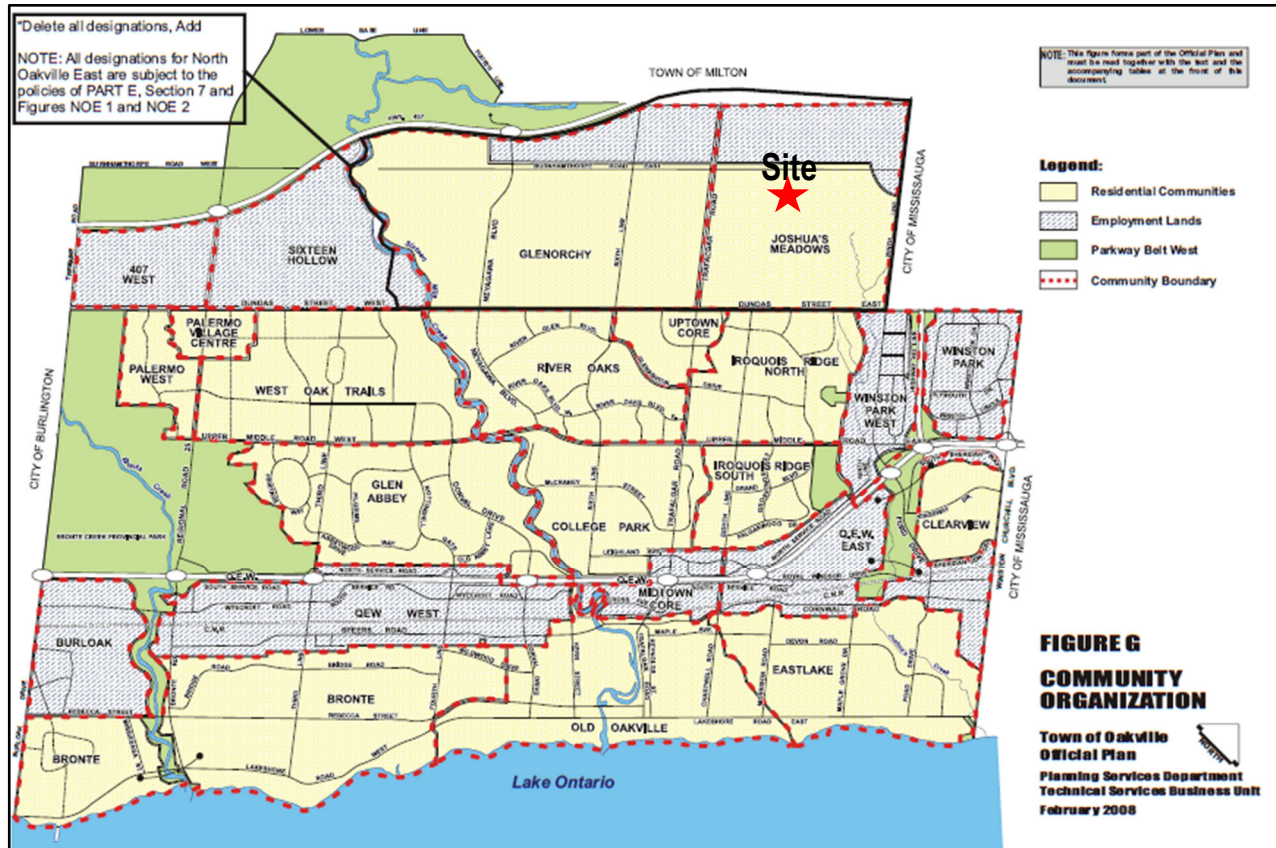
Source: Oakville Transit website

2.3. Existing Area Context

Nextrans has conducted a comprehensive review of the area. The proposed development is located within the approved North Oakville East Secondary Plan, Joshua’s Meadows residential community bounded by Dundas Street E to the south, Burnhamthorpe Road E to the north, Trafalgar Road to the west and Ninth Line to the east, in the Town of Oakville.

This area will be built into a vibrant community with complete network of sidewalk and cycling facilities, along with future Oakville Transit service extension to the area. **Figure 7** illustrates the North Oakville East Secondary Plan Community Organization (OPA No. 272, February 2008).

Figure 7 – North Oakville East Secondary Plan



Source: North Oakville East Secondary Plan Figure G

2.4. Existing Traffic Volumes

Nextrans has reviewed all of the background traffic impact studies prepared in the general area. Recently, GHD has prepared a Traffic Impact Study dated April, 2022 in support of Mattamy Joshua Creek Phase 3 proposed residential development located immediately to the east of the subject site. In review of this Study and discussion with GHD, Nextrans concurred that it is not appropriate to conduct new traffic counts at this time due to the on-going pandemic, especially with new variant and monkeypox disease.

For these reasons, Nextrans has obtained permission from GHD and Mattamy to use the existing traffic counts in 2019 (pre-pandemic) that were utilized in the GHD Study for consistency. Accordingly, these traffic volumes have been projected to 2022 conditions using 2% growth per annum. Similar numbers of intersections are also considered in this Study. On this basis, the Turning movement counts are summarized in **Appendix A**. The existing volumes are illustrated in **Figure 8**.

2.5. Existing Condition Assessment

The existing volumes in **Figure 8** were analyzed using Synchro Version 11 software. The methodology of the software follows the procedures described and outlined in the Highway Capacity Manual, HCM 2000, published by the Transportation Research Board. It should be noted that the printouts for unsignalized intersections are based on HCM outputs and the results for signalized intersections are based on Synchro so that queues and more detailed information can be provided. The results are provided in **Appendix B** and summarized in **Table 2**.

2.6. Finding Summary

Based on the intersection capacity analysis, under the existing traffic conditions, all intersections considered in the

analysis are operating at acceptable levels of service, with the exception of the westbound through movement at the Ninth Line/Dundas Street E. This is due to the heavy through traffic volumes in this direction coming from Highway 403 and Mississauga. However, this type of movement is typical at any major arterial intersections in the Great Toronto Area and in the Region of Halton. It is expected that with the future improvements on Burnhamthorpe Road E, the North Oakville Secondary Plan subdivision east-west road south of Burnhamthorpe Road E, as well as the completion of William Halton Parkway, it will provide much needed east-west capacity for the area.

Table 2 – 2022 Existing Levels of Service

Intersection	Movement	Weekday AM Peak Hour			Weekday PM Peak Hour			Available Storage Length (m)
		LOS (v/c)	Delay (s)	95 th Queue (m)	LOS (v/c)	Delay (s)	95 th Queue (m)	
Dundas Street E/ Eighth Line (signalized)	Overall	B (0.66)	18		B (0.71)	11		
	EB – L	A (0.03)	5	3	A (0.05)	6	2	~115
	EB – T	B (0.66)	15	180	B (0.45)	15	104	~300
	EB – R	A (0.11)	4	13	A (0.19)	2	12	~75
	WB – L	B (0.31)	12	14	B (0.51)	16	40	~155
	WB – T	B (0.34)	16	103	A (0.71)	6	100	~585
	WB – R	A (0.02)	3	4	A (0.06)	2	2	~85
	NB – L	E (0.65)	61	61	E (0.66)	60	64	~45
	NB – T	D (0.06)	41	11	D (0.09)	41	15	~255
	NB – R	B (0.41)	16	28	A (0.30)	9	16	~30
	SB – L	D (0.38)	49	38	D (0.13)	42	17	~45
	SB – T	D (0.18)	44	25	D (0.04)	40	9	~310
SB – R	A (0.08)	0	0	A (0.03)	0	0	~25	
Dundas Street E/ Prince Michael Drive/ John McKay Blvd (unsignalized)	Overall	A (0.63)	5		B (0.69)	14		
	EB – T	A (0.63)	3	22	A (0.44)	8	35	~585
	EB – R	A (0.10)	0	0	A (0.15)	1	2	~75
	WB – L	C (0.31)	29	22	B (0.59)	12	47	~125
	WB – T	A (0.29)	2	16	B (0.69)	16	233	~570
	NB – L	E (0.48)	59	47	E (0.62)	62	62	~65
	NB – R	B (0.56)	16	25	B (0.48)	10	20	~30
Dundas Street E/ Meadowridge Drive (signalized)	Overall	A (0.76)	9		A (0.69)	5		
	EB – T	A (0.74)	6	39	A (0.42)	8	39	~570
	EB – R	A (0.05)	1	1	A (0.07)	2	3	~80
	WB – L	D (0.44)	45	27	B (0.54)	16	20	~140
	WB – T	A (0.32)	4	26	A (0.69)	1	1	~330
	NB – L	D (0.20)	47	23	E (0.25)	58	23	~40
	NB – R	D (0.76)	37	62	B (0.52)	15	21	~100
Dundas Street E/ William Cutmore Blvd (signalized)	Overall	B (0.68)	10		A (0.82)	9		
	EB – L	A (0.08)	6	4	D (0.53)	40	31	~100
	EB – T	B (0.68)	11	211	A (0.37)	3	45	~335
	WB – T	A (0.31)	2	19	B (0.82)	10	34	~500
	WB – R	A (0.04)	1	0	A (0.12)	0	0	~85
	SB – L	E (0.65)	70	55	E (0.56)	67	44	~45
	SB – R	B (0.30)	14	14	B (0.27)	16	13	~30
Dundas Street E/ Ninth Line (signalized)	Overall	C (0.95)	30		E (1.20)	73		
	EB – L	B (0.51)	11	43	D (0.69)	42	49	~225
	EB – T	C (0.90)	29	285	D (0.59)	41	145	~500
	EB – R	A (0.41)	9	34	B (0.26)	17	40	~85
	WB – L	C (0.52)	29	37	C (0.61)	26	32	~230
	WB – T	C (0.40)	22	79	F (1.20)	128	352	~255
	WB – R	A (0.15)	4	12	A (0.19)	9	21	~85
	NB – L	F (0.95)	87	68	D (0.83)	47	111	~160
	NB – T	D (0.45)	46	53	D (0.66)	41	111	~485
	NB – R	A (0.36)	9	19	D (0.94)	54	181	~130
	SB – L	D (0.58)	40	56	C (0.42)	27	30	~130
	SB – T	D (0.73)	54	89	C (0.28)	34	46	~810
	SB – R	A (0.25)	9	15	B (0.35)	14	35	~55
Eighth Line/ Threshing Mill Blvd/ Wheat Boom Drive (unsignalized)	EB – L	A (0.00)	0	0	A (0.00)	0	0	~30
	EB – R	A (0.03)	9	1	A (0.02)	9	0	~30
	NB – TL	A (0.01)	1	0	A (0.02)	1	0	~300
	SB – TR	A (0.12)	0	0	A (0.04)	0	0	~300

2.7. Potential Mitigation Measures

Based on the finding summary noted above, it is Nextrans' opinion that no improvements to the existing road network at this time given that there are future overall network improvements in the area.

3.0 TRANSPORTATION PLANNING CONTEXT IN THE AREA

3.1. Existing Land Use Context and Amenities

As indicated, the proposed development is located within the approved North Oakville East Secondary Plan, Joshua's Meadows residential community bounded by Dundas Street E to the south, Burnhamthorpe Road E to the north, Trafalgar Road to the west and Ninth Line to the east, in the Town of Oakville. This area will be built into a vibrant community with complete network of sidewalk and cycling facilities, along with future Oakville Transit service extension to the area.

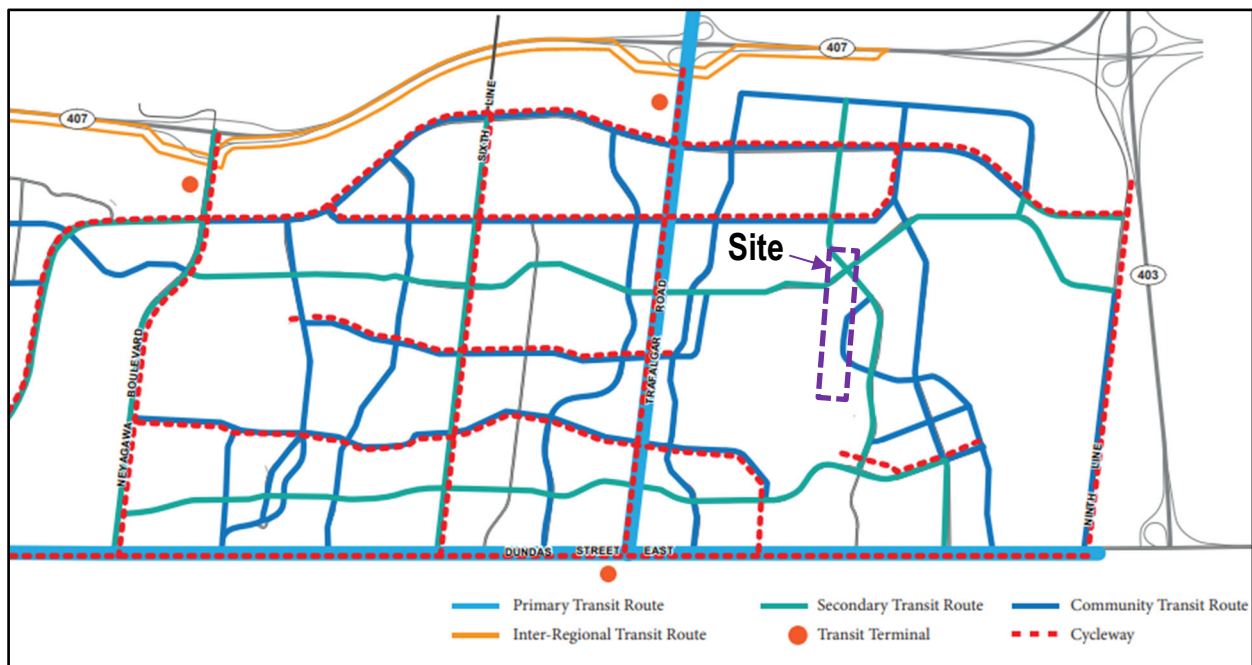
As the proposed residential development consists of a total 181 residential dwelling units, with 129 single-detached and 52 street townhouse units, the proposed development is compatible and consistent with other proposed background developments in the immediate area within the Joshua's Meadows community.

3.2. Transportation Planning Context

As the community is building through different phases, the road network, active transportation network and transit network will also be built at different phases. This is a typical process through-out the Greater Toronto and Hamilton Area.

However, once completed, the area will have a complete fine grid transportation network consists of transit, active transportation and road network. **Figure 9** illustrates the proposed North Oakville East Secondary Plan Area transportation network.

Figure 9 – North Oakville East Secondary Plan Transportation Network



Source: *The New Communities of Oakville Brochure (Prepared by the Town of Oakville)*

4.0 FUTURE BACKGROUND CONDITIONS

4.1. Analysis Horizon

For the purposes of this assessment, it is assumed that the proposed development will be completed by 2024. A five-year horizon (2022 to 2027) has been carried out for the study analysis. This provision is consistent with the Town of Oakville and Halton Region's Traffic Impact Study Guidelines. This is also consistent with other background transportation studies conducted in the area.

4.2. Future Background Corridor Growth

Based on the Town of Oakville and Halton Region's requirements, a 2% per annum compounded growth rate will be applied to the 2019 traffic volumes to estimate the 2022 and 2027 projected traffic volumes. This is equivalent to 16% total growth from 2019 to 2027.

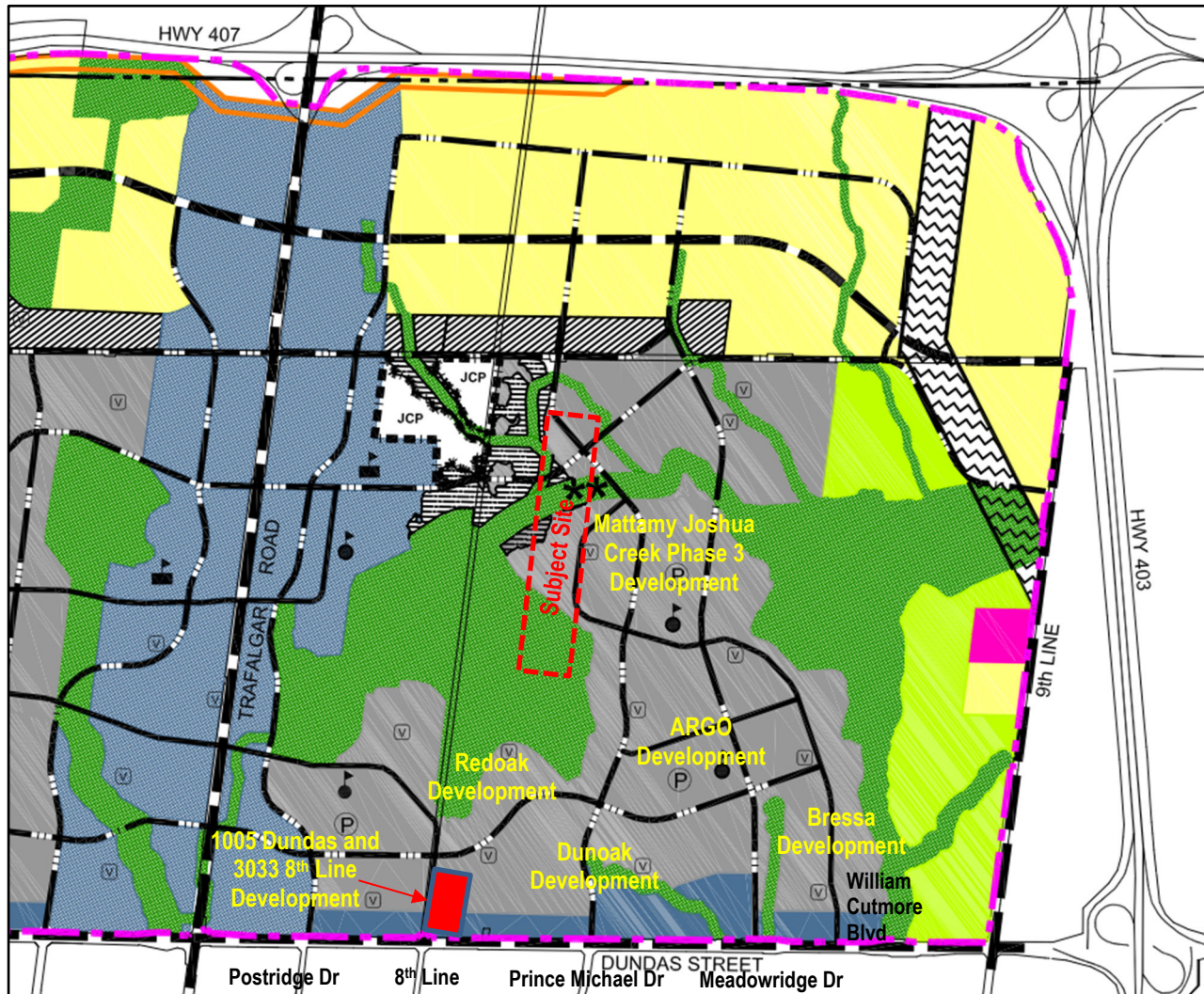
4.3. Background Development Applications

Based on Nextrans' review of the proposed active development applications in the area, using the Town's development application website for Ward 7 (<https://www.oakville.ca/business/planning-applications-ward-7.html>), as well as other background traffic impact studies such as GHD TIS dated April 2022 for the Mattamy Joshua Creek Phase 3, the following background developments have been identified and will be included in the analysis:

- Mattamy Joshua Creek Phase 3 proposed residential development with 306 townhouse units and 709 single-detached homes – GHD TIS dated April, 2022
- ARGO Land Development in the Joshua Creek Residential Subdivision in North Oakville proposed residential development with 103 single-detached homes, 90 townhouse units and 12 mid-rise units - CGH Transportation Inc. TIS dated December, 2019 and Addendum dated November, 2021
- Dunoak and Bressa Draft Plans Proposed Residential Developments - GHD TIS dated July, 2020
- Proposed Redoak/Capoak Residential Development – GHD TIS dated November, 2021
- 1005 Dundas Street East and 3033 Eighth Line - Paradigm Transportation Solutions Limited.

Figure 10 illustrates the active background developments in the study area.

Figure 10 – Active Background Development General Locations



Source: Figure Now 2 & NOE 2 Land Use Plan – North Oakville Secondary Plan

Table 3 summarizes the proposed background development trip generation estimates based on these background development traffic impact studies, with Figures 11 and 12 illustrating background development traffic volumes. The detailed TIS traffic volume information is included in Appendix C.

Table 3 – Active Background Development Site Traffic Generation

Proposed Active Background Developments in the Study Area	Morning Peak Hour			Afternoon Peak Hour		
	In	Out	Total	In	Out	Total
Mattamy Joshua Creek Phase 3 – Residential Subdivision	143	389	532	429	265	694
ARGO Land Development – Joshua Creek Residential Subdivision	140	453	593	494	290	784
Dunoak Residential Developments	137	431	568	418	264	682
Redoak/Capoak Residential Development	114	355	469	362	220	582
1005 Dundas Street East and 1033 Eighth Line	19	58	77	60	40	100

4.4. Future Background Condition Assessment

The estimated 2027 future background traffic volumes are illustrated in Figure 13 (future background traffic growth traffic volumes + background development traffic volumes) and were analyzed using Synchro Version 11 software. The detailed calculations are provided in Appendix D and summarized in Table 4.

Table 4 – 2027 Future Background Levels of Service

Intersection	Movement	Weekday AM Peak Hour			Weekday PM Peak Hour			Available Storage Length (m)
		LOS (v/c)	Delay (s)	95 th Queue (m)	LOS (v/c)	Delay (s)	95 th Queue (m)	
Dundas Street E/ Eighth Line (signalized)	Overall	C (0.82)	23		C (1.00)	27		
	EB – L	A (0.17)	7	7	C (0.43)	22	23	~115
	EB – T	C (0.82)	24	292	C (0.75)	27	165	~300
	EB – R	A (0.14)	6	18	A (0.24)	4	17	~75
	WB – L	B (0.48)	17	28	D (0.60)	40	49	~155
	WB – T	B (0.55)	16	144	C (1.00)	27	313	~585
	WB – R	A (0.04)	3	5	A (0.15)	9	8	~85
	NB – L	E (0.74)	65	67	E (0.68)	59	69	~45
	NB – T	D (0.10)	39	17	D (0.24)	42	33	~255
	NB – R	B (0.44)	19	34	B (0.39)	18	30	~30
	SB – L	E (0.66)	58	68	D (0.31)	45	31	~45
	SB – T	D (0.28)	43	39	D (0.11)	39	18	~310
SB – R	A (0.11)	4	5	A (0.07)	0	0	~25	
Dundas Street E/ Prince Michael Drive/ John McKay Blvd (unsignalized)	Overall	D (1.21)	35		D (1.11)	46		
	EB – L	B (0.41)	14	7	E (0.92)	64	82	~120
	EB – T	C (0.99)	34	337	A (0.62)	9	39	~585
	EB – R	A (0.14)	2	1	A (0.18)	1	1	~75
	WB – L	C (0.35)	32	20	D (0.96)	48	52	~125
	WB – T	A (0.50)	7	47	E (1.11)	69	360	~570
	WB – R	A (0.09)	0	0	A (0.29)	2	9	~85
	NB – L	E (0.63)	66	54	F (0.87)	88	94	~65
	NB – TR	D (0.73)	44	55	B (0.33)	13	18	~225
	SB – L	F (1.21)	156	178	E (0.84)	74	105	~15
	SB – T	C (0.02)	30	8	D (0.02)	39	7	~195
	SB – R	C (0.37)	27	50	A (0.27)	8	16	~15
Dundas Street E/ Meadowridge Drive (signalized)	Overall	B (0.95)	19		D (1.03)	42		
	EB – L	A (0.15)	6	2	E (0.76)	60	45	~80
	EB – T	B (0.95)	11	63	B (0.53)	16	174	~570
	EB – R	A (0.08)	0	0	A (0.14)	2	8	~80
	WB – L	C (0.49)	31	21	C (0.89)	29	25	~140
	WB – T	A (0.41)	3	6	E (1.03)	57	318	~335
	WB – R	A (0.03)	0	0	A (0.11)	5	6	~70
	NB – L	D (0.26)	51	28	D (0.24)	53	24	~25
	NB – T	A (0.00)	0	0	A (0.00)	0	0	~215
	NB – R	F (0.87)	93	105	C (0.53)	26	37	~25
	SB – L	F (0.95)	150	102	F (0.76)	82	60	~15
	SB – T	A (0.00)	0	0	A (0.00)	0	0	~175
SB – R	B (0.30)	15	18	B (0.28)	12	13	~15	
Dundas Street E/ William Cutmore Blvd (signalized)	Overall	C (0.92)	21		E (1.13)	58		
	EB – L	A (0.19)	7	4	D (0.74)	39	49	~100
	EB – T	C (0.92)	25	341	B (0.51)	15	162	~335
	WB – T	A (0.41)	3	22	F (1.13)	81	35	~500
	WB – R	A (0.05)	0	0	A (0.18)	0	0	~85
	SB – L	E (0.82)	80	89	E (0.70)	72	60	~45
SB – R	C (0.39)	22	26	F (0.33)	112	17	~30	
Dundas Street E/ Ninth Line (signalized)	Overall	F (1.25)	85		F (1.67)	161		
	EB – L	C (0.63)	25	51	E (0.78)	63	60	~225
	EB – T	F (1.25)	144	448	B (0.83)	18	76	~500
	EB – R	B (0.58)	17	66	A (0.36)	3	7	~85
	WB – L	C (0.57)	32	42	E (0.85)	63	68	~230
	WB – T	C (0.59)	29	110	F (1.67)	332	538	~255
	WB – R	A (0.18)	4	13	B (0.22)	10	24	~85
	NB – L	F (1.24)	173	108	F (1.16)	127	239	~160
	NB – T	D (0.46)	44	57	D (0.70)	42	125	~485
	NB – R	B (0.38)	12	26	E (1.03)	76	224	~130
	SB – L	D (0.63)	41	59	C (0.49)	29	32	~130
	SB – T	D (0.75)	52	96	C (0.30)	33	50	~810
SB – R	A (0.26)	8	15	B (0.39)	18	48	~55	

Eighth Line/ Threshing Mill Blvd/ Wheat Boom Drive (unsignalized)	EB – L	A (0.00)	0	0	A (0.00)	0	0	~30
	EB – TR	B (0.17)	12	5	D (0.63)	26	34	~30
	WB – LTR	C (0.63)	22	35	D (0.63)	30	33	~100
	NB – LTR	A (0.01)	1	0	A (0.02)	1	1	~300
	SB – LTR	A (0.01)	1	0	A (0.04)	3	1	~300

4.5. Finding Summary

Based on the intersection capacity analysis, under the future background traffic conditions, the analysis the analysis indicates that the intersections considered are expected to operate at acceptable levels of service. However, there is a number of critical movements. This can be explained with the following:

- The Secondary Plan Area fine grid road network is not completed at this time and under this horizon year
- Once the complete road network identified in the Secondary Plan Area is completed, it is expected that the traffic will not be concentrating at the critical movements
- Especially with the completion of the north-south collector roads such as Meadowridge Drive and John McKay Blvd, the traffic from the proposed draft plans of subdivision can use Burnhamthorpe Road E and William Halton Parkway
- It is expected that with the future improvements on Burnhamthorpe Road E, the North Oakville Secondary Plan subdivision east-west road south of Burnhamthorpe Road E, as well as the completion of William Halton Parkway, it will provide much needed east-west capacity for the area
- The intersection of Dundas Street E/Ninth Line is expected to operate near or at capacity. This is due to the heavy through traffic volumes in this direction coming from Highway 403 and Mississauga. However, this type of movement is typical at any major arterial intersections in the Great Toronto Area and in the Region of Halton. It is Nextrans’ opinion that the east-west capacity will be addressed as part of the future improvements on Burnhamthorpe Road E and completion of William Halton Parkway

4.6. Potential Mitigation Measures

As indicated above, the reasons for the critical movements outlined in the analysis are due to the uncompleted fine grid network identified in the Secondary Plan. In addition, currently Dundas Street E carries the majority of the east-west traffic. However, It is expected that with the future improvements on Burnhamthorpe Road E, the North Oakville Secondary Plan subdivision east-west road south of Burnhamthorpe Road E, as well as the completion of William Halton Parkway, it will provide much needed east-west capacity for the area.

In addition, with the completion of the north-south collector roads such as Meadowridge Drive and John McKay Blvd, the traffic from the proposed draft plans of subdivision can use Burnhamthorpe Road E and William Halton Parkway.

Based on this assessment and provision, it is Nextrans’ opinion that no improvements should be implement under this horizon year for the intersections located along Dundas Street E.

Nextrans recommends that the Region and the Town monitor these intersections in the future and make appropriate signal timing adjustments in the interim conditions. A monitoring program is also required in the future once all the road network is completed to ensure that signal timing and lane configurations are appropriate for the area.

5.0 SITE TRAFFIC

5.1. Proposed Development

The subject site is currently vacant. The proposed residential development consists of a total 181 residential dwelling units, with 129 single-detached and 52 street townhouse units.

For the purposes of this assessment and consistent with other background traffic impact studies prepared for other developments in the area, the *Trip Generation Manual, 11th Edition* published by the Institute of Transportation Engineers (ITE) and 2016 TTS information will be utilized in this Study.

5.2. Non-auto Modal Split

As the majority of the area north of Dundas Street E is still under construction, the 2016 Transportation Tomorrow Survey data for existing traffic zones north of Dundas Street will not be representative. For these reasons, the traffic zones located south of Dundas Street E will be selected for analysis as these are stable communities. **Table 5** summarizes the travel mode split information based on the review of the 2016 Transportation Tomorrow Survey data for Traffic Zones 4033 and 4035. The 2016 TTS data extraction is included in **Appendix E**.

Table 5 – Modal Split based on 2016 TTS Data for Traffic Zones

Time	Trips Made by Traffic Zones				
	Auto Driver	Auto Passenger	Transit	Cycle	Walk
AM Peak Period (6:00AM – 9:00AM)	68%	17%	7%	0%	8%
PM Peak Period (4:00PM – 7:00PM)	74%	17%	8%	0%	1%

Based on the information above, the non-auto mode of transportation (transit + walking + carpooling) accounts for near 32% during the morning peak period and 26% during the afternoon peak period. Although this is a great trend, however, the auto driver mode is still very high, which is not sustainable and does not meet the sustainable objective of the Town Official Plan policies and directions. In addition, there is none or very little bicycle trips, despite there are existing cycling facilities.

Nextrans’ review of the background traffic impact studies and understands that the Regional staff would support 18% non-auto modal split for the area, including 10% transit, 5% active transportation and 3% transportation demand management. For the purposes of this assessment and to be consistent with other studies, a target non-auto modal split of 18% will be applied to the proposed development.

5.3. Sit Trip Generation

The ITE Trip Generation Manual 11th Edition Land Use Codes (LUC) 201 “Single-Family Detached Housing General Urban/Suburban” and LUC 215 “Single-Family Attached Housing General Urban/Suburban” fitted curve equations have been utilized for the proposed development. The site trip generation is summarized in **Table 6**.

Table 6 – Site Traffic Trip Generation Based on ITE Trip Rates (11th Edition)

ITE Land Use	Magnitude (units)	Parameters	Morning Peak Hour			Afternoon Peak Hour		
			In	Out	Total	In	Out	Total
Single-Family Detached Housing LUC 210 General Urban/Suburban	129	Trip Rates AM - $\ln(T) = 0.91 \cdot \ln(X) + 0.12$ PM - $\ln(T) = 0.94 \cdot \ln(X) + 0.27$	0.19	0.54	0.73	0.62	0.36	0.98
		Sub-Total Trips	24	70	94	79	47	126
Single-Family Attached Housing LUC 215 General Urban/Suburban	52	Trip Rates AM - $T = 0.52 \cdot (X) - 5.70$ PM - $T = 0.60 \cdot (X) - 3.93$	0.12	0.28	0.40	0.3	0.22	0.52
		Sub-Total Trips	7	14	21	15	12	27
Total Trips			31	84	115	94	59	153
Non-Auto Trips			6	15	21	17	11	28
New Auto Trips			25	69	94	77	48	125

Based on the analysis noted above, the proposed development is expected to generate:

- 115 total two-way trips (31 inbound and 84 outbound) and 153 total two-way trips (94 inbound and 59 outbound) during the morning and afternoon peak hours, respectively;
- 21 total two-way non-auto trips (6 inbound and 15 outbound) and 28 total two-way non-auto trips (17 inbound and 11 outbound) during the morning and afternoon peak hours, respectively; and
- 94 total two-way auto trips (25 inbound and 69 outbound) and 125 total two-way auto trips (77 inbound and 48 outbound) during the morning and afternoon peak hours, respectively

The analysis indicates that the proposed development is expected to generate very little auto trips, significantly less than all of the active background developments in the area.

5.4. Site Trip Distribution Based on Existing Site

The 2016 Transportation Tomorrow Survey (TTS) data was reviewed for Traffic Zones 4033 and 4035 in order to estimate the general trip distribution for the proposed development. **Table 7** summarizes the planning district/traffic zones distribution based on the 2016 TTS data, with **Table 8** summarizing the site trip assignment based on the 2016 TTS data and the existing traffic turning movement counts in the area.

Table 7 – General Trip Distribution for the Proposed Development

Oakville	Mississauga	Burlington	Milton/ Halton Hills	Toronto	Brampton	York Region	Hamilton	Niagara Region	Total
57%	18%	3%	5%	6%	2%	3%	5%	1%	100%

Table 8 – Site Trip Assignment for the Proposed Development

General Direction (To/From)	AM Peak Hour – Trip Percentage	PM Peak Hour – Trip Percentage
East	20%	20%
West	30%	30%
North	25%	25%
South	25%	25%
Total	100%	100%

As indicated, the proposed development access is provided via internal public streets connecting to Mattamy Joshua Creek Phase 3 proposed draft plan of subdivision, and eventually to Burnhamthorpe Road E via future proposed draft plan of subdivisions to the north. Under the interim conditions where the proposed draft plans of subdivision to the north are not completed, the anticipated traffic from the proposed development will be routing primarily to and from Dundas Street via John McKay Boulevard, Meadowridge Drive and William Cutmore Boulevard, as well as Eighth Line via Wheat Boom Drive. The proposed development will also protect for future Street C and Street A extensions to the west and north, respectively.

Figure 14 illustrates the proposed development generated traffic volumes for the residential component. It should be noted that the auto site trip distribution and assignment have been taken into consideration the 2016 TTS information above, existing turning restrictions and available road network in the study area.

6.0 FUTURE TOTAL TRAFFIC CONDITIONS

6.1. Future Total Traffic Assessment for Auto Mode

The estimated future total traffic volumes (future background traffic volumes + site generated traffic volumes) are illustrated in **Figure 15**, and were analyzed using Synchro Version 11 software. The detailed calculations are provided in **Appendix F** and summarized in **Table 9**.

Table 9 – 2027 Future Total Levels of Service

Intersection	Movement	Weekday AM Peak Hour			Weekday PM Peak Hour			Available Storage Length (m)
		LOS (v/c)	Delay (s)	95 th Queue (m)	LOS (v/c)	Delay (s)	95 th Queue (m)	
Dundas Street E/ Eighth Line (signalized)	Overall	C (0.83)	23		C (1.01)	28		
	EB – L	A (0.18)	7	8	C (0.46)	24	27	~115
	EB – T	C (0.83)	24	294	C (0.75)	27	167	~300
	EB – R	A (0.14)	6	18	A (0.24)	4	17	~75
	WB – L	B (0.48)	17	28	D (0.60)	40	49	~155
	WB – T	B (0.56)	16	145	C (1.01)	29	315	~585
	WB – R	A (0.04)	3	5	A (0.15)	9	8	~85
	NB – L	E (0.74)	65	67	E (0.68)	59	69	~45
	NB – T	D (0.11)	39	18	D (0.25)	43	34	~255
	NB – R	B (0.44)	19	34	B (0.39)	18	30	~30
	SB – L	E (0.66)	58	68	D (0.31)	45	31	~45
SB – T	D (0.29)	43	40	D (0.12)	40	19	~310	
SB – R	A (0.11)	4	5	A (0.07)	0	0	~25	
Dundas Street E/ Prince Michael Drive/ John McKay Blvd (unsignalized)	Overall	D (1.26)	37		D (1.12)	47		
	EB – L	B (0.43)	15	7	E (0.97)	73	89	~120
	EB – T	C (0.99)	34	337	A (0.62)	9	39	~585
	EB – R	A (0.14)	2	1	A (0.18)	1	1	~75
	WB – L	C (0.35)	31	20	D (0.97)	50	51	~125
	WB – T	A (0.50)	7	47	E (1.12)	71	354	~570
	WB – R	A (0.10)	0	0	A (0.31)	2	9	~85
	NB – L	E (0.63)	66	54	F (0.87)	88	94	~65
	NB – TR	D (0.73)	45	55	B (0.33)	13	18	~225
	SB – L	F (1.26)	174	187	E (0.87)	77	113	~15
	SB – T	C (0.02)	30	8	D (0.02)	39	7	~195
SB – R	C (0.41)	29	56	A (0.29)	8	17	~15	
Dundas Street E/ Meadowridge Drive (signalized)	Overall	B (1.02)	19		D (1.04)	45		
	EB – L	A (0.15)	6	2	E (0.77)	61	45	~80
	EB – T	A (0.95)	10	64	B (0.53)	16	171	~570
	EB – R	A (0.08)	0	0	A (0.14)	2	7	~80
	WB – L	C (0.49)	31	21	C (0.92)	31	25	~140
	WB – T	A (0.43)	3	6	E (1.04)	62	317	~335
	WB – R	A (0.00)	0	0	A (0.13)	5	6	~70
	NB – L	D (0.26)	51	28	D (0.24)	52	24	~25
	NB – T	A (0.00)	0	0	A (0.00)	0	0	~215
	NB – R	F (0.87)	96	105	C (0.52)	25	37	~25
	SB – L	F (1.02)	152	112	F (0.80)	85	68	~15
SB – T	A (0.00)	0	0	A (0.00)	0	0	~175	
SB – R	B (0.30)	15	18	B (0.28)	12	13	~15	
Dundas Street E/ William Cutmore Blvd (signalized)	Overall	C (0.93)	21		E (1.14)	61		
	EB – L	A (0.19)	7	4	D (0.74)	38	48	~100
	EB – T	C (0.93)	26	343	B (0.51)	15	163	~335
	WB – T	A (0.41)	3	22	F (1.14)	86	35	~500
	WB – R	A (0.05)	0	0	A (0.18)	0	0	~85
	SB – L	E (0.82)	80	89	E (0.70)	72	60	~45
SB – R	C (0.40)	23	27	F (0.33)	112	17	~30	
Dundas Street E/ Ninth Line (signalized)	Overall	F (1.26)	88		F (1.69)	164		
	EB – L	C (0.63)	25	51	E (0.78)	62	60	~225
	EB – T	F (1.26)	149	454	B (0.84)	18	78	~500
	EB – R	B (0.58)	17	64	A (0.36)	3	7	~85
	WB – L	C (0.57)	32	42	E (0.85)	63	68	~230
	WB – T	C (0.59)	29	111	F (1.69)	339	545	~255
	WB – R	A (0.18)	4	13	B (0.22)	10	24	~85
	NB – L	F (1.24)	173	108	F (1.16)	127	239	~160
	NB – T	D (0.46)	44	57	D (0.70)	42	125	~485
	NB – R	B (0.38)	12	26	E (1.03)	77	224	~130
	SB – L	D (0.63)	41	59	C (0.49)	29	32	~130
	SB – T	D (0.75)	52	96	C (0.30)	33	50	~810
	SB – R	A (0.26)	8	15	B (0.39)	18	48	~55

Eighth Line/ Threshing Mill Blvd/ Wheat Boom Drive (unsignalized)	EB – L	A (0.00)	0	0	A (0.00)	0	0	~30
	EB – TR	B (0.19)	13	6	D (0.69)	30	41	~30
	WB – LTR	C (0.67)	24	41	E (0.70)	36	41	~100
	NB – LTR	A (0.01)	1	0	A (0.02)	1	1	~300
	SB – LTR	A (0.01)	1	0	A (0.04)	3	1	~300
John McKay Blvd/ Street D (unsignalized)	EB – LTR	A (0.09)	7	0	A (0.08)	0	0	~100
	WB – LTR	A (0.02)	7	0	A (0.02)	7	0	~100
	NB – LTR	A (0.08)	8	0	A (0.10)	8	0	~100
	SB – LTR	A (0.02)	7	0	A (0.05)	7	0	~100

6.2. Finding Summary

Based on the intersection capacity analysis, under the future total traffic conditions, the analysis indicates that the intersections considered are expected to operate at acceptable levels of service. However, there is a number of critical movements. This can be explained with the following:

- The Secondary Plan Area fine grid road network is not completed at this time and under this horizon year
- Once the complete road network identified in the Secondary Plan Area is completed, it is expected that the traffic will not be concentrating at the critical movements
- Especially with the completion of the north-south collector roads such as Meadowridge Drive and John McKay Blvd, the traffic from the proposed draft plans of subdivision can use Burnhamthorpe Road E and William Halton Parkway
- It is expected that with the future improvements on Burnhamthorpe Road E, the North Oakville Secondary Plan subdivision east-west road south of Burnhamthorpe Road E, as well as the completion of William Halton Parkway, it will provide much needed east-west capacity for the area
- The intersection of Dundas Street E/Ninth Line is expected to operate near or at capacity. This is due to the heavy through traffic volumes in this direction coming from Highway 403 and Mississauga. However, this type of movement is typical at any major arterial intersections in the Great Toronto Area and in the Region of Halton. It is Nexttrans' opinion that the east-west capacity will be addressed as part of the future improvements on Burnhamthorpe Road E and completion of William Halton Parkway
- It should be noted that the proposed development has negligible or no impacts on the existing and future intersections along Dundas Street E. The internal intersections are also expected to have minimum traffic volumes and delay or queue.

6.3. Potential Mitigation Measures

As indicated above, the reasons for the critical movements outlined in the analysis are due to the uncompleted fine grid network identified in the Secondary Plan. In addition, currently Dundas Street E carries the majority of the east-west traffic. However, It is expected that with the future improvements on Burnhamthorpe Road E, the North Oakville Secondary Plan subdivision east-west road south of Burnhamthorpe Road E, as well as the completion of William Halton Parkway, it will provide much needed east-west capacity for the area.

In addition, with the completion of the north-south collector roads such as Meadowridge Drive and John McKay Blvd, the traffic from the proposed draft plans of subdivision can use Burnhamthorpe Road E and William Halton Parkway.

Based on this assessment and provision, it is Nexttrans' opinion that no improvements should be implement under this horizon year for the intersections located along Dundas Street E.

Nexttrans recommends that the Region and the Town monitor these intersections in the future and make appropriate signal timing adjustments in the interim conditions. A monitoring program is also required in the future once all the road network is completed to ensure that signal timing and lane configurations are appropriate for the area.

It should be noted that the proposed development has negligible or no impacts on the existing and future intersections along Dundas Street E. The internal intersections are also expected to have minimum traffic volumes and delay or queue.

6.4. Active Transportation Mode Assessment

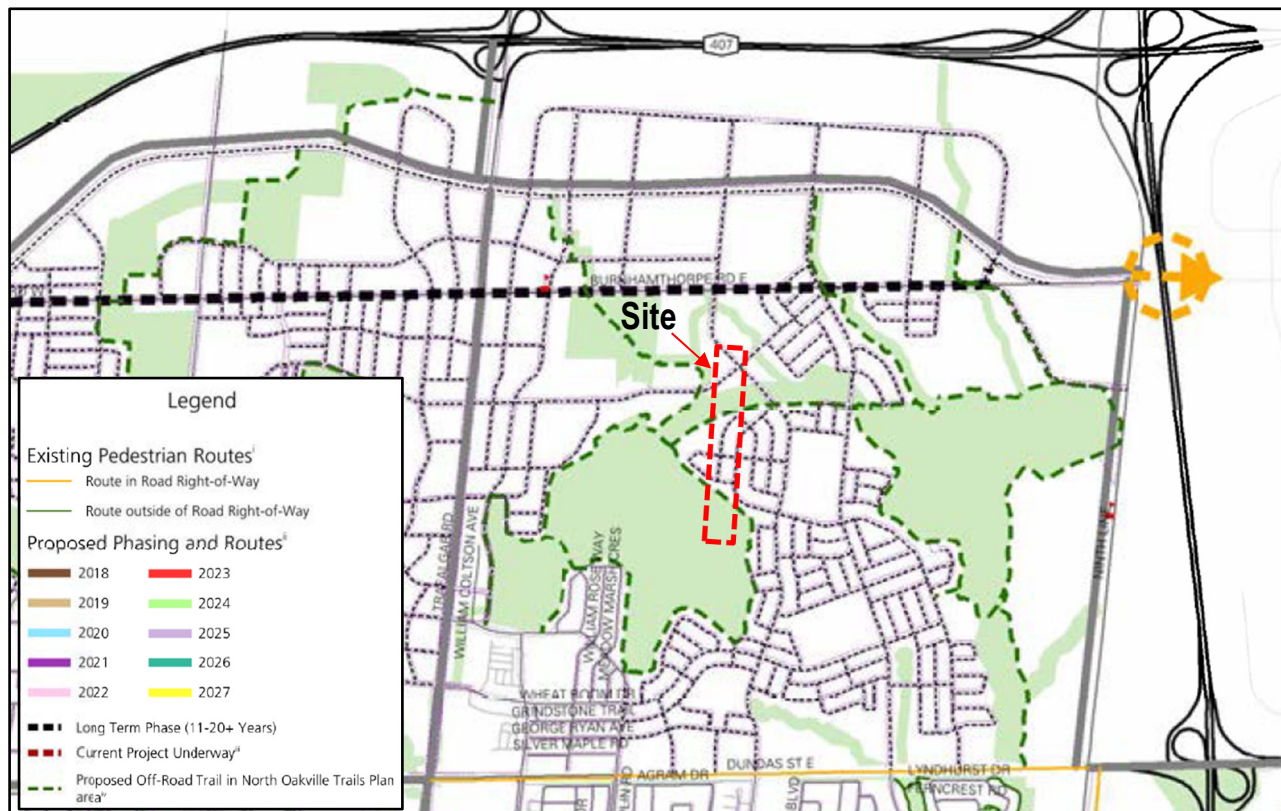
Walking

Under the existing conditions, sidewalks are available on the established sides of the street such as Dundas Street E, Eighth Line, Postridge Drive, Trafalgar Road, Prince Michael Drive, Meadowridge Drive and Ninth Line. This sidewalk network is complete and appropriate for the existing communities; however, the future communities will need similar complete sidewalk network.

It is Nextrans' understanding that sidewalks will be provided on both sides of all internal streets within the North Oakville Secondary Plan to facilitate pedestrians. Therefore, in the future, a complete sidewalk network will be provided and constructed by the proposed developments in the area. For an illustration of the big picture in the Joshua's Meadows Community, **Figure 16** illustrates the Town of Oakville Proposed Pedestrian Network Phasing (excerpt from the Town of Oakville 2017 ATMP, Map 8).

On this basis, sidewalks will be provided on all of the proposed internal roads within the subject development, as per the Town of Oakville requirements and standards.

Figure 16 – Town of Oakville Proposed Pedestrian Network Phasing



Cycling

Currently, there are dedicated cycling routes along Ninth Line south of Dundas Street E. There are also multi-use trails along Dundas Street E in the vicinity of the study area. It is Nextrans' understanding that a complete active transportation network (sidewalk and cycling facilities) will be constructed as part of the North Oakville Secondary Plan communities in the future.

Similar to the walking network, it is Nextrans' understanding that cycling facilities will be constructed in phases, as per the Town's proposed cycling network phasing and priority projects. For an illustration of the big picture in the Joshua's Meadows Community, **Figure 17** illustrates the Town of Oakville Proposed Cycling Network Phasing and Priority Projects (excerpt from the *Town of Oakville 2017 ATMP, Map 9*), with **Figure 18** illustrating the North Oakville Trails Plan (Updated as of 2019).

On this basis, the proposed development will support the Town's initiative with regards to the cycling facility, where appropriate.

Figure 17 – Town of Oakville Proposed Cycling Network Phasing and Priority Projects

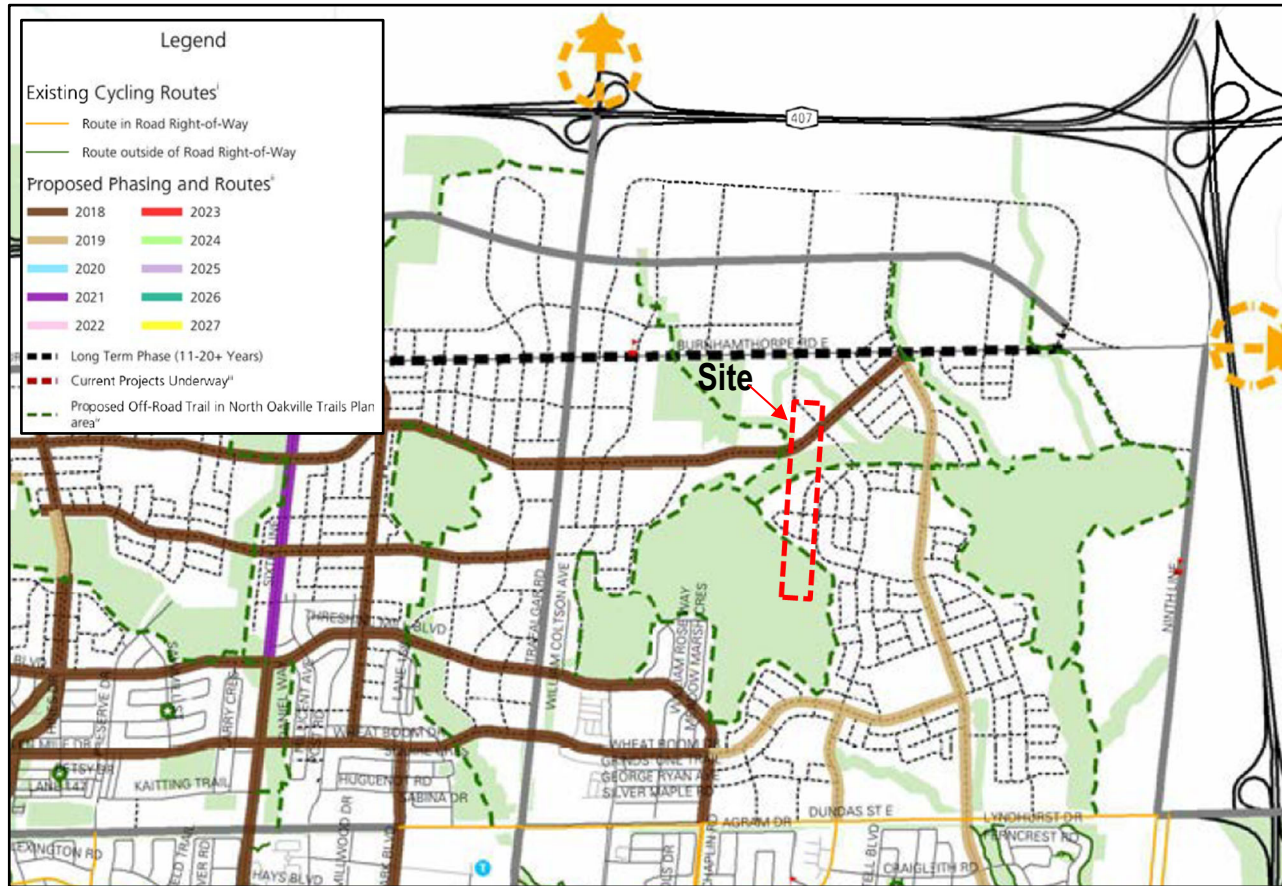
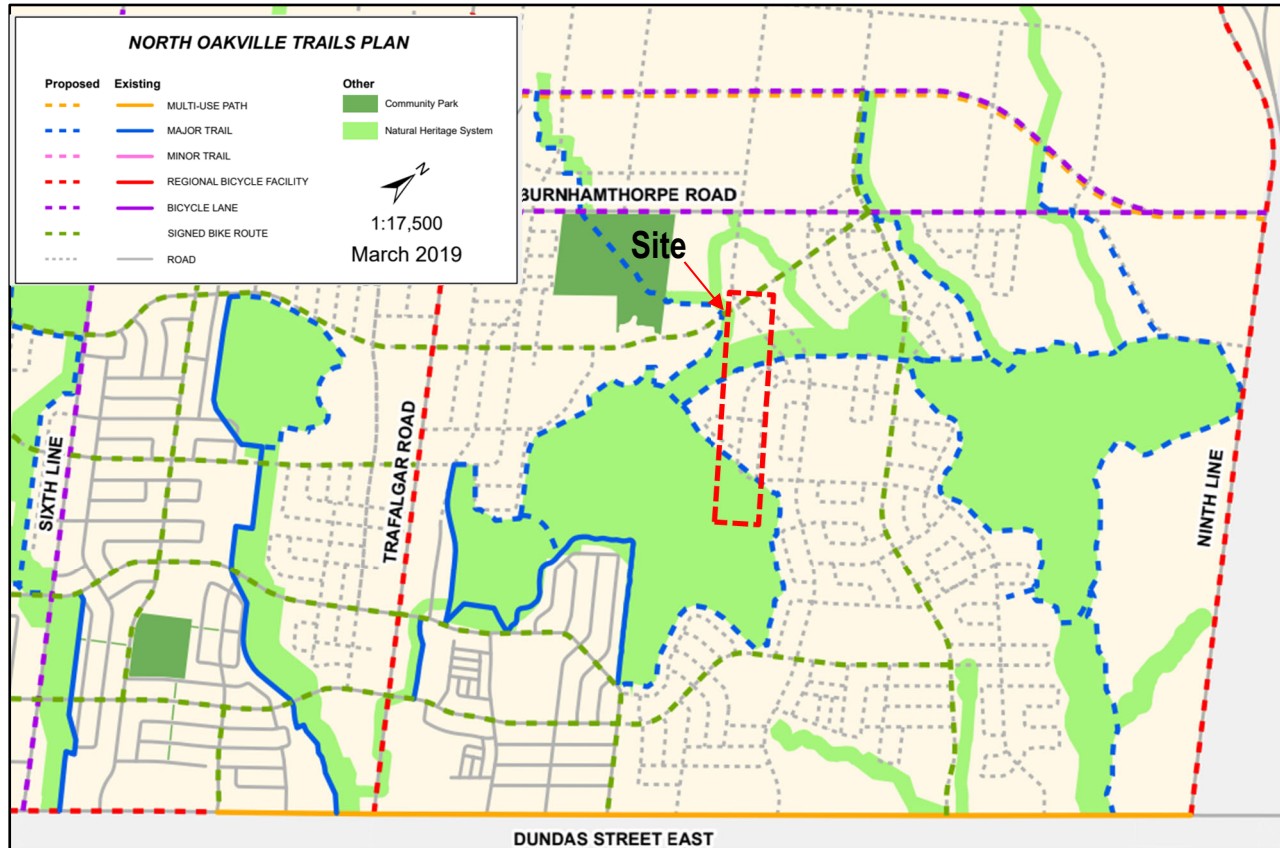


Figure 18 – North Oakville Trails Plan



Source: North Oakville Trail Plan - 2019

6.5. Transit Mode Assessment

The area is current serviced by two existing Oakville Transit Bus Routes 1 Trafalgar, 24 South Common and 20 Northridge.

As indicated, the proposed development is expected to generate 21 total two-way non-auto trips (6 inbound and 15 outbound) and 28 total two-way non-auto trips (17 inbound and 11 outbound) during the morning and afternoon peak hours, respectively. It is Nextrans' opinion that the proposed development transit ridership can be easily accommodated by the existing transit service, as well as the future proposed transit service in the area without additional improvements beyond what already been planned for the area.

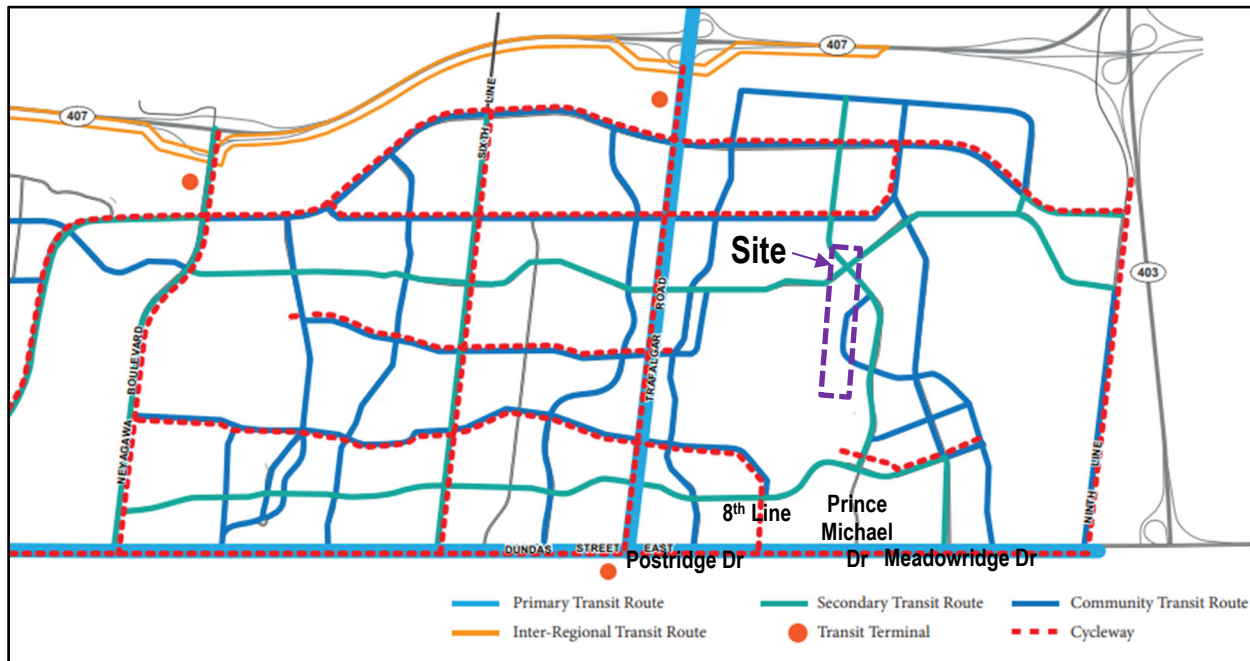
Based on Nextrans' review of the future proposed transit network to the Joshua's Meadows Community, there will be:

- Primary transit routes running along Burnhamthorpe Road E, Postridge Drive, Meadowridge Drive and Eighth Line
- Secondary transit routes running along Prince Michael Drive, Wheat Boom Drive, and new east-west collector road south of Burnhamthorpe Road E; and
- Inter-regional transit route along Highway 407

As the proposed development will be located close to the future primary route on Burnhamthorpe Road E, and secondary routes on the future east-west road and Prince Michael Drive, it is Nextrans' opinion that the proposed development will have good transit service in the future.

Figure 19 illustrates the contemplated North Oakville East Secondary Plan future transit network.

Figure 19 – North Oakville East Secondary Plan Future Transit Network



Source: *The New Communities of Oakville Brochure (Prepared by the Town of Oakville)*

7.0 DRAFT PLAN OF SUBDIVISION REVIEW

7.1. Solid Waste Management

Given the context of the proposed development, solid waste including organic, recycling and garbage will be picked up on the curbside, similar to the existing developments located to the south.

As the proposed development will provide all public roads within the proposed draft plan of subdivision, these public roads will be designed and constructed to the Town of Oakville standards and requirements. On this basis, vehicle turning movement templates are not required at this stage. However, if necessary, Nextrans can provide this information at the Town’s discretion.

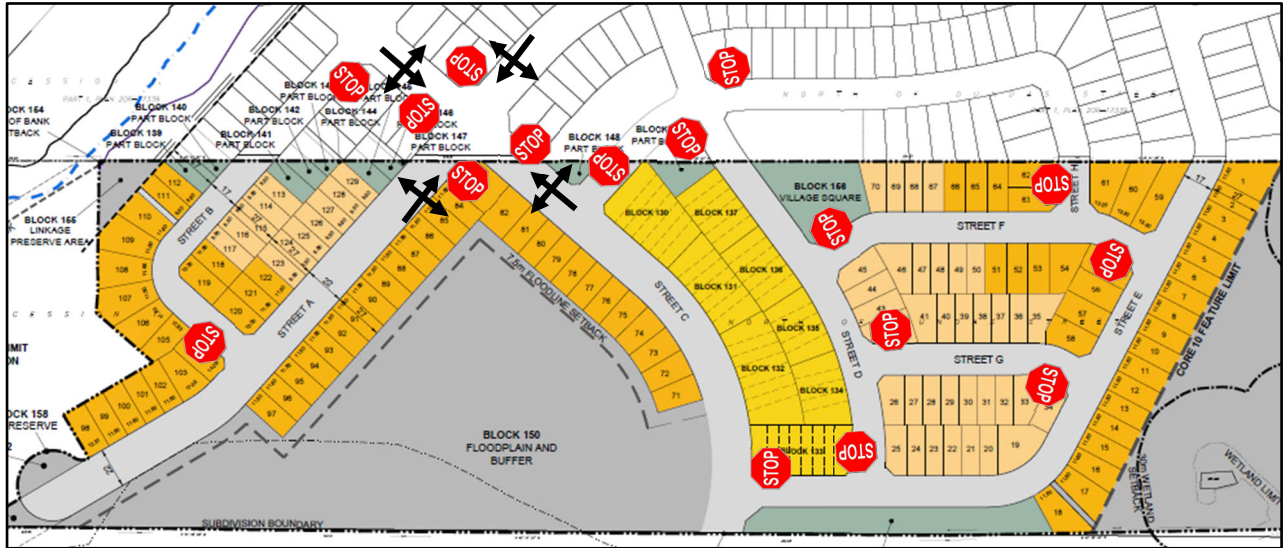
7.2. Internal Intersection Traffic Control and Lane Configurations

As indicated above, all streets located within the proposed draft plan of subdivision will be public roads and will be constructed to the Town’s standards. Given the internal traffic volumes are estimated to be low, only basic lane configurations are required at the intersection. For example, all internal intersections will have shared left/through/right with no dedicated turning lanes.

With the exception of the Street A/Street C intersection, all intersections will have stop signs on the minor approach. Nextrans suggested that the Street A/Street C intersection be equipped with all-way stop given the nature of the two main streets. All-way stops will help facilitate pedestrian crossing this intersection.

Figure 20 illustrates the proposed traffic control and lane configurations for the internal intersections.

Figure 20 – Internal Intersection Traffic Control and Lane Configurations



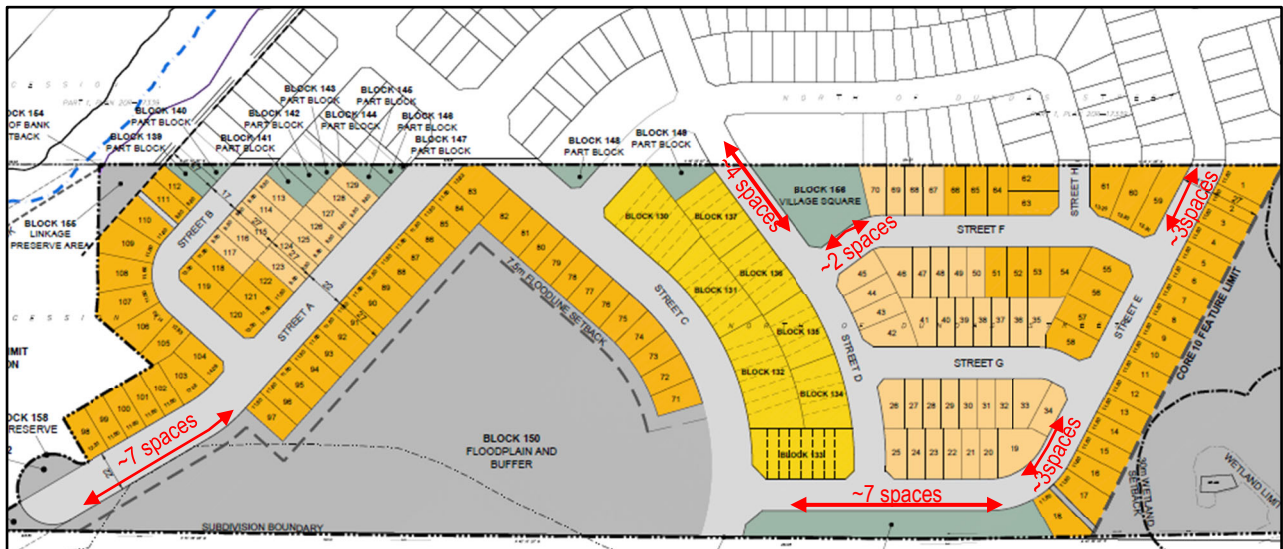
7.3. Traffic Calming

Nextrans recommends that the Town of Oakville consider a narrower lane width and pavement width to discourage speeding and minimize pedestrian/cycling crossing distance at intersections and midblock.

7.4. On-Street Parking Assessment

On-street parking is typically required for visitor parking. A typical on-street parking space (parallel parking) is approximately 1.8 m in width and 6 m in length. Figure 21 illustrates the potential on-street vehicle parking spaces for the proposed draft plan of subdivision.

Figure 21 – On-Street Parking for the Internal Streets



8.0 TRANSPORTATION DEMAND MANAGEMENT

Transportation Demand Management (TDM) is a co-ordinated series of actions aimed at maximizing the people moving capability of the transportation system. Intended to reduce single-occupant auto use, potential TDM measures include: TDM supportive land use, bicycle and pedestrian programs and facilities, public transit improvements, preferential treatments for buses and ridesharing, where appropriate.

Given that the proposed development and the surrounding developments in the area are mostly low-rise, there are limited opportunities to implement aggressive TDM measures. However, some general TDM measures can still be implemented to support sustainable transportation and encourage residents to use other modes of transportation.

As the gas price is record high, along with increasing inflation, it is Nextrans' opinion that residents will automatically working from home, carpool or taking transit to curb the costs of living. It is the responsibility of the Region and the Town to provide options for residents, such as providing public transit and active transportation facilities.

The following TDM incentives are recommended for the proposed residential development, based on Nextrans' review of the development area context:

- Support the Region and the Town on their active and public transit initiatives;
- Provide sidewalks on both sides of the internal roadways;
- Reduce pavement width and lane width where possible to support lower speed and minimize pedestrian and cyclist crossing distance at intersections and midblock;
- Provide information package for new residents in a form of a letter. The information package letter will include links to Oakville Transit schedules, GO Transit schedules, community amenity maps and cycling maps. The Information Package can be distributed at the sale office in form of a letter.

9.0 CONCLUSIONS / FINDINGS

9.1. Study Conclusions

The findings and conclusions of the analysis are as follows:

- The proposed development is expected to generate:
 - 115 total two-way trips (31 inbound and 84 outbound) and 153 total two-way trips (94 inbound and 59 outbound) during the morning and afternoon peak hours, respectively;
 - 21 total two-way non-auto trips (6 inbound and 15 outbound) and 28 total two-way non-auto trips (17 inbound and 11 outbound) during the morning and afternoon peak hours, respectively; and
 - 94 total two-way auto trips (25 inbound and 69 outbound) and 125 total two-way auto trips (77 inbound and 48 outbound) during the morning and afternoon peak hours, respectively
- Based on the intersection capacity analysis, under the existing conditions, all intersections considered in the analysis are expected to operate at acceptable levels of service, with the exception of the westbound through movement at Dundas Street E/Ninth Line during the afternoon peak hour. This is due to the heavy through movement, however, it is a typical condition at the major arterial in the Region and in the Town of Oakville. This critical movement will be addressed through the completion of William Halton Parkway and Burnhamthorpe Road E in the future.

- Based on the intersection capacity analysis, under the future background and future total traffic conditions, the analysis indicates that the intersections considered are expected to operate at acceptable levels of service. However, there is a number of critical movements. This can be explained with the following:
 - The Secondary Plan Area fine grid road network is not completed at this time and under this horizon year
 - Once the complete road network identified in the Secondary Plan Area is completed, it is expected that the traffic will not be concentrating at the critical movements
 - Especially with the completion of the north-south collector roads such as Meadowridge Drive and John McKay Blvd, the traffic from the proposed draft plans of subdivision can use Burnhamthorpe Road E and William Halton Parkway
 - It is expected that with the future improvements on Burnhamthorpe Road E, the North Oakville Secondary Plan subdivision east-west road south of Burnhamthorpe Road E, as well as the completion of William Halton Parkway, it will provide much needed east-west capacity for the area
 - The intersection of Dundas Street E/Ninth Line is expected to operate near or at capacity. This is due to the heavy through traffic volumes in this direction coming from Highway 403 and Mississauga. However, this type of movement is typical at any major arterial intersections in the Great Toronto Area and in the Region of Halton. It is Nextrans' opinion that the east-west capacity will be addressed as part of the future improvements on Burnhamthorpe Road E and completion of William Halton Parkway

However, It is expected that with the future improvements on Burnhamthorpe Road E, the North Oakville Secondary Plan subdivision east-west road south of Burnhamthorpe Road E, as well as the completion of William Halton Parkway, it will provide much needed east-west capacity for the area. In addition, with the completion of the north-south collector roads such as Meadowridge Drive and John McKay Blvd, the traffic from the proposed draft plans of subdivision can use Burnhamthorpe Road E and William Halton Parkway.

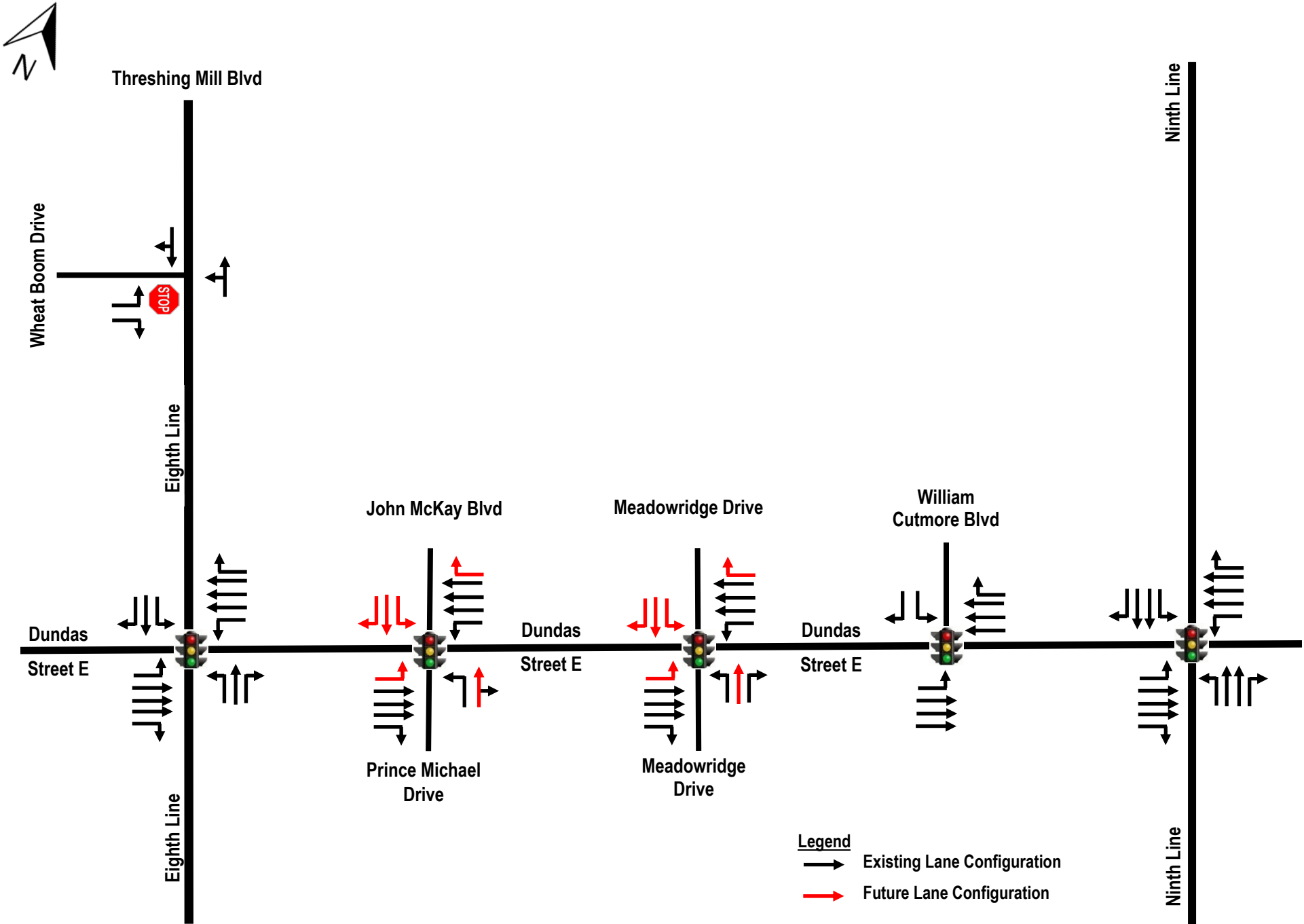
Based on this assessment and provision, it is Nextrans' opinion that no improvements should be implement under this horizon year for the intersections located along Dundas Street E. Nextrans recommends that the Region and the Town monitor these intersections in the future and make appropriate signal timing adjustments in the interim conditions. A monitoring program is also required in the future once all the road network is completed to ensure that signal timing and lane configurations are appropriate for the area.

- It should be noted that the proposed development has negligible or no impacts on the existing and future intersections along Dundas Street E. The internal intersections are also expected to have minimum traffic volumes and delay or queue.
- The area is current serviced by two existing Oakville Transit Bus Routes 1 Trafalgar, 24 South Common and 20 Northridge. The proposed development is expected to generate 21 total two-way non-auto trips (6 inbound and 15 outbound) and 28 total two-way non-auto trips (17 inbound and 11 outbound) during the morning and afternoon peak hours, respectively. It is Nextrans' opinion that the proposed development transit ridership can be easily accommodated by the existing transit service, as well as the future proposed transit service in the area without additional improvements beyond what already been planned for the area.
- The area will also have a complete network of active transportation facility in the future as identified in the North Oakville Secondary Plan. It is Nextrans' opinion that no improvements are required beyond the identified plans. It is recommended that all the proposed developments in the Secondary Plan work with the Town and the Region to support and implement these initiatives.

9.2. Study Recommendations

Based on the findings of this Study, the following recommendations are provided:

- The Town approves the proposed draft plan of subdivision;
- The proposed development building sidewalks along both sides of the internal subdivision streets;
- The proposed development implements the TDM measures and incentives identified in this report to support active transportation and transit and to reduce the numbers of single-occupant-vehicle trips to and from the proposed development;
- Minimize pavement and lane width where possible to facilitate pedestrian/cyclist crossing; and
- No additional physical improvements for the area at this time to accommodate the proposed development, under the future background and future total conditions.



Not to Scale



Threshing Mill Blvd

Wheat Boom Drive

Eighth Line

Ninth Line

John McKay Blvd

Meadowridge Drive

William Cutmore Blvd

Dundas

Street E

Eighth Line

Prince Michael Drive

Meadowridge Drive

Ninth Line

0(0)
210(74)

(0)0
(15)24

(26)7
(140)60

27(11)
62(14)
98(35)

21(73)
1,154(2,595)
64(191)

0(0)
0(0)
0(0)

0(0)
1,094(2,700)
63(241)

0(0)
0(0)
0(0)

0(0)
1,166(2,890)
94(233)

74(56)
132(99)

46(142)
1,200(3,100)

104(207)
552(317)
193(110)

129(141)
943(2,653)
127(150)

(174)161
(31)20
(119)160

(0)0
(1,404)2,407
(159)114

(161)114
(0)0
(190)181

(0)0
(1,455)2,551
(75)52

(42)53
(0)0
(148)281

(80)26
(1,536)2,806

(137)230
(1,290)2,350
(208)378

(382)200
(74)332
(562)162

Not to Scale



Legend

XX AM Peak Hour (XX) PM Peak Hour



Existing Stop Sign



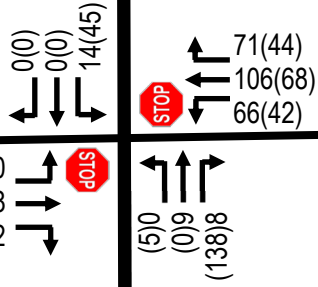
Existing Signalized Intersection

Figure 8 - Existing Traffic Volumes (2022 Projected)



Threshing Mill Blvd

Wheat Boom Drive



Wheat Boom Drive

Eighth Line

John McKay Blvd

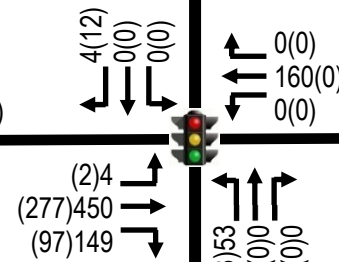
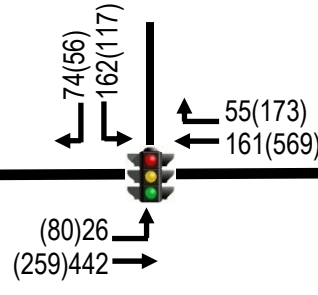
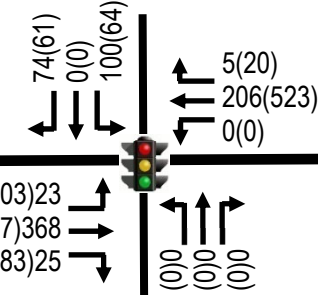
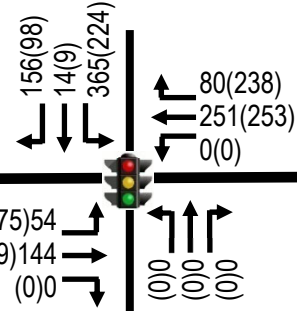
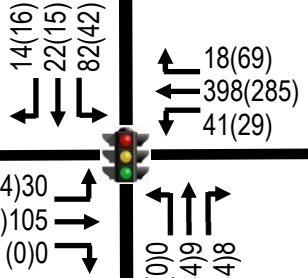
Meadowridge Drive

William Cutmore Blvd

Ninth Line

Dundas

Street E



Prince Michael Drive

Meadowridge Drive

Ninth Line

Not to Scale

Legend

XX AM Peak Hour (XX) PM Peak Hour

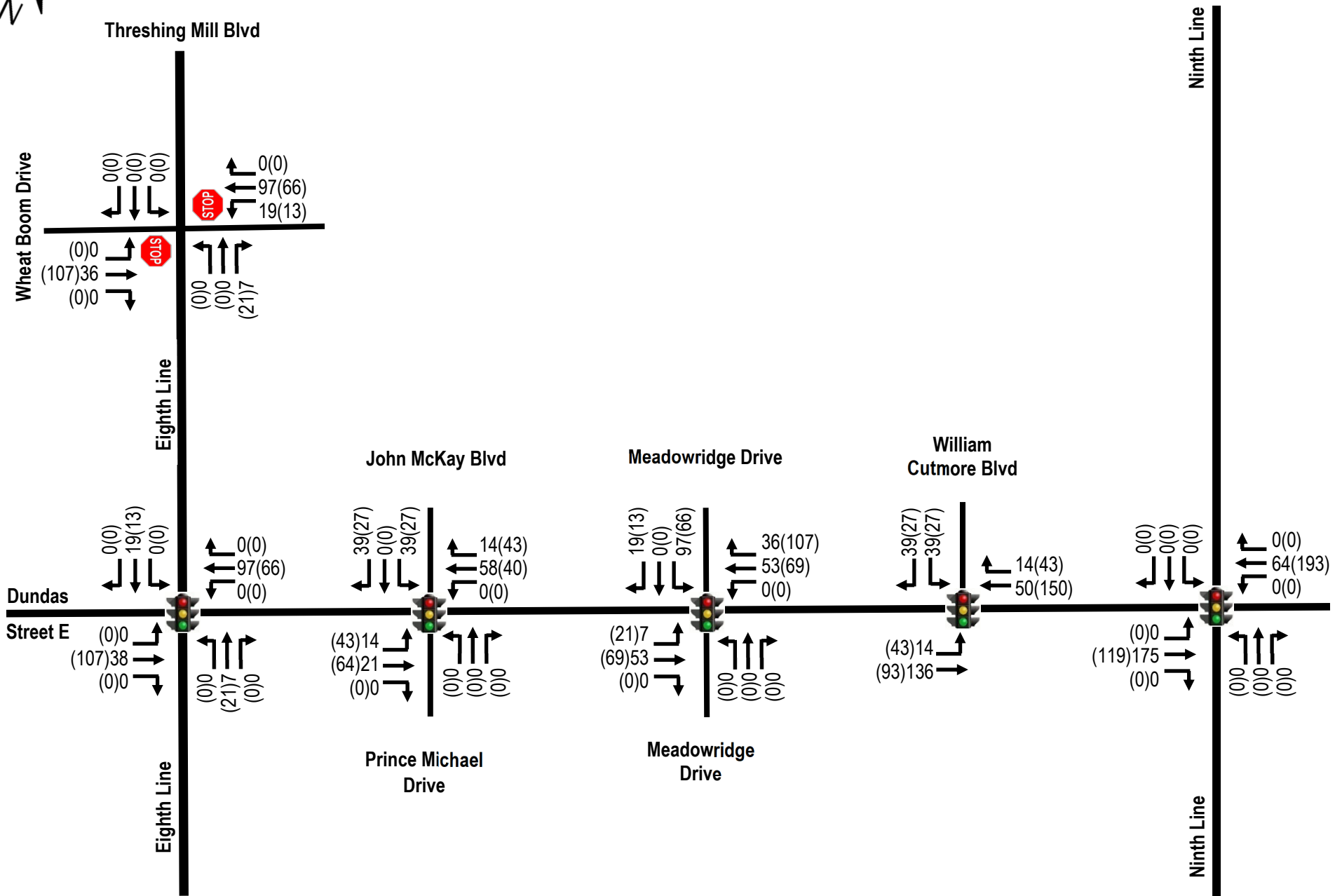


Stop Sign



Signalized Intersection

Figure 11 – Background Development Traffic Volumes (Argo, Redoak, Dunoak, Bressa and 1005 Dundas/3033 8th Line)



Not to Scale

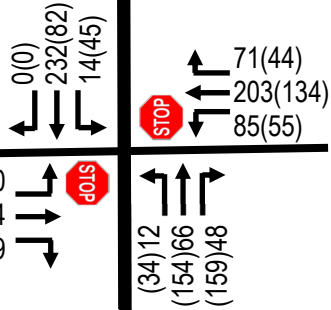
Legend

Figure 12 – Background Development Traffic Volumes (Mattamy Joshua Creek Phase 3 – Adjacent to Subject Site)



Threshing Mill Blvd

Wheat Boom Drive



Eighth Line

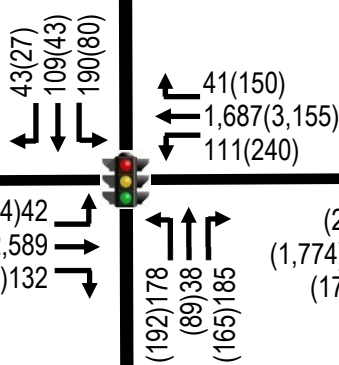
John McKay Blvd

Meadowridge Drive

William Cutmore Blvd

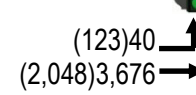
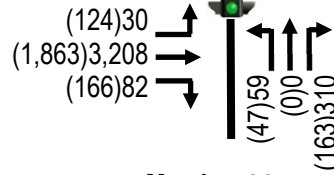
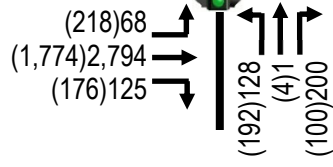
Dundas

Street E



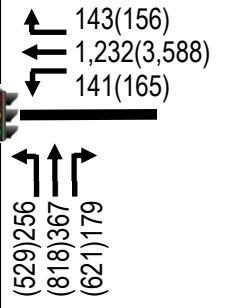
Prince Michael Drive

Meadowridge Drive



Ninth Line

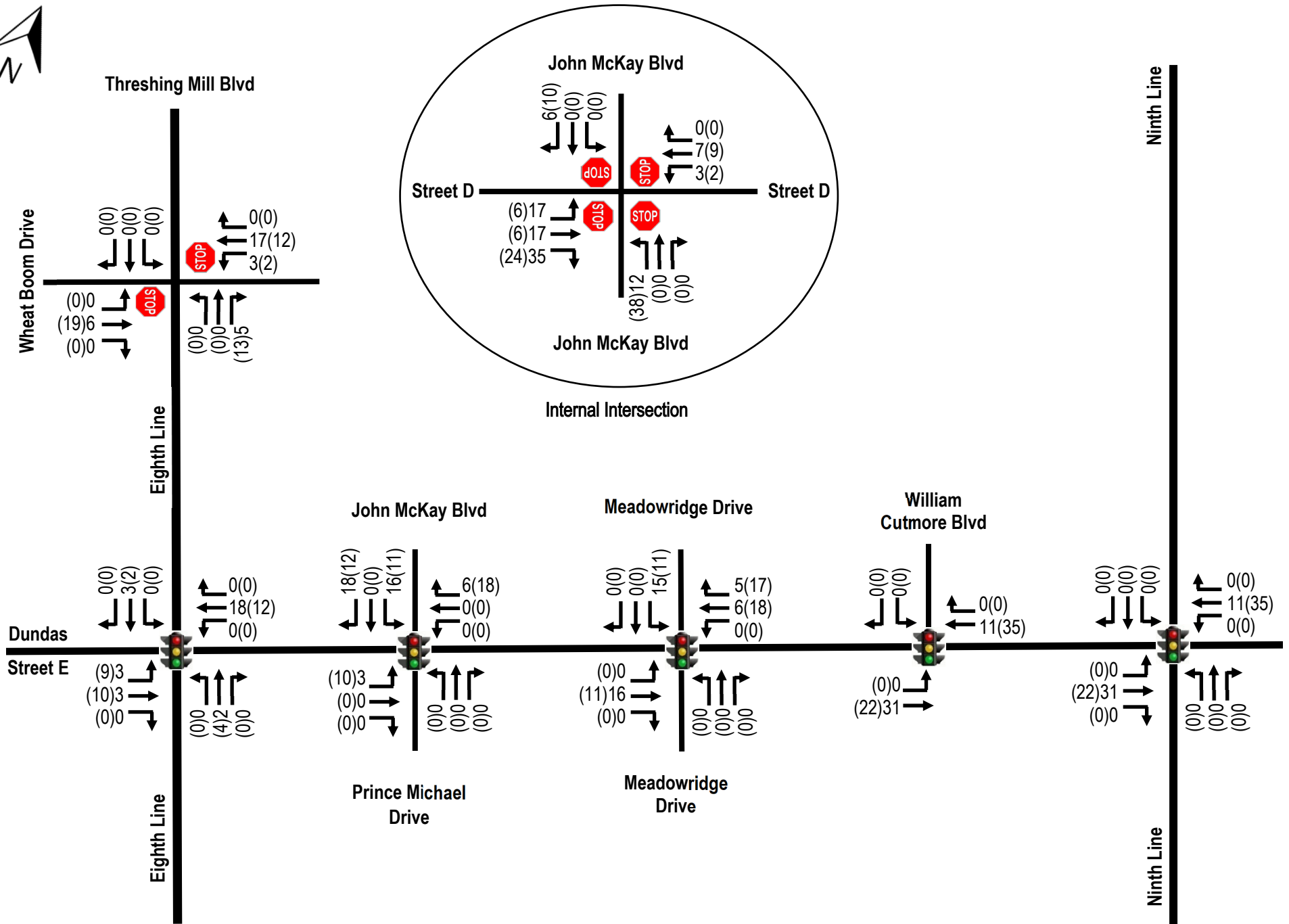
Ninth Line



Not to Scale

Legend

Figure 13 – 2027 Future Background Traffic Volumes

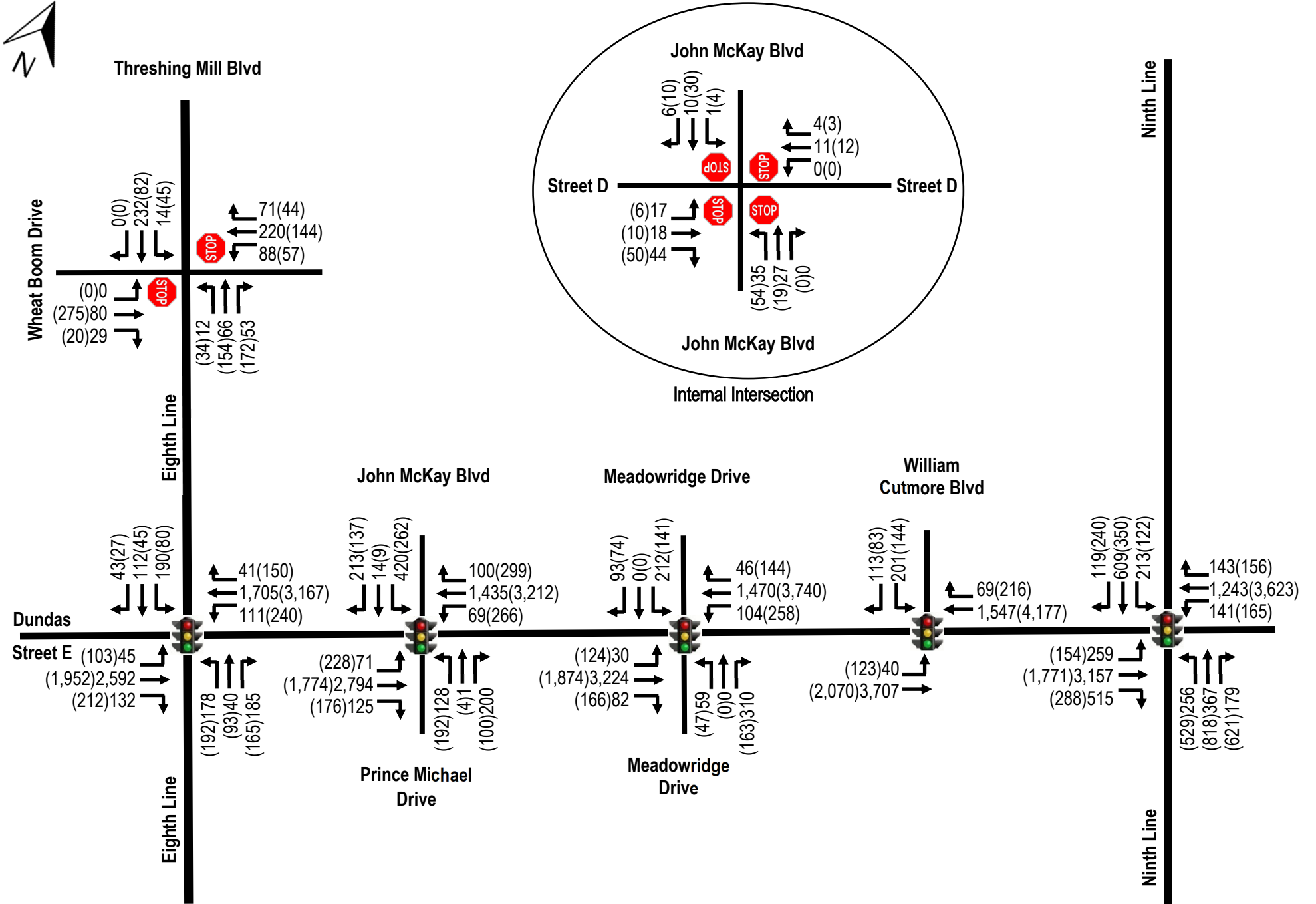


Not to Scale

Legend

XX AM Peak Hour (XX) PM Peak Hour Stop Sign Signalized Intersection

Figure 14 – Site Traffic Volumes



Not to Scale

Legend

Figure 15 – 2027 Future Total Traffic Volumes

Appendix A

Existing Traffic Data and Signal Timing Plans

Ontario Traffic Inc.

Morning Peak Diagram

Specified Period

From: 7:00:00

To: 9:00:00

One Hour Peak

From: 7:45:00

To: 8:45:00

Municipality: Oakville
Site #: 1902900001
Intersection: Dundas St E & Ninth Line
TFR File #: 1
Count date: 19-Feb-19

Weather conditions:
Person(s) who counted:

**** Signalized Intersection ****

Major Road: Dundas St E runs W/E

North Leg Total: 1452
 North Entering: 800
 North Peds: 0
 Peds Cross: \times

Heavys	0	0	0	0
Trucks	0	2	0	2
Cars	98	518	182	798
Totals	98	520	182	



Heavys	0
Trucks	5
Cars	647
Totals	652

East Leg Total: 3571
 East Entering: 1102
 East Peds: 0
 Peds Cross: \times

Heavys	Trucks	Cars	Totals
0	95	1036	1131

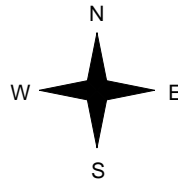


Ninth Line

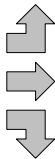
Cars	Trucks	Heavys	Totals
122	0	0	122
786	74	0	860
118	2	0	120
1026	76	0	



Dundas St E



Heavys	Trucks	Cars	Totals
0	0	217	217
0	25	2109	2134
0	1	312	313
0	26	2638	



Dundas St E



Peds Cross: \times
 West Peds: 0
 West Entering: 2664
 West Leg Total: 3795

Cars	948	Cars	152	308	148	608
Trucks	5	Trucks	21	5	5	31
Heavys	0	Heavys	0	0	0	0
Totals	953	Totals	173	313	153	



Ninth Line



Peds Cross: \times
 South Peds: 0
 South Entering: 639
 South Leg Total: 1592

Comments

Ontario Traffic Inc.

Afternoon Peak Diagram

Specified Period

From: 16:00:00

To: 18:00:00

One Hour Peak

From: 16:45:00

To: 17:45:00

Municipality: Oakville
Site #: 1902900001
Intersection: Dundas St E & Ninth Line
TFR File #: 1
Count date: 19-Feb-19

Weather conditions:
Person(s) who counted:

**** Signalized Intersection ****

Major Road: Dundas St E runs W/E

North Leg Total: 1558
 North Entering: 598
 North Peds: 0
 Peds Cross: \times

Heavys	0	0	0	0
Trucks	0	2	2	4
Cars	195	297	102	594
Totals	195	299	104	



Heavys	0
Trucks	6
Cars	954
Totals	960

East Leg Total: 4476
 East Entering: 2687
 East Peds: 0
 Peds Cross: \times

Heavys	Trucks	Cars	Totals
0	25	2896	2921

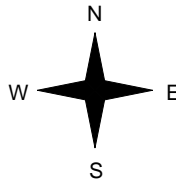


Ninth Line

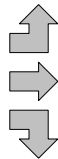
Cars	Trucks	Heavys	Totals
133	0	0	133
2393	20	0	2413
138	3	0	141
2664	23	0	



Dundas St E



Heavys	Trucks	Cars	Totals
0	0	129	129
0	35	1120	1155
0	4	159	163
0	39	1408	



Dundas St E



Cars	Trucks	Heavys	Totals
1726	63	0	1789



Ninth Line

Peds Cross: \times
 West Peds: 0
 West Entering: 1447
 West Leg Total: 4368

Cars	594	Cars	308	692	504	1504
Trucks	9	Trucks	5	6	26	37
Heavys	0	Heavys	0	0	0	0
Totals	603	Totals	313	698	530	



Peds Cross: \times
 South Peds: 0
 South Entering: 1541
 South Leg Total: 2144

Comments

Ontario Traffic Inc.

Total Count Diagram

Municipality: Oakville
Site #: 1902900001
Intersection: Dundas St E & Ninth Line
TFR File #: 1
Count date: 19-Feb-19

Weather conditions:
Person(s) who counted:

**** Signalized Intersection ****

Major Road: Dundas St E runs W/E

North Leg Total: 5571
 North Entering: 2631
 North Peds: 1
 Peds Cross: ⚡

Heavys	0	0	0	0
Trucks	1	9	5	15
Cars	548	1505	563	2616
Totals	549	1514	568	



Heavys	0
Trucks	24
Cars	2916
Totals	2940

East Leg Total: 15364
 East Entering: 7140
 East Peds: 0
 Peds Cross: ⚡

Heavys	0
Trucks	262
Cars	7476
Totals	7738

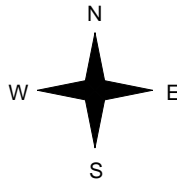


Ninth Line

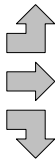
Cars	440	Trucks	2	Heavys	0	Totals	442
Cars	6020	Trucks	205	Heavys	0	Totals	6225
Cars	463	Trucks	10	Heavys	0	Totals	473
Totals	6923	Totals	217	Totals	0		



Dundas St E



Heavys	0
Trucks	1
Cars	610
Totals	611
Heavys	0
Trucks	145
Cars	6276
Totals	6421
Heavys	0
Trucks	20
Cars	830
Totals	850
Heavys	0
Trucks	166
Cars	7716
Totals	7716



Dundas St E



Cars	8016	Trucks	208	Heavys	0	Totals	8224
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Peds Cross: ⚡
 West Peds: 0
 West Entering: 7882
 West Leg Total: 15620

Cars	2798
Trucks	39
Heavys	0
Totals	2837



Cars	908	1866	1177	3951
Trucks	56	21	58	135
Heavys	0	0	0	0
Totals	964	1887	1235	

Peds Cross: ⚡
 South Peds: 1
 South Entering: 4086
 South Leg Total: 6923

Comments

Ontario Traffic Inc. Traffic Count Summary

Intersection: Dundas St E & Ninth Line

Count Date: 19-Feb-19

Municipality: Oakville

North Approach Totals						North/South Total Approaches	South Approach Totals					
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total	
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0
8:00:00	194	414	43	651	1	1193	8:00:00	136	268	138	542	0
9:00:00	177	510	107	794	0	1413	9:00:00	188	289	142	619	0
16:00:00	0	0	0	0	0	0	16:00:00	0	0	0	0	0
17:00:00	82	283	207	572	0	1982	17:00:00	305	654	451	1410	1
18:00:00	115	307	192	614	0	2129	18:00:00	335	676	504	1515	0
Totals:	568	1514	549	2631	1	6717		964	1887	1235	4086	1
East Approach Totals						East/West Total Approaches	West Approach Totals					
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total	
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0
8:00:00	94	718	86	898	0	3452	8:00:00	181	2131	242	2554	0
9:00:00	103	817	106	1026	0	3527	9:00:00	204	2007	290	2501	0
16:00:00	0	0	0	0	0	0	16:00:00	0	0	0	0	0
17:00:00	134	2350	111	2595	0	3998	17:00:00	99	1147	157	1403	0
18:00:00	142	2340	139	2621	0	4045	18:00:00	127	1136	161	1424	0
Totals:	473	6225	442	7140	0	15022		611	6421	850	7882	0
Calculated Values for Traffic Crossing Major Street												
Hours Ending:	7:00	8:00	9:00	16:00		17:00	18:00	18:00	18:00			
Crossing Values:	0	744	875	0		1041	2609	1126	2609			

Ontario Traffic Inc.

Morning Peak Diagram

Specified Period

From: 7:00:00

To: 9:00:00

One Hour Peak

From: 7:45:00

To: 8:45:00

Municipality: Oakville
Site #: 1902900002
Intersection: Dundas St E & Meadowridge Dr
TFR File #: 1
Count date: 19-Feb-19

Weather conditions:
Person(s) who counted:

**** Signalized Intersection ****

Major Road: Dundas St E runs W/E

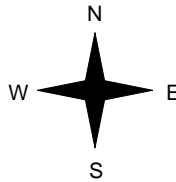
East Leg Total: 3762
 East Entering: 1118
 East Peds: 0
 Peds Cross: X

Heavys	Trucks	Cars	Totals
0	97	982	1079



Dundas St E

Heavys	Trucks	Cars	Totals
0	28	2351	2379
0	1	48	49
0	29	2399	



Meadowridge Dr

Cars	Trucks	Heavys	Totals
933	96	0	1029
88	1	0	89
1021	97	0	



Dundas St E

Cars	Trucks	Heavys	Totals
2616	28	0	2644

Peds Cross: X
 South Peds: 0
 South Entering: 315
 South Leg Total: 453

Peds Cross: X
 West Peds: 0
 West Entering: 2428
 West Leg Total: 3507

Cars	136
Trucks	2
Heavys	0
Totals	138



Cars	49	265	314
Trucks	1	0	1
Heavys	0	0	0
Totals	50	265	

Comments

Ontario Traffic Inc.

Afternoon Peak Diagram

Specified Period

From: 16:00:00
To: 18:00:00

One Hour Peak

From: 17:00:00
To: 18:00:00

Municipality: Oakville
Site #: 1902900002
Intersection: Dundas St E & Meadowridge Dr
TFR File #: 1
Count date: 19-Feb-19

Weather conditions:
Person(s) who counted:

**** Signalized Intersection ****

Major Road: Dundas St E runs W/E

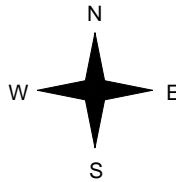
East Leg Total: 4325
East Entering: 2891
East Peds: 0
Peds Cross: X

Heavys	Trucks	Cars	Totals
0	22	2689	2711



Dundas St E

Heavys	Trucks	Cars	Totals
0	37	1258	1295
0	0	71	71
0	37	1329	



Meadowridge Dr

Cars	Trucks	Heavys	Totals
2649	22	0	2671
220	0	0	220
2869	22	0	



Dundas St E



Cars	Trucks	Heavys	Totals
1397	37	0	1434

Peds Cross: X
West Peds: 0
West Entering: 1366
West Leg Total: 4077

Cars	291
Trucks	0
Heavys	0
Totals	291



Cars	40	139	179
Trucks	0	0	0
Heavys	0	0	0
Totals	40	139	

Peds Cross: X
South Peds: 0
South Entering: 179
South Leg Total: 470

Comments

Ontario Traffic Inc.

Total Count Diagram

Municipality: Oakville
Site #: 1902900002
Intersection: Dundas St E & Meadowridge Dr
TFR File #: 1
Count date: 19-Feb-19

Weather conditions:
Person(s) who counted:

**** Signalized Intersection ****

Major Road: Dundas St E runs W/E

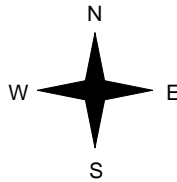
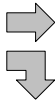
East Leg Total: 15666
 East Entering: 7748
 East Peds: 1
 Peds Cross: X

Heavys	Trucks	Cars	Totals
0	240	7114	7354



Dundas St E

Heavys	Trucks	Cars	Totals
0	163	6967	7130
0	1	207	208
0	164	7174	



Meadowridge Dr

Cars	Trucks	Heavys	Totals
6962	239	0	7201
536	11	0	547
7498	250	0	



Dundas St E

Cars	Trucks	Heavys	Totals
7746	172	0	7918



Peds Cross: X
 West Peds: 1
 West Entering: 7338
 West Leg Total: 14692

Cars 743	Cars 152	779	931
Trucks 12	Trucks 1	9	10
Heavys 0	Heavys 0	0	0
Totals 755	Totals 153	788	



Peds Cross: X
 South Peds: 2
 South Entering: 941
 South Leg Total: 1696

Comments

Ontario Traffic Inc. Traffic Count Summary

Intersection: Dundas St E & Meadowridge Dr													Count Date: 19-Feb-19		Municipality: Oakville	
North Approach Totals						South Approach Totals										
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds	North/South Total Approaches	Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds				
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total					
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0				
8:00:00	0	0	0	0	0	245	8:00:00	18	0	227	245	0				
9:00:00	0	0	0	0	0	345	9:00:00	58	0	287	345	0				
16:00:00	0	0	0	0	0	0	16:00:00	0	0	0	0	0				
17:00:00	0	0	0	0	0	172	17:00:00	37	0	135	172	2				
18:00:00	0	0	0	0	0	179	18:00:00	40	0	139	179	0				
Totals:	0	0	0	0	0	941		153	0	788	941	2				
East Approach Totals						West Approach Totals										
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds	East/West Total Approaches	Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds				
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total					
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0				
8:00:00	43	841	0	884	1	3207	8:00:00	0	2304	19	2323	1				
9:00:00	91	1059	0	1150	0	3463	9:00:00	0	2261	52	2313	0				
16:00:00	0	0	0	0	0	0	16:00:00	0	0	0	0	0				
17:00:00	193	2630	0	2823	0	4159	17:00:00	0	1270	66	1336	0				
18:00:00	220	2671	0	2891	0	4257	18:00:00	0	1295	71	1366	0				
Totals:	547	7201	0	7748	1	15086		0	7130	208	7338	1				
Calculated Values for Traffic Crossing Major Street																
Hours Ending:	7:00	8:00	9:00	16:00		17:00	17:00	18:00	18:00							
Crossing Values:	0	20	58	0		37	37	40	40							

Ontario Traffic Inc.

Morning Peak Diagram

Specified Period

From: 7:00:00

To: 9:00:00

One Hour Peak

From: 7:30:00

To: 8:30:00

Municipality: Oakville
Site #: 1902900003
Intersection: Dundas St E & Prince Michael Dr
TFR File #: 1
Count date: 19-Feb-19

Weather conditions:
Person(s) who counted:

**** Signalized Intersection ****

Major Road: Dundas St E runs W/E

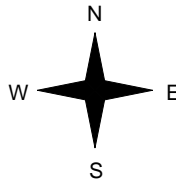
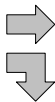
East Leg Total: 3435
 East Entering: 1020
 East Peds: 2
 Peds Cross: ∞

Heavys	Trucks	Cars	Totals
0	108	960	1068



Dundas St E

Heavys	Trucks	Cars	Totals
0	28	2216	2244
0	4	103	107
0	32	2319	



Prince Michael Dr

Cars	Trucks	Heavys	Totals
854	107	0	961
59	0	0	59
913	107	0	



Dundas St E



Cars	Trucks	Heavys	Totals
2386	29	0	2415

Peds Cross: ∞
 West Peds: 2
 West Entering: 2351
 West Leg Total: 3419

Cars	162
Trucks	4
Heavys	0
Totals	166



Cars	106	170	276
Trucks	1	1	2
Heavys	0	0	0
Totals	107	171	

Peds Cross: ∞
 South Peds: 1
 South Entering: 278
 South Leg Total: 444

Comments

Ontario Traffic Inc.

Afternoon Peak Diagram

Specified Period

From: 16:00:00

To: 18:00:00

One Hour Peak

From: 16:45:00

To: 17:45:00

Municipality: Oakville
Site #: 1902900003
Intersection: Dundas St E & Prince Michael Dr
TFR File #: 1
Count date: 19-Feb-19

Weather conditions:
Person(s) who counted:

**** Signalized Intersection ****

Major Road: Dundas St E runs W/E

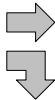
East Leg Total: 4051
 East Entering: 2719
 East Peds: 0
 Peds Cross: ∞

Heavys	Trucks	Cars	Totals
0	21	2623	2644

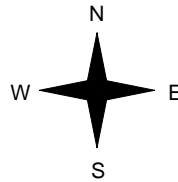


Dundas St E

Heavys	Trucks	Cars	Totals
0	40	1207	1247
0	3	147	150
0	43	1354	



Prince Michael Dr



Cars	Trucks	Heavys	Totals
2471	21	0	2492
226	1	0	227
2697	22	0	



Dundas St E

Cars	Trucks	Heavys	Totals
1292	40	0	1332

Peds Cross: ∞
 South Peds: 5
 South Entering: 237
 South Leg Total: 614

Peds Cross: ∞
 West Peds: 0
 West Entering: 1397
 West Leg Total: 4041

Cars	373	Cars	152	85	237
Trucks	4	Trucks	0	0	0
Heavys	0	Heavys	0	0	0
Totals	377	Totals	152	85	

Comments

Ontario Traffic Inc.

Total Count Diagram

Municipality: Oakville
Site #: 1902900003
Intersection: Dundas St E & Prince Michael Dr
TFR File #: 1
Count date: 19-Feb-19

Weather conditions:
Person(s) who counted:

**** Signalized Intersection ****

Major Road: Dundas St E runs W/E

East Leg Total: 14447
 East Entering: 7337
 East Peds: 3
 Peds Cross: 8

Heavys	Trucks	Cars	Totals
0	239	7018	7257

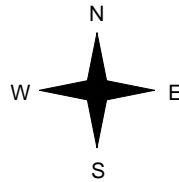


Dundas St E

Heavys	Trucks	Cars	Totals
0	157	6516	6673
0	12	489	501
0	169	7005	



Prince Michael Dr



Cars	Trucks	Heavys	Totals
6542	234	0	6776
559	2	0	561
7101	236	0	



Dundas St E

Cars	Trucks	Heavys	Totals
6952	158	0	7110



Peds Cross: 8
 West Peds: 8
 West Entering: 7174
 West Leg Total: 14431

Cars	1048
Trucks	14
Heavys	0
Totals	1062



Cars	476	436	912
Trucks	5	1	6
Heavys	0	0	0
Totals	481	437	

Peds Cross: 3
 South Peds: 14
 South Entering: 918
 South Leg Total: 1980

Comments

Ontario Traffic Inc. Traffic Count Summary

Intersection: Dundas St E & Prince Michael Dr Count Date: 19-Feb-19 Municipality: Oakville

North Approach Totals						South Approach Totals						
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds	North/South Total Approaches	Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total	
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0
8:00:00	0	0	0	0	0	215	8:00:00	69	0	146	215	3
9:00:00	0	0	0	0	0	249	9:00:00	108	0	141	249	1
16:00:00	0	0	0	0	0	0	16:00:00	0	0	0	0	0
17:00:00	0	0	0	0	0	229	17:00:00	156	0	73	229	8
18:00:00	0	0	0	0	0	225	18:00:00	148	0	77	225	2
Totals:	0	0	0	0	0	918		481	0	437	918	14
East Approach Totals						West Approach Totals						
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds	East/West Total Approaches	Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total	
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0
8:00:00	46	820	0	866	0	3106	8:00:00	0	2168	72	2240	1
9:00:00	67	1041	0	1108	2	3328	9:00:00	0	2074	146	2220	2
16:00:00	0	0	0	0	0	0	16:00:00	0	0	0	0	0
17:00:00	211	2444	0	2655	1	3989	17:00:00	0	1200	134	1334	3
18:00:00	237	2471	0	2708	0	4088	18:00:00	0	1231	149	1380	2
Totals:	561	6776	0	7337	3	14511		0	6673	501	7174	8
Calculated Values for Traffic Crossing Major Street												
Hours Ending:	0:00	0:00	7:00	8:00			9:00	16:00	17:00	18:00		
Crossing Values:	0	0	0	70			112	0	160	150		

Ontario Traffic Inc.

Morning Peak Diagram

Specified Period

From: 7:00:00

To: 9:00:00

One Hour Peak

From: 7:45:00

To: 8:45:00

Municipality: Oakville
Site #: 1902900004
Intersection: Dundas St E & Eighth Line
TFR File #: 1
Count date: 19-Feb-19

Weather conditions:
Person(s) who counted:

**** Signalized Intersection ****

Major Road: Dundas St E runs W/E

North Leg Total: 225
 North Entering: 175
 North Peds: 0
 Peds Cross: \bowtie

Heavys	0	0	0	0
Trucks	0	1	0	1
Cars	25	57	92	174
Totals	25	58	92	



Heavys	0
Trucks	2
Cars	48
Totals	50

East Leg Total: 3429
 East Entering: 1097
 East Peds: 1
 Peds Cross: \bowtie

Heavys	Trucks	Cars	Totals
0	95	1099	1194

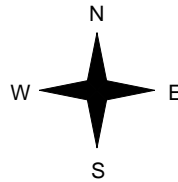


Eighth Line

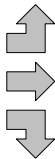
Cars	Trucks	Heavys	Totals
20	0	0	20
922	95	0	1017
60	0	0	60
1002	95	0	



Dundas St E



Heavys	Trucks	Cars	Totals
0	1	10	11
0	29	2060	2089
0	3	110	113
0	33	2180	



Dundas St E



Cars	Trucks	Heavys	Totals
2300	32	0	2332



Eighth Line

Peds Cross: \bowtie
 West Peds: 0
 West Entering: 2213
 West Leg Total: 3407

Cars	227
Trucks	4
Heavys	0
Totals	231



Cars	152	18	148	318
Trucks	0	1	3	4
Heavys	0	0	0	0
Totals	152	19	151	

Peds Cross: \bowtie
 South Peds: 1
 South Entering: 322
 South Leg Total: 553

Comments

Ontario Traffic Inc.

Afternoon Peak Diagram

Specified Period

From: 16:00:00
To: 18:00:00

One Hour Peak

From: 16:45:00
To: 17:45:00

Municipality: Oakville
Site #: 1902900004
Intersection: Dundas St E & Eighth Line
TFR File #: 1
Count date: 19-Feb-19

Weather conditions:
Person(s) who counted:

**** Signalized Intersection ****

Major Road: Dundas St E runs W/E

North Leg Total: 163
North Entering: 56
North Peds: 0
Peds Cross: \times

Heavys	0	0	0	0
Trucks	0	0	0	0
Cars	10	13	33	56
Totals	10	13	33	



Heavys	0
Trucks	1
Cars	106
Totals	107

East Leg Total: 4027
East Entering: 2642
East Peds: 2
Peds Cross: \times

Heavys	0	Trucks	20	Cars	2547	Totals	2567
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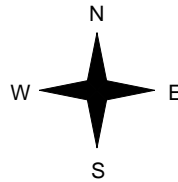


Eighth Line

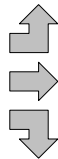
Cars	69	Trucks	0	Heavys	0	Totals	69
Cars	2374	Trucks	19	Heavys	0	Totals	2393
Cars	180	Trucks	0	Heavys	0	Totals	180
Cars	2623	Trucks	19	Heavys	0	Totals	



Dundas St E



Heavys	0	Trucks	0	Cars	9	Totals	9
Heavys	0	Trucks	42	Cars	1198	Totals	1240
Heavys	0	Trucks	3	Cars	178	Totals	181
Heavys	0	Trucks	45	Cars	1385	Totals	



Dundas St E



Cars	1343	Trucks	42	Heavys	0	Totals	1385
------	------	--------	----	--------	---	--------	------

Peds Cross: \times
West Peds: 1
West Entering: 1430
West Leg Total: 3997

Cars	371	Cars	163	28	112	303
Trucks	3	Trucks	1	1	0	2
Heavys	0	Heavys	0	0	0	0
Totals	374	Totals	164	29	112	



Peds Cross: \times
South Peds: 0
South Entering: 305
South Leg Total: 679

Eighth Line



Comments

Ontario Traffic Inc.

Total Count Diagram

Municipality: Oakville
Site #: 1902900004
Intersection: Dundas St E & Eighth Line
TFR File #: 1
Count date: 19-Feb-19

Weather conditions:
Person(s) who counted:

**** Signalized Intersection ****

Major Road: Dundas St E runs W/E

North Leg Total: 702
 North Entering: 397
 North Peds: 0
 Peds Cross: \bowtie

Heavys	0	0	0	0
Trucks	2	1	0	3
Cars	68	103	223	394
Totals	70	104	223	



Heavys	0
Trucks	8
Cars	297
Totals	305

East Leg Total: 14379
 East Entering: 7225
 East Peds: 6
 Peds Cross: \bowtie

Heavys	Trucks	Cars	Totals
0	241	7003	7244

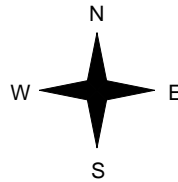


Eighth Line

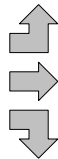
Cars	Trucks	Heavys	Totals
179	3	0	182
6372	234	0	6606
437	0	0	437
6988	237	0	



Dundas St E



Heavys	Trucks	Cars	Totals
0	3	38	41
0	161	6296	6457
0	11	530	541
0	175	6864	



Dundas St E



Cars	Trucks	Heavys	Totals
6987	167	0	7154

Peds Cross: \bowtie
 West Peds: 4
 West Entering: 7039
 West Leg Total: 14283

Cars	1070
Trucks	12
Heavys	0
Totals	1082



Cars	563	80	468	1111
Trucks	5	2	6	13
Heavys	0	0	0	0
Totals	568	82	474	

Peds Cross: \bowtie
 South Peds: 4
 South Entering: 1124
 South Leg Total: 2206

Comments

Ontario Traffic Inc. Traffic Count Summary

Intersection: Dundas St E & Eighth Line

Count Date: 19-Feb-19

Municipality: Oakville

North Approach Totals						North/South Total Approaches	South Approach Totals					
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total	
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0
8:00:00	71	27	28	126	0	345	8:00:00	83	6	130	219	1
9:00:00	86	47	17	150	0	472	9:00:00	164	20	138	322	1
16:00:00	0	0	0	0	0	0	16:00:00	0	0	0	0	0
17:00:00	24	19	11	54	0	326	17:00:00	153	24	95	272	2
18:00:00	42	11	14	67	0	378	18:00:00	168	32	111	311	0
Totals:	223	104	70	397	0	1521		568	82	474	1124	4
East Approach Totals						East/West Total Approaches	West Approach Totals					
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total	
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0
8:00:00	30	840	16	886	1	2991	8:00:00	4	2013	88	2105	1
9:00:00	66	1029	26	1121	1	3251	9:00:00	15	2003	112	2130	0
16:00:00	0	0	0	0	0	0	16:00:00	0	0	0	0	0
17:00:00	172	2388	70	2630	1	4022	17:00:00	12	1220	160	1392	1
18:00:00	169	2349	70	2588	3	4000	18:00:00	10	1221	181	1412	2
Totals:	437	6606	182	7225	6	14264		41	6457	541	7039	4
Calculated Values for Traffic Crossing Major Street												
Hours Ending:	7:00	8:00	9:00	16:00		17:00	17:00	18:00	18:00			
Crossing Values:	0	183	298	0		203	203	247	247			

18. APPENDIX D: PROGRAM REFERENCE CARD

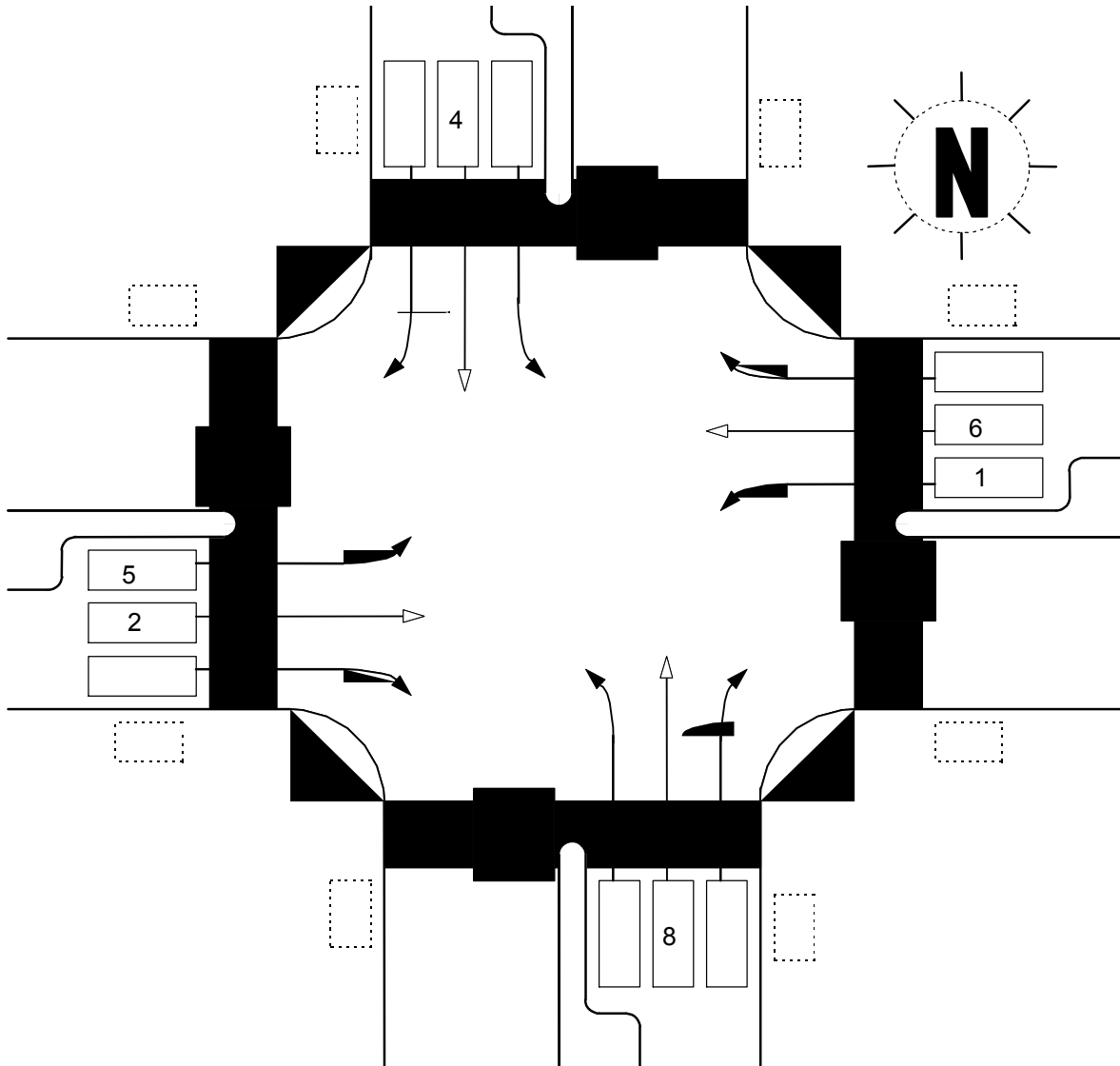
ASC/3

PROGRAM REFERENCE CARD

INTERSECTION Dundas Street & Eighth Line

CONTROLLER NUMBER _____ ENTERED BY: _____ DATE 03 / 27 / 17

BOOT: _____ MAIN: _____ HELP: _____ DATA BASE _____



CONFIGURATION SUBMENU

1-1-1. PHASE RING ASSIGNMENT

PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
RING																

1-1-2. PHASE COMPATIBILITY

PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																

1-2. PHASES IN USE / EXCLUSIVE PED

PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PHASES IN USE																
EXCLUSIVE PED																

1-1-4. BACKUP PREVENT PHASES

PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																

1-1-5 SIMULTANEOUS GAP

PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																

1-1-3. PHASE RING SEQUENCE

CONTROLLER 1			SEQUENCE 1																	
RING 1																				
RING 2																				
RING 3																				
RING 4																				
CONTROLLER 1			SEQUENCE 2																	
RING 1																				
RING 2																				
RING 3																				
RING 4																				
CONTROLLER 1			SEQUENCE 3																	
RING 1																				
RING 2																				
RING 3																				
RING 4																				
CONTROLLER 1			SEQUENCE 4																	
RING 1																				
RING 2																				
RING 3																				
RING 4																				
CONTROLLER 1			SEQUENCE 5																	
RING 1																				
RING 2																				
RING 3																				
RING 4																				
CONTROLLER 1			SEQUENCE 6																	
RING 1																				
RING 2																				
RING 3																				
RING 4																				
CONTROLLER 1			SEQUENCE 7																	
RING 1																				
RING 2																				
RING 3																				
RING 4																				
CONTROLLER 1			SEQUENCE 8																	
RING 1																				
RING 2																				
RING 3																				
RING 4																				

1-1-3. PHASE RING SEQUENCE (CONT)

CONTROLLER 1		SEQUENCE 9																		
RING 1																				
RING 2																				
RING 3																				
RING 4																				
CONTROLLER 1		SEQUENCE 10																		
RING 1																				
RING 2																				
RING 3																				
RING 4																				
CONTROLLER 1		SEQUENCE 11																		
RING 1																				
RING 2																				
RING 3																				
RING 4																				
CONTROLLER 1		SEQUENCE 12																		
RING 1																				
RING 2																				
RING 3																				
RING 4																				
CONTROLLER 1		SEQUENCE 13																		
RING 1																				
RING 2																				
RING 3																				
RING 4																				
CONTROLLER 1		SEQUENCE 14																		
RING 1																				
RING 2																				
RING 3																				
RING 4																				
CONTROLLER 1		SEQUENCE 15																		
RING 1																				
RING 2																				
RING 3																				
RING 4																				
CONTROLLER 1		SEQUENCE 16																		
RING 1																				
RING 2																				
RING 3																				
RING 4																				

1-3. PHASE TO LOAD SWITCH (MMU) ASSIGNMENT

LOAD SWITCH	PHASE / OVERLAP	TYPE	DIMMING				AUTO FLASH	
			RED	YELLOW	GREEN	PHASE	COLOR	TOGETHER
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								

1-4-2. MMU PROGRAM

PHASE	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2
1															
2															
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															

1-4-1. SDLC OPTIONS

TERM & FACIL	BIU NUMBER							
	1	2	3	4	5	6	7	8
ENABLE								
PEER-PEER EN								
DETECTOR RACK	1	2	3	4	5	6	7	8
ENABLE								
PEER-PEER EN								
MMU ENABLE								
MMU STOP TIME								
DIAGNOSTIC ENABLE (TEST FIXTURE)								
CONTROLLER PEER TO PEER ENABLE								
DISABLE 3 CRITICAL RFEs LOCKUP								

1-4-3. COLOR CHECK DISABLE

DISABLE ALL COLOR CHECKS																
MMU CHANNEL	1	2	3	4	5	6	7	8								
GREEN / WALK																
YELLOW / PC																
RED / DW																
MMU CHANNEL	9	10	11	12	13	14	15	16								
GREEN / WALK																
YELLOW / PC																
RED / DW																

1-5-1 GLOBAL PORT PARAMETERS

NTCIP BACKUP TIME (SECONDS)	
PORT 2 PRIORITY	
PORT 3A PRIORITY	
PORT 3B PRIORITY	
ETHERNET PRIORITY	

1-5-1 PORT 2 (TERMINAL)

PROTOCOL	
ENABLE	
DATA RATE (BPS)	
DATA, PARITY, STOP	
MODEM SETUP STRING	
USER STRING	
COMM. PORT ADDRESS	
SYSTEM DETECTOR 9 - 16 ADDRESS	
TELEMETRY RESPONSE DELAY	
DUPLEX HALF - FULL	
AB3418 / NTCIP GROUP ADDRESS	
AB3418 / NTCIP SINGLE FLAG ENABLE	
NTCIP PROTOCOL	
RTS TO CTS DELAY	
RTS TURN OFF DELAY	
DROP OUT TIME (in seconds)	
EARLY RTS	

1-5-3 PORT 3A (TELEMETRY)

PROTOCOL	
ENABLE	
DATA RATE (BPS)	
DATA, PARITY, STOP	
MODEM SETUP STRING	
USER STRING	
COMM. PORT ADDRESS	
SYSTEM DETECTOR 9 - 16 ADDRESS	
ELEMETRY RESPONSE DELAY	
DUPLEX HALF - FULL	
AB3418 / NTCIP GROUP ADDRESS	
AB3418 / NTCIP SINGLE FLAG ENABLE	
NTCIP PROTOCOL	
RTS TO CTS DELAY	
RTS TURN OFF DELAY	
DROP OUT TIME (in seconds)	
EARLY RTS	

1-7-1 ADMINISTRATION

SUPERVISOR ACCESS CODE	
ENABLE CRC CHECK OF DATA BASE	
CRC OF PROGRAM DATA BASE	
REQUEST DOWNLOAD OF PROGRAMMED DATA	

1-7-2 DISPLAY OPTIONS

KEY CLICK ENABLE	
BACKLIGHT ENABLE	

1-5-4. PORT 3B (TELEMETRY)

PROTOCOL	
ENABLE	
DATA RATE (BPS)	
DATA, PARITY, STOP	
MODEM SETUP STRING	
USER STRING	
COMM. PORT ADDRESS	
SYSTEM DETECTOR 9 - 16 ADDRESS	
TELEMETRY RESPONSE DELAY	
DUPLEX HALF - FULL	
AB3418 / NTCIP GROUP ADDRESS	
AB3418 / NTCIP SINGLE FLAG ENABLE	
NTCIP PROTOCOL	
RTS TO CTS DELAY	
RTS TURN OFF DELAY	
DROP OUT TIME (in seconds)	
EARLY RTS	

1-5-5 ETHERNET PORT CONFIGURATION

IP ADDRESS					
ADDRESS MASK					
FTP SERVER ADDRESS					
DEFAULT GATEWAY ADDRESS					

1-6-1 ENABLE EVENT LOGS

CRITICAL RFE'S (MMU/TE)	
3 CRITICAL RFE ERRORS IN 24 HOURS	
NON-CRITICAL RFE'S (DET/TEST)	
DETECTOR ERRORS	
COORDINATION ERRORS	
MMU FLASH FAULTS	
LOCAL FLASH FAULTS	
PREEMPT	
POWER ON/OFF	
LOW BATTERY	
ACCESS	
DATA CHANGE	
CONTROLLER DOWNLOAD	
ALARM 1	
ALARM 2	
ALARM 3	
ALARM 4	
ALARM 5	
ALARM 6	
ALARM 7	
ALARM 8	
ALARM 9	
ALARM 10	
ALARM 11	
ALARM 12	
ALARM 13	
ALARM 14	
ALARM 15	
ALARM 16	

IF				
THEN				
ELSE				

THEN				
ELSE				

LOGIC GATE NUMBER				
IF				
THEN				
ELSE				

LOGIC GATE NUMBER				
IF				
THEN				
ELSE				

LOGIC GATE NUMBER				
IF				
THEN				
ELSE				

LOGIC GATE NUMBER				
IF				
THEN				
ELSE				

LOGIC GATE NUMBER				
IF				
THEN				
ELSE				

LOGIC GATE NUMBER				
IF				
THEN				
ELSE				

1-8-2 LOGIC PROCESSOR (CONTINUED)

LOGIC GATE NUMBER				
IF				

LOGIC GATE NUMBER				
IF				

THEN				
ELSE				

LOGIC GATE NUMBER				
IF				
THEN				
ELSE				

CONTROLLER SUBMENU

2-1. CONTROLLER TIMING DATA

PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
MINIMUM GREEN	7	20	7	10	7	20	7	10								
BICYCLE MINIMUM GREEN																
CONDITIONAL SERVICE MINIMUM GREEN																
DELAYED GREEN																
WALK		7		7		7		7								
WALK 2																
WALK MAX																
PEDESTRIAN CLEARANCE		24		32		24		32								
PEDESTRIAN CLEARANCE 2																
PEDESTRIAN CLEARANCE MAX																
PEDESTRIAN CARRY OVER																
VEHICLE EXTENSION	3.5	5.5	3.5	3.5	3.5	5.5	3.5	3.5								
VEHICLE EXTENSION 2																
MAX1	15	46		25	15	46		25								
MAX2	20	60		30	20	60		30								
MAX3																
DYNAMIC MAX																
DYNAMIC MAX STEP																
YELLOW CHANGE	3.0	4.2		3.3	3.0	4.2		3.3								
RED CLRANCE	1.0	2.5		3.7	1.0	2.5		3.7								
RED MAX																
RED REVERT																
ACTUATIONS BEFORE GAP REDUCTION																
SECONDS PER ACTIONS ADDED TO INITIAL																
MAXIMUM ADDED INITIAL GREEN																
TIME BEFORE GAP REDUCTION																
CARS WAITING BEFORE GAP REDUCTION																
STEP TO REDUCE																
TIME TO REDUCE TO MINIMUM																
MININIMUM GAP																

2-2 VEHICLE OVERLAP

OVERLAP A PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
INCLUDED																	
PROTECTED																	
MODIFIER																	
PEDESTRIAN PROTECT																	
NOT OVERLAP																	
TRAILING GREEN				TRAILING YELLOW						TRAILING RED							
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRAILING LEADING																	
ADVANCE GREEN																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
FLASH GREEN																	

OVERLAP C PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
INCLUDED																	
PROTECTED																	
MODIFIER																	
PEDESTRIAN PROTECT																	
NOT OVERLAP																	
TRAILING GREEN				TRAILING YELLOW						TRAILING RED							
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRAILING LEADING																	
ADVANCE GREEN																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
FLASH GREEN																	

OVERLAP B PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
INCLUDED																	
PROTECTED																	
MODIFIER																	
PEDESTRIAN PROTECT																	
NOT OVERLAP																	
TRAILING GREEN				TRAILING YELLOW						TRAILING RED							
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRAILING LEADING																	
ADVANCE GREEN																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
FLASH GREEN																	

OVERLAP D PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
INCLUDED																	
PROTECTED																	
MODIFIER																	
PEDESTRIAN PROTECT																	
NOT OVERLAP																	
TRAILING GREEN				TRAILING YELLOW						TRAILING RED							
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRAILING LEADING																	
ADVANCE GREEN																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
FLASH GREEN																	

2-2 VEHICLE OVERLAP (CONTINUED)

OVERLAP E PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
INCLUDED																	
PROTECTED																	
MODIFIER																	
PEDESTRIAN PROTECT NOT OVERLAP																	
TRAILING GREEN																	
TRAILING YELLOW																	
TRAILING RED																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRAILING LEADING																	
ADVANCE GREEN																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
FLASH GREEN																	

OVERLAP G PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
INCLUDED																	
PROTECTED																	
MODIFIER																	
PEDESTRIAN PROTECT NOT OVERLAP																	
TRAILING GREEN																	
TRAILING YELLOW																	
TRAILING RED																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRAILING LEADING																	
ADVANCE GREEN																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
FLASH GREEN																	

OVERLAP F PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
INCLUDED																	
PROTECTED																	
MODIFIER																	
PEDESTRIAN PROTECT NOT OVERLAP																	
TRAILING GREEN																	
TRAILING YELLOW																	
TRAILING RED																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRAILING LEADING																	
ADVANCE GREEN																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
FLASH GREEN																	

OVERLAP H PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
INCLUDED																	
PROTECTED																	
MODIFIER																	
PEDESTRIAN PROTECT NOT OVERLAP																	
TRAILING GREEN																	
TRAILING YELLOW																	
TRAILING RED																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRAILING LEADING																	
ADVANCE GREEN																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
FLASH GREEN																	

2-2 VEHICLE OVERLAP (CONTINUED)

OVERLAP M PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
INCLUDED																	
PROTECTED																	
MODIFIER																	
PEDESTRIAN PROTECT NOT OVERLAP																	
TRAILING GREEN																	
TRAILING YELLOW																	
TRAILING RED																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRAILING LEADING																	
ADVANCE GREEN																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
FLASH GREEN																	

OVERLAP O PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
INCLUDED																	
PROTECTED																	
MODIFIER																	
PEDESTRIAN PROTECT NOT OVERLAP																	
TRAILING GREEN																	
TRAILING YELLOW																	
TRAILING RED																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRAILING LEADING																	
ADVANCE GREEN																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
FLASH GREEN																	

OVERLAP N PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
INCLUDED																	
PROTECTED																	
MODIFIER																	
PEDESTRIAN PROTECT NOT OVERLAP																	
TRAILING GREEN																	
TRAILING YELLOW																	
TRAILING RED																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRAILING LEADING																	
ADVANCE GREEN																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
FLASH GREEN																	

OVERLAP P PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
INCLUDED																	
PROTECTED																	
MODIFIER																	
PEDESTRIAN PROTECT NOT OVERLAP																	
TRAILING GREEN																	
TRAILING YELLOW																	
TRAILING RED																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRAILING LEADING																	
ADVANCE GREEN																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
FLASH GREEN																	

2-3 PEDESTRIAN OVERLAP

PEDESTRIAN OVERLAP CONSISTS OF PHASES																
PEDESTRIAN OVERLAP	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																

2-4 GUARANTEED MINIMUM TIMES

PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
MINIMUM GREEN																
WALK																
PEDESTRIAN CLEARANCE																
YELLOW CHANGE																
RED CLEARANCE																
OVERLAP	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
MINIMUM GREEN																

2-5 START / FLASH DATA

POWER START																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PHASE																
OVERLAP																
POWER START RED									FLASH TIME							
REMOTE (AUTOMATIC) FLASH																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
ENTRY																
EXIT																
OVERLAP	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
EXIT																
EXIT REMOTE FLASH									MINIMUM AUTOMATIC FLASH							
MINIMUM RECALL									CYCLE THROUGH PHASES							

2-6-1 CONTROLLER OPTIONS

PEDESTRIAN CLEARANCE PROTECT																
UNIT RED REVERT																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PHASE																
GUARANTEE D PASSAGE																
NON-ACT I																
NON ACT II																
DUAL ENTRY																
PED RESERVICE																
REST IN WALK																
FLASHING WALK																
PED CLEAR > YELLOW																
PED CLEAR > ALL RED																
INIT GREEN + VEHICLE EXIT																

2-7 ACTUATED / PRE-TIMED MODE PHASES

ENABLE PRE-TIMED OPERATION																
FREE INPUT DISABLED PRE-TIMED																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PHASE																
PRE-TIMED																

3-2 COORDINATOR PATTERN (CONTINUED)

COORDINATOR PATTERN	4												
CYCLE LENGTH (SECONDS)	100	SPLIT PATTERN											
OFFSET VALUE	44												
SPLITS IN	Per	OFFSETS IN										Per	
CROSSING ARTERY PATTERN													
VEHICLE PERMISSIVE 1 LENGTH		VEHICLE PERMISSIVE 2 LENGTH											
VEHICLE PERMISSIVE 2 DISPLACEMENT		ACTION PLAN										4	
ACTUATED COORDINATION	Yes	TIMING PLAN											
ACTUATED REST IN WALK		PHASE RESERVICE											
RING SPLIT EXTENSION (SECONDS)													
SPLIT DEMAND PATTERN													
RING DISPLACEMENT													
	1	2	3	4	5			8	9	1	1	1	1
										0	1	3	5
PREFERENCE 1 PHASES													
PREFERENCE 2 PHASES													

COORDINATOR PATTERN	5												
CYCLE LENGTH (SECONDS)		SPLIT PATTERN											
OFFSET VALUE		SEQUENCE											
SPLITS IN		OFFSETS IN											
CROSSING ARTERY PATTERN													
VEHICLE PERMISSIVE 1 LENGTH		VEHICLE PERMISSIVE 2 LENGTH											
VEHICLE PERMISSIVE 2 DISPLACEMENT		ACTION PLAN										5	
ACTUATED COORDINATION		TIMING PLAN											
ACTUATED REST IN WALK		PHASE RESERVICE											
RING SPLIT EXTENSION (SECONDS)													
SPLIT DEMAND PATTERN													
RING DISPLACEMENT													
	1	2	3	4	5			8	9	1	1	1	1
										0	1	3	5
PREFERENCE 1 PHASES													
PREFERENCE 2 PHASES													

COORDINATOR PATTERN													
CYCLE LENGTH (SECONDS)		SPLIT PATTERN											
OFFSET VALUE		SEQUENCE											
SPLITS IN		OFFSETS IN											
CROSSING ARTERY PATTERN													
VEHICLE PERMISSIVE 1 LENGTH		VEHICLE PERMISSIVE 2 LENGTH											
VEHICLE PERMISSIVE 2 DISPLACEMENT		ACTION PLAN											
ACTUATED COORDINATION		TIMING PLAN											
ACTUATED REST IN WALK		PHASE RESERVICE											
RING SPLIT EXTENSION (SECONDS)													
SPLIT DEMAND PATTERN													
RING DISPLACEMENT													
	1	2	3	4	5			8	9	1	1	1	1
										0	1	3	5
PREFERENCE 1 PHASES													
PREFERENCE 2 PHASES													

COORDINATOR PATTERN													
CYCLE LENGTH (SECONDS)		SPLIT PATTERN											
OFFSET VALUE		SEQUENCE											
SPLITS IN		OFFSETS IN											
CROSSING ARTERY PATTERN													
VEHICLE PERMISSIVE 1 LENGTH		VEHICLE PERMISSIVE 2 LENGTH											
VEHICLE PERMISSIVE 2 DISPLACEMENT		ACTION PLAN											
ACTUATED COORDINATION		TIMING PLAN											
ACTUATED REST IN WALK		PHASE RESERVICE											
RING SPLIT EXTENSION (SECONDS)													
SPLIT DEMAND PATTERN													
RING DISPLACEMENT													
	1	2	3	4	5			8	9	1	1	1	1
										0	1	3	5
PREFERENCE 1 PHASES													
PREFERENCE 2 PHASES													

Per
Per

3-2 COORDINATOR PATTERN (CONTINUED)

COORDINATOR PATTERN																								
CYCLE LENGTH (SECONDS)		SPLIT PATTERN																						
OFFSET VALUE		SEQUENCE																						
SPLITS IN		OFFSETS IN																						
CROSSING ARTERY PATTERN																								
VEHICLE PERMISSIVE 1 LENGTH		VEHICLE PERMISSIVE 2 LENGTH																						
VEHICLE PERMISSIVE 2 DISPLACEMENT		ACTION PLAN																						
ACTUATED COORDINATION		TIMING PLAN																						
ACTUATED REST IN WALK		PHASE RESERVICE																						
RING SPLIT EXTENSION (SECONDS)		1				2				3				4										
SPLIT DEMAND PATTERN																								
RING DISPLACEMENT																								
		1	2	3	4	5			8	9	1	1			1	1			1	1			1	1
PREFERENCE 1 PHASES											0	1			3								5	
PREFERENCE 2 PHASES																								

COORDINATOR PATTERN																								
CYCLE LENGTH (SECONDS)		SPLIT PATTERN																						
OFFSET VALUE		SEQUENCE																						
SPLITS IN		OFFSETS IN																						
CROSSING ARTERY PATTERN																								
VEHICLE PERMISSIVE 1 LENGTH		VEHICLE PERMISSIVE 2 LENGTH																						
VEHICLE PERMISSIVE 2 DISPLACEMENT		ACTION PLAN																						
ACTUATED COORDINATION		TIMING PLAN																						
ACTUATED REST IN WALK		PHASE RESERVICE																						
RING SPLIT EXTENSION (SECONDS)		1				2				3				4										
SPLIT DEMAND PATTERN																								
RING DISPLACEMENT																								
		1	2	3	4	5			8	9	1	1			1	1			1	1			1	1
PREFERENCE 1 PHASES											0	1			3								5	
PREFERENCE 2 PHASES																								

COORDINATOR PATTERN																								
CYCLE LENGTH (SECONDS)		SPLIT PATTERN																						
OFFSET VALUE		SEQUENCE																						
SPLITS IN		OFFSETS IN																						
CROSSING ARTERY PATTERN																								
VEHICLE PERMISSIVE 1 LENGTH		VEHICLE PERMISSIVE 2 LENGTH																						
VEHICLE PERMISSIVE 2 DISPLACEMENT		ACTION PLAN																						
ACTUATED COORDINATION		TIMING PLAN																						
ACTUATED REST IN WALK		PHASE RESERVICE																						
RING SPLIT EXTENSION (SECONDS)		1				2				3				4										
SPLIT DEMAND PATTERN																								
RING DISPLACEMENT																								
		1	2	3	4	5			8	9	1	1			1	1			1	1			1	1
PREFERENCE 1 PHASES											0	1			3								5	
PREFERENCE 2 PHASES																								

COORDINATOR PATTERN																								
CYCLE LENGTH (SECONDS)		SPLIT PATTERN																						
OFFSET VALUE		SEQUENCE																						
SPLITS IN		OFFSETS IN																						
CROSSING ARTERY PATTERN																								
VEHICLE PERMISSIVE 1 LENGTH		VEHICLE PERMISSIVE 2 LENGTH																						
VEHICLE PERMISSIVE 2 DISPLACEMENT		ACTION PLAN																						
ACTUATED COORDINATION		TIMING PLAN																						
ACTUATED REST IN WALK		PHASE RESERVICE																						
RING SPLIT EXTENSION (SECONDS)		1				2				3				4										
SPLIT DEMAND PATTERN																								
RING DISPLACEMENT																								
		1	2	3	4	5			8	9	1	1			1	1			1	1			1	1
PREFERENCE 1 PHASES											0	1			3								5	
PREFERENCE 2 PHASES																								

3-2 COORDINATOR PATTERN (CONTINUED)

COORDINATOR PATTERN			
CYCLE LENGTH (SECONDS)		SPLIT PATTERN	
OFFSET VALUE		SEQUENCE	
SPLITS IN		OFFSETS IN	
CROSSING ARTERY PATTERN			
VEHICLE PERMISSIVE 1 LENGTH		VEHICLE PERMISSIVE 2 LENGTH	
VEHICLE PERMISSIVE 2 DISPLACEMENT		ACTION PLAN	
ACTUATED COORDINATION		TIMING PLAN	
ACTUATED REST IN WALK		PHASE RESERVICE	
RING SPLIT EXTENSION (SECONDS)		1	2
SPLIT DEMAND PATTERN			
RING DISPLACEMENT			
	1 2 3 4 5	8 9	1 1 1 1
		0 1	3 5
PREFERENCE 1 PHASES			
PREFERENCE 2 PHASES			

COORDINATOR PATTERN			
CYCLE LENGTH (SECONDS)		SPLIT PATTERN	
OFFSET VALUE		SEQUENCE	
SPLITS IN		OFFSETS IN	
CROSSING ARTERY PATTERN			
VEHICLE PERMISSIVE 1 LENGTH		VEHICLE PERMISSIVE 2 LENGTH	
VEHICLE PERMISSIVE 2 DISPLACEMENT		ACTION PLAN	
ACTUATED COORDINATION		TIMING PLAN	
ACTUATED REST IN WALK		PHASE RESERVICE	
RING SPLIT EXTENSION (SECONDS)		1	2
SPLIT DEMAND PATTERN			
RING DISPLACEMENT			
	1 2 3 4 5	8 9	1 1 1 1
		0 1	3 5
PREFERENCE 1 PHASES			
PREFERENCE 2 PHASES			

COORDINATOR PATTERN			
CYCLE LENGTH (SECONDS)		SPLIT PATTERN	
OFFSET VALUE		SEQUENCE	
SPLITS IN		OFFSETS IN	
CROSSING ARTERY PATTERN			
VEHICLE PERMISSIVE 1 LENGTH		VEHICLE PERMISSIVE 2 LENGTH	
VEHICLE PERMISSIVE 2 DISPLACEMENT		ACTION PLAN	
ACTUATED COORDINATION		TIMING PLAN	
ACTUATED REST IN WALK		PHASE RESERVICE	
RING SPLIT EXTENSION (SECONDS)		1	2
SPLIT DEMAND PATTERN			
RING DISPLACEMENT			
	1 2 3 4 5	8 9	1 1 1 1
		0 1	3 5
PREFERENCE 1 PHASES			
PREFERENCE 2 PHASES			

COORDINATOR PATTERN			
CYCLE LENGTH (SECONDS)		SPLIT PATTERN	
OFFSET VALUE		SEQUENCE	
SPLITS IN		OFFSETS IN	
CROSSING ARTERY PATTERN			
VEHICLE PERMISSIVE 1 LENGTH		VEHICLE PERMISSIVE 2 LENGTH	
VEHICLE PERMISSIVE 2 DISPLACEMENT		ACTION PLAN	
ACTUATED COORDINATION		TIMING PLAN	
ACTUATED REST IN WALK		PHASE RESERVICE	
RING SPLIT EXTENSION (SECONDS)		1	2
SPLIT DEMAND PATTERN			
RING DISPLACEMENT			
	1 2 3 4 5	8 9	1 1 1 1
		0 1	3 5
PREFERENCE 1 PHASES			
PREFERENCE 2 PHASES			

COORDINATOR PATTERN															
CYCLE LENGTH (SECONDS)		SPLIT PATTERN													
OFFSET VALUE		SEQUENCE													
SPLITS IN		OFFSETS IN													
CROSSING ARTERY PATTERN															
VEHICLE PERMISSIVE 1 LENGTH		VEHICLE PERMISSIVE 2 LENGTH													
VEHICLE PERMISSIVE 2 DISPLACEMENT		ACTION PLAN													
ACTUATED COORDINATION		TIMING PLAN													
ACTUATED REST IN WALK		PHASE RESERVICE													
RING SPLIT EXTENSION (SECONDS)		1	2	3	4										
SPLIT DEMAND PATTERN															
RING DISPLACEMENT															
		1	2	3	4	5		8	9	1	1	1	1	1	1
										0	1		3		5
PREFERENCE 1 PHASES															
PREFERENCE 2 PHASES															

COORDINATOR PATTERN																	
CYCLE LENGTH (SECONDS)		SPLIT PATTERN															
OFFSET VALUE		SEQUENCE															
SPLITS IN		OFFSETS IN															
CROSSING ARTERY PATTERN																	
VEHICLE PERMISSIVE 1 LENGTH		VEHICLE PERMISSIVE 2 LENGTH															
VEHICLE PERMISSIVE 2 DISPLACEMENT		ACTION PLAN															
ACTUATED COORDINATION		TIMING PLAN															
ACTUATED REST IN WALK		PHASE RESERVICE															
RING SPLIT EXTENSION (SECONDS)		1	2	3	4												
SPLIT DEMAND PATTERN																	
RING DISPLACEMENT																	
		1	2	3	4	5	6	7	8	9	1	1	1	1	1	1	
											0	1	2	3	4	5	6
PREFERENCE 1 PHASES																	
PREFERENCE 2 PHASES																	

3-3 SPLIT PATTERN

SPLIT PATTERN NUMBER		1																		
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	1
COORDINATED PHASE(S)			X				X													
PHASE		1	2	3	4	5	6	7	8											
SPLIT VALUE		9	54	0	37	9	54	0	37											
MODE																				
PHASE		9	10	11	12	13	14	15	16											
SPLIT VALUE																				
MODE																				

SPLIT PATTERN NUMBER		2																		
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	1
COORDINATED PHASE(S)			X				X													
PHASE		1	2	3	4	5	6	7	8											
SPLIT VALUE		10	50	0	40	10	50	0	40											
MODE																				
PHASE		9	10	11	12	13	14	15	16											
SPLIT VALUE																				
MODE																				

SPLIT PATTERN NUMBER		3																		
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	1
COORDINATED PHASE(S)			X				X													
PHASE		1	2	3	4	5	6	7	8											
SPLIT VALUE		12	51	0	37	9	54	0	37											
MODE																				
PHASE		9	10	11	12	13	14	15	16											
SPLIT VALUE																				
MODE																				

SPLIT PATTERN NUMBER		4																		
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	1
COORDINATED PHASE(S)			X				X													
PHASE		1	2	3	4	5	6	7	8											
SPLIT VALUE		11	42	0	47	11	42	0	47											
MODE																				
PHASE		9	10	11	12	13	14	15	16											
SPLIT VALUE																				
MODE																				

SPLIT PATTERN NUMBER																				
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	1
COORDINATED PHASE(S)																				
PHASE		1	2	3	4	5	6	7	8											
SPLIT VALUE																				
MODE																				
PHASE		9	10	11	12	13	14	15	16											
SPLIT VALUE																				
MODE																				

SPLIT PATTERN NUMBER																				
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	1
COORDINATED PHASE(S)																				
PHASE		1	2	3	4	5	6	7	8											
SPLIT VALUE																				
MODE																				
PHASE		9	10	11	12	13	14	15	16											
SPLIT VALUE																				
MODE																				

SPLIT PATTERN NUMBER																				
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	1
COORDINATED PHASE(S)																				
PHASE		1	2	3	4	5	6	7	8											
SPLIT VALUE																				
MODE																				
PHASE		9	10	11	12	13	14	15	16											
SPLIT VALUE																				
MODE																				

SPLIT PATTERN NUMBER																				
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	1
COORDINATED PHASE(S)																				
PHASE		1	2	3	4	5	6	7	8											
SPLIT VALUE																				
MODE																				
PHASE		9	10	11	12	13	14	15	16											
SPLIT VALUE																				
MODE																				

3-3 SPLIT PATTERN (CONTINUED)

SPLIT PATTERN NUMBER																	
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
COORDINATED PHASE(S)																	
PHASE	1	2	3	4	5	6	7	8									
SPLIT VALUE																	
MODE																	
PHASE	9	10	11	12	13	14	15	16									
SPLIT VALUE																	
MODE																	

SPLIT PATTERN NUMBER																	
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
COORDINATED PHASE(S)																	
PHASE	1	2	3	4	5	6	7	8									
SPLIT VALUE																	
MODE																	
PHASE	9	10	11	12	13	14	15	16									
SPLIT VALUE																	
MODE																	

SPLIT PATTERN NUMBER																	
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
COORDINATED PHASE(S)																	
PHASE	1	2	3	4	5	6	7	8									
SPLIT VALUE																	
MODE																	
PHASE	9	10	11	12	13	14	15	16									
SPLIT VALUE																	
MODE																	

SPLIT PATTERN NUMBER																	
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
COORDINATED PHASE(S)																	
PHASE	1	2	3	4	5	6	7	8									
SPLIT VALUE																	
MODE																	
PHASE	9	10	11	12	13	14	15	16									
SPLIT VALUE																	
MODE																	

SPLIT PATTERN NUMBER																	
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
COORDINATED PHASE(S)																	
PHASE	1	2	3	4	5	6	7	8									
SPLIT VALUE																	
MODE																	
PHASE	9	10	11	12	13	14	15	16									
SPLIT VALUE																	
MODE																	

SPLIT PATTERN NUMBER																	
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
COORDINATED PHASE(S)																	
PHASE	1	2	3	4	5	6	7	8									
SPLIT VALUE																	
MODE																	
PHASE	9	10	11	12	13	14	15	16									
SPLIT VALUE																	
MODE																	

SPLIT PATTERN NUMBER																	
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
COORDINATED PHASE(S)																	
PHASE	1	2	3	4	5	6	7	8									
SPLIT VALUE																	
MODE																	
PHASE	9	10	11	12	13	14	15	16									
SPLIT VALUE																	
MODE																	

SPLIT PATTERN NUMBER																	
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
COORDINATED PHASE(S)																	
PHASE	1	2	3	4	5	6	7	8									
SPLIT VALUE																	
MODE																	
PHASE	9	10	11	12	13	14	15	16									
SPLIT VALUE																	
MODE																	

3-3 SPLIT PATTERN (CONTINUED)

SPLIT PATTERN NUMBER																	
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
COORDINATED PHASE(S)																	
PHASE	1	2	3	4	5	6	7	8									
SPLIT VALUE																	
MODE																	
PHASE	9	10	11	12	13	14	15	16									
SPLIT VALUE																	
MODE																	

SPLIT PATTERN NUMBER																	
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
COORDINATED PHASE(S)																	
PHASE	1	2	3	4	5	6	7	8									
SPLIT VALUE																	
MODE																	
PHASE	9	10	11	12	13	14	15	16									
SPLIT VALUE																	
MODE																	

SPLIT PATTERN NUMBER																	
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
COORDINATED PHASE(S)																	
PHASE	1	2	3	4	5	6	7	8									
SPLIT VALUE																	
MODE																	
PHASE	9	10	11	12	13	14	15	16									
SPLIT VALUE																	
MODE																	

SPLIT PATTERN NUMBER																	
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
COORDINATED PHASE(S)																	
PHASE	1	2	3	4	5	6	7	8									
SPLIT VALUE																	
MODE																	
PHASE	9	10	11	12	13	14	15	16									
SPLIT VALUE																	
MODE																	

3-4 AUTO PERMISSIVE MINIMUM GREEN TIME

PHASE	1	2	3	4	5	6	7	8								
MINIMUM GREEN																
PHASE	9	10	11	12	13	14	15	16								
MINIMUM GREEN																

3-5 SPLIT DEMAND

PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
DEMAND 1																	
DEMAND 2																	
DEMAND		1	2														
DETECTOR																	
CALL TIME (SECONDS)																	
CYCLE COUNT																	

PREEMPTOR SUBMENU

4-1 PREEMPTOR

PREEMPTOR NUMBER	1																			
ACTIVE	NON-LOCK INPUT																			
PREEMPTION OVERRIDE	INTERLOCK ENABLE																			
DELAY TIME (SECONDS)	INHIBIT TIME (SECONDS)																			
EXTEND INPUT (SECONDS)	MAX PRESENCE TIME (SECONDS)																			
DURATION TIME (SECONDS)	TRACK CLEARANCE RESERVICE																			
PED DARK	RESERVICE TIME																			
AUTOMATIC FLASH HAS PRIORITY	RED CLEAR GOES GREEN																			
TERMINATE OVERLAPS ASAP	PED CLEAR THROUGH YELLOW																			
RING	1				2				3				4							
FREE DURING PREEMPTION																				
	WALK				PED CLEAR				GREEN				YELLOW				RED			
ENTERING MINIMUM TIME																				
TRACK CLEARANCE TIME																				
MIN DWELL – CYCLE GREEN/ EXIT YELLOW /RED																				
DWELL FLASH	FLASH EXIT COLOR																			
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	1	
TRACK CLEAR PHASE																				
DWELL PHASE																				
DWELL PEDESTRIAN																				
CYCLING PHASE																				
CYCLING PEDESTRIAN																				
EXIT PHASE																				
EXIT CALLS																				
SPECIAL FUNCTION																				
PREEMPTION TO COORDINATION									EXIT TIMING PLAN											
LINKED PREEMPTOR																				
PREEMPTOR ACTIVE OUTPUTS																				
PREEMPTOR ACTIVE OUT									PREEMPTOR ACTIVE OUT IN DWELL											
OTHER PRIORITY PREEMPTOR OUT									NON-PRIORITY PREEMPTOR OUT											
OVERLAP	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P				
TRACK CLEAR OVERLAP																				
DWELL OVERLAP																				
CYCLING OVERLAP																				

PREEMPTOR NUMBER	2																			
ACTIVE	NON-LOCK INPUT																			
PREEMPTION OVERRIDE	INTERLOCK ENABLE																			
DELAY TIME (SECONDS)	INHIBIT TIME (SECONDS)																			
EXTEND INPUT (SECONDS)	MAX PRESENCE TIME (SECONDS)																			
DURATION TIME (SECONDS)	TRACK CLEARANCE RESERVICE																			
PED DARK	RESERVICE TIME																			
AUTOMATIC FLASH HAS PRIORITY	RED CLEAR GOES GREEN																			
TERMINATE OVERLAPS ASAP	PED CLEAR THROUGH YELLOW																			
RING	1				2				3				4							
FREE DURING PREEMPTION																				
	WALK				PED CLEAR				GREEN				YELLOW				RED			
ENTERING MINIMUM TIME																				
TRACK CLEARANCE TIME																				
MIN DWELL – CYCLE GREEN/EXIT YELLOW/RED																				
DWELL FLASH	FLASH EXIT COLOR																			
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	1	
TRACK CLEAR PHASE																				
DWELL PHASE																				
DWELL PEDESTRIAN																				
CYCLING PHASE																				
CYCLING PEDESTRIAN																				
EXIT PHASE																				
EXIT CALLS																				
SPECIAL FUNCTION																				
PREEMPTION TO COORDINATION									EXIT TIMING PLAN											
LINKED PREEMPTOR																				
PREEMPTOR ACTIVE OUTPUTS																				
PREEMPTOR ACTIVE OUT									PREEMPTOR ACTIVE OUT IN DWELL											
OTHER PRIORITY PREEMPTOR OUT									NON-PRIORITY PREEMPTOR OUT											
OVERLAP	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P				
TRACK CLEAR OVERLAP																				
DWELL OVERLAP																				
CYCLING OVERLAP																				

4-2 LOW PRIORITY PREEMPTOR SELECTION

FILTERED INPUT	SOLID	PULSING
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

4-1 PREEMPTOR (CONTINUED)

PREEMPTOR NUMBER		3															
ACTIVE	NON-LOCK INPUT																
PREEMPTION OVERRIDE	INTERLOCK ENABLE																
DELAY TIME (SECONDS)	INHIBIT TIME (SECONDS)																
EXTEND INPUT (SECONDS)	MAX PRESENCE TIME (SECONDS)																
DURATION TIME (SECONDS)	TRACK CLEARANCE RESERVICE																
PED DARK	RESERVICE TIME																
AUTOMATIC FLASH HAS PRIORITY	RED CLEAR GOES GREEN																
TERMINATE OVERLAPS ASAP	PC THROUGH YELLOW																
RING	1	2	3	4													
FREE DURING PREEMPTION																	
	WALK	PED CLEAR	GREEN	YELLOW	RED												
ENTERING MINIMUM TIME																	
TRACK CLEARANCE TIME																	
MIN DWELL - CYCLE GREEN/ EXIT YELLOW /RED																	
DWELL FLASH		FLASH EXIT COLOR															
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRACK CLEAR PHASE																	
DWELL PHASE																	
DWELL PEDESTRIAN																	
CYCLING PHASE																	
CYCLING PEDESTRIAN																	
EXIT PHASE																	
EXIT CALLS																	
SPECIAL FUNCTION																	
PREEMPTION TO COORDINATION		EXIT TIMING PLAN															
LINKED PREEMPTOR																	
PREEMPTOR ACTIVE OUTPUTS																	
PREEMPTOR ACTIVE OUT		PREEMPTOR ACTIVE OUT IN DWELL															
OTHER PRIORITY PREEMPTOR OUT		NON-PRIORITY PREEMPTOR OUT															
OVERLAP	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	
TRACK CLEAR OVERLAP																	
DWELL OVERLAP																	
CYCLING OVERLAP																	

PREEMPTOR NUMBER		4															
ACTIVE	NON-LOCK INPUT																
PREEMPTION OVERRIDE	INTERLOCK ENABLE																
DELAY TIME (SECONDS)	INHIBIT TIME (SECONDS)																
EXTEND INPUT (SECONDS)	MAX PRESENCE TIME (SECONDS)																
DURATION TIME (SECONDS)	TRACK CLEARANCE RESERVICE																
PED DARK	RESERVICE TIME																
AUTOMATIC FLASH HAS PRIORITY	RED CLEAR GOES GREEN																
TERMINATE OVERLAPS ASAP	PC THROUGH YELLOW																
RING	1	2	3	4													
FREE DURING PREEMPTION																	
	WALK	PED CLEAR	GREEN	YELLOW	RED												
ENTERING MINIMUM TIME																	
TRACK CLEARANCE TIME																	
MIN DWELL - CYCLE GREEN/ EXIT YELLOW /RED																	
DWELL FLASH		FLASH EXIT COLOR															
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRACK CLEAR PHASE																	
DWELL PHASE																	
DWELL PEDESTRIAN																	
CYCLING PHASE																	
CYCLING PEDESTRIAN																	
EXIT PHASE																	
EXIT CALLS																	
SPECIAL FUNCTION																	
PREEMPTION TO COORDINATION		EXIT TIMING PLAN															
LINKED PREEMPTOR																	
PREEMPTOR ACTIVE OUTPUTS																	
PREEMPTOR ACTIVE OUT		PREEMPTOR ACTIVE OUT IN DWELL															
OTHER PRIORITY PREEMPTOR OUT		NON-PRIORITY PREEMPTOR OUT															
OVERLAP	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	
TRACK CLEAR OVERLAP																	
DWELL OVERLAP																	
CYCLING OVERLAP																	

4-1 PREEMPTOR (CONTINUED)

PREEMPTOR NUMBER		5																
ACTIVE	NON-LOCK INPUT																	
PREEMPTION OVERRIDE	INTERLOCK ENABLE																	
DELAY TIME (SECONDS)	INHIBIT TIME (SECONDS)																	
EXTEND INPUT (SECONDS)	MAX PRESENCE TIME (SECONDS)																	
DURATION TIME (SECONDS)	TRACK CLEARANCE RESERVICE																	
PED DARK	RESERVICE TIME																	
AUTOMATIC FLASH HAS PRIORITY	RED CLEAR GOES GREEN																	
TERMINATE OVERLAPS ASAP	PC THROUGH YELLOW																	
RING	1	2	3	4														
FREE DURING PREEMPTION																		
	WALK	PED CLEAR	GREEN	YELLOW	RED													
ENTERING MINIMUM TIME																		
TRACK CLEARANCE TIME																		
MIN DWELL - CYCLE GREEN/ EXIT YELLOW /RED																		
DWELL FLASH																		
FLASH EXIT COLOR																		
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	
TRACK CLEAR PHASE																		
DWELL PHASE																		
DWELL PEDESTRIAN																		
CYCLING PHASE																		
CYCLING PEDESTRIAN																		
EXIT PHASE																		
EXIT CALLS																		
SPECIAL FUNCTION																		
PREEMPTION TO COORDINATION					EXIT TIMING PLAN													
LINKED PREEMPTOR																		
PREEMPTOR ACTIVE OUTPUTS																		
PREEMPTOR ACTIVE OUT					PREEMPTOR ACTIVE OUT IN DWELL													
OTHER PRIORITY PREEMPTOR OUT					NON-PRIORITY PREEMPTOR OUT													
OVERLAP	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P		
TRACK CLEAR OVERLAP																		
DWELL OVERLAP																		
CYCLING OVERLAP																		

PREEMPTOR NUMBER		6																
ACTIVE	NON-LOCK INPUT																	
PREEMPTION OVERRIDE	INTERLOCK ENABLE																	
DELAY TIME (SECONDS)	INHIBIT TIME (SECONDS)																	
EXTEND INPUT (SECONDS)	MAX PRESENCE TIME (SECONDS)																	
DURATION TIME (SECONDS)	TRACK CLEARANCE RESERVICE																	
PED DARK	RESERVICE TIME																	
AUTOMATIC FLASH HAS PRIORITY	RED CLEAR GOES GREEN																	
TERMINATE OVERLAPS ASAP	PC THROUGH YELLOW																	
RING	1	2	3	4														
FREE DURING PREEMPTION																		
	WALK	PED CLEAR	GREEN	YELLOW	RED													
ENTERING MINIMUM TIME																		
TRACK CLEARANCE TIME																		
MIN DWELL - CYCLE GREEN/ EXIT YELLOW /RED																		
DWELL FLASH																		
FLASH EXIT COLOR																		
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	
TRACK CLEAR PHASE																		
DWELL PHASE																		
DWELL PEDESTRIAN																		
CYCLING PHASE																		
CYCLING PEDESTRIAN																		
EXIT PHASE																		
EXIT CALLS																		
SPECIAL FUNCTION																		
PREEMPTION TO COORDINATION					EXIT TIMING PLAN													
LINKED PREEMPTOR																		
PREEMPTOR ACTIVE OUTPUTS																		
PREEMPTOR ACTIVE OUT					PREEMPTOR ACTIVE OUT IN DWELL													
OTHER PRIORITY PREEMPTOR OUT					NON-PRIORITY PREEMPTOR OUT													
OVERLAP	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P		
TRACK CLEAR OVERLAP																		
DWELL OVERLAP																		
CYCLING OVERLAP																		

4-1 PREEMPTOR (CONTINUED)

PREEMPTOR NUMBER		7															
ACTIVE	NON-LOCK INPUT																
PREEMPTION OVERRIDE	INTERLOCK ENABLE																
DELAY TIME (SECONDS)	INHIBIT TIME (SECONDS)																
EXTEND INPUT (SECONDS)	MAX PRESENCE TIME (SECONDS)																
DURATION TIME (SECONDS)	TRACK CLEARANCE RESERVICE																
PED DARK	RESERVICE TIME																
AUTOMATIC FLASH HAS PRIORITY	RED CLEAR GOES GREEN																
TERMINATE OVERLAPS ASAP	PC THROUGH YELLOW																
RING	1	2	3	4													
FREE DURING PREEMPTION																	
	WALK	PED CLEAR	GREEN	YELLOW	RED												
ENTERING MINIMUM TIME																	
TRACK CLEARANCE TIME																	
MIN DWELL - CYCLE GREEN/ EXIT YELLOW /RED																	
DWELL FLASH		FLASH EXIT COLOR															
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRACK CLEAR PHASE																	
DWELL PHASE																	
DWELL PEDESTRIAN																	
CYCLING PHASE																	
CYCLING PEDESTRIAN																	
EXIT PHASE																	
EXIT CALLS																	
SPECIAL FUNCTION																	
PREEMPTION TO COORDINATION		EXIT TIMING PLAN															
LINKED PREEMPTOR																	
PREEMPTOR ACTIVE OUTPUTS																	
PREEMPTOR ACTIVE OUT		PREEMPTOR ACTIVE OUT IN DWELL															
OTHER PRIORITY PREEMPTOR OUT		NON-PRIORITY PREEMPTOR OUT															
OVERLAP	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	
TRACK CLEAR OVERLAP																	
DWELL OVERLAP																	
CYCLING OVERLAP																	

PREEMPTOR NUMBER		8															
ACTIVE	NON-LOCK INPUT																
PREEMPTION OVERRIDE	INTERLOCK ENABLE																
DELAY TIME (SECONDS)	INHIBIT TIME (SECONDS)																
EXTEND INPUT (SECONDS)	MAX PRESENCE TIME (SECONDS)																
DURATION TIME (SECONDS)	TRACK CLEARANCE RESERVICE																
PED DARK	RESERVICE TIME																
AUTOMATIC FLASH HAS PRIORITY	RED CLEAR GOES GREEN																
TERMINATE OVERLAPS ASAP	PC THROUGH YELLOW																
RING	1	2	3	4													
FREE DURING PREEMPTION																	
	WALK	PED CLEAR	GREEN	YELLOW	RED												
ENTERING MINIMUM TIME																	
TRACK CLEARANCE TIME																	
MIN DWELL - CYCLE GREEN/ EXIT YELLOW /RED																	
DWELL FLASH		FLASH EXIT COLOR															
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRACK CLEAR PHASE																	
DWELL PHASE																	
DWELL PEDESTRIAN																	
CYCLING PHASE																	
CYCLING PEDESTRIAN																	
EXIT PHASE																	
EXIT CALLS																	
SPECIAL FUNCTION																	
PREEMPTION TO COORDINATION		EXIT TIMING PLAN															
LINKED PREEMPTOR																	
PREEMPTOR ACTIVE OUTPUTS																	
PREEMPTOR ACTIVE OUT		PREEMPTOR ACTIVE OUT IN DWELL															
OTHER PRIORITY PREEMPTOR OUT		NON-PRIORITY PREEMPTOR OUT															
OVERLAP	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	
TRACK CLEAR OVERLAP																	
DWELL OVERLAP																	
CYCLING OVERLAP																	

4-1 PREEMPTOR (CONTINUED)

PREEMPTOR NUMBER		9																
ACTIVE	NON-LOCK INPUT																	
PREEMPTION OVERRIDE	INTERLOCK ENABLE																	
DELAY TIME (SECONDS)	INHIBIT TIME (SECONDS)																	
EXTEND INPUT (SECONDS)	MAX PRESENCE TIME (SECONDS)																	
DURATION TIME (SECONDS)	TRACK CLEARANCE RESERVICE																	
PED DARK	RESERVICE TIME																	
AUTOMATIC FLASH HAS PRIORITY	RED CLEAR GOES GREEN																	
TERMINATE OVERLAPS ASAP	PC THROUGH YELLOW																	
RING	1	2	3	4														
FREE DURING PREEMPTION																		
	WALK	PED CLEAR	GREEN	YELLOW	RED													
ENTERING MINIMUM TIME																		
TRACK CLEARANCE TIME																		
MIN DWELL - CYCLE GREEN/ EXIT YELLOW /RED																		
DWELL FLASH		FLASH EXIT COLOR																
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	
TRACK CLEAR PHASE																		
DWELL PHASE																		
DWELL PEDESTRIAN																		
CYCLING PHASE																		
CYCLING PEDESTRIAN																		
EXIT PHASE																		
EXIT CALLS																		
SPECIAL FUNCTION																		
PREEMPTION TO COORDINATION		EXIT TIMING PLAN																
LINKED PREEMPTOR																		
PREEMPTOR ACTIVE OUTPUTS																		
PREEMPTOR ACTIVE OUT		PREEMPTOR ACTIVE OUT IN DWELL																
OTHER PRIORITY PREEMPTOR OUT		NON-PRIORITY PREEMPTOR OUT																
OVERLAP	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P		
TRACK CLEAR OVERLAP																		
DWELL OVERLAP																		
CYCLING OVERLAP																		

PREEMPTOR NUMBER		10																
ACTIVE	NON-LOCK INPUT																	
PREEMPTION OVERRIDE	INTERLOCK ENABLE																	
DELAY TIME (SECONDS)	INHIBIT TIME (SECONDS)																	
EXTEND INPUT (SECONDS)	MAX PRESENCE TIME (SECONDS)																	
DURATION TIME (SECONDS)	TRACK CLEARANCE RESERVICE																	
PED DARK	RESERVICE TIME																	
AUTOMATIC FLASH HAS PRIORITY	RED CLEAR GOES GREEN																	
TERMINATE OVERLAPS ASAP	PC THROUGH YELLOW																	
RING	1	2	3	4														
FREE DURING PREEMPTION																		
	WALK	PED CLEAR	GREEN	YELLOW	RED													
ENTERING MINIMUM TIME																		
TRACK CLEARANCE TIME																		
MIN DWELL - CYCLE GREEN/ EXIT YELLOW /RED																		
DWELL FLASH		FLASH EXIT COLOR																
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	
TRACK CLEAR PHASE																		
DWELL PHASE																		
DWELL PEDESTRIAN																		
CYCLING PHASE																		
CYCLING PEDESTRIAN																		
EXIT PHASE																		
EXIT CALLS																		
SPECIAL FUNCTION																		
PREEMPTION TO COORDINATION		EXIT TIMING PLAN																
LINKED PREEMPTOR																		
PREEMPTOR ACTIVE OUTPUTS																		
PREEMPTOR ACTIVE OUT		PREEMPTOR ACTIVE OUT IN DWELL																
OTHER PRIORITY PREEMPTOR OUT		NON-PRIORITY PREEMPTOR OUT																
OVERLAP	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P		
TRACK CLEAR OVERLAP																		
DWELL OVERLAP																		
CYCLING OVERLAP																		

TIME BASE SUBMENU

5-1 CLOCK/CALENDAR DATA

DATE SET:	
TIME SET:	
MANUAL ACTION PLAN	
SYNC REFERENCE TIME	
SYNC REFERENCE	
DAYLIGHT SAVINGS	
TIME RESET INPUT TIME SET	
STANDARD TIME FROM GMT	

5-2 SCHEDULE

SCHEDULE NUMBER	1
DAY PLAN NUMBER	1

MONTH	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE				
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER				
DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT			
		X	X	X	X	X				
DAY OF MONTH (DOM)	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22	23	24	25	26	27	28	29	30
	31									

SCHEDULE NUMBER	1
DAY PLAN NUMBER	2

MONTH	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE				
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER				
DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT			
	X						X			
DAY OF MONTH (DOM)	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22	23	24	25	26	27	28	29	30
	31									

SCHEDULE NUMBER	
DAY PLAN NUMBER	

MONTH	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE				
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER				
DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT			
DAY OF MONTH (DOM)	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22	23	24	25	26	27	28	29	30
	31									

SCHEDULE NUMBER	
DAY PLAN NUMBER	

MONTH	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE				
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER				
DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT			
DAY OF MONTH (DOM)	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22	23	24	25	26	27	28	29	30
	31									

SCHEDULE NUMBER	
DAY PLAN NUMBER	

MONTH	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE				
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER				
DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT			
DAY OF MONTH (DOM)	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22	23	24	25	26	27	28	29	30
	31									

SCHEDULE NUMBER													
DAY PLAN NUMBER													
MONTH	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE							
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER							
DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT						
DAY OF MONTH (DOM)	1	2	3	4	5	6	7	8	9	10			
	11	12	13	14	15	16	17	18	19	20			
	21	22	23	24	25	26	27	28	29	30			
	31												

SCHEDULE NUMBER													
DAY PLAN NUMBER													
MONTH	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE							
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER							
DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT						
DAY OF MONTH (DOM)	1	2	3	4	5	6	7	8	9	10			
	11	12	13	14	15	16	17	18	19	20			
	21	22	23	24	25	26	27	28	29	30			
	31												

SCHEDULE NUMBER													
DAY PLAN NUMBER													
MONTH	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE							
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER							
DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT						
DAY OF MONTH (DOM)	1	2	3	4	5	6	7	8	9	10			
	11	12	13	14	15	16	17	18	19	20			
	21	22	23	24	25	26	27	28	29	30			
	31												

SCHEDULE NUMBER													
DAY PLAN NUMBER													
MONTH	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE							
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER							
DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT						
DAY OF MONTH (DOM)	1	2	3	4	5	6	7	8	9	10			
	11	12	13	14	15	16	17	18	19	20			
	21	22	23	24	25	26	27	28	29	30			
	31												

SCHEDULE NUMBER													
DAY PLAN NUMBER													
MONTH	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE							
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER							
DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT						
DAY OF MONTH (DOM)	1	2	3	4	5	6	7	8	9	10			
	11	12	13	14	15	16	17	18	19	20			
	21	22	23	24	25	26	27	28	29	30			
	31												

SCHEDULE NUMBER													
DAY PLAN NUMBER													
MONTH	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE							
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER							
DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT						
DAY OF MONTH (DOM)	1	2	3	4	5	6	7	8	9	10			
	11	12	13	14	15	16	17	18	19	20			
	21	22	23	24	25	26	27	28	29	30			
	31												

SCHEDULE NUMBER											
DAY PLAN NUMBER											
MONTH	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE					
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER					
DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT				
DAY OF MONTH (DOM)	1	2	3	4	5	6	7	8	9	10	
	11	12	13	14	15	16	17	18	19	20	
	21	22	23	24	25	26	27	28	29	30	
	31										

SCHEDULE NUMBER											
DAY PLAN NUMBER											
MONTH	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE					
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER					
DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT				
DAY OF MONTH (DOM)	1	2	3	4	5	6	7	8	9	10	
	11	12	13	14	15	16	17	18	19	20	
	21	22	23	24	25	26	27	28	29	30	
	31										

SCHEDULE NUMBER											
DAY PLAN NUMBER											
MONTH	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE					
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER					
DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT				
DAY OF MONTH (DOM)	1	2	3	4	5	6	7	8	9	10	
	11	12	13	14	15	16	17	18	19	20	
	21	22	23	24	25	26	27	28	29	30	
	31										

PATTERN		1		SYSTEM OVERRIDE														
VEHICLE DETECTOR PLAN				DETECTOR LOG														
FLASH																		
RED REST				VEHICLE DET DIAGNOSTIC PLAN														
CONTROLLER SEQUENCE				PED DET DIAGNOSTIC PLAN														
TIMING PLAN				DIMMING ENABLE														
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
PED RECALL																		
WALK 2																		
VEH EXT 2																		
VEH RECALL																		
MAX RECALL																		
MAX 2																		
MAX 3																		
CS INHIBIT																		
PHASE OMIT																		
SPEC FUNCTION																		(1-8)
AUX FUNCTION																		(1-3)
		1	2	3	4	5	6	7	8	9	10							
LP 1-10																		
LP 11-20																		
LP 21-30																		
LP 31-40																		
LP 41-50																		
LP 51-60																		
LP 61-70																		
LP 71-80																		
LP 81-90																		
LP 91-100																		

ACTION PLAN		3		SYSTEM OVERRIDE														
VEHICLE DETECTOR PLAN				DETECTOR LOG														
FLASH																		
RED REST				VEHICLE DET DIAGNOSTIC PLAN														
CONTROLLER SEQUENCE				PED DET DIAGNOSTIC PLAN														
TIMING PLAN				DIMMING ENABLE														
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
PED RECALL																		
WALK 2																		
VEH EXT 2																		
VEH RECALL																		
MAX RECALL																		
MAX 2																		
MAX 3																		
CS INHIBIT																		
PHASE OMIT																		
SPEC FUNCTION																		(1-8)
AUX FUNCTION																		(1-3)
		1	2	3	4	5	6	7	8	9	10							
LP 1-10																		
LP 11-20																		
LP 21-30																		
LP 31-40																		
LP 41-50																		
LP 51-60																		
LP 61-70																		
LP 71-80																		
LP 81-90																		
LP 91-100																		

ACTION PLAN		2		SYSTEM OVERRIDE														
VEHICLE DETECTOR PLAN				DETECTOR LOG														
FLASH																		
RED REST				VEHICLE DET DIAGNOSTIC PLAN														
CONTROLLER SEQUENCE				PED DET DIAGNOSTIC PLAN														
TIMING PLAN				DIMMING ENABLE														
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
PED RECALL																		
WALK 2																		
VEH EXT 2																		
VEH RECALL																		
MAX RECALL																		
MAX 2																		
MAX 3																		
CS INHIBIT																		
PHASE OMIT																		
SPEC FUNCTION																		(1-8)
AUX FUNCTION																		(1-3)
		1	2	3	4	5	6	7	8	9	10							
LP 1-10																		
LP 11-20																		
LP 21-30																		
LP 31-40																		
LP 41-50																		
LP 51-60																		
LP 61-70																		
LP 71-80																		
LP 81-90																		
LP 91-100																		

ACTION PLAN		4		SYSTEM OVERRIDE														
VEHICLE DETECTOR PLAN				DETECTOR LOG														
FLASH																		
RED REST				VEHICLE DET DIAGNOSTIC PLAN														
CONTROLLER SEQUENCE				PED DET DIAGNOSTIC PLAN														
TIMING PLAN				DIMMING ENABLE														
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
PED RECALL																		
WALK 2																		
VEH EXT 2																		
VEH RECALL																		
MAX RECALL																		
MAX 2																		
MAX 3																		
CS INHIBIT																		
PHASE OMIT																		
SPEC FUNCTION																		(1-8)
AUX FUNCTION																		(1-3)
		1	2	3	4	5	6	7	8	9	10							
LP 1-10																		
LP 11-20																		
LP 21-30																		
LP 31-40																		
LP 41-50																		
LP 51-60																		
LP 61-70																		
LP 71-80																		
LP 81-90																		
LP 91-100																		

ACTION PLAN																				
PATTERN	5	SYSTEM OVERRIDE																		
VEHICLE DETECTOR PLAN		DETECTOR LOG																		
FLASH		VEHICLE DET DIAGNOSTIC PLAN																		
RED REST		PED DET DIAGNOSTIC PLAN																		
CONTROLLER SEQUENCE		DIMMING ENABLE																		
TIMING PLAN																				
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	1
PED RECALL																				
WALK 2																				
VEH EXT 2																				
VEH RECALL																				
MAX RECALL																				
MAX 2																				
MAX 3																				
CS INHIBIT																				
PHASE OMIT																				
SPEC FUNCTION																				(1-8)
AUX FUNCTION																				(1-3)
		1	2	3	4	5	6	7	8	9	10									
LP 1-10																				
LP 11-20																				
LP 21-30																				
LP 31-40																				
LP 41-50																				
LP 51-60																				
LP 61-70																				
LP 71-80																				
LP 81-90																				
LP 91-100																				

ACTION PLAN																				
PATTERN		SYSTEM OVERRIDE																		
VEHICLE DETECTOR PLAN		DETECTOR LOG																		
FLASH		VEHICLE DET DIAGNOSTIC PLAN																		
RED REST		PED DET DIAGNOSTIC PLAN																		
CONTROLLER SEQUENCE		DIMMING ENABLE																		
TIMING PLAN																				
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	1
PED RECALL																				
WALK 2																				
VEH EXT 2																				
VEH RECALL																				
MAX RECALL																				
MAX 2																				
MAX 3																				
CS INHIBIT																				
PHASE OMIT																				
SPEC FUNCTION																				(1-8)
AUX FUNCTION																				(1-3)
		1	2	3	4	5	6	7	8	9	10									
LP 1-10																				
LP 11-20																				
LP 21-30																				
LP 31-40																				
LP 41-50																				
LP 51-60																				
LP 61-70																				
LP 71-80																				
LP 81-90																				
LP 91-100																				

ACTION PLAN																				
PATTERN		SYSTEM OVERRIDE																		
VEHICLE DETECTOR PLAN		DETECTOR LOG																		
FLASH		VEHICLE DET DIAGNOSTIC PLAN																		
RED REST		PED DET DIAGNOSTIC PLAN																		
CONTROLLER SEQUENCE		DIMMING ENABLE																		
TIMING PLAN																				
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	1
PED RECALL																				
WALK 2																				
VEH EXT 2																				
VEH RECALL																				
MAX RECALL																				
MAX 2																				
MAX 3																				
CS INHIBIT																				
PHASE OMIT																				
SPEC FUNCTION																				(1-8)
AUX FUNCTION																				(1-3)
		1	2	3	4	5	6	7	8	9	10									
LP 1-10																				
LP 11-20																				
LP 21-30																				
LP 31-40																				
LP 41-50																				
LP 51-60																				
LP 61-70																				
LP 71-80																				
LP 81-90																				
LP 91-100																				

ACTION PLAN																				
PATTERN		SYSTEM OVERRIDE																		
VEHICLE DETECTOR PLAN		DETECTOR LOG																		
FLASH		VEHICLE DET DIAGNOSTIC PLAN																		
RED REST		PED DET DIAGNOSTIC PLAN																		
CONTROLLER SEQUENCE		DIMMING ENABLE																		
TIMING PLAN																				
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	1
PED RECALL																				
WALK 2																				
VEH EXT 2																				
VEH RECALL																				
MAX RECALL																				
MAX 2																				
MAX 3																				
CS INHIBIT																				
PHASE OMIT																				
SPEC FUNCTION																				(1-8)
AUX FUNCTION																				(1-3)
		1	2	3	4	5	6	7	8	9	10									
LP 1-10																				
LP 11-20																				
LP 21-30																				
LP 31-40																				
LP 41-50																				
LP 51-60																				
LP 61-70																				
LP 71-80																				
LP 81-90																				
LP 91-100																				

5-5 EXCEPTION DAY PROGRAM

EXCEPTION DAY	FLOAT / FIXED	MON / MON	DOW / DOM	WOM / YEAR	DAY PLAN
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
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26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					

DETECTORS

6-1. DETECTOR TYPE AND TS SELECT

DET	TYPE	TS1 DETECTOR
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
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19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		
31		
32		

DET	TYPE	TS1 DETECTOR
33		
34		
35		
36		
37		
38		
39		
40		
41		
42		
43		
44		
45		
46		
47		
48		
49		
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51		
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53		
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59		
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61		
62		
63		
64		

VEHICLE PLAN NUMBER		
DETECTOR NUMBER		
ASSIGNED PHASE		ADDED INITIAL OPTION
SWITCH PHASE		CALL DETECTOR OPTION
EXTEND TIME		PASSAGE DETECTOR OPTION
DELAY TIME		QUEUE DETECTOR OPTION
QUEUE LIMIT		NTCIP OCCUPANCY LOG
FAIL TIME		NTCIP VOLUME LOG
FAIL CALL DELAY		ECPI LOG
YELLOW LOCK		RED LOCK
PHASE	1 2 3 4 5 6 7 8 9 0 1 1 1 1 1 1 1	
CALLED		

VEHICLE PLAN NUMBER		
DETECTOR NUMBER		
ASSIGNED PHASE		ADDED INITIAL OPTION
SWITCH PHASE		CALL DETECTOR OPTION
EXTEND TIME		PASSAGE DETECTOR OPTION
DELAY TIME		QUEUE DETECTOR OPTION
QUEUE LIMIT		NTCIP OCCUPANCY LOG
FAIL TIME		NTCIP VOLUME LOG
FAIL CALL DELAY		ECPI LOG
YELLOW LOCK		RED LOCK
PHASE	1 2 3 4 5 6 7 8 9 0 1 1 1 1 1 1 1	
CALLED		

VEHICLE PLAN NUMBER		
DETECTOR NUMBER		
ASSIGNED PHASE		ADDED INITIAL OPTION
SWITCH PHASE		CALL DETECTOR OPTION
EXTEND TIME		PASSAGE DETECTOR OPTION
DELAY TIME		QUEUE DETECTOR OPTION
QUEUE LIMIT		NTCIP OCCUPANCY LOG
FAIL TIME		NTCIP VOLUME LOG
FAIL CALL DELAY		ECPI LOG
YELLOW LOCK		RED LOCK
PHASE	1 2 3 4 5 6 7 8 9 0 1 1 1 1 1 1 1	
CALLED		

VEHICLE PLAN NUMBER		
DETECTOR NUMBER		
ASSIGNED PHASE		ADDED INITIAL OPTION
SWITCH PHASE		CALL DETECTOR OPTION
EXTEND TIME		PASSAGE DETECTOR OPTION
DELAY TIME		QUEUE DETECTOR OPTION
QUEUE LIMIT		NTCIP OCCUPANCY LOG
FAIL TIME		NTCIP VOLUME LOG
FAIL CALL DELAY		ECPI LOG
YELLOW LOCK		RED LOCK
PHASE	1 2 3 4 5 6 7 8 9 0 1 1 1 1 1 1 1	
CALLED		

6-2 VEHICLE DETECTOR SETUP

VEHICLE PLAN NUMBER		
DETECTOR NUMBER		
ASSIGNED PHASE		ADDED INITIAL OPTION
SWITCH PHASE		CALL DETECTOR OPTION
EXTEND TIME		PASSAGE DETECTOR OPTION
DELAY TIME		QUEUE DETECTOR OPTION
QUEUE LIMIT		NTCIP OCCUPANCY LOG
FAIL TIME		NTCIP VOLUME LOG
FAIL CALL DELAY		ECPI LOG
YELLOW LOCK		RED LOCK
PHASE	1 2 3 4 5 6 7 8 9 0 1 1 1 1 1 1 1	
CALLED		

VEHICLE PLAN NUMBER		
DETECTOR NUMBER		
ASSIGNED PHASE		ADDED INITIAL OPTION
SWITCH PHASE		CALL DETECTOR OPTION
EXTEND TIME		PASSAGE DETECTOR OPTION
DELAY TIME		QUEUE DETECTOR OPTION
QUEUE LIMIT		NTCIP OCCUPANCY LOG
FAIL TIME		NTCIP VOLUME LOG
FAIL CALL DELAY		ECPI LOG
YELLOW LOCK		RED LOCK
PHASE	1 2 3 4 5 6 7 8 9 0 1 1 1 1 1 1 1	
CALLED		

VEHICLE PLAN NUMBER																		
DETECTOR NUMBER																		
ASSIGNED PHASE		ADDED INITIAL OPTION																
SWITCH PHASE		CALL DETECTOR OPTION																
EXTEND TIME		PASSAGE DETECTOR OPTION																
DELAY TIME		QUEUE DETECTOR OPTION																
QUEUE LIMIT		NTCIP OCCUPANCY LOG																
FAIL TIME		NTCIP VOLUME LOG																
FAIL CALL DELAY		ECPI LOG																
YELLOW LOCK		RED LOCK																
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1
CALLED																		

VEHICLE PLAN NUMBER																		
DETECTOR NUMBER																		
ASSIGNED PHASE		ADDED INITIAL OPTION																
SWITCH PHASE		CALL DETECTOR OPTION																
EXTEND TIME		PASSAGE DETECTOR OPTION																
DELAY TIME		QUEUE DETECTOR OPTION																
QUEUE LIMIT		NTCIP OCCUPANCY LOG																
FAIL TIME		NTCIP VOLUME LOG																
FAIL CALL DELAY		ECPI LOG																
YELLOW LOCK		RED LOCK																
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1
CALLED																		

VEHICLE PLAN NUMBER																		
DETECTOR NUMBER																		
ASSIGNED PHASE		ADDED INITIAL OPTION																
SWITCH PHASE		CALL DETECTOR OPTION																
EXTEND TIME		PASSAGE DETECTOR OPTION																
DELAY TIME		QUEUE DETECTOR OPTION																
QUEUE LIMIT		NTCIP OCCUPANCY LOG																
FAIL TIME		NTCIP VOLUME LOG																
FAIL CALL DELAY		ECPI LOG																
YELLOW LOCK		RED LOCK																
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1
CALLED																		

VEHICLE PLAN NUMBER																		
DETECTOR NUMBER																		
ASSIGNED PHASE		ADDED INITIAL OPTION																
SWITCH PHASE		CALL DETECTOR OPTION																
EXTEND TIME		PASSAGE DETECTOR OPTION																
DELAY TIME		QUEUE DETECTOR OPTION																
QUEUE LIMIT		NTCIP OCCUPANCY LOG																
FAIL TIME		NTCIP VOLUME LOG																
FAIL CALL DELAY		ECPI LOG																
YELLOW LOCK		RED LOCK																
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1
CALLED																		

VEHICLE PLAN NUMBER																		
DETECTOR NUMBER																		
ASSIGNED PHASE		ADDED INITIAL OPTION																
SWITCH PHASE		CALL DETECTOR OPTION																
EXTEND TIME		PASSAGE DETECTOR OPTION																
DELAY TIME		QUEUE DETECTOR OPTION																
QUEUE LIMIT		NTCIP OCCUPANCY LOG																
FAIL TIME		NTCIP VOLUME LOG																
FAIL CALL DELAY		ECPI LOG																
YELLOW LOCK		RED LOCK																
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1
CALLED																		

VEHICLE PLAN NUMBER																		
DETECTOR NUMBER																		
ASSIGNED PHASE		ADDED INITIAL OPTION																
SWITCH PHASE		CALL DETECTOR OPTION																
EXTEND TIME		PASSAGE DETECTOR OPTION																
DELAY TIME		QUEUE DETECTOR OPTION																
QUEUE LIMIT		NTCIP OCCUPANCY LOG																
FAIL TIME		NTCIP VOLUME LOG																
FAIL CALL DELAY		ECPI LOG																
YELLOW LOCK		RED LOCK																
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1
CALLED																		

VEHICLE PLAN NUMBER																		
DETECTOR NUMBER																		
ASSIGNED PHASE		ADDED INITIAL OPTION																
SWITCH PHASE		CALL DETECTOR OPTION																
EXTEND TIME		PASSAGE DETECTOR OPTION																
DELAY TIME		QUEUE DETECTOR OPTION																
QUEUE LIMIT		NTCIP OCCUPANCY LOG																
FAIL TIME		NTCIP VOLUME LOG																
FAIL CALL DELAY		ECPI LOG																
YELLOW LOCK		RED LOCK																
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1
CALLED																		

VEHICLE PLAN NUMBER																		
DETECTOR NUMBER																		
ASSIGNED PHASE		ADDED INITIAL OPTION																
SWITCH PHASE		CALL DETECTOR OPTION																
EXTEND TIME		PASSAGE DETECTOR OPTION																
DELAY TIME		QUEUE DETECTOR OPTION																
QUEUE LIMIT		NTCIP OCCUPANCY LOG																
FAIL TIME		NTCIP VOLUME LOG																
FAIL CALL DELAY		ECPI LOG																
YELLOW LOCK		RED LOCK																
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1
CALLED																		

6-3 PHASE DETECTOR OPTIONS

PHASE DETECTOR OPTION PLAN NUMBER										1						
PHASE	1	2	3	4	5	6	7	8	9	1	1	1	1	1	1	1
DETECTOR LOCK																
VEH RECALL																
PED RECALL																
MAX RECALL																
SOFT RECALL																
NO REST																
ADD INIT CALC																

PHASE DETECTOR OPTION PLAN NUMBER										2						
PHASE	1	2	3	4	5	6	7	8	9	1	1	1	1	1	1	1
DETECTOR LOCK																
VEH RECALL																
PED RECALL																
MAX RECALL																
SOFT RECALL																
NO REST																
ADD INIT CALC																

PHASE DETECTOR OPTION PLAN NUMBER										3						
PHASE	1	2	3	4	5	6	7	8	9	1	1	1	1	1	1	1
DETECTOR LOCK																
VEH RECALL																
PED RECALL																
MAX RECALL																
SOFT RECALL																
NO REST																
ADD INIT CALC																

PHASE DETECTOR OPTION PLAN NUMBER										4						
PHASE	1	2	3	4	5	6	7	8	9	1	1	1	1	1	1	1
DETECTOR LOCK																
VEH RECALL																
PED RECALL																
MAX RECALL																
SOFT RECALL																
NO REST																
ADD INIT CALC																

6-4 PEDESTRIAN AND SYSTEM DETECTOR OPTIONS

PHASE PEDESTRIAN DETECTOR								
	1	2	3	4	5	6	7	8
PED DET INPUT								
	9	10	11	12	13	14	15	16
PED DET INPUT								
LOCAL SYSTEM DETECTOR								
	1	2	3	4	5	6	7	8
VEH DET INPUT								
	9	10	11	12	13	14	15	16
VEH DET INPUT								

6-5 LOG – SPEED DETECTOR SET UP

NTCIP LOG PERIOD								
ECPI LOG PERIOD								
LENGTH UNIT								
SPEED DETECTOR	1	2	3	4	5	6	7	8
LOCAL DETECTOR								
ONE / TWO DET								
VEH LENGTH								
TRAP LENGTH								
ENABLE LOG								
SPEED DETECTOR	9	10	11	12	13	14	15	16
LOCAL DETECTOR								
ONE / TWO DET								
VEH LENGTH								
TRAP LENGTH								
ENABLE LOG								

6-6 VEHICLE DETECTOR DIAGNOSTICS

VEHICLE DIAGNOSTIC PLAN NUMBER					1
DET	COUNTS	ACTUATIONS	PRESENCE	MULTIPLIER	DET
1					33
2					34
3					35
4					36
5					37
6					38
7					39
8					40
9					41
10					42
11					43
12					44
13					45
14					46
15					47
16					48
17					49
18					50
19					51
20					52
21					53
22					54
23					55
24					56
25					57
26					58
27					59
28					60
29					61
30					62
31					63
32					64

VEHICLE DIAGNOSTIC PLAN NUMBER					2
DET	COUNTS	ACTUATIONS	PRESENCE	MULTIPLIER	DET
1					33
2					34
3					35
4					36
5					37
6					38
7					39
8					40
9					41
10					42
11					43
12					44
13					45
14					46
15					47
16					48
17					49
18					50
19					51
20					52
21					53
22					54
23					55
24					56
25					57
26					58
27					59
28					60
29					61
30					62
31					63
32					64

**6-6 VEHICLE DETECTOR DIAGNOSTICS
(CONTINUED)**

VEHICLE DIAGNOSTIC PLAN NUMBER					3
DET	COUNTS	ACTUATIONS	PRESENCE	MULTIPLIER	
1					33
2					34
3					35
4					36
5					37
6					38
7					39
8					40
9					41
10					42
11					43
12					44
13					45
14					46
15					47
16					48
17					49
18					50
19					51
20					52
21					53
22					54
23					55
24					56
25					57
26					58
27					59
28					60
29					61
30					62
31					63
32					64

VEHICLE DIAGNOSTIC PLAN NUMBER					4
DET	COUNTS	ACTUATIONS	PRESENCE	MULTIPLIER	
1					33
2					34
3					35
4					36
5					37
6					38
7					39
8					40
9					41
10					42
11					43
12					44
13					45
14					46
15					47
16					48
17					49
18					50
19					51
20					52
21					53
22					54
23					55
24					56
25					57
26					58
27					59
28					60
29					61
30					62
31					63
32					64

6-7 PEDESTRIAN DETECTOR DIAGNOSTICS

PED DIAGNOSTIC PLAN NUMBER 1					PED DIAGNOSTIC PLAN NUMBER 2				
DET	COUNTS	ACTUATIONS	PRESENCE	MULTIPLIER	DET	COUNTS	ACTUATIONS	PRESENCE	MULTIPLIER
1					1				
2					2				
3					3				
4					4				
5					5				
6					6				
7					7				
8					8				
9					9				
10					10				
11					11				
12					12				
13					13				
14					14				
15					15				
16					16				

PED DIAGNOSTIC PLAN NUMBER 3					PED DIAGNOSTIC PLAN NUMBER 4				
DET	COUNTS	ACTUATIONS	PRESENCE	MULTIPLIER	DET	COUNTS	ACTUATIONS	PRESENCE	MULTIPLIER
1					1				
2					2				
3					3				
4					4				
5					5				
6					6				
7					7				
8					8				
9					9				
10					10				
11					11				
12					12				
13					13				
14					14				
15					15				
16					16				

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18. APPENDIX D: PROGRAM REFERENCE CARD

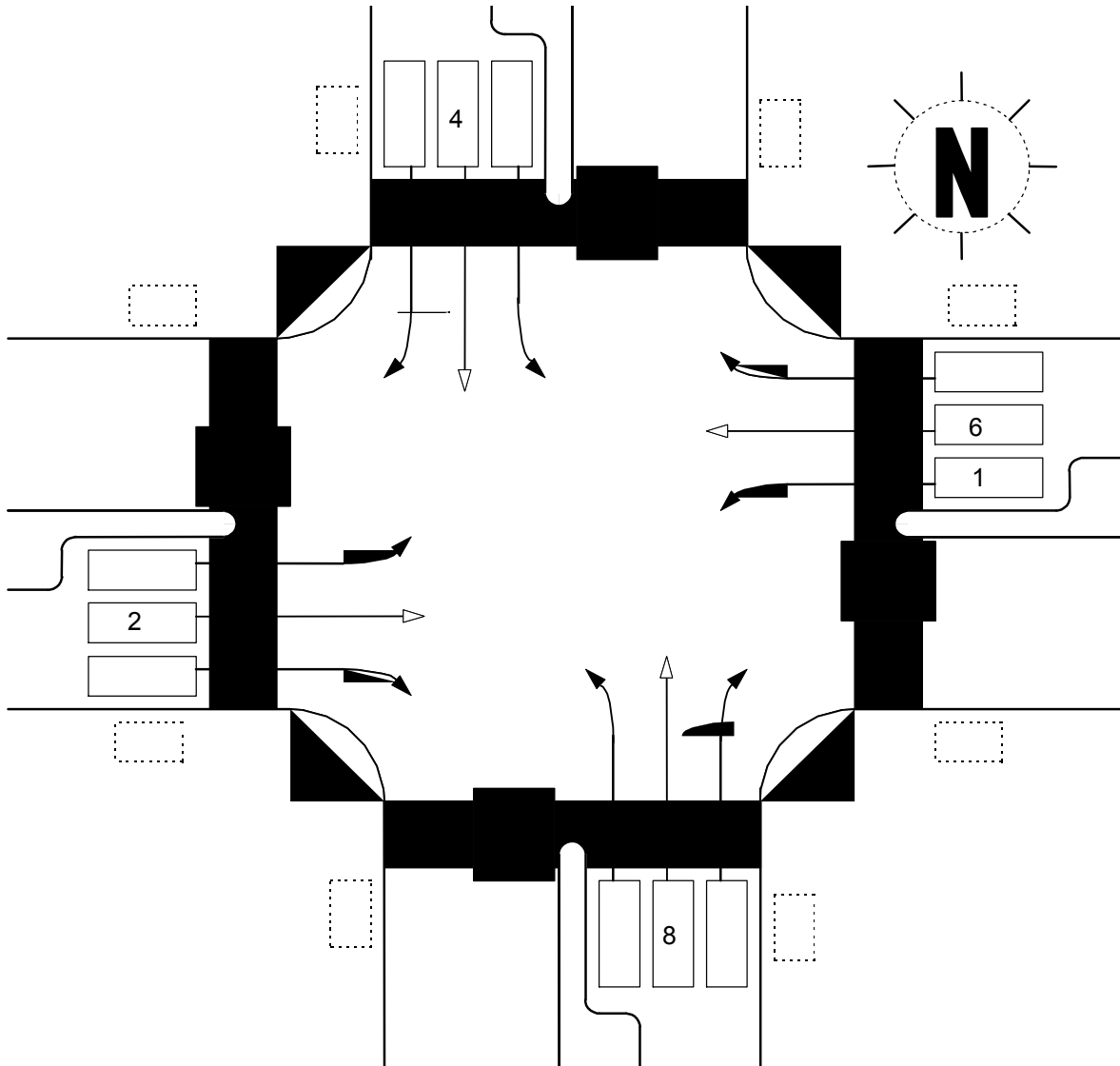
ASC/3

PROGRAM REFERENCE CARD

INTERSECTION Dundas Street & Meadowridge Drive

CONTROLLER NUMBER _____ ENTERED BY: _____ DATE 03/27/17

BOOT: _____ MAIN: _____ HELP: _____ DATA BASE _____



CONFIGURATION SUBMENU

1-1-1. PHASE RING ASSIGNMENT

PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
RING																

1-1-2. PHASE COMPATIBILITY

PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																

1-2. PHASES IN USE / EXCLUSIVE PED

PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PHASES IN USE																
EXCLUSIVE PED																

1-1-4. BACKUP PREVENT PHASES

PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																

1-1-5 SIMULTANEOUS GAP

PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																

1-1-3. PHASE RING SEQUENCE

CONTROLLER 1			SEQUENCE 1																	
RING 1																				
RING 2																				
RING 3																				
RING 4																				
CONTROLLER 1			SEQUENCE 2																	
RING 1																				
RING 2																				
RING 3																				
RING 4																				
CONTROLLER 1			SEQUENCE 3																	
RING 1																				
RING 2																				
RING 3																				
RING 4																				
CONTROLLER 1			SEQUENCE 4																	
RING 1																				
RING 2																				
RING 3																				
RING 4																				
CONTROLLER 1			SEQUENCE 5																	
RING 1																				
RING 2																				
RING 3																				
RING 4																				
CONTROLLER 1			SEQUENCE 6																	
RING 1																				
RING 2																				
RING 3																				
RING 4																				
CONTROLLER 1			SEQUENCE 7																	
RING 1																				
RING 2																				
RING 3																				
RING 4																				
CONTROLLER 1			SEQUENCE 8																	
RING 1																				
RING 2																				
RING 3																				
RING 4																				

1-1-3. PHASE RING SEQUENCE (CONT)

CONTROLLER 1		SEQUENCE 9																		
RING 1																				
RING 2																				
RING 3																				
RING 4																				
CONTROLLER 1		SEQUENCE 10																		
RING 1																				
RING 2																				
RING 3																				
RING 4																				
CONTROLLER 1		SEQUENCE 11																		
RING 1																				
RING 2																				
RING 3																				
RING 4																				
CONTROLLER 1		SEQUENCE 12																		
RING 1																				
RING 2																				
RING 3																				
RING 4																				
CONTROLLER 1		SEQUENCE 13																		
RING 1																				
RING 2																				
RING 3																				
RING 4																				
CONTROLLER 1		SEQUENCE 14																		
RING 1																				
RING 2																				
RING 3																				
RING 4																				
CONTROLLER 1		SEQUENCE 15																		
RING 1																				
RING 2																				
RING 3																				
RING 4																				
CONTROLLER 1		SEQUENCE 16																		
RING 1																				
RING 2																				
RING 3																				
RING 4																				

1-3. PHASE TO LOAD SWITCH (MMU) ASSIGNMENT

LOAD SWITCH	PHASE / OVERLAP	TYPE	DIMMING				AUTO FLASH	
			RED	YELLOW	GREEN	PHASE	COLOR	TOGETHER
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								

1-4-2. MMU PROGRAM

PHASE	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2
1															
2															
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															

1-4-1. SDLC OPTIONS

TERM & FACIL	BIU NUMBER							
	1	2	3	4	5	6	7	8
ENABLE								
PEER-PEER EN								
DETECTOR RACK	1	2	3	4	5	6	7	8
ENABLE								
PEER-PEER EN								
MMU ENABLE								
MMU STOP TIME								
DIAGNOSTIC ENABLE (TEST FIXTURE)								
CONTROLLER PEER TO PEER ENABLE								
DISABLE 3 CRITICAL RFEs LOCKUP								

1-4-3. COLOR CHECK DISABLE

DISABLE ALL COLOR CHECKS																
MMU CHANNEL	1	2	3	4	5	6	7	8								
GREEN / WALK																
YELLOW / PC																
RED / DW																
MMU CHANNEL	9	10	11	12	13	14	15	16								
GREEN / WALK																
YELLOW / PC																
RED / DW																

1-5-1 GLOBAL PORT PARAMETERS

NTCIP BACKUP TIME (SECONDS)	
PORT 2 PRIORITY	
PORT 3A PRIORITY	
PORT 3B PRIORITY	
ETHERNET PRIORITY	

1-5-1 PORT 2 (TERMINAL)

PROTOCOL	
ENABLE	
DATA RATE (BPS)	
DATA, PARITY, STOP	
MODEM SETUP STRING	
USER STRING	
COMM. PORT ADDRESS	
SYSTEM DETECTOR 9 - 16 ADDRESS	
TELEMETRY RESPONSE DELAY	
DUPLEX HALF - FULL	
AB3418 / NTCIP GROUP ADDRESS	
AB3418 / NTCIP SINGLE FLAG ENABLE	
NTCIP PROTOCOL	
RTS TO CTS DELAY	
RTS TURN OFF DELAY	
DROP OUT TIME (in seconds)	
EARLY RTS	

1-5-3 PORT 3A (TELEMETRY)

PROTOCOL	
ENABLE	
DATA RATE (BPS)	
DATA, PARITY, STOP	
MODEM SETUP STRING	
USER STRING	
COMM. PORT ADDRESS	
SYSTEM DETECTOR 9 - 16 ADDRESS	
ELEMETRY RESPONSE DELAY	
DUPLEX HALF - FULL	
AB3418 / NTCIP GROUP ADDRESS	
AB3418 / NTCIP SINGLE FLAG ENABLE	
NTCIP PROTOCOL	
RTS TO CTS DELAY	
RTS TURN OFF DELAY	
DROP OUT TIME (in seconds)	
EARLY RTS	

1-7-1 ADMINISTRATION

SUPERVISOR ACCESS CODE	
ENABLE CRC CHECK OF DATA BASE	
CRC OF PROGRAM DATA BASE	
REQUEST DOWNLOAD OF PROGRAMMED DATA	

1-7-2 DISPLAY OPTIONS

KEY CLICK ENABLE	
BACKLIGHT ENABLE	

1-5-4. PORT 3B (TELEMETRY)

PROTOCOL	
ENABLE	
DATA RATE (BPS)	
DATA, PARITY, STOP	
MODEM SETUP STRING	
USER STRING	
COMM. PORT ADDRESS	
SYSTEM DETECTOR 9 - 16 ADDRESS	
TELEMETRY RESPONSE DELAY	
DUPLEX HALF - FULL	
AB3418 / NTCIP GROUP ADDRESS	
AB3418 / NTCIP SINGLE FLAG ENABLE	
NTCIP PROTOCOL	
RTS TO CTS DELAY	
RTS TURN OFF DELAY	
DROP OUT TIME (in seconds)	
EARLY RTS	

1-5-5 ETHERNET PORT CONFIGURATION

IP ADDRESS					
ADDRESS MASK					
FTP SERVER ADDRESS					
DEFAULT GATEWAY ADDRESS					

1-6-1 ENABLE EVENT LOGS

CRITICAL RFE'S (MMU/TE)	
3 CRITICAL RFE ERRORS IN 24 HOURS	
NON-CRITICAL RFE'S (DET/TEST)	
DETECTOR ERRORS	
COORDINATION ERRORS	
MMU FLASH FAULTS	
LOCAL FLASH FAULTS	
PREEMPT	
POWER ON/OFF	
LOW BATTERY	
ACCESS	
DATA CHANGE	
CONTROLLER DOWNLOAD	
ALARM 1	
ALARM 2	
ALARM 3	
ALARM 4	
ALARM 5	
ALARM 6	
ALARM 7	
ALARM 8	
ALARM 9	
ALARM 10	
ALARM 11	
ALARM 12	
ALARM 13	
ALARM 14	
ALARM 15	
ALARM 16	

IF				
THEN				
ELSE				

THEN				
ELSE				

LOGIC GATE NUMBER				
IF				
THEN				
ELSE				

LOGIC GATE NUMBER				
IF				
THEN				
ELSE				

LOGIC GATE NUMBER				
IF				
THEN				
ELSE				

LOGIC GATE NUMBER				
IF				
THEN				
ELSE				

LOGIC GATE NUMBER				
IF				
THEN				
ELSE				

LOGIC GATE NUMBER				
IF				
THEN				
ELSE				

1-8-2 LOGIC PROCESSOR (CONTINUED)

LOGIC GATE NUMBER				
IF				

LOGIC GATE NUMBER				
IF				

THEN				
ELSE				

LOGIC GATE NUMBER				
IF				
THEN				
ELSE				

CONTROLLER SUBMENU

2-1. CONTROLLER TIMING DATA

PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
MINIMUM GREEN	7	20	7	10	7	20	7	10								
BICYCLE MINIMUM GREEN																
CONDITIONAL SERVICE MINIMUM GREEN																
DELAYED GREEN																
WALK		7		7		7		7								
WALK 2																
WALK MAX																
PEDESTRIAN CLEARANCE		23		30		23		30								
PEDESTRIAN CLEARANCE 2																
PEDESTRIAN CLEARANCE MAX																
PEDESTRIAN CARRY OVER																
VEHICLE EXTENSION	3.5	5.5	3.5	3.5	3.5	5.5	3.5	3.5								
VEHICLE EXTENSION 2																
MAX1	20	55		30		55		30								
MAX2	20	60		30		60		30								
MAX3																
DYNAMIC MAX																
DYNAMIC MAX STEP																
YELLOW CHANGE	3.0	4.2		3.3		4.2		3.3								
RED CLRANCE	1.0	2.5		3.6		2.5		3.6								
RED MAX																
RED REVERT																
ACTUATIONS BEFORE GAP REDUCTION																
SECONDS PER ACTIONS ADDED TO INITIAL																
MAXIMUM ADDED INITIAL GREEN																
TIME BEFORE GAP REDUCTION																
CARS WAITING BEFORE GAP REDUCTION																
STEP TO REDUCE																
TIME TO REDUCE TO MINIMUM																
MINIMUM GAP																

2-2 VEHICLE OVERLAP

OVERLAP A PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
INCLUDED																	
PROTECTED																	
MODIFIER																	
PEDESTRIAN PROTECT																	
NOT OVERLAP																	
TRAILING GREEN																	
TRAILING YELLOW																	
TRAILING RED																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRAILING LEADING																	
ADVANCE GREEN																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
FLASH GREEN																	

OVERLAP C PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
INCLUDED																	
PROTECTED																	
MODIFIER																	
PEDESTRIAN PROTECT																	
NOT OVERLAP																	
TRAILING GREEN																	
TRAILING YELLOW																	
TRAILING RED																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRAILING LEADING																	
ADVANCE GREEN																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
FLASH GREEN																	

OVERLAP B PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
INCLUDED																	
PROTECTED																	
MODIFIER																	
PEDESTRIAN PROTECT																	
NOT OVERLAP																	
TRAILING GREEN																	
TRAILING YELLOW																	
TRAILING RED																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRAILING LEADING																	
ADVANCE GREEN																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
FLASH GREEN																	

OVERLAP D PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
INCLUDED																	
PROTECTED																	
MODIFIER																	
PEDESTRIAN PROTECT																	
NOT OVERLAP																	
TRAILING GREEN																	
TRAILING YELLOW																	
TRAILING RED																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRAILING LEADING																	
ADVANCE GREEN																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
FLASH GREEN																	

2-2 VEHICLE OVERLAP (CONTINUED)

OVERLAP E PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
INCLUDED																	
PROTECTED																	
MODIFIER																	
PEDESTRIAN PROTECT NOT OVERLAP																	
TRAILING GREEN																	
TRAILING YELLOW																	
TRAILING RED																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRAILING LEADING																	
ADVANCE GREEN																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
FLASH GREEN																	

OVERLAP G PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
INCLUDED																	
PROTECTED																	
MODIFIER																	
PEDESTRIAN PROTECT NOT OVERLAP																	
TRAILING GREEN																	
TRAILING YELLOW																	
TRAILING RED																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRAILING LEADING																	
ADVANCE GREEN																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
FLASH GREEN																	

OVERLAP F PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
INCLUDED																	
PROTECTED																	
MODIFIER																	
PEDESTRIAN PROTECT NOT OVERLAP																	
TRAILING GREEN																	
TRAILING YELLOW																	
TRAILING RED																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRAILING LEADING																	
ADVANCE GREEN																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
FLASH GREEN																	

OVERLAP H PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
INCLUDED																	
PROTECTED																	
MODIFIER																	
PEDESTRIAN PROTECT NOT OVERLAP																	
TRAILING GREEN																	
TRAILING YELLOW																	
TRAILING RED																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRAILING LEADING																	
ADVANCE GREEN																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
FLASH GREEN																	

2-2 VEHICLE OVERLAP (CONTINUED)

OVERLAP M PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
INCLUDED																	
PROTECTED																	
MODIFIER																	
PEDESTRIAN PROTECT NOT OVERLAP																	
TRAILING GREEN																	
TRAILING YELLOW																	
TRAILING RED																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRAILING LEADING																	
ADVANCE GREEN																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
FLASH GREEN																	

OVERLAP O PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
INCLUDED																	
PROTECTED																	
MODIFIER																	
PEDESTRIAN PROTECT NOT OVERLAP																	
TRAILING GREEN																	
TRAILING YELLOW																	
TRAILING RED																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRAILING LEADING																	
ADVANCE GREEN																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
FLASH GREEN																	

OVERLAP N PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
INCLUDED																	
PROTECTED																	
MODIFIER																	
PEDESTRIAN PROTECT NOT OVERLAP																	
TRAILING GREEN																	
TRAILING YELLOW																	
TRAILING RED																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRAILING LEADING																	
ADVANCE GREEN																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
FLASH GREEN																	

OVERLAP P PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
INCLUDED																	
PROTECTED																	
MODIFIER																	
PEDESTRIAN PROTECT NOT OVERLAP																	
TRAILING GREEN																	
TRAILING YELLOW																	
TRAILING RED																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRAILING LEADING																	
ADVANCE GREEN																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
FLASH GREEN																	

2-3 PEDESTRIAN OVERLAP

PEDESTRIAN OVERLAP CONSISTS OF PHASES																
PEDESTRIAN OVERLAP	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																

2-4 GUARANTEED MINIMUM TIMES

PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
MINIMUM GREEN																
WALK																
PEDESTRIAN CLEARANCE																
YELLOW CHANGE																
RED CLEARANCE																
OVERLAP	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
MINIMUM GREEN																

2-5 START / FLASH DATA

POWER START																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PHASE																
OVERLAP																
POWER START RED									FLASH TIME							
REMOTE (AUTOMATIC) FLASH																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
ENTRY																
EXIT																
OVERLAP	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
EXIT																
EXIT REMOTE FLASH									MINIMUM AUTOMATIC FLASH							
MINIMUM RECALL									CYCLE THROUGH PHASES							

2-6-1 CONTROLLER OPTIONS

PEDESTRIAN CLEARANCE PROTECT																
UNIT RED REVERT																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PHASE																
GUARANTEE D PASSAGE																
NON-ACT I																
NON ACT II																
DUAL ENTRY																
PED RESERVICE																
REST IN WALK																
FLASHING WALK																
PED CLEAR > YELLOW																
PED CLEAR > ALL RED																
INIT GREEN + VEHICLE EXIT																

2-7 ACTUATED / PRE-TIMED MODE PHASES

ENABLE PRE-TIMED OPERATION																
FREE INPUT DISABLED PRE-TIMED																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PHASE																
PRE-TIMED																

3-2 COORDINATOR PATTERN (CONTINUED)

COORDINATOR PATTERN		SPLIT PATTERN	
CYCLE LENGTH (SECONDS)			
OFFSET VALUE		SEQUENCE	
SPLITS IN		OFFSETS IN	
CROSSING ARTERY PATTERN			
VEHICLE PERMISSIVE 1 LENGTH		VEHICLE PERMISSIVE 2 LENGTH	
VEHICLE PERMISSIVE 2 DISPLACEMENT		ACTION PLAN	
ACTUATED COORDINATION		TIMING PLAN	
ACTUATED REST IN WALK		PHASE RESERVICE	
RING SPLIT EXTENSION (SECONDS)		1	2
SPLIT DEMAND PATTERN			
RING DISPLACEMENT			
	1 2 3 4 5	8 9 1 1	1 1
		0 1	3 5
PREFERENCE 1 PHASES			
PREFERENCE 2 PHASES			

COORDINATOR PATTERN		SPLIT PATTERN	
CYCLE LENGTH (SECONDS)			
OFFSET VALUE		SEQUENCE	
SPLITS IN		OFFSETS IN	
CROSSING ARTERY PATTERN			
VEHICLE PERMISSIVE 1 LENGTH		VEHICLE PERMISSIVE 2 LENGTH	
VEHICLE PERMISSIVE 2 DISPLACEMENT		ACTION PLAN	
ACTUATED COORDINATION		TIMING PLAN	
ACTUATED REST IN WALK		PHASE RESERVICE	
RING SPLIT EXTENSION (SECONDS)		1	2
SPLIT DEMAND PATTERN			
RING DISPLACEMENT			
	1 2 3 4 5	8 9 1 1	1 1
		0 1	3 5
PREFERENCE 1 PHASES			
PREFERENCE 2 PHASES			

COORDINATOR PATTERN		SPLIT PATTERN	
CYCLE LENGTH (SECONDS)			
OFFSET VALUE		SEQUENCE	
SPLITS IN		OFFSETS IN	
CROSSING ARTERY PATTERN			
VEHICLE PERMISSIVE 1 LENGTH		VEHICLE PERMISSIVE 2 LENGTH	
VEHICLE PERMISSIVE 2 DISPLACEMENT		ACTION PLAN	
ACTUATED COORDINATION		TIMING PLAN	
ACTUATED REST IN WALK		PHASE RESERVICE	
RING SPLIT EXTENSION (SECONDS)		1	2
SPLIT DEMAND PATTERN			
RING DISPLACEMENT			
	1 2 3 4 5	8 9 1 1	1 1
		0 1	3 5
PREFERENCE 1 PHASES			
PREFERENCE 2 PHASES			

COORDINATOR PATTERN		SPLIT PATTERN	
CYCLE LENGTH (SECONDS)			
OFFSET VALUE		SEQUENCE	
SPLITS IN		OFFSETS IN	
CROSSING ARTERY PATTERN			
VEHICLE PERMISSIVE 1 LENGTH		VEHICLE PERMISSIVE 2 LENGTH	
VEHICLE PERMISSIVE 2 DISPLACEMENT		ACTION PLAN	
ACTUATED COORDINATION		TIMING PLAN	
ACTUATED REST IN WALK		PHASE RESERVICE	
RING SPLIT EXTENSION (SECONDS)		1	2
SPLIT DEMAND PATTERN			
RING DISPLACEMENT			
	1 2 3 4 5	8 9 1 1	1 1
		0 1	3 5
PREFERENCE 1 PHASES			
PREFERENCE 2 PHASES			

3-2 COORDINATOR PATTERN (CONTINUED)

COORDINATOR PATTERN			
CYCLE LENGTH (SECONDS)		SPLIT PATTERN	
OFFSET VALUE		SEQUENCE	
SPLITS IN		OFFSETS IN	
CROSSING ARTERY PATTERN			
VEHICLE PERMISSIVE 1 LENGTH		VEHICLE PERMISSIVE 2 LENGTH	
VEHICLE PERMISSIVE 2 DISPLACEMENT		ACTION PLAN	
ACTUATED COORDINATION		TIMING PLAN	
ACTUATED REST IN WALK		PHASE RESERVICE	
RING SPLIT EXTENSION (SECONDS)		1	2
SPLIT DEMAND PATTERN			
RING DISPLACEMENT			
	1 2 3 4 5	8 9	1 1 1 1
		0 1	3 5
PREFERENCE 1 PHASES			
PREFERENCE 2 PHASES			

COORDINATOR PATTERN			
CYCLE LENGTH (SECONDS)		SPLIT PATTERN	
OFFSET VALUE		SEQUENCE	
SPLITS IN		OFFSETS IN	
CROSSING ARTERY PATTERN			
VEHICLE PERMISSIVE 1 LENGTH		VEHICLE PERMISSIVE 2 LENGTH	
VEHICLE PERMISSIVE 2 DISPLACEMENT		ACTION PLAN	
ACTUATED COORDINATION		TIMING PLAN	
ACTUATED REST IN WALK		PHASE RESERVICE	
RING SPLIT EXTENSION (SECONDS)		1	2
SPLIT DEMAND PATTERN			
RING DISPLACEMENT			
	1 2 3 4 5	8 9	1 1 1 1
		0 1	3 5
PREFERENCE 1 PHASES			
PREFERENCE 2 PHASES			

COORDINATOR PATTERN			
CYCLE LENGTH (SECONDS)		SPLIT PATTERN	
OFFSET VALUE		SEQUENCE	
SPLITS IN		OFFSETS IN	
CROSSING ARTERY PATTERN			
VEHICLE PERMISSIVE 1 LENGTH		VEHICLE PERMISSIVE 2 LENGTH	
VEHICLE PERMISSIVE 2 DISPLACEMENT		ACTION PLAN	
ACTUATED COORDINATION		TIMING PLAN	
ACTUATED REST IN WALK		PHASE RESERVICE	
RING SPLIT EXTENSION (SECONDS)		1	2
SPLIT DEMAND PATTERN			
RING DISPLACEMENT			
	1 2 3 4 5	8 9	1 1 1 1
		0 1	3 5
PREFERENCE 1 PHASES			
PREFERENCE 2 PHASES			

COORDINATOR PATTERN			
CYCLE LENGTH (SECONDS)		SPLIT PATTERN	
OFFSET VALUE		SEQUENCE	
SPLITS IN		OFFSETS IN	
CROSSING ARTERY PATTERN			
VEHICLE PERMISSIVE 1 LENGTH		VEHICLE PERMISSIVE 2 LENGTH	
VEHICLE PERMISSIVE 2 DISPLACEMENT		ACTION PLAN	
ACTUATED COORDINATION		TIMING PLAN	
ACTUATED REST IN WALK		PHASE RESERVICE	
RING SPLIT EXTENSION (SECONDS)		1	2
SPLIT DEMAND PATTERN			
RING DISPLACEMENT			
	1 2 3 4 5	8 9	1 1 1 1
		0 1	3 5
PREFERENCE 1 PHASES			
PREFERENCE 2 PHASES			

COORDINATOR PATTERN															
CYCLE LENGTH (SECONDS)		SPLIT PATTERN													
OFFSET VALUE		SEQUENCE													
SPLITS IN		OFFSETS IN													
CROSSING ARTERY PATTERN															
VEHICLE PERMISSIVE 1 LENGTH		VEHICLE PERMISSIVE 2 LENGTH													
VEHICLE PERMISSIVE 2 DISPLACEMENT		ACTION PLAN													
ACTUATED COORDINATION		TIMING PLAN													
ACTUATED REST IN WALK		PHASE RESERVICE													
RING SPLIT EXTENSION (SECONDS)		1	2	3	4										
SPLIT DEMAND PATTERN															
RING DISPLACEMENT															
		1	2	3	4	5		8	9	1	1	1	1	1	1
										0	1		3		5
PREFERENCE 1 PHASES															
PREFERENCE 2 PHASES															

COORDINATOR PATTERN																	
CYCLE LENGTH (SECONDS)		SPLIT PATTERN															
OFFSET VALUE		SEQUENCE															
SPLITS IN		OFFSETS IN															
CROSSING ARTERY PATTERN																	
VEHICLE PERMISSIVE 1 LENGTH		VEHICLE PERMISSIVE 2 LENGTH															
VEHICLE PERMISSIVE 2 DISPLACEMENT		ACTION PLAN															
ACTUATED COORDINATION		TIMING PLAN															
ACTUATED REST IN WALK		PHASE RESERVICE															
RING SPLIT EXTENSION (SECONDS)		1	2	3	4												
SPLIT DEMAND PATTERN																	
RING DISPLACEMENT																	
		1	2	3	4	5	6	7	8	9	1	1	1	1	1	1	
											0	1	2	3	4	5	6
PREFERENCE 1 PHASES																	
PREFERENCE 2 PHASES																	

3-3 SPLIT PATTERN

SPLIT PATTERN NUMBER		1																		
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	1
COORDINATED PHASE(S)			X				X													
PHASE		1	2	3	4	5	6	7	8											
SPLIT VALUE		11	54	0	35	0	65	0	35											
MODE																				
PHASE		9	10	11	12	13	14	15	16											
SPLIT VALUE																				
MODE																				

SPLIT PATTERN NUMBER		2																		
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	1
COORDINATED PHASE(S)			X				X													
PHASE		1	2	3	4	5	6	7	8											
SPLIT VALUE		10	52	0	38	0	62	0	38											
MODE																				
PHASE		9	10	11	12	13	14	15	16											
SPLIT VALUE																				
MODE																				

SPLIT PATTERN NUMBER		3																		
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	1
COORDINATED PHASE(S)			X				X													
PHASE		1	2	3	4	5	6	7	8											
SPLIT VALUE		16	49	0	35	0	65	0	35											
MODE																				
PHASE		9	10	11	12	13	14	15	16											
SPLIT VALUE																				
MODE																				

SPLIT PATTERN NUMBER		4																		
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	1
COORDINATED PHASE(S)			X				X													
PHASE		1	2	3	4	5	6	7	8											
SPLIT VALUE		11	44	0	45	0	55	0	45											
MODE																				
PHASE		9	10	11	12	13	14	15	16											
SPLIT VALUE																				
MODE																				

SPLIT PATTERN NUMBER																				
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	1
COORDINATED PHASE(S)																				
PHASE		1	2	3	4	5	6	7	8											
SPLIT VALUE																				
MODE																				
PHASE		9	10	11	12	13	14	15	16											
SPLIT VALUE																				
MODE																				

SPLIT PATTERN NUMBER																				
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	1
COORDINATED PHASE(S)																				
PHASE		1	2	3	4	5	6	7	8											
SPLIT VALUE																				
MODE																				
PHASE		9	10	11	12	13	14	15	16											
SPLIT VALUE																				
MODE																				

SPLIT PATTERN NUMBER																				
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	1
COORDINATED PHASE(S)																				
PHASE		1	2	3	4	5	6	7	8											
SPLIT VALUE																				
MODE																				
PHASE		9	10	11	12	13	14	15	16											
SPLIT VALUE																				
MODE																				

SPLIT PATTERN NUMBER																				
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	1
COORDINATED PHASE(S)																				
PHASE		1	2	3	4	5	6	7	8											
SPLIT VALUE																				
MODE																				
PHASE		9	10	11	12	13	14	15	16											
SPLIT VALUE																				
MODE																				

3-3 SPLIT PATTERN (CONTINUED)

SPLIT PATTERN NUMBER																	
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
COORDINATED PHASE(S)																	
PHASE	1	2	3	4	5	6	7	8									
SPLIT VALUE																	
MODE																	
PHASE	9	10	11	12	13	14	15	16									
SPLIT VALUE																	
MODE																	

SPLIT PATTERN NUMBER																	
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
COORDINATED PHASE(S)																	
PHASE	1	2	3	4	5	6	7	8									
SPLIT VALUE																	
MODE																	
PHASE	9	10	11	12	13	14	15	16									
SPLIT VALUE																	
MODE																	

SPLIT PATTERN NUMBER																	
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
COORDINATED PHASE(S)																	
PHASE	1	2	3	4	5	6	7	8									
SPLIT VALUE																	
MODE																	
PHASE	9	10	11	12	13	14	15	16									
SPLIT VALUE																	
MODE																	

SPLIT PATTERN NUMBER																	
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
COORDINATED PHASE(S)																	
PHASE	1	2	3	4	5	6	7	8									
SPLIT VALUE																	
MODE																	
PHASE	9	10	11	12	13	14	15	16									
SPLIT VALUE																	
MODE																	

SPLIT PATTERN NUMBER																	
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
COORDINATED PHASE(S)																	
PHASE	1	2	3	4	5	6	7	8									
SPLIT VALUE																	
MODE																	
PHASE	9	10	11	12	13	14	15	16									
SPLIT VALUE																	
MODE																	

SPLIT PATTERN NUMBER																	
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
COORDINATED PHASE(S)																	
PHASE	1	2	3	4	5	6	7	8									
SPLIT VALUE																	
MODE																	
PHASE	9	10	11	12	13	14	15	16									
SPLIT VALUE																	
MODE																	

SPLIT PATTERN NUMBER																	
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
COORDINATED PHASE(S)																	
PHASE	1	2	3	4	5	6	7	8									
SPLIT VALUE																	
MODE																	
PHASE	9	10	11	12	13	14	15	16									
SPLIT VALUE																	
MODE																	

SPLIT PATTERN NUMBER																	
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
COORDINATED PHASE(S)																	
PHASE	1	2	3	4	5	6	7	8									
SPLIT VALUE																	
MODE																	
PHASE	9	10	11	12	13	14	15	16									
SPLIT VALUE																	
MODE																	

3-3 SPLIT PATTERN (CONTINUED)

SPLIT PATTERN NUMBER																	
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
COORDINATED PHASE(S)																	
PHASE	1	2	3	4	5	6	7	8									
SPLIT VALUE																	
MODE																	
PHASE	9	10	11	12	13	14	15	16									
SPLIT VALUE																	
MODE																	

SPLIT PATTERN NUMBER																	
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
COORDINATED PHASE(S)																	
PHASE	1	2	3	4	5	6	7	8									
SPLIT VALUE																	
MODE																	
PHASE	9	10	11	12	13	14	15	16									
SPLIT VALUE																	
MODE																	

SPLIT PATTERN NUMBER																	
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
COORDINATED PHASE(S)																	
PHASE	1	2	3	4	5	6	7	8									
SPLIT VALUE																	
MODE																	
PHASE	9	10	11	12	13	14	15	16									
SPLIT VALUE																	
MODE																	

SPLIT PATTERN NUMBER																	
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
COORDINATED PHASE(S)																	
PHASE	1	2	3	4	5	6	7	8									
SPLIT VALUE																	
MODE																	
PHASE	9	10	11	12	13	14	15	16									
SPLIT VALUE																	
MODE																	

3-4 AUTO PERMISSIVE MINIMUM GREEN TIME

PHASE	1	2	3	4	5	6	7	8								
MINIMUM GREEN																
PHASE	9	10	11	12	13	14	15	16								
MINIMUM GREEN																

3-5 SPLIT DEMAND

PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
DEMAND 1																	
DEMAND 2																	
DEMAND	1		2														
DETECTOR																	
CALL TIME (SECONDS)																	
CYCLE COUNT																	

PREEMPTOR SUBMENU

4-1 PREEMPTOR

PREEMPTOR NUMBER	1																			
ACTIVE	NON-LOCK INPUT																			
PREEMPTION OVERRIDE	INTERLOCK ENABLE																			
DELAY TIME (SECONDS)	INHIBIT TIME (SECONDS)																			
EXTEND INPUT (SECONDS)	MAX PRESENCE TIME (SECONDS)																			
DURATION TIME (SECONDS)	TRACK CLEARANCE RESERVICE																			
PED DARK	RESERVICE TIME																			
AUTOMATIC FLASH HAS PRIORITY	RED CLEAR GOES GREEN																			
TERMINATE OVERLAPS ASAP	PED CLEAR THROUGH YELLOW																			
RING	1				2				3				4							
FREE DURING PREEMPTION																				
	WALK				PED CLEAR				GREEN				YELLOW				RED			
ENTERING MINIMUM TIME																				
TRACK CLEARANCE TIME																				
MIN DWELL – CYCLE GREEN/ EXIT YELLOW /RED																				
DWELL FLASH	FLASH EXIT COLOR																			
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1			
TRACK CLEAR PHASE																				
DWELL PHASE																				
DWELL PEDESTRIAN																				
CYCLING PHASE																				
CYCLING PEDESTRIAN																				
EXIT PHASE																				
EXIT CALLS																				
SPECIAL FUNCTION																				
PREEMPTION TO COORDINATION									EXIT TIMING PLAN											
LINKED PREEMPTOR																				
PREEMPTOR ACTIVE OUTPUTS																				
PREEMPTOR ACTIVE OUT									PREEMPTOR ACTIVE OUT IN DWELL											
OTHER PRIORITY PREEMPTOR OUT									NON-PRIORITY PREEMPTOR OUT											
OVERLAP	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P				
TRACK CLEAR OVERLAP																				
DWELL OVERLAP																				
CYCLING OVERLAP																				

PREEMPTOR NUMBER	2																			
ACTIVE	NON-LOCK INPUT																			
PREEMPTION OVERRIDE	INTERLOCK ENABLE																			
DELAY TIME (SECONDS)	INHIBIT TIME (SECONDS)																			
EXTEND INPUT (SECONDS)	MAX PRESENCE TIME (SECONDS)																			
DURATION TIME (SECONDS)	TRACK CLEARANCE RESERVICE																			
PED DARK	RESERVICE TIME																			
AUTOMATIC FLASH HAS PRIORITY	RED CLEAR GOES GREEN																			
TERMINATE OVERLAPS ASAP	PED CLEAR THROUGH YELLOW																			
RING	1				2				3				4							
FREE DURING PREEMPTION																				
	WALK				PED CLEAR				GREEN				YELLOW				RED			
ENTERING MINIMUM TIME																				
TRACK CLEARANCE TIME																				
MIN DWELL – CYCLE GREEN/EXIT YELLOW/RED																				
DWELL FLASH	FLASH EXIT COLOR																			
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1			
TRACK CLEAR PHASE																				
DWELL PHASE																				
DWELL PEDESTRIAN																				
CYCLING PHASE																				
CYCLING PEDESTRIAN																				
EXIT PHASE																				
EXIT CALLS																				
SPECIAL FUNCTION																				
PREEMPTION TO COORDINATION									EXIT TIMING PLAN											
LINKED PREEMPTOR																				
PREEMPTOR ACTIVE OUTPUTS																				
PREEMPTOR ACTIVE OUT									PREEMPTOR ACTIVE OUT IN DWELL											
OTHER PRIORITY PREEMPTOR OUT									NON-PRIORITY PREEMPTOR OUT											
OVERLAP	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P				
TRACK CLEAR OVERLAP																				
DWELL OVERLAP																				
CYCLING OVERLAP																				

4-2 LOW PRIORITY PREEMPTOR SELECTION

FILTERED INPUT	SOLID	PULSING
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

4-1 PREEMPTOR (CONTINUED)

PREEMPTOR NUMBER		3															
ACTIVE	NON-LOCK INPUT																
PREEMPTION OVERRIDE	INTERLOCK ENABLE																
DELAY TIME (SECONDS)	INHIBIT TIME (SECONDS)																
EXTEND INPUT (SECONDS)	MAX PRESENCE TIME (SECONDS)																
DURATION TIME (SECONDS)	TRACK CLEARANCE RESERVICE																
PED DARK	RESERVICE TIME																
AUTOMATIC FLASH HAS PRIORITY	RED CLEAR GOES GREEN																
TERMINATE OVERLAPS ASAP	PC THROUGH YELLOW																
RING	1	2	3	4													
FREE DURING PREEMPTION																	
	WALK	PED CLEAR	GREEN	YELLOW	RED												
ENTERING MINIMUM TIME																	
TRACK CLEARANCE TIME																	
MIN DWELL - CYCLE GREEN/ EXIT YELLOW /RED																	
DWELL FLASH		FLASH EXIT COLOR															
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRACK CLEAR PHASE																	
DWELL PHASE																	
DWELL PEDESTRIAN																	
CYCLING PHASE																	
CYCLING PEDESTRIAN																	
EXIT PHASE																	
EXIT CALLS																	
SPECIAL FUNCTION																	
PREEMPTION TO COORDINATION		EXIT TIMING PLAN															
LINKED PREEMPTOR																	
PREEMPTOR ACTIVE OUTPUTS																	
PREEMPTOR ACTIVE OUT		PREEMPTOR ACTIVE OUT IN DWELL															
OTHER PRIORITY PREEMPTOR OUT		NON-PRIORITY PREEMPTOR OUT															
OVERLAP	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	
TRACK CLEAR OVERLAP																	
DWELL OVERLAP																	
CYCLING OVERLAP																	

PREEMPTOR NUMBER		4															
ACTIVE	NON-LOCK INPUT																
PREEMPTION OVERRIDE	INTERLOCK ENABLE																
DELAY TIME (SECONDS)	INHIBIT TIME (SECONDS)																
EXTEND INPUT (SECONDS)	MAX PRESENCE TIME (SECONDS)																
DURATION TIME (SECONDS)	TRACK CLEARANCE RESERVICE																
PED DARK	RESERVICE TIME																
AUTOMATIC FLASH HAS PRIORITY	RED CLEAR GOES GREEN																
TERMINATE OVERLAPS ASAP	PC THROUGH YELLOW																
RING	1	2	3	4													
FREE DURING PREEMPTION																	
	WALK	PED CLEAR	GREEN	YELLOW	RED												
ENTERING MINIMUM TIME																	
TRACK CLEARANCE TIME																	
MIN DWELL - CYCLE GREEN/ EXIT YELLOW /RED																	
DWELL FLASH		FLASH EXIT COLOR															
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRACK CLEAR PHASE																	
DWELL PHASE																	
DWELL PEDESTRIAN																	
CYCLING PHASE																	
CYCLING PEDESTRIAN																	
EXIT PHASE																	
EXIT CALLS																	
SPECIAL FUNCTION																	
PREEMPTION TO COORDINATION		EXIT TIMING PLAN															
LINKED PREEMPTOR																	
PREEMPTOR ACTIVE OUTPUTS																	
PREEMPTOR ACTIVE OUT		PREEMPTOR ACTIVE OUT IN DWELL															
OTHER PRIORITY PREEMPTOR OUT		NON-PRIORITY PREEMPTOR OUT															
OVERLAP	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	
TRACK CLEAR OVERLAP																	
DWELL OVERLAP																	
CYCLING OVERLAP																	

4-1 PREEMPTOR (CONTINUED)

PREEMPTOR NUMBER		5															
ACTIVE	NON-LOCK INPUT																
PREEMPTION OVERRIDE	INTERLOCK ENABLE																
DELAY TIME (SECONDS)	INHIBIT TIME (SECONDS)																
EXTEND INPUT (SECONDS)	MAX PRESENCE TIME (SECONDS)																
DURATION TIME (SECONDS)	TRACK CLEARANCE RESERVICE																
PED DARK	RESERVICE TIME																
AUTOMATIC FLASH HAS PRIORITY	RED CLEAR GOES GREEN																
TERMINATE OVERLAPS ASAP	PC THROUGH YELLOW																
RING	1	2	3	4													
FREE DURING PREEMPTION																	
	WALK	PED CLEAR	GREEN	YELLOW	RED												
ENTERING MINIMUM TIME																	
TRACK CLEARANCE TIME																	
MIN DWELL - CYCLE GREEN/ EXIT YELLOW /RED																	
DWELL FLASH																	
FLASH EXIT COLOR																	
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRACK CLEAR PHASE																	
DWELL PHASE																	
DWELL PEDESTRIAN																	
CYCLING PHASE																	
CYCLING PEDESTRIAN																	
EXIT PHASE																	
EXIT CALLS																	
SPECIAL FUNCTION																	
PREEMPTION TO COORDINATION					EXIT TIMING PLAN												
LINKED PREEMPTOR																	
PREEMPTOR ACTIVE OUTPUTS																	
PREEMPTOR ACTIVE OUT					PREEMPTOR ACTIVE OUT IN DWELL												
OTHER PRIORITY PREEMPTOR OUT					NON-PRIORITY PREEMPTOR OUT												
OVERLAP	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	
TRACK CLEAR OVERLAP																	
DWELL OVERLAP																	
CYCLING OVERLAP																	

PREEMPTOR NUMBER		6															
ACTIVE	NON-LOCK INPUT																
PREEMPTION OVERRIDE	INTERLOCK ENABLE																
DELAY TIME (SECONDS)	INHIBIT TIME (SECONDS)																
EXTEND INPUT (SECONDS)	MAX PRESENCE TIME (SECONDS)																
DURATION TIME (SECONDS)	TRACK CLEARANCE RESERVICE																
PED DARK	RESERVICE TIME																
AUTOMATIC FLASH HAS PRIORITY	RED CLEAR GOES GREEN																
TERMINATE OVERLAPS ASAP	PC THROUGH YELLOW																
RING	1	2	3	4													
FREE DURING PREEMPTION																	
	WALK	PED CLEAR	GREEN	YELLOW	RED												
ENTERING MINIMUM TIME																	
TRACK CLEARANCE TIME																	
MIN DWELL - CYCLE GREEN/ EXIT YELLOW /RED																	
DWELL FLASH																	
FLASH EXIT COLOR																	
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRACK CLEAR PHASE																	
DWELL PHASE																	
DWELL PEDESTRIAN																	
CYCLING PHASE																	
CYCLING PEDESTRIAN																	
EXIT PHASE																	
EXIT CALLS																	
SPECIAL FUNCTION																	
PREEMPTION TO COORDINATION					EXIT TIMING PLAN												
LINKED PREEMPTOR																	
PREEMPTOR ACTIVE OUTPUTS																	
PREEMPTOR ACTIVE OUT					PREEMPTOR ACTIVE OUT IN DWELL												
OTHER PRIORITY PREEMPTOR OUT					NON-PRIORITY PREEMPTOR OUT												
OVERLAP	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	
TRACK CLEAR OVERLAP																	
DWELL OVERLAP																	
CYCLING OVERLAP																	

4-1 PREEMPTOR (CONTINUED)

PREEMPTOR NUMBER		7															
ACTIVE	NON-LOCK INPUT																
PREEMPTION OVERRIDE	INTERLOCK ENABLE																
DELAY TIME (SECONDS)	INHIBIT TIME (SECONDS)																
EXTEND INPUT (SECONDS)	MAX PRESENCE TIME (SECONDS)																
DURATION TIME (SECONDS)	TRACK CLEARANCE RESERVICE																
PED DARK	RESERVICE TIME																
AUTOMATIC FLASH HAS PRIORITY	RED CLEAR GOES GREEN																
TERMINATE OVERLAPS ASAP	PC THROUGH YELLOW																
RING	1	2	3	4													
FREE DURING PREEMPTION																	
	WALK	PED CLEAR	GREEN	YELLOW	RED												
ENTERING MINIMUM TIME																	
TRACK CLEARANCE TIME																	
MIN DWELL - CYCLE GREEN/ EXIT YELLOW /RED																	
DWELL FLASH		FLASH EXIT COLOR															
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRACK CLEAR PHASE																	
DWELL PHASE																	
DWELL PEDESTRIAN																	
CYCLING PHASE																	
CYCLING PEDESTRIAN																	
EXIT PHASE																	
EXIT CALLS																	
SPECIAL FUNCTION																	
PREEMPTION TO COORDINATION		EXIT TIMING PLAN															
LINKED PREEMPTOR																	
PREEMPTOR ACTIVE OUTPUTS																	
PREEMPTOR ACTIVE OUT		PREEMPTOR ACTIVE OUT IN DWELL															
OTHER PRIORITY PREEMPTOR OUT		NON-PRIORITY PREEMPTOR OUT															
OVERLAP	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	
TRACK CLEAR OVERLAP																	
DWELL OVERLAP																	
CYCLING OVERLAP																	

PREEMPTOR NUMBER		8															
ACTIVE	NON-LOCK INPUT																
PREEMPTION OVERRIDE	INTERLOCK ENABLE																
DELAY TIME (SECONDS)	INHIBIT TIME (SECONDS)																
EXTEND INPUT (SECONDS)	MAX PRESENCE TIME (SECONDS)																
DURATION TIME (SECONDS)	TRACK CLEARANCE RESERVICE																
PED DARK	RESERVICE TIME																
AUTOMATIC FLASH HAS PRIORITY	RED CLEAR GOES GREEN																
TERMINATE OVERLAPS ASAP	PC THROUGH YELLOW																
RING	1	2	3	4													
FREE DURING PREEMPTION																	
	WALK	PED CLEAR	GREEN	YELLOW	RED												
ENTERING MINIMUM TIME																	
TRACK CLEARANCE TIME																	
MIN DWELL - CYCLE GREEN/ EXIT YELLOW /RED																	
DWELL FLASH		FLASH EXIT COLOR															
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRACK CLEAR PHASE																	
DWELL PHASE																	
DWELL PEDESTRIAN																	
CYCLING PHASE																	
CYCLING PEDESTRIAN																	
EXIT PHASE																	
EXIT CALLS																	
SPECIAL FUNCTION																	
PREEMPTION TO COORDINATION		EXIT TIMING PLAN															
LINKED PREEMPTOR																	
PREEMPTOR ACTIVE OUTPUTS																	
PREEMPTOR ACTIVE OUT		PREEMPTOR ACTIVE OUT IN DWELL															
OTHER PRIORITY PREEMPTOR OUT		NON-PRIORITY PREEMPTOR OUT															
OVERLAP	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	
TRACK CLEAR OVERLAP																	
DWELL OVERLAP																	
CYCLING OVERLAP																	

4-1 PREEMPTOR (CONTINUED)

PREEMPTOR NUMBER		9															
ACTIVE	NON-LOCK INPUT																
PREEMPTION OVERRIDE	INTERLOCK ENABLE																
DELAY TIME (SECONDS)	INHIBIT TIME (SECONDS)																
EXTEND INPUT (SECONDS)	MAX PRESENCE TIME (SECONDS)																
DURATION TIME (SECONDS)	TRACK CLEARANCE RESERVICE																
PED DARK	RESERVICE TIME																
AUTOMATIC FLASH HAS PRIORITY	RED CLEAR GOES GREEN																
TERMINATE OVERLAPS ASAP	PC THROUGH YELLOW																
RING	1	2	3	4													
FREE DURING PREEMPTION																	
	WALK	PED CLEAR	GREEN	YELLOW	RED												
ENTERING MINIMUM TIME																	
TRACK CLEARANCE TIME																	
MIN DWELL - CYCLE GREEN/ EXIT YELLOW /RED																	
DWELL FLASH		FLASH EXIT COLOR															
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRACK CLEAR PHASE																	
DWELL PHASE																	
DWELL PEDESTRIAN																	
CYCLING PHASE																	
CYCLING PEDESTRIAN																	
EXIT PHASE																	
EXIT CALLS																	
SPECIAL FUNCTION																	
PREEMPTION TO COORDINATION		EXIT TIMING PLAN															
LINKED PREEMPTOR																	
PREEMPTOR ACTIVE OUTPUTS																	
PREEMPTOR ACTIVE OUT		PREEMPTOR ACTIVE OUT IN DWELL															
OTHER PRIORITY PREEMPTOR OUT		NON-PRIORITY PREEMPTOR OUT															
OVERLAP	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	
TRACK CLEAR OVERLAP																	
DWELL OVERLAP																	
CYCLING OVERLAP																	

PREEMPTOR NUMBER		10															
ACTIVE	NON-LOCK INPUT																
PREEMPTION OVERRIDE	INTERLOCK ENABLE																
DELAY TIME (SECONDS)	INHIBIT TIME (SECONDS)																
EXTEND INPUT (SECONDS)	MAX PRESENCE TIME (SECONDS)																
DURATION TIME (SECONDS)	TRACK CLEARANCE RESERVICE																
PED DARK	RESERVICE TIME																
AUTOMATIC FLASH HAS PRIORITY	RED CLEAR GOES GREEN																
TERMINATE OVERLAPS ASAP	PC THROUGH YELLOW																
RING	1	2	3	4													
FREE DURING PREEMPTION																	
	WALK	PED CLEAR	GREEN	YELLOW	RED												
ENTERING MINIMUM TIME																	
TRACK CLEARANCE TIME																	
MIN DWELL - CYCLE GREEN/ EXIT YELLOW /RED																	
DWELL FLASH		FLASH EXIT COLOR															
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRACK CLEAR PHASE																	
DWELL PHASE																	
DWELL PEDESTRIAN																	
CYCLING PHASE																	
CYCLING PEDESTRIAN																	
EXIT PHASE																	
EXIT CALLS																	
SPECIAL FUNCTION																	
PREEMPTION TO COORDINATION		EXIT TIMING PLAN															
LINKED PREEMPTOR																	
PREEMPTOR ACTIVE OUTPUTS																	
PREEMPTOR ACTIVE OUT		PREEMPTOR ACTIVE OUT IN DWELL															
OTHER PRIORITY PREEMPTOR OUT		NON-PRIORITY PREEMPTOR OUT															
OVERLAP	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	
TRACK CLEAR OVERLAP																	
DWELL OVERLAP																	
CYCLING OVERLAP																	

TIME BASE SUBMENU

5-1 CLOCK/CALENDAR DATA

DATE SET:	
TIME SET:	
MANUAL ACTION PLAN	
SYNC REFERENCE TIME	
SYNC REFERENCE	
DAYLIGHT SAVINGS	
TIME RESET INPUT TIME SET	
STANDARD TIME FROM GMT	

5-2 SCHEDULE

SCHEDULE NUMBER	1
DAY PLAN NUMBER	1

MONTH	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE				
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER				
DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT			
		x	x	x	x	x				
DAY OF MONTH (DOM)	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22	23	24	25	26	27	28	29	30
	31									

SCHEDULE NUMBER	1
DAY PLAN NUMBER	2

MONTH	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE				
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER				
DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT			
	x						x			
DAY OF MONTH (DOM)	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22	23	24	25	26	27	28	29	30
	31									

SCHEDULE NUMBER	
DAY PLAN NUMBER	

MONTH	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE				
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER				
DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT			
DAY OF MONTH (DOM)	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22	23	24	25	26	27	28	29	30
	31									

SCHEDULE NUMBER	
DAY PLAN NUMBER	

MONTH	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE				
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER				
DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT			
DAY OF MONTH (DOM)	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22	23	24	25	26	27	28	29	30
	31									

SCHEDULE NUMBER	
DAY PLAN NUMBER	

MONTH	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE				
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER				
DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT			
DAY OF MONTH (DOM)	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22	23	24	25	26	27	28	29	30
	31									

SCHEDULE NUMBER										
DAY PLAN NUMBER										
MONTH	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE				
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER				
DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT			
DAY OF MONTH (DOM)	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22	23	24	25	26	27	28	29	30
	31									

SCHEDULE NUMBER										
DAY PLAN NUMBER										
MONTH	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE				
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER				
DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT			
DAY OF MONTH (DOM)	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22	23	24	25	26	27	28	29	30
	31									

SCHEDULE NUMBER										
DAY PLAN NUMBER										
MONTH	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE				
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER				
DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT			
DAY OF MONTH (DOM)	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22	23	24	25	26	27	28	29	30
	31									

SCHEDULE NUMBER										
DAY PLAN NUMBER										
MONTH	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE				
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER				
DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT			
DAY OF MONTH (DOM)	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22	23	24	25	26	27	28	29	30
	31									

SCHEDULE NUMBER										
DAY PLAN NUMBER										
MONTH	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE				
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER				
DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT			
DAY OF MONTH (DOM)	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22	23	24	25	26	27	28	29	30
	31									

SCHEDULE NUMBER										
DAY PLAN NUMBER										
MONTH	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE				
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER				
DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT			
DAY OF MONTH (DOM)	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22	23	24	25	26	27	28	29	30
	31									

SCHEDULE NUMBER												
DAY PLAN NUMBER												
MONTH	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE						
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER						
DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT					
DAY OF MONTH (DOM)	1	2	3	4	5	6	7	8	9	10		
	11	12	13	14	15	16	17	18	19	20		
	21	22	23	24	25	26	27	28	29	30		
	31											

SCHEDULE NUMBER												
DAY PLAN NUMBER												
MONTH	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE						
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER						
DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT					
DAY OF MONTH (DOM)	1	2	3	4	5	6	7	8	9	10		
	11	12	13	14	15	16	17	18	19	20		
	21	22	23	24	25	26	27	28	29	30		
	31											

SCHEDULE NUMBER												
DAY PLAN NUMBER												
MONTH	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE						
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER						
DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT					
DAY OF MONTH (DOM)	1	2	3	4	5	6	7	8	9	10		
	11	12	13	14	15	16	17	18	19	20		
	21	22	23	24	25	26	27	28	29	30		
	31											

PATTERN		1		SYSTEM OVERRIDE														
VEHICLE DETECTOR PLAN				DETECTOR LOG														
FLASH				VEHICLE DET DIAGNOSTIC PLAN														
RED REST				PED DET DIAGNOSTIC PLAN														
CONTROLLER SEQUENCE				DIMMING ENABLE														
TIMING PLAN																		
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
PED RECALL																		
WALK 2																		
VEH EXT 2																		
VEH RECALL																		
MAX RECALL																		
MAX 2																		
MAX 3																		
CS INHIBIT																		
PHASE OMIT																		
SPEC FUNCTION																		(1-8)
AUX FUNCTION					(1-3)													
		1	2	3	4	5	6	7	8	9	10							
LP 1-10																		
LP 11-20																		
LP 21-30																		
LP 31-40																		
LP 41-50																		
LP 51-60																		
LP 61-70																		
LP 71-80																		
LP 81-90																		
LP 91-100																		

ACTION PLAN		3		SYSTEM OVERRIDE														
VEHICLE DETECTOR PLAN				DETECTOR LOG														
FLASH				VEHICLE DET DIAGNOSTIC PLAN														
RED REST				PED DET DIAGNOSTIC PLAN														
CONTROLLER SEQUENCE				DIMMING ENABLE														
TIMING PLAN																		
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
PED RECALL																		
WALK 2																		
VEH EXT 2																		
VEH RECALL																		
MAX RECALL																		
MAX 2																		
MAX 3																		
CS INHIBIT																		
PHASE OMIT																		
SPEC FUNCTION																		(1-8)
AUX FUNCTION					(1-3)													
		1	2	3	4	5	6	7	8	9	10							
LP 1-10																		
LP 11-20																		
LP 21-30																		
LP 31-40																		
LP 41-50																		
LP 51-60																		
LP 61-70																		
LP 71-80																		
LP 81-90																		
LP 91-100																		

ACTION PLAN		2		SYSTEM OVERRIDE														
VEHICLE DETECTOR PLAN				DETECTOR LOG														
FLASH				VEHICLE DET DIAGNOSTIC PLAN														
RED REST				PED DET DIAGNOSTIC PLAN														
CONTROLLER SEQUENCE				DIMMING ENABLE														
TIMING PLAN																		
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
PED RECALL																		
WALK 2																		
VEH EXT 2																		
VEH RECALL																		
MAX RECALL																		
MAX 2																		
MAX 3																		
CS INHIBIT																		
PHASE OMIT																		
SPEC FUNCTION																		(1-8)
AUX FUNCTION					(1-3)													
		1	2	3	4	5	6	7	8	9	10							
LP 1-10																		
LP 11-20																		
LP 21-30																		
LP 31-40																		
LP 41-50																		
LP 51-60																		
LP 61-70																		
LP 71-80																		
LP 81-90																		
LP 91-100																		

ACTION PLAN		4		SYSTEM OVERRIDE														
VEHICLE DETECTOR PLAN				DETECTOR LOG														
FLASH				VEHICLE DET DIAGNOSTIC PLAN														
RED REST				PED DET DIAGNOSTIC PLAN														
CONTROLLER SEQUENCE				DIMMING ENABLE														
TIMING PLAN																		
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
PED RECALL																		
WALK 2																		
VEH EXT 2																		
VEH RECALL																		
MAX RECALL																		
MAX 2																		
MAX 3																		
CS INHIBIT																		
PHASE OMIT																		
SPEC FUNCTION																		(1-8)
AUX FUNCTION					(1-3)													
		1	2	3	4	5	6	7	8	9	10							
LP 1-10																		
LP 11-20																		
LP 21-30																		
LP 31-40																		
LP 41-50																		
LP 51-60																		
LP 61-70																		
LP 71-80																		
LP 81-90																		
LP 91-100																		

ACTION PLAN																				
PATTERN	5	SYSTEM OVERRIDE																		
VEHICLE DETECTOR PLAN		DETECTOR LOG																		
FLASH		VEHICLE DET DIAGNOSTIC PLAN																		
RED REST		PED DET DIAGNOSTIC PLAN																		
CONTROLLER SEQUENCE		DIMMING ENABLE																		
TIMING PLAN																				
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	1
PED RECALL																				
WALK 2																				
VEH EXT 2																				
VEH RECALL																				
MAX RECALL																				
MAX 2																				
MAX 3																				
CS INHIBIT																				
PHASE OMIT																				
SPEC FUNCTION																				(1-8)
AUX FUNCTION					(1-3)															
		1	2	3	4	5	6	7	8	9	10									
LP 1-10																				
LP 11-20																				
LP 21-30																				
LP 31-40																				
LP 41-50																				
LP 51-60																				
LP 61-70																				
LP 71-80																				
LP 81-90																				
LP 91-100																				

ACTION PLAN																				
PATTERN		SYSTEM OVERRIDE																		
VEHICLE DETECTOR PLAN		DETECTOR LOG																		
FLASH		VEHICLE DET DIAGNOSTIC PLAN																		
RED REST		PED DET DIAGNOSTIC PLAN																		
CONTROLLER SEQUENCE		DIMMING ENABLE																		
TIMING PLAN																				
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	1
PED RECALL																				
WALK 2																				
VEH EXT 2																				
VEH RECALL																				
MAX RECALL																				
MAX 2																				
MAX 3																				
CS INHIBIT																				
PHASE OMIT																				
SPEC FUNCTION																				(1-8)
AUX FUNCTION					(1-3)															
		1	2	3	4	5	6	7	8	9	10									
LP 1-10																				
LP 11-20																				
LP 21-30																				
LP 31-40																				
LP 41-50																				
LP 51-60																				
LP 61-70																				
LP 71-80																				
LP 81-90																				
LP 91-100																				

ACTION PLAN																				
PATTERN		SYSTEM OVERRIDE																		
VEHICLE DETECTOR PLAN		DETECTOR LOG																		
FLASH		VEHICLE DET DIAGNOSTIC PLAN																		
RED REST		PED DET DIAGNOSTIC PLAN																		
CONTROLLER SEQUENCE		DIMMING ENABLE																		
TIMING PLAN																				
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	1
PED RECALL																				
WALK 2																				
VEH EXT 2																				
VEH RECALL																				
MAX RECALL																				
MAX 2																				
MAX 3																				
CS INHIBIT																				
PHASE OMIT																				
SPEC FUNCTION																				(1-8)
AUX FUNCTION					(1-3)															
		1	2	3	4	5	6	7	8	9	10									
LP 1-10																				
LP 11-20																				
LP 21-30																				
LP 31-40																				
LP 41-50																				
LP 51-60																				
LP 61-70																				
LP 71-80																				
LP 81-90																				
LP 91-100																				

ACTION PLAN																				
PATTERN		SYSTEM OVERRIDE																		
VEHICLE DETECTOR PLAN		DETECTOR LOG																		
FLASH		VEHICLE DET DIAGNOSTIC PLAN																		
RED REST		PED DET DIAGNOSTIC PLAN																		
CONTROLLER SEQUENCE		DIMMING ENABLE																		
TIMING PLAN																				
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	1
PED RECALL																				
WALK 2																				
VEH EXT 2																				
VEH RECALL																				
MAX RECALL																				
MAX 2																				
MAX 3																				
CS INHIBIT																				
PHASE OMIT																				
SPEC FUNCTION																				(1-8)
AUX FUNCTION					(1-3)															
		1	2	3	4	5	6	7	8	9	10									
LP 1-10																				
LP 11-20																				
LP 21-30																				
LP 31-40																				
LP 41-50																				
LP 51-60																				
LP 61-70																				
LP 71-80																				
LP 81-90																				
LP 91-100																				

5-5 EXCEPTION DAY PROGRAM

EXCEPTION DAY	FLOAT / FIXED	MON / MON	DOW / DOM	WOM / YEAR	DAY PLAN
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					

DETECTORS

6-1. DETECTOR TYPE AND TS SELECT

DET	TYPE	TS1 DETECTOR
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		
31		
32		

DET	TYPE	TS1 DETECTOR
33		
34		
35		
36		
37		
38		
39		
40		
41		
42		
43		
44		
45		
46		
47		
48		
49		
50		
51		
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60		
61		
62		
63		
64		

VEHICLE PLAN NUMBER		
DETECTOR NUMBER		
ASSIGNED PHASE		ADDED INITIAL OPTION
SWITCH PHASE		CALL DETECTOR OPTION
EXTEND TIME		PASSAGE DETECTOR OPTION
DELAY TIME		QUEUE DETECTOR OPTION
QUEUE LIMIT		NTCIP OCCUPANCY LOG
FAIL TIME		NTCIP VOLUME LOG
FAIL CALL DELAY		ECPI LOG
YELLOW LOCK		RED LOCK
PHASE	1 2 3 4 5 6 7 8 9 0 1 1 1 1 1 1 1	
CALLED		

VEHICLE PLAN NUMBER		
DETECTOR NUMBER		
ASSIGNED PHASE		ADDED INITIAL OPTION
SWITCH PHASE		CALL DETECTOR OPTION
EXTEND TIME		PASSAGE DETECTOR OPTION
DELAY TIME		QUEUE DETECTOR OPTION
QUEUE LIMIT		NTCIP OCCUPANCY LOG
FAIL TIME		NTCIP VOLUME LOG
FAIL CALL DELAY		ECPI LOG
YELLOW LOCK		RED LOCK
PHASE	1 2 3 4 5 6 7 8 9 0 1 1 1 1 1 1 1	
CALLED		

VEHICLE PLAN NUMBER		
DETECTOR NUMBER		
ASSIGNED PHASE		ADDED INITIAL OPTION
SWITCH PHASE		CALL DETECTOR OPTION
EXTEND TIME		PASSAGE DETECTOR OPTION
DELAY TIME		QUEUE DETECTOR OPTION
QUEUE LIMIT		NTCIP OCCUPANCY LOG
FAIL TIME		NTCIP VOLUME LOG
FAIL CALL DELAY		ECPI LOG
YELLOW LOCK		RED LOCK
PHASE	1 2 3 4 5 6 7 8 9 0 1 1 1 1 1 1 1	
CALLED		

6-2 VEHICLE DETECTOR SETUP

VEHICLE PLAN NUMBER		
DETECTOR NUMBER		
ASSIGNED PHASE		ADDED INITIAL OPTION
SWITCH PHASE		CALL DETECTOR OPTION
EXTEND TIME		PASSAGE DETECTOR OPTION
DELAY TIME		QUEUE DETECTOR OPTION
QUEUE LIMIT		NTCIP OCCUPANCY LOG
FAIL TIME		NTCIP VOLUME LOG
FAIL CALL DELAY		ECPI LOG
YELLOW LOCK		RED LOCK
PHASE	1 2 3 4 5 6 7 8 9 0 1 1 1 1 1 1 1	
CALLED		

VEHICLE PLAN NUMBER		
DETECTOR NUMBER		
ASSIGNED PHASE		ADDED INITIAL OPTION
SWITCH PHASE		CALL DETECTOR OPTION
EXTEND TIME		PASSAGE DETECTOR OPTION
DELAY TIME		QUEUE DETECTOR OPTION
QUEUE LIMIT		NTCIP OCCUPANCY LOG
FAIL TIME		NTCIP VOLUME LOG
FAIL CALL DELAY		ECPI LOG
YELLOW LOCK		RED LOCK
PHASE	1 2 3 4 5 6 7 8 9 0 1 1 1 1 1 1 1	
CALLED		

VEHICLE PLAN NUMBER		
DETECTOR NUMBER		
ASSIGNED PHASE		ADDED INITIAL OPTION
SWITCH PHASE		CALL DETECTOR OPTION
EXTEND TIME		PASSAGE DETECTOR OPTION
DELAY TIME		QUEUE DETECTOR OPTION
QUEUE LIMIT		NTCIP OCCUPANCY LOG
FAIL TIME		NTCIP VOLUME LOG
FAIL CALL DELAY		ECPI LOG
YELLOW LOCK		RED LOCK
PHASE	1 2 3 4 5 6 7 8 9 0 1 1 1 1 1 1 1	
CALLED		

VEHICLE PLAN NUMBER		
DETECTOR NUMBER		
ASSIGNED PHASE		ADDED INITIAL OPTION
SWITCH PHASE		CALL DETECTOR OPTION
EXTEND TIME		PASSAGE DETECTOR OPTION
DELAY TIME		QUEUE DETECTOR OPTION
QUEUE LIMIT		NTCIP OCCUPANCY LOG
FAIL TIME		NTCIP VOLUME LOG
FAIL CALL DELAY		ECPI LOG
YELLOW LOCK		RED LOCK
PHASE	1 2 3 4 5 6 7 8 9 0 1 1 1 1 1 1 1 1	
CALLED		

VEHICLE PLAN NUMBER		
DETECTOR NUMBER		
ASSIGNED PHASE		ADDED INITIAL OPTION
SWITCH PHASE		CALL DETECTOR OPTION
EXTEND TIME		PASSAGE DETECTOR OPTION
DELAY TIME		QUEUE DETECTOR OPTION
QUEUE LIMIT		NTCIP OCCUPANCY LOG
FAIL TIME		NTCIP VOLUME LOG
FAIL CALL DELAY		ECPI LOG
YELLOW LOCK		RED LOCK
PHASE	1 2 3 4 5 6 7 8 9 0 1 1 1 1 1 1 1 1	
CALLED		

VEHICLE PLAN NUMBER		
DETECTOR NUMBER		
ASSIGNED PHASE		ADDED INITIAL OPTION
SWITCH PHASE		CALL DETECTOR OPTION
EXTEND TIME		PASSAGE DETECTOR OPTION
DELAY TIME		QUEUE DETECTOR OPTION
QUEUE LIMIT		NTCIP OCCUPANCY LOG
FAIL TIME		NTCIP VOLUME LOG
FAIL CALL DELAY		ECPI LOG
YELLOW LOCK		RED LOCK
PHASE	1 2 3 4 5 6 7 8 9 0 1 1 1 1 1 1 1 1	
CALLED		

VEHICLE PLAN NUMBER		
DETECTOR NUMBER		
ASSIGNED PHASE		ADDED INITIAL OPTION
SWITCH PHASE		CALL DETECTOR OPTION
EXTEND TIME		PASSAGE DETECTOR OPTION
DELAY TIME		QUEUE DETECTOR OPTION
QUEUE LIMIT		NTCIP OCCUPANCY LOG
FAIL TIME		NTCIP VOLUME LOG
FAIL CALL DELAY		ECPI LOG
YELLOW LOCK		RED LOCK
PHASE	1 2 3 4 5 6 7 8 9 0 1 1 1 1 1 1 1 1	
CALLED		

VEHICLE PLAN NUMBER		
DETECTOR NUMBER		
ASSIGNED PHASE		ADDED INITIAL OPTION
SWITCH PHASE		CALL DETECTOR OPTION
EXTEND TIME		PASSAGE DETECTOR OPTION
DELAY TIME		QUEUE DETECTOR OPTION
QUEUE LIMIT		NTCIP OCCUPANCY LOG
FAIL TIME		NTCIP VOLUME LOG
FAIL CALL DELAY		ECPI LOG
YELLOW LOCK		RED LOCK
PHASE	1 2 3 4 5 6 7 8 9 0 1 1 1 1 1 1 1 1	
CALLED		

VEHICLE PLAN NUMBER		
DETECTOR NUMBER		
ASSIGNED PHASE		ADDED INITIAL OPTION
SWITCH PHASE		CALL DETECTOR OPTION
EXTEND TIME		PASSAGE DETECTOR OPTION
DELAY TIME		QUEUE DETECTOR OPTION
QUEUE LIMIT		NTCIP OCCUPANCY LOG
FAIL TIME		NTCIP VOLUME LOG
FAIL CALL DELAY		ECPI LOG
YELLOW LOCK		RED LOCK
PHASE	1 2 3 4 5 6 7 8 9 0 1 1 1 1 1 1 1 1	
CALLED		

VEHICLE PLAN NUMBER		
DETECTOR NUMBER		
ASSIGNED PHASE		ADDED INITIAL OPTION
SWITCH PHASE		CALL DETECTOR OPTION
EXTEND TIME		PASSAGE DETECTOR OPTION
DELAY TIME		QUEUE DETECTOR OPTION
QUEUE LIMIT		NTCIP OCCUPANCY LOG
FAIL TIME		NTCIP VOLUME LOG
FAIL CALL DELAY		ECPI LOG
YELLOW LOCK		RED LOCK
PHASE	1 2 3 4 5 6 7 8 9 0 1 1 1 1 1 1 1 1	
CALLED		

VEHICLE PLAN NUMBER		
DETECTOR NUMBER		
ASSIGNED PHASE		ADDED INITIAL OPTION
SWITCH PHASE		CALL DETECTOR OPTION
EXTEND TIME		PASSAGE DETECTOR OPTION
DELAY TIME		QUEUE DETECTOR OPTION
QUEUE LIMIT		NTCIP OCCUPANCY LOG
FAIL TIME		NTCIP VOLUME LOG
FAIL CALL DELAY		ECPI LOG
YELLOW LOCK		RED LOCK
PHASE	1 2 3 4 5 6 7 8 9 0 1 1 1 1 1 1 1 1	
CALLED		

6-3 PHASE DETECTOR OPTIONS

PHASE DETECTOR OPTION PLAN NUMBER										1						
PHASE	1	2	3	4	5	6	7	8	9	1	1	1	1	1	1	1
DETECTOR LOCK																
VEH RECALL																
PED RECALL																
MAX RECALL																
SOFT RECALL																
NO REST																
ADD INIT CALC																

PHASE DETECTOR OPTION PLAN NUMBER										2						
PHASE	1	2	3	4	5	6	7	8	9	1	1	1	1	1	1	1
DETECTOR LOCK																
VEH RECALL																
PED RECALL																
MAX RECALL																
SOFT RECALL																
NO REST																
ADD INIT CALC																

PHASE DETECTOR OPTION PLAN NUMBER										3						
PHASE	1	2	3	4	5	6	7	8	9	1	1	1	1	1	1	1
DETECTOR LOCK																
VEH RECALL																
PED RECALL																
MAX RECALL																
SOFT RECALL																
NO REST																
ADD INIT CALC																

PHASE DETECTOR OPTION PLAN NUMBER										4						
PHASE	1	2	3	4	5	6	7	8	9	1	1	1	1	1	1	1
DETECTOR LOCK																
VEH RECALL																
PED RECALL																
MAX RECALL																
SOFT RECALL																
NO REST																
ADD INIT CALC																

6-4 PEDESTRIAN AND SYSTEM DETECTOR OPTIONS

PHASE PEDESTRIAN DETECTOR								
	1	2	3	4	5	6	7	8
PED DET INPUT								
	9	10	11	12	13	14	15	16
PED DET INPUT								
LOCAL SYSTEM DETECTOR								
	1	2	3	4	5	6	7	8
VEH DET INPUT								
	9	10	11	12	13	14	15	16
VEH DET INPUT								

6-5 LOG – SPEED DETECTOR SET UP

NTCIP LOG PERIOD								
ECPI LOG PERIOD								
LENGTH UNIT								
SPEED DETECTOR	1	2	3	4	5	6	7	8
LOCAL DETECTOR								
ONE / TWO DET								
VEH LENGTH								
TRAP LENGTH								
ENABLE LOG								
SPEED DETECTOR	9	10	11	12	13	14	15	16
LOCAL DETECTOR								
ONE / TWO DET								
VEH LENGTH								
TRAP LENGTH								
ENABLE LOG								

6-6 VEHICLE DETECTOR DIAGNOSTICS

VEHICLE DIAGNOSTIC PLAN NUMBER					1
DET	COUNTS	ACTUATIONS	PRESENCE	MULTIPLIER	DET
1					33
2					34
3					35
4					36
5					37
6					38
7					39
8					40
9					41
10					42
11					43
12					44
13					45
14					46
15					47
16					48
17					49
18					50
19					51
20					52
21					53
22					54
23					55
24					56
25					57
26					58
27					59
28					60
29					61
30					62
31					63
32					64

VEHICLE DIAGNOSTIC PLAN NUMBER					2
DET	COUNTS	ACTUATIONS	PRESENCE	MULTIPLIER	DET
1					33
2					34
3					35
4					36
5					37
6					38
7					39
8					40
9					41
10					42
11					43
12					44
13					45
14					46
15					47
16					48
17					49
18					50
19					51
20					52
21					53
22					54
23					55
24					56
25					57
26					58
27					59
28					60
29					61
30					62
31					63
32					64

**6-6 VEHICLE DETECTOR DIAGNOSTICS
(CONTINUED)**

VEHICLE DIAGNOSTIC PLAN NUMBER					3
DET	COUNTS	ACTUATIONS	PRESENCE	MULTIPLIER	
1					33
2					34
3					35
4					36
5					37
6					38
7					39
8					40
9					41
10					42
11					43
12					44
13					45
14					46
15					47
16					48
17					49
18					50
19					51
20					52
21					53
22					54
23					55
24					56
25					57
26					58
27					59
28					60
29					61
30					62
31					63
32					64

VEHICLE DIAGNOSTIC PLAN NUMBER					4
DET	COUNTS	ACTUATIONS	PRESENCE	MULTIPLIER	
1					33
2					34
3					35
4					36
5					37
6					38
7					39
8					40
9					41
10					42
11					43
12					44
13					45
14					46
15					47
16					48
17					49
18					50
19					51
20					52
21					53
22					54
23					55
24					56
25					57
26					58
27					59
28					60
29					61
30					62
31					63
32					64

6-7 PEDESTRIAN DETECTOR DIAGNOSTICS

PED DIAGNOSTIC PLAN NUMBER 1					PED DIAGNOSTIC PLAN NUMBER 2				
DET	COUNTS	ACTUATIONS	PRESENCE	MULTIPLIER	DET	COUNTS	ACTUATIONS	PRESENCE	MULTIPLIER
1					1				
2					2				
3					3				
4					4				
5					5				
6					6				
7					7				
8					8				
9					9				
10					10				
11					11				
12					12				
13					13				
14					14				
15					15				
16					16				

PED DIAGNOSTIC PLAN NUMBER 3					PED DIAGNOSTIC PLAN NUMBER 4				
DET	COUNTS	ACTUATIONS	PRESENCE	MULTIPLIER	DET	COUNTS	ACTUATIONS	PRESENCE	MULTIPLIER
1					1				
2					2				
3					3				
4					4				
5					5				
6					6				
7					7				
8					8				
9					9				
10					10				
11					11				
12					12				
13					13				
14					14				
15					15				
16					16				

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18. APPENDIX D: PROGRAM REFERENCE CARD

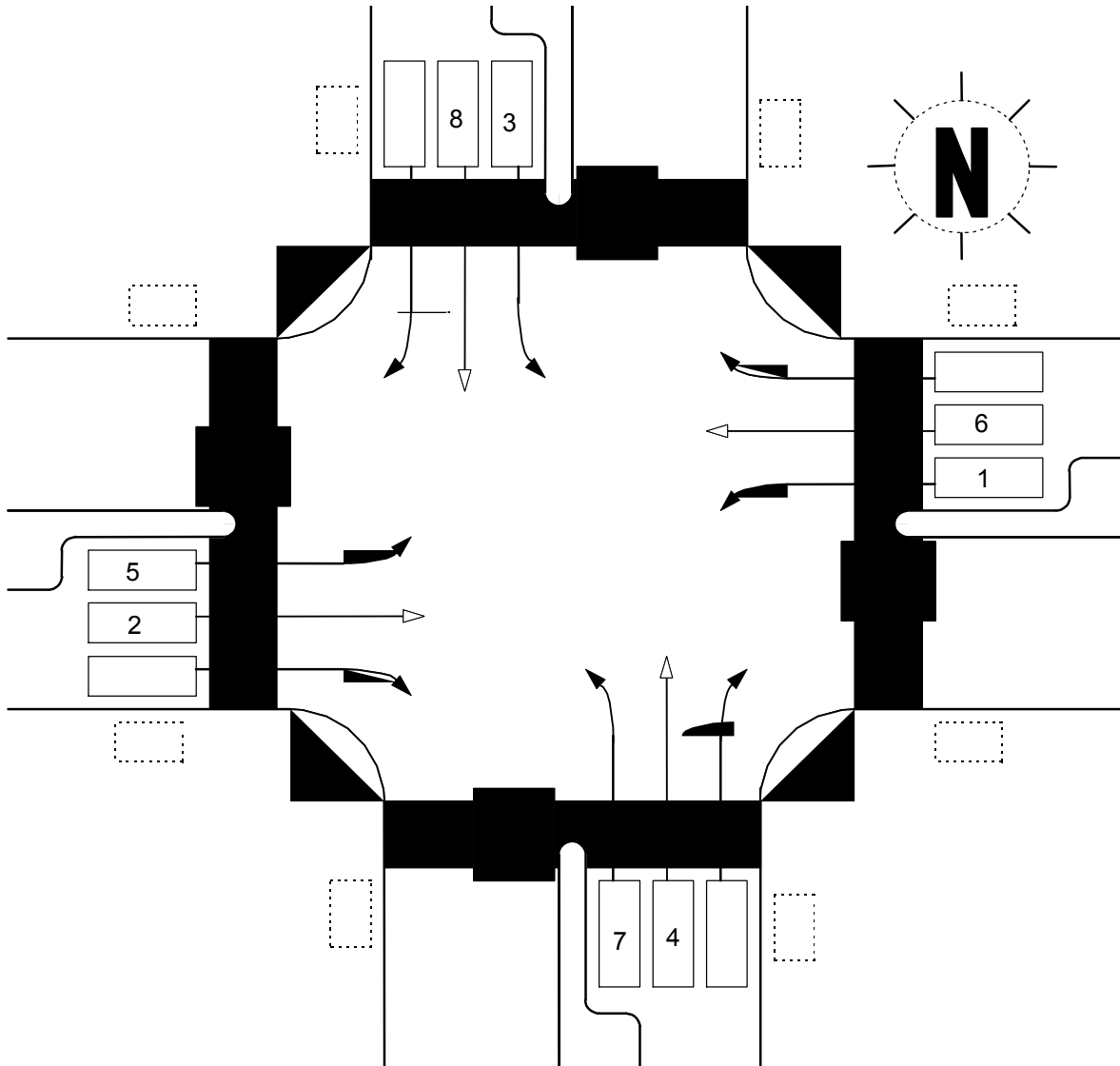
ASC/3

PROGRAM REFERENCE CARD

INTERSECTION Dundas Street & Ninth Line

CONTROLLER NUMBER _____ ENTERED BY: _____ DATE 03 / 13 / 17

BOOT: _____ MAIN: _____ HELP: _____ DATA BASE _____



CONFIGURATION SUBMENU

1-1-1. PHASE RING ASSIGNMENT

PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
RING																

1-1-2. PHASE COMPATIBILITY

PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																

1-2. PHASES IN USE / EXCLUSIVE PED

PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PHASES IN USE																
EXCLUSIVE PED																

1-1-4. BACKUP PREVENT PHASES

PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																

1-1-5 SIMULTANEOUS GAP

PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																

1-1-3. PHASE RING SEQUENCE

CONTROLLER 1			SEQUENCE 1																	
RING 1																				
RING 2																				
RING 3																				
RING 4																				
CONTROLLER 1			SEQUENCE 2																	
RING 1																				
RING 2																				
RING 3																				
RING 4																				
CONTROLLER 1			SEQUENCE 3																	
RING 1																				
RING 2																				
RING 3																				
RING 4																				
CONTROLLER 1			SEQUENCE 4																	
RING 1																				
RING 2																				
RING 3																				
RING 4																				
CONTROLLER 1			SEQUENCE 5																	
RING 1																				
RING 2																				
RING 3																				
RING 4																				
CONTROLLER 1			SEQUENCE 6																	
RING 1																				
RING 2																				
RING 3																				
RING 4																				
CONTROLLER 1			SEQUENCE 7																	
RING 1																				
RING 2																				
RING 3																				
RING 4																				
CONTROLLER 1			SEQUENCE 8																	
RING 1																				
RING 2																				
RING 3																				
RING 4																				

1-1-3. PHASE RING SEQUENCE (CONT)

CONTROLLER 1		SEQUENCE 9																		
RING 1																				
RING 2																				
RING 3																				
RING 4																				
CONTROLLER 1		SEQUENCE 10																		
RING 1																				
RING 2																				
RING 3																				
RING 4																				
CONTROLLER 1		SEQUENCE 11																		
RING 1																				
RING 2																				
RING 3																				
RING 4																				
CONTROLLER 1		SEQUENCE 12																		
RING 1																				
RING 2																				
RING 3																				
RING 4																				
CONTROLLER 1		SEQUENCE 13																		
RING 1																				
RING 2																				
RING 3																				
RING 4																				
CONTROLLER 1		SEQUENCE 14																		
RING 1																				
RING 2																				
RING 3																				
RING 4																				
CONTROLLER 1		SEQUENCE 15																		
RING 1																				
RING 2																				
RING 3																				
RING 4																				
CONTROLLER 1		SEQUENCE 16																		
RING 1																				
RING 2																				
RING 3																				
RING 4																				

1-3. PHASE TO LOAD SWITCH (MMU) ASSIGNMENT

LOAD SWITCH	PHASE / OVERLAP	TYPE	DIMMING				AUTO FLASH	
			RED	YELLOW	GREEN	PHASE	COLOR	TOGETHER
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								

1-4-2. MMU PROGRAM

PHASE	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2
1															
2															
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															

1-4-1. SDLC OPTIONS

TERM & FACIL	BIU NUMBER							
	1	2	3	4	5	6	7	8
ENABLE								
PEER-PEER EN								
DETECTOR RACK	1	2	3	4	5	6	7	8
ENABLE								
PEER-PEER EN								
MMU ENABLE								
MMU STOP TIME								
DIAGNOSTIC ENABLE (TEST FIXTURE)								
CONTROLLER PEER TO PEER ENABLE								
DISABLE 3 CRITICAL RFEs LOCKUP								

1-4-3. COLOR CHECK DISABLE

DISABLE ALL COLOR CHECKS																
MMU CHANNEL	1	2	3	4	5	6	7	8								
GREEN / WALK																
YELLOW / PC																
RED / DW																
MMU CHANNEL	9	10	11	12	13	14	15	16								
GREEN / WALK																
YELLOW / PC																
RED / DW																

1-5-1 GLOBAL PORT PARAMETERS

NTCIP BACKUP TIME (SECONDS)	
PORT 2 PRIORITY	
PORT 3A PRIORITY	
PORT 3B PRIORITY	
ETHERNET PRIORITY	

1-5-1 PORT 2 (TERMINAL)

PROTOCOL	
ENABLE	
DATA RATE (BPS)	
DATA, PARITY, STOP	
MODEM SETUP STRING	
USER STRING	
COMM. PORT ADDRESS	
SYSTEM DETECTOR 9 - 16 ADDRESS	
TELEMETRY RESPONSE DELAY	
DUPLEX HALF - FULL	
AB3418 / NTCIP GROUP ADDRESS	
AB3418 / NTCIP SINGLE FLAG ENABLE	
NTCIP PROTOCOL	
RTS TO CTS DELAY	
RTS TURN OFF DELAY	
DROP OUT TIME (in seconds)	
EARLY RTS	

1-5-3 PORT 3A (TELEMETRY)

PROTOCOL	
ENABLE	
DATA RATE (BPS)	
DATA, PARITY, STOP	
MODEM SETUP STRING	
USER STRING	
COMM. PORT ADDRESS	
SYSTEM DETECTOR 9 - 16 ADDRESS	
ELEMETRY RESPONSE DELAY	
DUPLEX HALF - FULL	
AB3418 / NTCIP GROUP ADDRESS	
AB3418 / NTCIP SINGLE FLAG ENABLE	
NTCIP PROTOCOL	
RTS TO CTS DELAY	
RTS TURN OFF DELAY	
DROP OUT TIME (in seconds)	
EARLY RTS	

1-7-1 ADMINISTRATION

SUPERVISOR ACCESS CODE	
ENABLE CRC CHECK OF DATA BASE	
CRC OF PROGRAM DATA BASE	
REQUEST DOWNLOAD OF PROGRAMMED DATA	

1-7-2 DISPLAY OPTIONS

KEY CLICK ENABLE	
BACKLIGHT ENABLE	

1-5-4. PORT 3B (TELEMETRY)

PROTOCOL	
ENABLE	
DATA RATE (BPS)	
DATA, PARITY, STOP	
MODEM SETUP STRING	
USER STRING	
COMM. PORT ADDRESS	
SYSTEM DETECTOR 9 - 16 ADDRESS	
TELEMETRY RESPONSE DELAY	
DUPLEX HALF - FULL	
AB3418 / NTCIP GROUP ADDRESS	
AB3418 / NTCIP SINGLE FLAG ENABLE	
NTCIP PROTOCOL	
RTS TO CTS DELAY	
RTS TURN OFF DELAY	
DROP OUT TIME (in seconds)	
EARLY RTS	

1-5-5 ETHERNET PORT CONFIGURATION

IP ADDRESS					
ADDRESS MASK					
FTP SERVER ADDRESS					
DEFAULT GATEWAY ADDRESS					

1-6-1 ENABLE EVENT LOGS

CRITICAL RFE'S (MMU/TE)	
3 CRITICAL RFE ERRORS IN 24 HOURS	
NON-CRITICAL RFE'S (DET/TEST)	
DETECTOR ERRORS	
COORDINATION ERRORS	
MMU FLASH FAULTS	
LOCAL FLASH FAULTS	
PREEMPT	
POWER ON/OFF	
LOW BATTERY	
ACCESS	
DATA CHANGE	
CONTROLLER DOWNLOAD	
ALARM 1	
ALARM 2	
ALARM 3	
ALARM 4	
ALARM 5	
ALARM 6	
ALARM 7	
ALARM 8	
ALARM 9	
ALARM 10	
ALARM 11	
ALARM 12	
ALARM 13	
ALARM 14	
ALARM 15	
ALARM 16	

1-8-2 LOGIC PROCESSOR (CONTINUED)

LOGIC GATE NUMBER				
IF				
THEN				
ELSE				

LOGIC GATE NUMBER				
IF				
THEN				
ELSE				

LOGIC GATE NUMBER				
IF				
THEN				
ELSE				

LOGIC GATE NUMBER				
IF				
THEN				
ELSE				

LOGIC GATE NUMBER				
IF				
THEN				
ELSE				

LOGIC GATE NUMBER				
IF				
THEN				
ELSE				

LOGIC GATE NUMBER				
IF				
THEN				
ELSE				

LOGIC GATE NUMBER				
IF				
THEN				
ELSE				

1-8-2 LOGIC PROCESSOR (CONTINUED)

LOGIC GATE NUMBER				

IF				
THEN				
ELSE				

THEN				
ELSE				

LOGIC GATE NUMBER				
IF				
THEN				
ELSE				

LOGIC GATE NUMBER				
IF				
THEN				
ELSE				

LOGIC GATE NUMBER				
IF				
THEN				
ELSE				

LOGIC GATE NUMBER				
IF				
THEN				
ELSE				

LOGIC GATE NUMBER				
IF				
THEN				
ELSE				

LOGIC GATE NUMBER				
IF				
THEN				
ELSE				

1-8-2 LOGIC PROCESSOR (CONTINUED)

LOGIC GATE NUMBER				
IF				

LOGIC GATE NUMBER				
IF				

THEN				
ELSE				

LOGIC GATE NUMBER				
IF				
THEN				
ELSE				

CONTROLLER SUBMENU

2-1. CONTROLLER TIMING DATA

PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
MINIMUM GREEN	7	20	7	10	7	20	7	10								
BICYCLE MINIMUM GREEN																
CONDITIONAL SERVICE MINIMUM GREEN																
DELAYED GREEN																
WALK		7		7		7		7								
WALK 2																
WALK MAX																
PEDESTRIAN CLEARANCE		32		34		32		34								
PEDESTRIAN CLEARANCE 2																
PEDESTRIAN CLEARANCE MAX																
PEDESTRIAN CARRY OVER																
VEHICLE EXTENSION	3.5	5.5	3.5	3.5	3.5	5.5	3.5	3.5								
VEHICLE EXTENSION 2																
MAX1	20	55	20	35	20	55	20	35								
MAX2	20	60	20	40	20	60	20	40								
MAX3																
DYNAMIC MAX																
DYNAMIC MAX STEP																
YELLOW CHANGE	3.0	3.7	3.0	3.7	3.0	3.7	3.0	3.7								
RED CLRANCE	1.0	2.6	1.0	2.8	2.0	2.6	1.0	2.8								
RED MAX																
RED REVERT																
ACTUATIONS BEFORE GAP REDUCTION																
SECONDS PER ACTIONS ADDED TO INITIAL																
MAXIMUM ADDED INITIAL GREEN																
TIME BEFORE GAP REDUCTION																
CARS WAITING BEFORE GAP REDUCTION																
STEP TO REDUCE																
TIME TO REDUCE TO MINIMUM																
MINIMUM GAP																

2-2 VEHICLE OVERLAP

OVERLAP A PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
INCLUDED																	
PROTECTED																	
MODIFIER																	
PEDESTRIAN PROTECT																	
NOT OVERLAP																	
TRAILING GREEN				TRAILING YELLOW						TRAILING RED							
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRAILING LEADING																	
ADVANCE GREEN																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
FLASH GREEN																	

OVERLAP C PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
INCLUDED																	
PROTECTED																	
MODIFIER																	
PEDESTRIAN PROTECT																	
NOT OVERLAP																	
TRAILING GREEN				TRAILING YELLOW						TRAILING RED							
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRAILING LEADING																	
ADVANCE GREEN																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
FLASH GREEN																	

OVERLAP B PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
INCLUDED																	
PROTECTED																	
MODIFIER																	
PEDESTRIAN PROTECT																	
NOT OVERLAP																	
TRAILING GREEN				TRAILING YELLOW						TRAILING RED							
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRAILING LEADING																	
ADVANCE GREEN																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
FLASH GREEN																	

OVERLAP D PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
INCLUDED																	
PROTECTED																	
MODIFIER																	
PEDESTRIAN PROTECT																	
NOT OVERLAP																	
TRAILING GREEN				TRAILING YELLOW						TRAILING RED							
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRAILING LEADING																	
ADVANCE GREEN																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
FLASH GREEN																	

2-2 VEHICLE OVERLAP (CONTINUED)

OVERLAP E PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
INCLUDED																	
PROTECTED																	
MODIFIER																	
PEDESTRIAN PROTECT NOT OVERLAP																	
TRAILING GREEN																	
TRAILING YELLOW																	
TRAILING RED																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRAILING LEADING																	
ADVANCE GREEN																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
FLASH GREEN																	

OVERLAP G PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
INCLUDED																	
PROTECTED																	
MODIFIER																	
PEDESTRIAN PROTECT NOT OVERLAP																	
TRAILING GREEN																	
TRAILING YELLOW																	
TRAILING RED																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRAILING LEADING																	
ADVANCE GREEN																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
FLASH GREEN																	

OVERLAP F PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
INCLUDED																	
PROTECTED																	
MODIFIER																	
PEDESTRIAN PROTECT NOT OVERLAP																	
TRAILING GREEN																	
TRAILING YELLOW																	
TRAILING RED																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRAILING LEADING																	
ADVANCE GREEN																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
FLASH GREEN																	

OVERLAP H PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
INCLUDED																	
PROTECTED																	
MODIFIER																	
PEDESTRIAN PROTECT NOT OVERLAP																	
TRAILING GREEN																	
TRAILING YELLOW																	
TRAILING RED																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRAILING LEADING																	
ADVANCE GREEN																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
FLASH GREEN																	

2-2 VEHICLE OVERLAP (CONTINUED)

OVERLAP M PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
INCLUDED																	
PROTECTED																	
MODIFIER																	
PEDESTRIAN PROTECT NOT OVERLAP																	
TRAILING GREEN																	
TRAILING YELLOW																	
TRAILING RED																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRAILING LEADING																	
ADVANCE GREEN																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
FLASH GREEN																	

OVERLAP O PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
INCLUDED																	
PROTECTED																	
MODIFIER																	
PEDESTRIAN PROTECT NOT OVERLAP																	
TRAILING GREEN																	
TRAILING YELLOW																	
TRAILING RED																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRAILING LEADING																	
ADVANCE GREEN																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
FLASH GREEN																	

OVERLAP N PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
INCLUDED																	
PROTECTED																	
MODIFIER																	
PEDESTRIAN PROTECT NOT OVERLAP																	
TRAILING GREEN																	
TRAILING YELLOW																	
TRAILING RED																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRAILING LEADING																	
ADVANCE GREEN																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
FLASH GREEN																	

OVERLAP P PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
INCLUDED																	
PROTECTED																	
MODIFIER																	
PEDESTRIAN PROTECT NOT OVERLAP																	
TRAILING GREEN																	
TRAILING YELLOW																	
TRAILING RED																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRAILING LEADING																	
ADVANCE GREEN																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
FLASH GREEN																	

2-3 PEDESTRIAN OVERLAP

PEDESTRIAN OVERLAP CONSISTS OF PHASES																
PEDESTRIAN OVERLAP	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																

2-4 GUARANTEED MINIMUM TIMES

PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
MINIMUM GREEN																
WALK																
PEDESTRIAN CLEARANCE																
YELLOW CHANGE																
RED CLEARANCE																
OVERLAP	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
MINIMUM GREEN																

2-5 START / FLASH DATA

POWER START																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PHASE																
OVERLAP																
POWER START RED									FLASH TIME							
REMOTE (AUTOMATIC) FLASH																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
ENTRY																
EXIT																
OVERLAP	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
EXIT																
EXIT REMOTE FLASH									MINIMUM AUTOMATIC FLASH							
MINIMUM RECALL									CYCLE THROUGH PHASES							

2-6-1 CONTROLLER OPTIONS

PEDESTRIAN CLEARANCE PROTECT																
UNIT RED REVERT																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PHASE																
GUARANTEE D PASSAGE																
NON-ACT I																
NON ACT II																
DUAL ENTRY																
PED RESERVICE																
REST IN WALK																
FLASHING WALK																
PED CLEAR > YELLOW																
PED CLEAR > ALL RED																
INIT GREEN + VEHICLE EXIT																

2-7 ACTUATED / PRE-TIMED MODE PHASES

ENABLE PRE-TIMED OPERATION																
FREE INPUT DISABLED PRE-TIMED																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PHASE																
PRE-TIMED																

3-2 COORDINATOR PATTERN (CONTINUED)

COORDINATOR PATTERN	4																
CYCLE LENGTH (SECONDS)	100	SPLIT PATTERN															
OFFSET VALUE	59																
SPLITS IN	Per	OFFSETS IN						Per									
CROSSING ARTERY PATTERN																	
VEHICLE PERMISSIVE 1 LENGTH		VEHICLE PERMISSIVE 2 LENGTH															
VEHICLE PERMISSIVE 2 DISPLACEMENT		ACTION PLAN												4			
ACTUATED COORDINATION	Yes	TIMING PLAN															
ACTUATED REST IN WALK		PHASE RESERVICE															
													1	2	3	4	
RING SPLIT EXTENSION (SECONDS)																	
SPLIT DEMAND PATTERN																	
RING DISPLACEMENT																	
	1	2	3	4	5			8	9	1	1		1	1		3	5
PREFERENCE 1 PHASES																	
PREFERENCE 2 PHASES																	

COORDINATOR PATTERN	5																
CYCLE LENGTH (SECONDS)		SPLIT PATTERN															
OFFSET VALUE		SEQUENCE															
SPLITS IN		OFFSETS IN															
CROSSING ARTERY PATTERN																	
VEHICLE PERMISSIVE 1 LENGTH		VEHICLE PERMISSIVE 2 LENGTH															
VEHICLE PERMISSIVE 2 DISPLACEMENT		ACTION PLAN												5			
ACTUATED COORDINATION		TIMING PLAN															
ACTUATED REST IN WALK		PHASE RESERVICE															
													1	2	3	4	
RING SPLIT EXTENSION (SECONDS)																	
SPLIT DEMAND PATTERN																	
RING DISPLACEMENT																	
	1	2	3	4	5			8	9	1	1		1	1		3	5
PREFERENCE 1 PHASES																	
PREFERENCE 2 PHASES																	

COORDINATOR PATTERN																	
CYCLE LENGTH (SECONDS)		SPLIT PATTERN															
OFFSET VALUE		SEQUENCE															
SPLITS IN		OFFSETS IN															
CROSSING ARTERY PATTERN																	
VEHICLE PERMISSIVE 1 LENGTH		VEHICLE PERMISSIVE 2 LENGTH															
VEHICLE PERMISSIVE 2 DISPLACEMENT		ACTION PLAN															
ACTUATED COORDINATION		TIMING PLAN															
ACTUATED REST IN WALK		PHASE RESERVICE															
													1	2	3	4	
RING SPLIT EXTENSION (SECONDS)																	
SPLIT DEMAND PATTERN																	
RING DISPLACEMENT																	
	1	2	3	4	5			8	9	1	1		1	1		3	5
PREFERENCE 1 PHASES																	
PREFERENCE 2 PHASES																	

COORDINATOR PATTERN																	
CYCLE LENGTH (SECONDS)		SPLIT PATTERN															
OFFSET VALUE		SEQUENCE															
SPLITS IN		OFFSETS IN															
CROSSING ARTERY PATTERN																	
VEHICLE PERMISSIVE 1 LENGTH		VEHICLE PERMISSIVE 2 LENGTH															
VEHICLE PERMISSIVE 2 DISPLACEMENT		ACTION PLAN															
ACTUATED COORDINATION		TIMING PLAN															
ACTUATED REST IN WALK		PHASE RESERVICE															
													1	2	3	4	
RING SPLIT EXTENSION (SECONDS)																	
SPLIT DEMAND PATTERN																	
RING DISPLACEMENT																	
	1	2	3	4	5			8	9	1	1		1	1		3	5
PREFERENCE 1 PHASES																	
PREFERENCE 2 PHASES																	

Per
Per

3-2 COORDINATOR PATTERN (CONTINUED)

COORDINATOR PATTERN		SPLIT PATTERN																			
CYCLE LENGTH (SECONDS)		SEQUENCE																			
OFFSET VALUE		OFFSETS IN																			
SPLITS IN		VEHICLE PERMISSIVE 2 LENGTH																			
CROSSING ARTERY PATTERN		ACTION PLAN																			
VEHICLE PERMISSIVE 1 LENGTH		TIMING PLAN																			
VEHICLE PERMISSIVE 2 DISPLACEMENT		PHASE RESERVICE																			
ACTUATED COORDINATION																					
ACTUATED REST IN WALK																					
RING SPLIT EXTENSION (SECONDS)		1		2		3		4													
SPLIT DEMAND PATTERN																					
RING DISPLACEMENT																					
		1		2		3		4		5		8		9		1		1		1	
																0		1		3	
PREFERENCE 1 PHASES																					
PREFERENCE 2 PHASES																					

COORDINATOR PATTERN		SPLIT PATTERN																			
CYCLE LENGTH (SECONDS)		SEQUENCE																			
OFFSET VALUE		OFFSETS IN																			
SPLITS IN		VEHICLE PERMISSIVE 2 LENGTH																			
CROSSING ARTERY PATTERN		ACTION PLAN																			
VEHICLE PERMISSIVE 1 LENGTH		TIMING PLAN																			
VEHICLE PERMISSIVE 2 DISPLACEMENT		PHASE RESERVICE																			
ACTUATED COORDINATION																					
ACTUATED REST IN WALK																					
RING SPLIT EXTENSION (SECONDS)		1		2		3		4													
SPLIT DEMAND PATTERN																					
RING DISPLACEMENT																					
		1		2		3		4		5		8		9		1		1		1	
																0		1		3	
PREFERENCE 1 PHASES																					
PREFERENCE 2 PHASES																					

COORDINATOR PATTERN		SPLIT PATTERN																			
CYCLE LENGTH (SECONDS)		SEQUENCE																			
OFFSET VALUE		OFFSETS IN																			
SPLITS IN		VEHICLE PERMISSIVE 2 LENGTH																			
CROSSING ARTERY PATTERN		ACTION PLAN																			
VEHICLE PERMISSIVE 1 LENGTH		TIMING PLAN																			
VEHICLE PERMISSIVE 2 DISPLACEMENT		PHASE RESERVICE																			
ACTUATED COORDINATION																					
ACTUATED REST IN WALK																					
RING SPLIT EXTENSION (SECONDS)		1		2		3		4													
SPLIT DEMAND PATTERN																					
RING DISPLACEMENT																					
		1		2		3		4		5		8		9		1		1		1	
																0		1		3	
PREFERENCE 1 PHASES																					
PREFERENCE 2 PHASES																					

COORDINATOR PATTERN		SPLIT PATTERN																			
CYCLE LENGTH (SECONDS)		SEQUENCE																			
OFFSET VALUE		OFFSETS IN																			
SPLITS IN		VEHICLE PERMISSIVE 2 LENGTH																			
CROSSING ARTERY PATTERN		ACTION PLAN																			
VEHICLE PERMISSIVE 1 LENGTH		TIMING PLAN																			
VEHICLE PERMISSIVE 2 DISPLACEMENT		PHASE RESERVICE																			
ACTUATED COORDINATION																					
ACTUATED REST IN WALK																					
RING SPLIT EXTENSION (SECONDS)		1		2		3		4													
SPLIT DEMAND PATTERN																					
RING DISPLACEMENT																					
		1		2		3		4		5		8		9		1		1		1	
																0		1		3	
PREFERENCE 1 PHASES																					
PREFERENCE 2 PHASES																					

3-2 COORDINATOR PATTERN (CONTINUED)

COORDINATOR PATTERN		SPLIT PATTERN	
CYCLE LENGTH (SECONDS)			
OFFSET VALUE		SEQUENCE	
SPLITS IN		OFFSETS IN	
CROSSING ARTERY PATTERN			
VEHICLE PERMISSIVE 1 LENGTH		VEHICLE PERMISSIVE 2 LENGTH	
VEHICLE PERMISSIVE 2 DISPLACEMENT		ACTION PLAN	
ACTUATED COORDINATION		TIMING PLAN	
ACTUATED REST IN WALK		PHASE RESERVICE	
RING SPLIT EXTENSION (SECONDS)		1	2
SPLIT DEMAND PATTERN			
RING DISPLACEMENT			
	1 2 3 4 5	8 9 1 1	1 1
		0 1	3 5
PREFERENCE 1 PHASES			
PREFERENCE 2 PHASES			

COORDINATOR PATTERN		SPLIT PATTERN	
CYCLE LENGTH (SECONDS)			
OFFSET VALUE		SEQUENCE	
SPLITS IN		OFFSETS IN	
CROSSING ARTERY PATTERN			
VEHICLE PERMISSIVE 1 LENGTH		VEHICLE PERMISSIVE 2 LENGTH	
VEHICLE PERMISSIVE 2 DISPLACEMENT		ACTION PLAN	
ACTUATED COORDINATION		TIMING PLAN	
ACTUATED REST IN WALK		PHASE RESERVICE	
RING SPLIT EXTENSION (SECONDS)		1	2
SPLIT DEMAND PATTERN			
RING DISPLACEMENT			
	1 2 3 4 5	8 9 1 1	1 1
		0 1	3 5
PREFERENCE 1 PHASES			
PREFERENCE 2 PHASES			

COORDINATOR PATTERN		SPLIT PATTERN	
CYCLE LENGTH (SECONDS)			
OFFSET VALUE		SEQUENCE	
SPLITS IN		OFFSETS IN	
CROSSING ARTERY PATTERN			
VEHICLE PERMISSIVE 1 LENGTH		VEHICLE PERMISSIVE 2 LENGTH	
VEHICLE PERMISSIVE 2 DISPLACEMENT		ACTION PLAN	
ACTUATED COORDINATION		TIMING PLAN	
ACTUATED REST IN WALK		PHASE RESERVICE	
RING SPLIT EXTENSION (SECONDS)		1	2
SPLIT DEMAND PATTERN			
RING DISPLACEMENT			
	1 2 3 4 5	8 9 1 1	1 1
		0 1	3 5
PREFERENCE 1 PHASES			
PREFERENCE 2 PHASES			

COORDINATOR PATTERN		SPLIT PATTERN	
CYCLE LENGTH (SECONDS)			
OFFSET VALUE		SEQUENCE	
SPLITS IN		OFFSETS IN	
CROSSING ARTERY PATTERN			
VEHICLE PERMISSIVE 1 LENGTH		VEHICLE PERMISSIVE 2 LENGTH	
VEHICLE PERMISSIVE 2 DISPLACEMENT		ACTION PLAN	
ACTUATED COORDINATION		TIMING PLAN	
ACTUATED REST IN WALK		PHASE RESERVICE	
RING SPLIT EXTENSION (SECONDS)		1	2
SPLIT DEMAND PATTERN			
RING DISPLACEMENT			
	1 2 3 4 5	8 9 1 1	1 1
		0 1	3 5
PREFERENCE 1 PHASES			
PREFERENCE 2 PHASES			

COORDINATOR PATTERN																		
CYCLE LENGTH (SECONDS)		SPLIT PATTERN																
OFFSET VALUE		SEQUENCE																
SPLITS IN		OFFSETS IN																
CROSSING ARTERY PATTERN																		
VEHICLE PERMISSIVE 1 LENGTH		VEHICLE PERMISSIVE 2 LENGTH																
VEHICLE PERMISSIVE 2 DISPLACEMENT		ACTION PLAN																
ACTUATED COORDINATION		TIMING PLAN																
ACTUATED REST IN WALK		PHASE RESERVICE																
RING SPLIT EXTENSION (SECONDS)		1	2	3	4													
SPLIT DEMAND PATTERN																		
RING DISPLACEMENT																		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
PREFERENCE 1 PHASES																		
PREFERENCE 2 PHASES																		

COORDINATOR PATTERN																		
CYCLE LENGTH (SECONDS)		SPLIT PATTERN																
OFFSET VALUE		SEQUENCE																
SPLITS IN		OFFSETS IN																
CROSSING ARTERY PATTERN																		
VEHICLE PERMISSIVE 1 LENGTH		VEHICLE PERMISSIVE 2 LENGTH																
VEHICLE PERMISSIVE 2 DISPLACEMENT		ACTION PLAN																
ACTUATED COORDINATION		TIMING PLAN																
ACTUATED REST IN WALK		PHASE RESERVICE																
RING SPLIT EXTENSION (SECONDS)		1	2	3	4													
SPLIT DEMAND PATTERN																		
RING DISPLACEMENT																		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
PREFERENCE 1 PHASES																		
PREFERENCE 2 PHASES																		

3-3 SPLIT PATTERN

SPLIT PATTERN NUMBER		1																		
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	1
COORDINATED PHASE(S)			X				X													
PHASE		1	2	3	4	5	6	7	8											
SPLIT VALUE		9	53	11	27	15	47	11	27											
MODE																				
PHASE		9	10	11	12	13	14	15	16											
SPLIT VALUE																				
MODE																				

SPLIT PATTERN NUMBER		2																		
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	1
COORDINATED PHASE(S)			X				X													
PHASE		1	2	3	4	5	6	7	8											
SPLIT VALUE		12	51	12	25	12	51	12	25											
MODE																				
PHASE		9	10	11	12	13	14	15	16											
SPLIT VALUE																				
MODE																				

SPLIT PATTERN NUMBER		3																		
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	1
COORDINATED PHASE(S)			X				X													
PHASE		1	2	3	4	5	6	7	8											
SPLIT VALUE		10	53	17	20	10	53	10	27											
MODE																				
PHASE		9	10	11	12	13	14	15	16											
SPLIT VALUE																				
MODE																				

SPLIT PATTERN NUMBER		4																		
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	1
COORDINATED PHASE(S)			X				X													
PHASE		1	2	3	4	5	6	7	8											
SPLIT VALUE		12	48	12	28	12	48	12	28											
MODE																				
PHASE		9	10	11	12	13	14	15	16											
SPLIT VALUE																				
MODE																				

SPLIT PATTERN NUMBER																				
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	1
COORDINATED PHASE(S)																				
PHASE		1	2	3	4	5	6	7	8											
SPLIT VALUE																				
MODE																				
PHASE		9	10	11	12	13	14	15	16											
SPLIT VALUE																				
MODE																				

SPLIT PATTERN NUMBER																				
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	1
COORDINATED PHASE(S)																				
PHASE		1	2	3	4	5	6	7	8											
SPLIT VALUE																				
MODE																				
PHASE		9	10	11	12	13	14	15	16											
SPLIT VALUE																				
MODE																				

SPLIT PATTERN NUMBER																				
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	1
COORDINATED PHASE(S)																				
PHASE		1	2	3	4	5	6	7	8											
SPLIT VALUE																				
MODE																				
PHASE		9	10	11	12	13	14	15	16											
SPLIT VALUE																				
MODE																				

SPLIT PATTERN NUMBER																				
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	1
COORDINATED PHASE(S)																				
PHASE		1	2	3	4	5	6	7	8											
SPLIT VALUE																				
MODE																				
PHASE		9	10	11	12	13	14	15	16											
SPLIT VALUE																				
MODE																				

3-3 SPLIT PATTERN (CONTINUED)

SPLIT PATTERN NUMBER																	
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
COORDINATED PHASE(S)																	
PHASE	1	2	3	4	5	6	7	8									
SPLIT VALUE																	
MODE																	
PHASE	9	10	11	12	13	14	15	16									
SPLIT VALUE																	
MODE																	

SPLIT PATTERN NUMBER																	
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
COORDINATED PHASE(S)																	
PHASE	1	2	3	4	5	6	7	8									
SPLIT VALUE																	
MODE																	
PHASE	9	10	11	12	13	14	15	16									
SPLIT VALUE																	
MODE																	

SPLIT PATTERN NUMBER																	
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
COORDINATED PHASE(S)																	
PHASE	1	2	3	4	5	6	7	8									
SPLIT VALUE																	
MODE																	
PHASE	9	10	11	12	13	14	15	16									
SPLIT VALUE																	
MODE																	

SPLIT PATTERN NUMBER																	
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
COORDINATED PHASE(S)																	
PHASE	1	2	3	4	5	6	7	8									
SPLIT VALUE																	
MODE																	
PHASE	9	10	11	12	13	14	15	16									
SPLIT VALUE																	
MODE																	

SPLIT PATTERN NUMBER																	
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
COORDINATED PHASE(S)																	
PHASE	1	2	3	4	5	6	7	8									
SPLIT VALUE																	
MODE																	
PHASE	9	10	11	12	13	14	15	16									
SPLIT VALUE																	
MODE																	

SPLIT PATTERN NUMBER																	
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
COORDINATED PHASE(S)																	
PHASE	1	2	3	4	5	6	7	8									
SPLIT VALUE																	
MODE																	
PHASE	9	10	11	12	13	14	15	16									
SPLIT VALUE																	
MODE																	

SPLIT PATTERN NUMBER																	
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
COORDINATED PHASE(S)																	
PHASE	1	2	3	4	5	6	7	8									
SPLIT VALUE																	
MODE																	
PHASE	9	10	11	12	13	14	15	16									
SPLIT VALUE																	
MODE																	

SPLIT PATTERN NUMBER																	
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
COORDINATED PHASE(S)																	
PHASE	1	2	3	4	5	6	7	8									
SPLIT VALUE																	
MODE																	
PHASE	9	10	11	12	13	14	15	16									
SPLIT VALUE																	
MODE																	

3-3 SPLIT PATTERN (CONTINUED)

SPLIT PATTERN NUMBER																	
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
COORDINATED PHASE(S)																	
PHASE	1	2	3	4	5	6	7	8									
SPLIT VALUE																	
MODE																	
PHASE	9	10	11	12	13	14	15	16									
SPLIT VALUE																	
MODE																	

SPLIT PATTERN NUMBER																	
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
COORDINATED PHASE(S)																	
PHASE	1	2	3	4	5	6	7	8									
SPLIT VALUE																	
MODE																	
PHASE	9	10	11	12	13	14	15	16									
SPLIT VALUE																	
MODE																	

SPLIT PATTERN NUMBER																	
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
COORDINATED PHASE(S)																	
PHASE	1	2	3	4	5	6	7	8									
SPLIT VALUE																	
MODE																	
PHASE	9	10	11	12	13	14	15	16									
SPLIT VALUE																	
MODE																	

SPLIT PATTERN NUMBER																	
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
COORDINATED PHASE(S)																	
PHASE	1	2	3	4	5	6	7	8									
SPLIT VALUE																	
MODE																	
PHASE	9	10	11	12	13	14	15	16									
SPLIT VALUE																	
MODE																	

3-4 AUTO PERMISSIVE MINIMUM GREEN TIME

PHASE	1	2	3	4	5	6	7	8
MINIMUM GREEN								
PHASE	9	10	11	12	13	14	15	16
MINIMUM GREEN								

3-5 SPLIT DEMAND

PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
DEMAND 1																	
DEMAND 2																	
DEMAND	1		2														
DETECTOR																	
CALL TIME (SECONDS)																	
CYCLE COUNT																	

PREEMPTOR SUBMENU

4-1 PREEMPTOR

PREEMPTOR NUMBER	1																			
ACTIVE	NON-LOCK INPUT																			
PREEMPTION OVERRIDE	INTERLOCK ENABLE																			
DELAY TIME (SECONDS)	INHIBIT TIME (SECONDS)																			
EXTEND INPUT (SECONDS)	MAX PRESENCE TIME (SECONDS)																			
DURATION TIME (SECONDS)	TRACK CLEARANCE RESERVICE																			
PED DARK	RESERVICE TIME																			
AUTOMATIC FLASH HAS PRIORITY	RED CLEAR GOES GREEN																			
TERMINATE OVERLAPS ASAP	PED CLEAR THROUGH YELLOW																			
RING	1				2				3				4							
FREE DURING PREEMPTION																				
	WALK				PED CLEAR				GREEN				YELLOW				RED			
ENTERING MINIMUM TIME																				
TRACK CLEARANCE TIME																				
MIN DWELL – CYCLE GREEN/ EXIT YELLOW /RED																				
DWELL FLASH	FLASH EXIT COLOR																			
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	1	
TRACK CLEAR PHASE																				
DWELL PHASE																				
DWELL PEDESTRIAN																				
CYCLING PHASE																				
CYCLING PEDESTRIAN																				
EXIT PHASE																				
EXIT CALLS																				
SPECIAL FUNCTION																				
PREEMPTION TO COORDINATION									EXIT TIMING PLAN											
LINKED PREEMPTOR																				
PREEMPTOR ACTIVE OUTPUTS																				
PREEMPTOR ACTIVE OUT									PREEMPTOR ACTIVE OUT IN DWELL											
OTHER PRIORITY PREEMPTOR OUT									NON-PRIORITY PREEMPTOR OUT											
OVERLAP	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P				
TRACK CLEAR OVERLAP																				
DWELL OVERLAP																				
CYCLING OVERLAP																				

PREEMPTOR NUMBER	2																			
ACTIVE	NON-LOCK INPUT																			
PREEMPTION OVERRIDE	INTERLOCK ENABLE																			
DELAY TIME (SECONDS)	INHIBIT TIME (SECONDS)																			
EXTEND INPUT (SECONDS)	MAX PRESENCE TIME (SECONDS)																			
DURATION TIME (SECONDS)	TRACK CLEARANCE RESERVICE																			
PED DARK	RESERVICE TIME																			
AUTOMATIC FLASH HAS PRIORITY	RED CLEAR GOES GREEN																			
TERMINATE OVERLAPS ASAP	PED CLEAR THROUGH YELLOW																			
RING	1				2				3				4							
FREE DURING PREEMPTION																				
	WALK				PED CLEAR				GREEN				YELLOW				RED			
ENTERING MINIMUM TIME																				
TRACK CLEARANCE TIME																				
MIN DWELL – CYCLE GREEN/EXIT YELLOW/RED																				
DWELL FLASH	FLASH EXIT COLOR																			
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	1	
TRACK CLEAR PHASE																				
DWELL PHASE																				
DWELL PEDESTRIAN																				
CYCLING PHASE																				
CYCLING PEDESTRIAN																				
EXIT PHASE																				
EXIT CALLS																				
SPECIAL FUNCTION																				
PREEMPTION TO COORDINATION									EXIT TIMING PLAN											
LINKED PREEMPTOR																				
PREEMPTOR ACTIVE OUTPUTS																				
PREEMPTOR ACTIVE OUT									PREEMPTOR ACTIVE OUT IN DWELL											
OTHER PRIORITY PREEMPTOR OUT									NON-PRIORITY PREEMPTOR OUT											
OVERLAP	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P				
TRACK CLEAR OVERLAP																				
DWELL OVERLAP																				
CYCLING OVERLAP																				

4-2 LOW PRIORITY PREEMPTOR SELECTION

FILTERED INPUT	SOLID	PULSING
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

4-1 PREEMPTOR (CONTINUED)

PREEMPTOR NUMBER		3															
ACTIVE	NON-LOCK INPUT																
PREEMPTION OVERRIDE	INTERLOCK ENABLE																
DELAY TIME (SECONDS)	INHIBIT TIME (SECONDS)																
EXTEND INPUT (SECONDS)	MAX PRESENCE TIME (SECONDS)																
DURATION TIME (SECONDS)	TRACK CLEARANCE RESERVICE																
PED DARK	RESERVICE TIME																
AUTOMATIC FLASH HAS PRIORITY	RED CLEAR GOES GREEN																
TERMINATE OVERLAPS ASAP	PC THROUGH YELLOW																
RING	1	2	3	4													
FREE DURING PREEMPTION																	
	WALK	PED CLEAR	GREEN	YELLOW	RED												
ENTERING MINIMUM TIME																	
TRACK CLEARANCE TIME																	
MIN DWELL - CYCLE GREEN/ EXIT YELLOW /RED																	
DWELL FLASH		FLASH EXIT COLOR															
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRACK CLEAR PHASE																	
DWELL PHASE																	
DWELL PEDESTRIAN																	
CYCLING PHASE																	
CYCLING PEDESTRIAN																	
EXIT PHASE																	
EXIT CALLS																	
SPECIAL FUNCTION																	
PREEMPTION TO COORDINATION		EXIT TIMING PLAN															
LINKED PREEMPTOR																	
PREEMPTOR ACTIVE OUTPUTS																	
PREEMPTOR ACTIVE OUT		PREEMPTOR ACTIVE OUT IN DWELL															
OTHER PRIORITY PREEMPTOR OUT		NON-PRIORITY PREEMPTOR OUT															
OVERLAP	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	
TRACK CLEAR OVERLAP																	
DWELL OVERLAP																	
CYCLING OVERLAP																	

PREEMPTOR NUMBER		4															
ACTIVE	NON-LOCK INPUT																
PREEMPTION OVERRIDE	INTERLOCK ENABLE																
DELAY TIME (SECONDS)	INHIBIT TIME (SECONDS)																
EXTEND INPUT (SECONDS)	MAX PRESENCE TIME (SECONDS)																
DURATION TIME (SECONDS)	TRACK CLEARANCE RESERVICE																
PED DARK	RESERVICE TIME																
AUTOMATIC FLASH HAS PRIORITY	RED CLEAR GOES GREEN																
TERMINATE OVERLAPS ASAP	PC THROUGH YELLOW																
RING	1	2	3	4													
FREE DURING PREEMPTION																	
	WALK	PED CLEAR	GREEN	YELLOW	RED												
ENTERING MINIMUM TIME																	
TRACK CLEARANCE TIME																	
MIN DWELL - CYCLE GREEN/ EXIT YELLOW /RED																	
DWELL FLASH		FLASH EXIT COLOR															
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRACK CLEAR PHASE																	
DWELL PHASE																	
DWELL PEDESTRIAN																	
CYCLING PHASE																	
CYCLING PEDESTRIAN																	
EXIT PHASE																	
EXIT CALLS																	
SPECIAL FUNCTION																	
PREEMPTION TO COORDINATION		EXIT TIMING PLAN															
LINKED PREEMPTOR																	
PREEMPTOR ACTIVE OUTPUTS																	
PREEMPTOR ACTIVE OUT		PREEMPTOR ACTIVE OUT IN DWELL															
OTHER PRIORITY PREEMPTOR OUT		NON-PRIORITY PREEMPTOR OUT															
OVERLAP	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	
TRACK CLEAR OVERLAP																	
DWELL OVERLAP																	
CYCLING OVERLAP																	

4-1 PREEMPTOR (CONTINUED)

PREEMPTOR NUMBER		5															
ACTIVE	NON-LOCK INPUT																
PREEMPTION OVERRIDE	INTERLOCK ENABLE																
DELAY TIME (SECONDS)	INHIBIT TIME (SECONDS)																
EXTEND INPUT (SECONDS)	MAX PRESENCE TIME (SECONDS)																
DURATION TIME (SECONDS)	TRACK CLEARANCE RESERVICE																
PED DARK	RESERVICE TIME																
AUTOMATIC FLASH HAS PRIORITY	RED CLEAR GOES GREEN																
TERMINATE OVERLAPS ASAP	PC THROUGH YELLOW																
RING	1	2	3	4													
FREE DURING PREEMPTION																	
	WALK	PED CLEAR	GREEN	YELLOW	RED												
ENTERING MINIMUM TIME																	
TRACK CLEARANCE TIME																	
MIN DWELL - CYCLE GREEN/ EXIT YELLOW /RED																	
DWELL FLASH																	
FLASH EXIT COLOR																	
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRACK CLEAR PHASE																	
DWELL PHASE																	
DWELL PEDESTRIAN																	
CYCLING PHASE																	
CYCLING PEDESTRIAN																	
EXIT PHASE																	
EXIT CALLS																	
SPECIAL FUNCTION																	
PREEMPTION TO COORDINATION					EXIT TIMING PLAN												
LINKED PREEMPTOR																	
PREEMPTOR ACTIVE OUTPUTS																	
PREEMPTOR ACTIVE OUT					PREEMPTOR ACTIVE OUT IN DWELL												
OTHER PRIORITY PREEMPTOR OUT					NON-PRIORITY PREEMPTOR OUT												
OVERLAP	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	
TRACK CLEAR OVERLAP																	
DWELL OVERLAP																	
CYCLING OVERLAP																	

PREEMPTOR NUMBER		6															
ACTIVE	NON-LOCK INPUT																
PREEMPTION OVERRIDE	INTERLOCK ENABLE																
DELAY TIME (SECONDS)	INHIBIT TIME (SECONDS)																
EXTEND INPUT (SECONDS)	MAX PRESENCE TIME (SECONDS)																
DURATION TIME (SECONDS)	TRACK CLEARANCE RESERVICE																
PED DARK	RESERVICE TIME																
AUTOMATIC FLASH HAS PRIORITY	RED CLEAR GOES GREEN																
TERMINATE OVERLAPS ASAP	PC THROUGH YELLOW																
RING	1	2	3	4													
FREE DURING PREEMPTION																	
	WALK	PED CLEAR	GREEN	YELLOW	RED												
ENTERING MINIMUM TIME																	
TRACK CLEARANCE TIME																	
MIN DWELL - CYCLE GREEN/ EXIT YELLOW /RED																	
DWELL FLASH																	
FLASH EXIT COLOR																	
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRACK CLEAR PHASE																	
DWELL PHASE																	
DWELL PEDESTRIAN																	
CYCLING PHASE																	
CYCLING PEDESTRIAN																	
EXIT PHASE																	
EXIT CALLS																	
SPECIAL FUNCTION																	
PREEMPTION TO COORDINATION					EXIT TIMING PLAN												
LINKED PREEMPTOR																	
PREEMPTOR ACTIVE OUTPUTS																	
PREEMPTOR ACTIVE OUT					PREEMPTOR ACTIVE OUT IN DWELL												
OTHER PRIORITY PREEMPTOR OUT					NON-PRIORITY PREEMPTOR OUT												
OVERLAP	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	
TRACK CLEAR OVERLAP																	
DWELL OVERLAP																	
CYCLING OVERLAP																	

4-1 PREEMPTOR (CONTINUED)

PREEMPTOR NUMBER		7															
ACTIVE	NON-LOCK INPUT																
PREEMPTION OVERRIDE	INTERLOCK ENABLE																
DELAY TIME (SECONDS)	INHIBIT TIME (SECONDS)																
EXTEND INPUT (SECONDS)	MAX PRESENCE TIME (SECONDS)																
DURATION TIME (SECONDS)	TRACK CLEARANCE RESERVICE																
PED DARK	RESERVICE TIME																
AUTOMATIC FLASH HAS PRIORITY	RED CLEAR GOES GREEN																
TERMINATE OVERLAPS ASAP	PC THROUGH YELLOW																
RING	1	2	3	4													
FREE DURING PREEMPTION																	
	WALK	PED CLEAR	GREEN	YELLOW	RED												
ENTERING MINIMUM TIME																	
TRACK CLEARANCE TIME																	
MIN DWELL - CYCLE GREEN/ EXIT YELLOW /RED																	
DWELL FLASH		FLASH EXIT COLOR															
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRACK CLEAR PHASE																	
DWELL PHASE																	
DWELL PEDESTRIAN																	
CYCLING PHASE																	
CYCLING PEDESTRIAN																	
EXIT PHASE																	
EXIT CALLS																	
SPECIAL FUNCTION																	
PREEMPTION TO COORDINATION		EXIT TIMING PLAN															
LINKED PREEMPTOR																	
PREEMPTOR ACTIVE OUTPUTS																	
PREEMPTOR ACTIVE OUT		PREEMPTOR ACTIVE OUT IN DWELL															
OTHER PRIORITY PREEMPTOR OUT		NON-PRIORITY PREEMPTOR OUT															
OVERLAP	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	
TRACK CLEAR OVERLAP																	
DWELL OVERLAP																	
CYCLING OVERLAP																	

PREEMPTOR NUMBER		8															
ACTIVE	NON-LOCK INPUT																
PREEMPTION OVERRIDE	INTERLOCK ENABLE																
DELAY TIME (SECONDS)	INHIBIT TIME (SECONDS)																
EXTEND INPUT (SECONDS)	MAX PRESENCE TIME (SECONDS)																
DURATION TIME (SECONDS)	TRACK CLEARANCE RESERVICE																
PED DARK	RESERVICE TIME																
AUTOMATIC FLASH HAS PRIORITY	RED CLEAR GOES GREEN																
TERMINATE OVERLAPS ASAP	PC THROUGH YELLOW																
RING	1	2	3	4													
FREE DURING PREEMPTION																	
	WALK	PED CLEAR	GREEN	YELLOW	RED												
ENTERING MINIMUM TIME																	
TRACK CLEARANCE TIME																	
MIN DWELL - CYCLE GREEN/ EXIT YELLOW /RED																	
DWELL FLASH		FLASH EXIT COLOR															
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRACK CLEAR PHASE																	
DWELL PHASE																	
DWELL PEDESTRIAN																	
CYCLING PHASE																	
CYCLING PEDESTRIAN																	
EXIT PHASE																	
EXIT CALLS																	
SPECIAL FUNCTION																	
PREEMPTION TO COORDINATION		EXIT TIMING PLAN															
LINKED PREEMPTOR																	
PREEMPTOR ACTIVE OUTPUTS																	
PREEMPTOR ACTIVE OUT		PREEMPTOR ACTIVE OUT IN DWELL															
OTHER PRIORITY PREEMPTOR OUT		NON-PRIORITY PREEMPTOR OUT															
OVERLAP	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	
TRACK CLEAR OVERLAP																	
DWELL OVERLAP																	
CYCLING OVERLAP																	

4-1 PREEMPTOR (CONTINUED)

PREEMPTOR NUMBER		9															
ACTIVE	NON-LOCK INPUT																
PREEMPTION OVERRIDE	INTERLOCK ENABLE																
DELAY TIME (SECONDS)	INHIBIT TIME (SECONDS)																
EXTEND INPUT (SECONDS)	MAX PRESENCE TIME (SECONDS)																
DURATION TIME (SECONDS)	TRACK CLEARANCE RESERVICE																
PED DARK	RESERVICE TIME																
AUTOMATIC FLASH HAS PRIORITY	RED CLEAR GOES GREEN																
TERMINATE OVERLAPS ASAP	PC THROUGH YELLOW																
RING	1	2	3	4													
FREE DURING PREEMPTION																	
	WALK	PED CLEAR	GREEN	YELLOW	RED												
ENTERING MINIMUM TIME																	
TRACK CLEARANCE TIME																	
MIN DWELL - CYCLE GREEN/ EXIT YELLOW /RED																	
DWELL FLASH		FLASH EXIT COLOR															
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRACK CLEAR PHASE																	
DWELL PHASE																	
DWELL PEDESTRIAN																	
CYCLING PHASE																	
CYCLING PEDESTRIAN																	
EXIT PHASE																	
EXIT CALLS																	
SPECIAL FUNCTION																	
PREEMPTION TO COORDINATION		EXIT TIMING PLAN															
LINKED PREEMPTOR																	
PREEMPTOR ACTIVE OUTPUTS																	
PREEMPTOR ACTIVE OUT		PREEMPTOR ACTIVE OUT IN DWELL															
OTHER PRIORITY PREEMPTOR OUT		NON-PRIORITY PREEMPTOR OUT															
OVERLAP	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	
TRACK CLEAR OVERLAP																	
DWELL OVERLAP																	
CYCLING OVERLAP																	

PREEMPTOR NUMBER		10															
ACTIVE	NON-LOCK INPUT																
PREEMPTION OVERRIDE	INTERLOCK ENABLE																
DELAY TIME (SECONDS)	INHIBIT TIME (SECONDS)																
EXTEND INPUT (SECONDS)	MAX PRESENCE TIME (SECONDS)																
DURATION TIME (SECONDS)	TRACK CLEARANCE RESERVICE																
PED DARK	RESERVICE TIME																
AUTOMATIC FLASH HAS PRIORITY	RED CLEAR GOES GREEN																
TERMINATE OVERLAPS ASAP	PC THROUGH YELLOW																
RING	1	2	3	4													
FREE DURING PREEMPTION																	
	WALK	PED CLEAR	GREEN	YELLOW	RED												
ENTERING MINIMUM TIME																	
TRACK CLEARANCE TIME																	
MIN DWELL - CYCLE GREEN/ EXIT YELLOW /RED																	
DWELL FLASH		FLASH EXIT COLOR															
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRACK CLEAR PHASE																	
DWELL PHASE																	
DWELL PEDESTRIAN																	
CYCLING PHASE																	
CYCLING PEDESTRIAN																	
EXIT PHASE																	
EXIT CALLS																	
SPECIAL FUNCTION																	
PREEMPTION TO COORDINATION		EXIT TIMING PLAN															
LINKED PREEMPTOR																	
PREEMPTOR ACTIVE OUTPUTS																	
PREEMPTOR ACTIVE OUT		PREEMPTOR ACTIVE OUT IN DWELL															
OTHER PRIORITY PREEMPTOR OUT		NON-PRIORITY PREEMPTOR OUT															
OVERLAP	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	
TRACK CLEAR OVERLAP																	
DWELL OVERLAP																	
CYCLING OVERLAP																	

TIME BASE SUBMENU

5-1 CLOCK/CALENDAR DATA

DATE SET:	
TIME SET:	
MANUAL ACTION PLAN	
SYNC REFERENCE TIME	
SYNC REFERENCE	
DAYLIGHT SAVINGS	
TIME RESET INPUT TIME SET	
STANDARD TIME FROM GMT	

5-2 SCHEDULE

SCHEDULE NUMBER	1
DAY PLAN NUMBER	1

MONTH	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE				
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER				
DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT			
DAY OF MONTH (DOM)	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22	23	24	25	26	27	28	29	30
	31									

SCHEDULE NUMBER	1
DAY PLAN NUMBER	2

MONTH	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE				
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER				
DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT			
DAY OF MONTH (DOM)	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22	23	24	25	26	27	28	29	30
	31									

SCHEDULE NUMBER	
DAY PLAN NUMBER	

MONTH	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE				
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER				
DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT			
DAY OF MONTH (DOM)	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22	23	24	25	26	27	28	29	30
	31									

SCHEDULE NUMBER	
DAY PLAN NUMBER	

MONTH	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE				
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER				
DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT			
DAY OF MONTH (DOM)	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22	23	24	25	26	27	28	29	30
	31									

SCHEDULE NUMBER	
DAY PLAN NUMBER	

MONTH	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE				
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER				
DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT			
DAY OF MONTH (DOM)	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22	23	24	25	26	27	28	29	30
	31									

SCHEDULE NUMBER													
DAY PLAN NUMBER													
MONTH	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE							
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER							
DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT						
DAY OF MONTH (DOM)	1	2	3	4	5	6	7	8	9	10			
	11	12	13	14	15	16	17	18	19	20			
	21	22	23	24	25	26	27	28	29	30			
	31												

SCHEDULE NUMBER													
DAY PLAN NUMBER													
MONTH	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE							
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER							
DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT						
DAY OF MONTH (DOM)	1	2	3	4	5	6	7	8	9	10			
	11	12	13	14	15	16	17	18	19	20			
	21	22	23	24	25	26	27	28	29	30			
	31												

SCHEDULE NUMBER													
DAY PLAN NUMBER													
MONTH	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE							
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER							
DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT						
DAY OF MONTH (DOM)	1	2	3	4	5	6	7	8	9	10			
	11	12	13	14	15	16	17	18	19	20			
	21	22	23	24	25	26	27	28	29	30			
	31												

SCHEDULE NUMBER													
DAY PLAN NUMBER													
MONTH	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE							
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER							
DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT						
DAY OF MONTH (DOM)	1	2	3	4	5	6	7	8	9	10			
	11	12	13	14	15	16	17	18	19	20			
	21	22	23	24	25	26	27	28	29	30			
	31												

SCHEDULE NUMBER													
DAY PLAN NUMBER													
MONTH	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE							
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER							
DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT						
DAY OF MONTH (DOM)	1	2	3	4	5	6	7	8	9	10			
	11	12	13	14	15	16	17	18	19	20			
	21	22	23	24	25	26	27	28	29	30			
	31												

SCHEDULE NUMBER													
DAY PLAN NUMBER													
MONTH	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE							
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER							
DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT						
DAY OF MONTH (DOM)	1	2	3	4	5	6	7	8	9	10			
	11	12	13	14	15	16	17	18	19	20			
	21	22	23	24	25	26	27	28	29	30			
	31												

SCHEDULE NUMBER											
DAY PLAN NUMBER											
MONTH	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE					
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER					
DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT				
DAY OF MONTH (DOM)	1	2	3	4	5	6	7	8	9	10	
	11	12	13	14	15	16	17	18	19	20	
	21	22	23	24	25	26	27	28	29	30	
	31										

SCHEDULE NUMBER											
DAY PLAN NUMBER											
MONTH	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE					
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER					
DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT				
DAY OF MONTH (DOM)	1	2	3	4	5	6	7	8	9	10	
	11	12	13	14	15	16	17	18	19	20	
	21	22	23	24	25	26	27	28	29	30	
	31										

SCHEDULE NUMBER											
DAY PLAN NUMBER											
MONTH	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE					
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER					
DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT				
DAY OF MONTH (DOM)	1	2	3	4	5	6	7	8	9	10	
	11	12	13	14	15	16	17	18	19	20	
	21	22	23	24	25	26	27	28	29	30	
	31										

PATTERN		1		SYSTEM OVERRIDE														
VEHICLE DETECTOR PLAN				DETECTOR LOG														
FLASH				VEHICLE DET DIAGNOSTIC PLAN														
RED REST				PED DET DIAGNOSTIC PLAN														
CONTROLLER SEQUENCE				DIMMING ENABLE														
TIMING PLAN																		
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
PED RECALL																		
WALK 2																		
VEH EXT 2																		
VEH RECALL																		
MAX RECALL																		
MAX 2																		
MAX 3																		
CS INHIBIT																		
PHASE OMIT																		
SPEC FUNCTION																		(1-8)
AUX FUNCTION					(1-3)													
		1	2	3	4	5	6	7	8	9	10							
LP 1-10																		
LP 11-20																		
LP 21-30																		
LP 31-40																		
LP 41-50																		
LP 51-60																		
LP 61-70																		
LP 71-80																		
LP 81-90																		
LP 91-100																		

ACTION PLAN		3		SYSTEM OVERRIDE														
VEHICLE DETECTOR PLAN				DETECTOR LOG														
FLASH				VEHICLE DET DIAGNOSTIC PLAN														
RED REST				PED DET DIAGNOSTIC PLAN														
CONTROLLER SEQUENCE				DIMMING ENABLE														
TIMING PLAN																		
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
PED RECALL																		
WALK 2																		
VEH EXT 2																		
VEH RECALL																		
MAX RECALL																		
MAX 2																		
MAX 3																		
CS INHIBIT																		
PHASE OMIT																		
SPEC FUNCTION																		(1-8)
AUX FUNCTION					(1-3)													
		1	2	3	4	5	6	7	8	9	10							
LP 1-10																		
LP 11-20																		
LP 21-30																		
LP 31-40																		
LP 41-50																		
LP 51-60																		
LP 61-70																		
LP 71-80																		
LP 81-90																		
LP 91-100																		

ACTION PLAN		2		SYSTEM OVERRIDE														
VEHICLE DETECTOR PLAN				DETECTOR LOG														
FLASH				VEHICLE DET DIAGNOSTIC PLAN														
RED REST				PED DET DIAGNOSTIC PLAN														
CONTROLLER SEQUENCE				DIMMING ENABLE														
TIMING PLAN																		
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
PED RECALL																		
WALK 2																		
VEH EXT 2																		
VEH RECALL																		
MAX RECALL																		
MAX 2																		
MAX 3																		
CS INHIBIT																		
PHASE OMIT																		
SPEC FUNCTION																		(1-8)
AUX FUNCTION					(1-3)													
		1	2	3	4	5	6	7	8	9	10							
LP 1-10																		
LP 11-20																		
LP 21-30																		
LP 31-40																		
LP 41-50																		
LP 51-60																		
LP 61-70																		
LP 71-80																		
LP 81-90																		
LP 91-100																		

ACTION PLAN		4		SYSTEM OVERRIDE														
VEHICLE DETECTOR PLAN				DETECTOR LOG														
FLASH				VEHICLE DET DIAGNOSTIC PLAN														
RED REST				PED DET DIAGNOSTIC PLAN														
CONTROLLER SEQUENCE				DIMMING ENABLE														
TIMING PLAN																		
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
PED RECALL																		
WALK 2																		
VEH EXT 2																		
VEH RECALL																		
MAX RECALL																		
MAX 2																		
MAX 3																		
CS INHIBIT																		
PHASE OMIT																		
SPEC FUNCTION																		(1-8)
AUX FUNCTION					(1-3)													
		1	2	3	4	5	6	7	8	9	10							
LP 1-10																		
LP 11-20																		
LP 21-30																		
LP 31-40																		
LP 41-50																		
LP 51-60																		
LP 61-70																		
LP 71-80																		
LP 81-90																		
LP 91-100																		

ACTION PLAN		5																		
PATTERN		5										SYSTEM OVERRIDE								
VEHICLE DETECTOR PLAN												DETECTOR LOG								
FLASH																				
RED REST												VEHICLE DET DIAGNOSTIC PLAN								
CONTROLLER SEQUENCE												PED DET DIAGNOSTIC PLAN								
TIMING PLAN												DIMMING ENABLE								
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	1
PED RECALL																				
WALK 2																				
VEH EXT 2																				
VEH RECALL																				
MAX RECALL																				
MAX 2																				
MAX 3																				
CS INHIBIT																				
PHASE OMIT																				
SPEC FUNCTION																				(1-8)
AUX FUNCTION					(1-3)															
		1	2	3	4	5	6	7	8	9	10									
LP 1-10																				
LP 11-20																				
LP 21-30																				
LP 31-40																				
LP 41-50																				
LP 51-60																				
LP 61-70																				
LP 71-80																				
LP 81-90																				
LP 91-100																				

ACTION PLAN																				
PATTERN												SYSTEM OVERRIDE								
VEHICLE DETECTOR PLAN												DETECTOR LOG								
FLASH																				
RED REST												VEHICLE DET DIAGNOSTIC PLAN								
CONTROLLER SEQUENCE												PED DET DIAGNOSTIC PLAN								
TIMING PLAN												DIMMING ENABLE								
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	1
PED RECALL																				
WALK 2																				
VEH EXT 2																				
VEH RECALL																				
MAX RECALL																				
MAX 2																				
MAX 3																				
CS INHIBIT																				
PHASE OMIT																				
SPEC FUNCTION																				(1-8)
AUX FUNCTION					(1-3)															
		1	2	3	4	5	6	7	8	9	10									
LP 1-10																				
LP 11-20																				
LP 21-30																				
LP 31-40																				
LP 41-50																				
LP 51-60																				
LP 61-70																				
LP 71-80																				
LP 81-90																				
LP 91-100																				

ACTION PLAN																				
PATTERN												SYSTEM OVERRIDE								
VEHICLE DETECTOR PLAN												DETECTOR LOG								
FLASH																				
RED REST												VEHICLE DET DIAGNOSTIC PLAN								
CONTROLLER SEQUENCE												PED DET DIAGNOSTIC PLAN								
TIMING PLAN												DIMMING ENABLE								
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	1
PED RECALL																				
WALK 2																				
VEH EXT 2																				
VEH RECALL																				
MAX RECALL																				
MAX 2																				
MAX 3																				
CS INHIBIT																				
PHASE OMIT																				
SPEC FUNCTION																				(1-8)
AUX FUNCTION					(1-3)															
		1	2	3	4	5	6	7	8	9	10									
LP 1-10																				
LP 11-20																				
LP 21-30																				
LP 31-40																				
LP 41-50																				
LP 51-60																				
LP 61-70																				
LP 71-80																				
LP 81-90																				
LP 91-100																				

ACTION PLAN																				
PATTERN												SYSTEM OVERRIDE								
VEHICLE DETECTOR PLAN												DETECTOR LOG								
FLASH																				
RED REST												VEHICLE DET DIAGNOSTIC PLAN								
CONTROLLER SEQUENCE												PED DET DIAGNOSTIC PLAN								
TIMING PLAN												DIMMING ENABLE								
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	1
PED RECALL																				
WALK 2																				
VEH EXT 2																				
VEH RECALL																				
MAX RECALL																				
MAX 2																				
MAX 3																				
CS INHIBIT																				
PHASE OMIT																				
SPEC FUNCTION																				(1-8)
AUX FUNCTION					(1-3)															
		1	2	3	4	5	6	7	8	9	10									
LP 1-10																				
LP 11-20																				
LP 21-30																				
LP 31-40																				
LP 41-50																				
LP 51-60																				
LP 61-70																				
LP 71-80																				
LP 81-90																				
LP 91-100																				

5-5 EXCEPTION DAY PROGRAM

EXCEPTION DAY	FLOAT / FIXED	MON / MON	DOW / DOM	WOM / YEAR	DAY PLAN
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
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19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					

DETECTORS

6-1. DETECTOR TYPE AND TS SELECT

DET	TYPE	TS1 DETECTOR
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		
31		
32		

DET	TYPE	TS1 DETECTOR
33		
34		
35		
36		
37		
38		
39		
40		
41		
42		
43		
44		
45		
46		
47		
48		
49		
50		
51		
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58		
59		
60		
61		
62		
63		
64		

VEHICLE PLAN NUMBER		
DETECTOR NUMBER		
ASSIGNED PHASE		ADDED INITIAL OPTION
SWITCH PHASE		CALL DETECTOR OPTION
EXTEND TIME		PASSAGE DETECTOR OPTION
DELAY TIME		QUEUE DETECTOR OPTION
QUEUE LIMIT		NTCIP OCCUPANCY LOG
FAIL TIME		NTCIP VOLUME LOG
FAIL CALL DELAY		ECPI LOG
YELLOW LOCK		RED LOCK
PHASE	1 2 3 4 5 6 7 8 9 0 1 1 1 1 1 1 1	
CALLED		

VEHICLE PLAN NUMBER		
DETECTOR NUMBER		
ASSIGNED PHASE		ADDED INITIAL OPTION
SWITCH PHASE		CALL DETECTOR OPTION
EXTEND TIME		PASSAGE DETECTOR OPTION
DELAY TIME		QUEUE DETECTOR OPTION
QUEUE LIMIT		NTCIP OCCUPANCY LOG
FAIL TIME		NTCIP VOLUME LOG
FAIL CALL DELAY		ECPI LOG
YELLOW LOCK		RED LOCK
PHASE	1 2 3 4 5 6 7 8 9 0 1 1 1 1 1 1 1	
CALLED		

VEHICLE PLAN NUMBER		
DETECTOR NUMBER		
ASSIGNED PHASE		ADDED INITIAL OPTION
SWITCH PHASE		CALL DETECTOR OPTION
EXTEND TIME		PASSAGE DETECTOR OPTION
DELAY TIME		QUEUE DETECTOR OPTION
QUEUE LIMIT		NTCIP OCCUPANCY LOG
FAIL TIME		NTCIP VOLUME LOG
FAIL CALL DELAY		ECPI LOG
YELLOW LOCK		RED LOCK
PHASE	1 2 3 4 5 6 7 8 9 0 1 1 1 1 1 1 1	
CALLED		

VEHICLE PLAN NUMBER		
DETECTOR NUMBER		
ASSIGNED PHASE		ADDED INITIAL OPTION
SWITCH PHASE		CALL DETECTOR OPTION
EXTEND TIME		PASSAGE DETECTOR OPTION
DELAY TIME		QUEUE DETECTOR OPTION
QUEUE LIMIT		NTCIP OCCUPANCY LOG
FAIL TIME		NTCIP VOLUME LOG
FAIL CALL DELAY		ECPI LOG
YELLOW LOCK		RED LOCK
PHASE	1 2 3 4 5 6 7 8 9 0 1 1 1 1 1 1 1	
CALLED		

6-2 VEHICLE DETECTOR SETUP

VEHICLE PLAN NUMBER		
DETECTOR NUMBER		
ASSIGNED PHASE		ADDED INITIAL OPTION
SWITCH PHASE		CALL DETECTOR OPTION
EXTEND TIME		PASSAGE DETECTOR OPTION
DELAY TIME		QUEUE DETECTOR OPTION
QUEUE LIMIT		NTCIP OCCUPANCY LOG
FAIL TIME		NTCIP VOLUME LOG
FAIL CALL DELAY		ECPI LOG
YELLOW LOCK		RED LOCK
PHASE	1 2 3 4 5 6 7 8 9 0 1 1 1 1 1 1 1	
CALLED		

VEHICLE PLAN NUMBER		
DETECTOR NUMBER		
ASSIGNED PHASE		ADDED INITIAL OPTION
SWITCH PHASE		CALL DETECTOR OPTION
EXTEND TIME		PASSAGE DETECTOR OPTION
DELAY TIME		QUEUE DETECTOR OPTION
QUEUE LIMIT		NTCIP OCCUPANCY LOG
FAIL TIME		NTCIP VOLUME LOG
FAIL CALL DELAY		ECPI LOG
YELLOW LOCK		RED LOCK
PHASE	1 2 3 4 5 6 7 8 9 0 1 1 1 1 1 1 1	
CALLED		

VEHICLE PLAN NUMBER		
DETECTOR NUMBER		
ASSIGNED PHASE		ADDED INITIAL OPTION
SWITCH PHASE		CALL DETECTOR OPTION
EXTEND TIME		PASSAGE DETECTOR OPTION
DELAY TIME		QUEUE DETECTOR OPTION
QUEUE LIMIT		NTCIP OCCUPANCY LOG
FAIL TIME		NTCIP VOLUME LOG
FAIL CALL DELAY		ECPI LOG
YELLOW LOCK		RED LOCK
PHASE	1 2 3 4 5 6 7 8 9 0 1 1 1 1 1 1 1 1	
CALLED		

VEHICLE PLAN NUMBER		
DETECTOR NUMBER		
ASSIGNED PHASE		ADDED INITIAL OPTION
SWITCH PHASE		CALL DETECTOR OPTION
EXTEND TIME		PASSAGE DETECTOR OPTION
DELAY TIME		QUEUE DETECTOR OPTION
QUEUE LIMIT		NTCIP OCCUPANCY LOG
FAIL TIME		NTCIP VOLUME LOG
FAIL CALL DELAY		ECPI LOG
YELLOW LOCK		RED LOCK
PHASE	1 2 3 4 5 6 7 8 9 0 1 1 1 1 1 1 1 1	
CALLED		

VEHICLE PLAN NUMBER		
DETECTOR NUMBER		
ASSIGNED PHASE		ADDED INITIAL OPTION
SWITCH PHASE		CALL DETECTOR OPTION
EXTEND TIME		PASSAGE DETECTOR OPTION
DELAY TIME		QUEUE DETECTOR OPTION
QUEUE LIMIT		NTCIP OCCUPANCY LOG
FAIL TIME		NTCIP VOLUME LOG
FAIL CALL DELAY		ECPI LOG
YELLOW LOCK		RED LOCK
PHASE	1 2 3 4 5 6 7 8 9 0 1 1 1 1 1 1 1 1	
CALLED		

VEHICLE PLAN NUMBER		
DETECTOR NUMBER		
ASSIGNED PHASE		ADDED INITIAL OPTION
SWITCH PHASE		CALL DETECTOR OPTION
EXTEND TIME		PASSAGE DETECTOR OPTION
DELAY TIME		QUEUE DETECTOR OPTION
QUEUE LIMIT		NTCIP OCCUPANCY LOG
FAIL TIME		NTCIP VOLUME LOG
FAIL CALL DELAY		ECPI LOG
YELLOW LOCK		RED LOCK
PHASE	1 2 3 4 5 6 7 8 9 0 1 1 1 1 1 1 1 1	
CALLED		

VEHICLE PLAN NUMBER		
DETECTOR NUMBER		
ASSIGNED PHASE		ADDED INITIAL OPTION
SWITCH PHASE		CALL DETECTOR OPTION
EXTEND TIME		PASSAGE DETECTOR OPTION
DELAY TIME		QUEUE DETECTOR OPTION
QUEUE LIMIT		NTCIP OCCUPANCY LOG
FAIL TIME		NTCIP VOLUME LOG
FAIL CALL DELAY		ECPI LOG
YELLOW LOCK		RED LOCK
PHASE	1 2 3 4 5 6 7 8 9 0 1 1 1 1 1 1 1 1	
CALLED		

VEHICLE PLAN NUMBER		
DETECTOR NUMBER		
ASSIGNED PHASE		ADDED INITIAL OPTION
SWITCH PHASE		CALL DETECTOR OPTION
EXTEND TIME		PASSAGE DETECTOR OPTION
DELAY TIME		QUEUE DETECTOR OPTION
QUEUE LIMIT		NTCIP OCCUPANCY LOG
FAIL TIME		NTCIP VOLUME LOG
FAIL CALL DELAY		ECPI LOG
YELLOW LOCK		RED LOCK
PHASE	1 2 3 4 5 6 7 8 9 0 1 1 1 1 1 1 1 1	
CALLED		

VEHICLE PLAN NUMBER		
DETECTOR NUMBER		
ASSIGNED PHASE		ADDED INITIAL OPTION
SWITCH PHASE		CALL DETECTOR OPTION
EXTEND TIME		PASSAGE DETECTOR OPTION
DELAY TIME		QUEUE DETECTOR OPTION
QUEUE LIMIT		NTCIP OCCUPANCY LOG
FAIL TIME		NTCIP VOLUME LOG
FAIL CALL DELAY		ECPI LOG
YELLOW LOCK		RED LOCK
PHASE	1 2 3 4 5 6 7 8 9 0 1 1 1 1 1 1 1 1	
CALLED		

VEHICLE PLAN NUMBER		
DETECTOR NUMBER		
ASSIGNED PHASE		ADDED INITIAL OPTION
SWITCH PHASE		CALL DETECTOR OPTION
EXTEND TIME		PASSAGE DETECTOR OPTION
DELAY TIME		QUEUE DETECTOR OPTION
QUEUE LIMIT		NTCIP OCCUPANCY LOG
FAIL TIME		NTCIP VOLUME LOG
FAIL CALL DELAY		ECPI LOG
YELLOW LOCK		RED LOCK
PHASE	1 2 3 4 5 6 7 8 9 0 1 1 1 1 1 1 1 1	
CALLED		

6-3 PHASE DETECTOR OPTIONS

PHASE DETECTOR OPTION PLAN NUMBER										1						
PHASE	1	2	3	4	5	6	7	8	9	1	1	1	1	1	1	1
DETECTOR LOCK																
VEH RECALL																
PED RECALL																
MAX RECALL																
SOFT RECALL																
NO REST																
ADD INIT CALC																

PHASE DETECTOR OPTION PLAN NUMBER										2						
PHASE	1	2	3	4	5	6	7	8	9	1	1	1	1	1	1	1
DETECTOR LOCK																
VEH RECALL																
PED RECALL																
MAX RECALL																
SOFT RECALL																
NO REST																
ADD INIT CALC																

PHASE DETECTOR OPTION PLAN NUMBER										3						
PHASE	1	2	3	4	5	6	7	8	9	1	1	1	1	1	1	1
DETECTOR LOCK																
VEH RECALL																
PED RECALL																
MAX RECALL																
SOFT RECALL																
NO REST																
ADD INIT CALC																

PHASE DETECTOR OPTION PLAN NUMBER										4						
PHASE	1	2	3	4	5	6	7	8	9	1	1	1	1	1	1	1
DETECTOR LOCK																
VEH RECALL																
PED RECALL																
MAX RECALL																
SOFT RECALL																
NO REST																
ADD INIT CALC																

6-4 PEDESTRIAN AND SYSTEM DETECTOR OPTIONS

PHASE PEDESTRIAN DETECTOR								
	1	2	3	4	5	6	7	8
PED DET INPUT								
	9	10	11	12	13	14	15	16
PED DET INPUT								
LOCAL SYSTEM DETECTOR								
	1	2	3	4	5	6	7	8
VEH DET INPUT								
	9	10	11	12	13	14	15	16
VEH DET INPUT								

6-5 LOG – SPEED DETECTOR SET UP

NTCIP LOG PERIOD								
ECPI LOG PERIOD								
LENGTH UNIT								
SPEED DETECTOR	1	2	3	4	5	6	7	8
LOCAL DETECTOR								
ONE / TWO DET								
VEH LENGTH								
TRAP LENGTH								
ENABLE LOG								
SPEED DETECTOR	9	10	11	12	13	14	15	16
LOCAL DETECTOR								
ONE / TWO DET								
VEH LENGTH								
TRAP LENGTH								
ENABLE LOG								

6-6 VEHICLE DETECTOR DIAGNOSTICS

VEHICLE DIAGNOSTIC PLAN NUMBER					1				
DET	COUNTS	ACTUATIONS	PRESENCE	MULTIPLIER	DET	COUNTS	ACTUATIONS	PRESENCE	MULTIPLIER
1					33				
2					34				
3					35				
4					36				
5					37				
6					38				
7					39				
8					40				
9					41				
10					42				
11					43				
12					44				
13					45				
14					46				
15					47				
16					48				
17					49				
18					50				
19					51				
20					52				
21					53				
22					54				
23					55				
24					56				
25					57				
26					58				
27					59				
28					60				
29					61				
30					62				
31					63				
32					64				

VEHICLE DIAGNOSTIC PLAN NUMBER					2				
DET	COUNTS	ACTUATIONS	PRESENCE	MULTIPLIER	DET	COUNTS	ACTUATIONS	PRESENCE	MULTIPLIER
1					33				
2					34				
3					35				
4					36				
5					37				
6					38				
7					39				
8					40				
9					41				
10					42				
11					43				
12					44				
13					45				
14					46				
15					47				
16					48				
17					49				
18					50				
19					51				
20					52				
21					53				
22					54				
23					55				
24					56				
25					57				
26					58				
27					59				
28					60				
29					61				
30					62				
31					63				
32					64				

**6-6 VEHICLE DETECTOR DIAGNOSTICS
(CONTINUED)**

VEHICLE DIAGNOSTIC PLAN NUMBER					3
DET	COUNTS	ACTUATIONS	PRESENCE	MULTIPLIER	
1					33
2					34
3					35
4					36
5					37
6					38
7					39
8					40
9					41
10					42
11					43
12					44
13					45
14					46
15					47
16					48
17					49
18					50
19					51
20					52
21					53
22					54
23					55
24					56
25					57
26					58
27					59
28					60
29					61
30					62
31					63
32					64

VEHICLE DIAGNOSTIC PLAN NUMBER					4
DET	COUNTS	ACTUATIONS	PRESENCE	MULTIPLIER	
1					33
2					34
3					35
4					36
5					37
6					38
7					39
8					40
9					41
10					42
11					43
12					44
13					45
14					46
15					47
16					48
17					49
18					50
19					51
20					52
21					53
22					54
23					55
24					56
25					57
26					58
27					59
28					60
29					61
30					62
31					63
32					64

6-7 PEDESTRIAN DETECTOR DIAGNOSTICS

PED DIAGNOSTIC PLAN NUMBER 1					PED DIAGNOSTIC PLAN NUMBER 2				
DET	COUNTS	ACTUATIONS	PRESENCE	MULTIPLIER	DET	COUNTS	ACTUATIONS	PRESENCE	MULTIPLIER
1					1				
2					2				
3					3				
4					4				
5					5				
6					6				
7					7				
8					8				
9					9				
10					10				
11					11				
12					12				
13					13				
14					14				
15					15				
16					16				

PED DIAGNOSTIC PLAN NUMBER 3					PED DIAGNOSTIC PLAN NUMBER 4				
DET	COUNTS	ACTUATIONS	PRESENCE	MULTIPLIER	DET	COUNTS	ACTUATIONS	PRESENCE	MULTIPLIER
1					1				
2					2				
3					3				
4					4				
5					5				
6					6				
7					7				
8					8				
9					9				
10					10				
11					11				
12					12				
13					13				
14					14				
15					15				
16					16				

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18. APPENDIX D: PROGRAM REFERENCE CARD

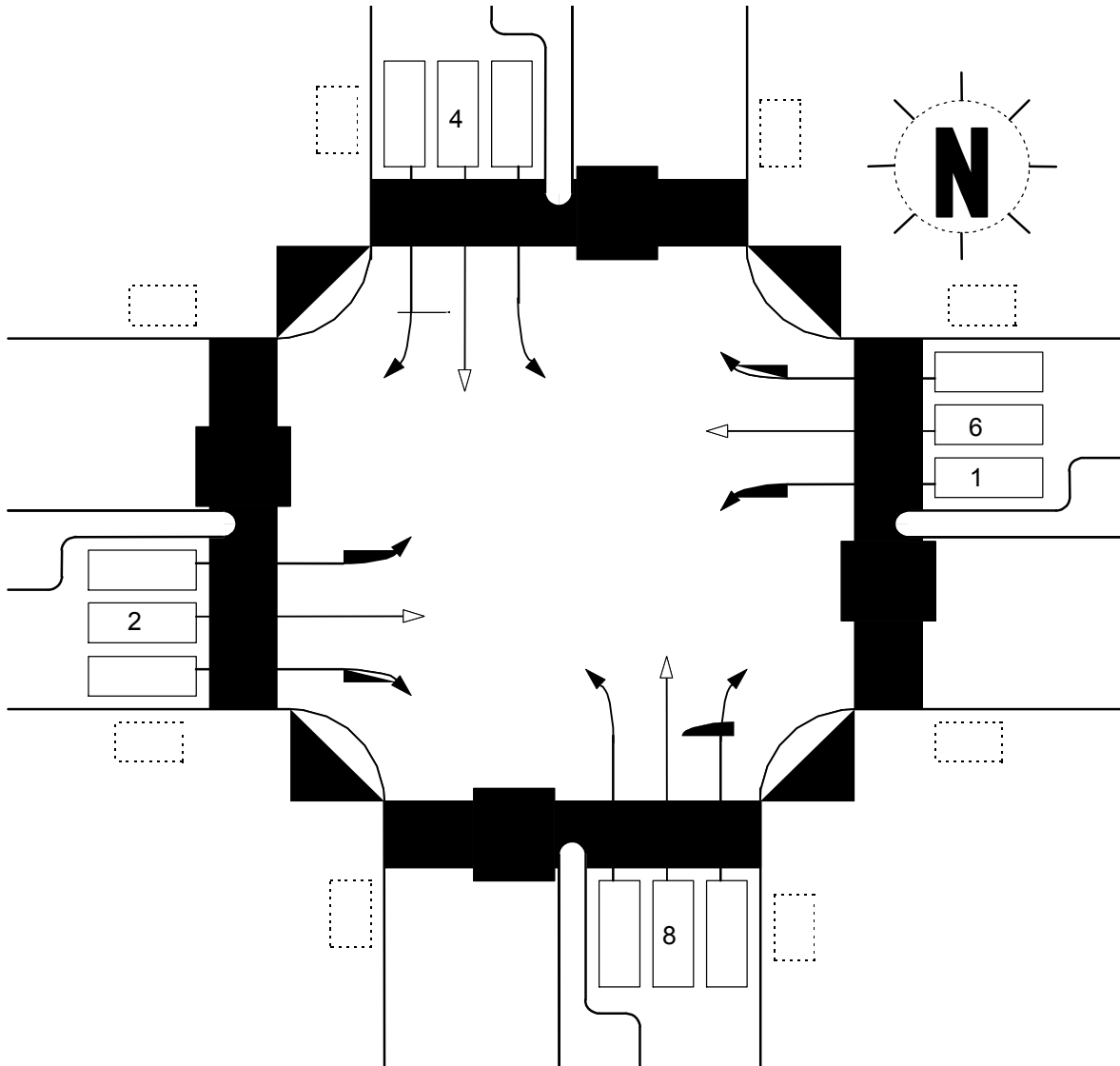
ASC/3

PROGRAM REFERENCE CARD

INTERSECTION Dundas Street & Prince Michael Drive

CONTROLLER NUMBER _____ ENTERED BY: _____ DATE 03 / 13 / 17

BOOT: _____ MAIN: _____ HELP: _____ DATA BASE _____



CONFIGURATION SUBMENU

1-1-1. PHASE RING ASSIGNMENT

PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
RING																

1-1-2. PHASE COMPATIBILITY

PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																

1-2. PHASES IN USE / EXCLUSIVE PED

PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PHASES IN USE																
EXCLUSIVE PED																

1-1-4. BACKUP PREVENT PHASES

PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																

1-1-5 SIMULTANEOUS GAP

PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																

1-1-3. PHASE RING SEQUENCE

1-3. PHASE TO LOAD SWITCH (MMU) ASSIGNMENT

LOAD SWITCH	PHASE / OVERLAP	TYPE	DIMMING				AUTO FLASH	
			RED	YELLOW	GREEN	PHASE	COLOR	TOGETHER
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								

1-4-2. MMU PROGRAM

PHASE	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2
1															
2															
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															

1-4-1. SDLC OPTIONS

TERM & FACIL	BIU NUMBER							
	1	2	3	4	5	6	7	8
ENABLE								
PEER-PEER EN								
DETECTOR RACK	1	2	3	4	5	6	7	8
ENABLE								
PEER-PEER EN								
MMU ENABLE								
MMU STOP TIME								
DIAGNOSTIC ENABLE (TEST FIXTURE)								
CONTROLLER PEER TO PEER ENABLE								
DISABLE 3 CRITICAL RFEs LOCKUP								

1-4-3. COLOR CHECK DISABLE

DISABLE ALL COLOR CHECKS																
MMU CHANNEL	1	2	3	4	5	6	7	8								
GREEN / WALK																
YELLOW / PC																
RED / DW																
MMU CHANNEL	9	10	11	12	13	14	15	16								
GREEN / WALK																
YELLOW / PC																
RED / DW																

1-5-1 GLOBAL PORT PARAMETERS

NTCIP BACKUP TIME (SECONDS)	
PORT 2 PRIORITY	
PORT 3A PRIORITY	
PORT 3B PRIORITY	
ETHERNET PRIORITY	

1-5-1 PORT 2 (TERMINAL)

PROTOCOL	
ENABLE	
DATA RATE (BPS)	
DATA, PARITY, STOP	
MODEM SETUP STRING	
USER STRING	
COMM. PORT ADDRESS	
SYSTEM DETECTOR 9 - 16 ADDRESS	
TELEMETRY RESPONSE DELAY	
DUPLEX HALF - FULL	
AB3418 / NTCIP GROUP ADDRESS	
AB3418 / NTCIP SINGLE FLAG ENABLE	
NTCIP PROTOCOL	
RTS TO CTS DELAY	
RTS TURN OFF DELAY	
DROP OUT TIME (in seconds)	
EARLY RTS	

1-5-3 PORT 3A (TELEMETRY)

PROTOCOL	
ENABLE	
DATA RATE (BPS)	
DATA, PARITY, STOP	
MODEM SETUP STRING	
USER STRING	
COMM. PORT ADDRESS	
SYSTEM DETECTOR 9 - 16 ADDRESS	
ELEMETRY RESPONSE DELAY	
DUPLEX HALF - FULL	
AB3418 / NTCIP GROUP ADDRESS	
AB3418 / NTCIP SINGLE FLAG ENABLE	
NTCIP PROTOCOL	
RTS TO CTS DELAY	
RTS TURN OFF DELAY	
DROP OUT TIME (in seconds)	
EARLY RTS	

1-7-1 ADMINISTRATION

SUPERVISOR ACCESS CODE	
ENABLE CRC CHECK OF DATA BASE	
CRC OF PROGRAM DATA BASE	
REQUEST DOWNLOAD OF PROGRAMMED DATA	

1-7-2 DISPLAY OPTIONS

KEY CLICK ENABLE	
BACKLIGHT ENABLE	

1-5-4. PORT 3B (TELEMETRY)

PROTOCOL	
ENABLE	
DATA RATE (BPS)	
DATA, PARITY, STOP	
MODEM SETUP STRING	
USER STRING	
COMM. PORT ADDRESS	
SYSTEM DETECTOR 9 - 16 ADDRESS	
TELEMETRY RESPONSE DELAY	
DUPLEX HALF - FULL	
AB3418 / NTCIP GROUP ADDRESS	
AB3418 / NTCIP SINGLE FLAG ENABLE	
NTCIP PROTOCOL	
RTS TO CTS DELAY	
RTS TURN OFF DELAY	
DROP OUT TIME (in seconds)	
EARLY RTS	

1-5-5 ETHERNET PORT CONFIGURATION

IP ADDRESS					
ADDRESS MASK					
FTP SERVER ADDRESS					
DEFAULT GATEWAY ADDRESS					

1-6-1 ENABLE EVENT LOGS

CRITICAL RFE'S (MMU/TE)	
3 CRITICAL RFE ERRORS IN 24 HOURS	
NON-CRITICAL RFE'S (DET/TEST)	
DETECTOR ERRORS	
COORDINATION ERRORS	
MMU FLASH FAULTS	
LOCAL FLASH FAULTS	
PREEMPT	
POWER ON/OFF	
LOW BATTERY	
ACCESS	
DATA CHANGE	
CONTROLLER DOWNLOAD	
ALARM 1	
ALARM 2	
ALARM 3	
ALARM 4	
ALARM 5	
ALARM 6	
ALARM 7	
ALARM 8	
ALARM 9	
ALARM 10	
ALARM 11	
ALARM 12	
ALARM 13	
ALARM 14	
ALARM 15	
ALARM 16	

1-8-2 LOGIC PROCESSOR (CONTINUED)

LOGIC GATE NUMBER				
IF				
THEN				
ELSE				

LOGIC GATE NUMBER				
IF				
THEN				
ELSE				

LOGIC GATE NUMBER				
IF				
THEN				
ELSE				

LOGIC GATE NUMBER				
IF				
THEN				
ELSE				

LOGIC GATE NUMBER				
IF				
THEN				
ELSE				

LOGIC GATE NUMBER				
IF				
THEN				
ELSE				

LOGIC GATE NUMBER				
IF				
THEN				
ELSE				

LOGIC GATE NUMBER				
IF				
THEN				
ELSE				

1-8-2 LOGIC PROCESSOR (CONTINUED)

LOGIC GATE NUMBER				

IF				
THEN				
ELSE				

THEN				
ELSE				

LOGIC GATE NUMBER				
IF				
THEN				
ELSE				

LOGIC GATE NUMBER				
IF				
THEN				
ELSE				

LOGIC GATE NUMBER				
IF				
THEN				
ELSE				

LOGIC GATE NUMBER				
IF				
THEN				
ELSE				

LOGIC GATE NUMBER				
IF				
THEN				
ELSE				

LOGIC GATE NUMBER				
IF				
THEN				
ELSE				

1-8-2 LOGIC PROCESSOR (CONTINUED)

LOGIC GATE NUMBER				
IF				

LOGIC GATE NUMBER				
IF				

THEN				
ELSE				

LOGIC GATE NUMBER				
IF				
THEN				
ELSE				

CONTROLLER SUBMENU

2-1. CONTROLLER TIMING DATA

PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
MINIMUM GREEN	7	20	7	10	7	20	7	10								
BICYCLE MINIMUM GREEN																
CONDITIONAL SERVICE MINIMUM GREEN																
DELAYED GREEN																
WALK		7		7		7		7								
WALK 2																
WALK MAX																
PEDESTRIAN CLEARANCE		25		30		25		30								
PEDESTRIAN CLEARANCE 2																
PEDESTRIAN CLEARANCE MAX																
PEDESTRIAN CARRY OVER																
VEHICLE EXTENSION	3.5	5.5	3.5	3.5	3.5	5.5	3.5	3.5								
VEHICLE EXTENSION 2																
MAX1	20	55		35		55		35								
MAX2	20	60		40		60		40								
MAX3																
DYNAMIC MAX																
DYNAMIC MAX STEP																
YELLOW CHANGE	3.0	4.2		3.3		4.2		3.3								
RED CLRANCE	1.0	2.6		3.4		2.6		3.4								
RED MAX																
RED REVERT																
ACTUATIONS BEFORE GAP REDUCTION																
SECONDS PER ACTIONS ADDED TO INITIAL																
MAXIMUM ADDED INITIAL GREEN																
TIME BEFORE GAP REDUCTION																
CARS WAITING BEFORE GAP REDUCTION																
STEP TO REDUCE																
TIME TO REDUCE TO MINIMUM																
MINIMUM GAP																

2-2 VEHICLE OVERLAP

OVERLAP A PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
INCLUDED																	
PROTECTED																	
MODIFIER																	
PEDESTRIAN PROTECT																	
NOT OVERLAP																	
TRAILING GREEN				TRAILING YELLOW						TRAILING RED							
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRAILING LEADING																	
ADVANCE GREEN																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
FLASH GREEN																	

OVERLAP C PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
INCLUDED																	
PROTECTED																	
MODIFIER																	
PEDESTRIAN PROTECT																	
NOT OVERLAP																	
TRAILING GREEN				TRAILING YELLOW						TRAILING RED							
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRAILING LEADING																	
ADVANCE GREEN																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
FLASH GREEN																	

OVERLAP B PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
INCLUDED																	
PROTECTED																	
MODIFIER																	
PEDESTRIAN PROTECT																	
NOT OVERLAP																	
TRAILING GREEN				TRAILING YELLOW						TRAILING RED							
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRAILING LEADING																	
ADVANCE GREEN																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
FLASH GREEN																	

OVERLAP D PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
INCLUDED																	
PROTECTED																	
MODIFIER																	
PEDESTRIAN PROTECT																	
NOT OVERLAP																	
TRAILING GREEN				TRAILING YELLOW						TRAILING RED							
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRAILING LEADING																	
ADVANCE GREEN																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
FLASH GREEN																	

2-2 VEHICLE OVERLAP (CONTINUED)

OVERLAP E PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
INCLUDED																	
PROTECTED																	
MODIFIER																	
PEDESTRIAN PROTECT NOT OVERLAP																	
TRAILING GREEN																	
TRAILING YELLOW																	
TRAILING RED																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRAILING LEADING																	
ADVANCE GREEN																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
FLASH GREEN																	

OVERLAP G PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
INCLUDED																	
PROTECTED																	
MODIFIER																	
PEDESTRIAN PROTECT NOT OVERLAP																	
TRAILING GREEN																	
TRAILING YELLOW																	
TRAILING RED																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRAILING LEADING																	
ADVANCE GREEN																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
FLASH GREEN																	

OVERLAP F PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
INCLUDED																	
PROTECTED																	
MODIFIER																	
PEDESTRIAN PROTECT NOT OVERLAP																	
TRAILING GREEN																	
TRAILING YELLOW																	
TRAILING RED																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRAILING LEADING																	
ADVANCE GREEN																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
FLASH GREEN																	

OVERLAP H PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
INCLUDED																	
PROTECTED																	
MODIFIER																	
PEDESTRIAN PROTECT NOT OVERLAP																	
TRAILING GREEN																	
TRAILING YELLOW																	
TRAILING RED																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRAILING LEADING																	
ADVANCE GREEN																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
FLASH GREEN																	

2-2 VEHICLE OVERLAP (CONTINUED)

OVERLAP M PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
INCLUDED																	
PROTECTED																	
MODIFIER																	
PEDESTRIAN PROTECT NOT OVERLAP																	
TRAILING GREEN																	
TRAILING YELLOW																	
TRAILING RED																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRAILING LEADING																	
ADVANCE GREEN																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
FLASH GREEN																	

OVERLAP O PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
INCLUDED																	
PROTECTED																	
MODIFIER																	
PEDESTRIAN PROTECT NOT OVERLAP																	
TRAILING GREEN																	
TRAILING YELLOW																	
TRAILING RED																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRAILING LEADING																	
ADVANCE GREEN																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
FLASH GREEN																	

OVERLAP N PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
INCLUDED																	
PROTECTED																	
MODIFIER																	
PEDESTRIAN PROTECT NOT OVERLAP																	
TRAILING GREEN																	
TRAILING YELLOW																	
TRAILING RED																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRAILING LEADING																	
ADVANCE GREEN																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
FLASH GREEN																	

OVERLAP P PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
INCLUDED																	
PROTECTED																	
MODIFIER																	
PEDESTRIAN PROTECT NOT OVERLAP																	
TRAILING GREEN																	
TRAILING YELLOW																	
TRAILING RED																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRAILING LEADING																	
ADVANCE GREEN																	
PHASES	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
FLASH GREEN																	

2-3 PEDESTRIAN OVERLAP

PEDESTRIAN OVERLAP CONSISTS OF PHASES																
PEDESTRIAN OVERLAP	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																

2-4 GUARANTEED MINIMUM TIMES

PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
MINIMUM GREEN																
WALK																
PEDESTRIAN CLEARANCE																
YELLOW CHANGE																
RED CLEARANCE																
OVERLAP	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
MINIMUM GREEN																

2-5 START / FLASH DATA

POWER START																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PHASE																
OVERLAP																
POWER START RED									FLASH TIME							
REMOTE (AUTOMATIC) FLASH																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
ENTRY																
EXIT																
OVERLAP	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
EXIT																
EXIT REMOTE FLASH									MINIMUM AUTOMATIC FLASH							
MINIMUM RECALL									CYCLE THROUGH PHASES							

2-6-1 CONTROLLER OPTIONS

PEDESTRIAN CLEARANCE PROTECT																
UNIT RED REVERT																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PHASE																
GUARANTEE D PASSAGE																
NON-ACT I																
NON ACT II																
DUAL ENTRY																
PED RESERVICE																
REST IN WALK																
FLASHING WALK																
PED CLEAR > YELLOW																
PED CLEAR > ALL RED																
INIT GREEN + VEHICLE EXIT																

2-7 ACTUATED / PRE-TIMED MODE PHASES

ENABLE PRE-TIMED OPERATION																
FREE INPUT DISABLED PRE-TIMED																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PHASE																
PRE-TIMED																

3-2 COORDINATOR PATTERN (CONTINUED)

COORDINATOR PATTERN				SPLIT PATTERN			
CYCLE LENGTH (SECONDS)				SEQUENCE			
OFFSET VALUE				OFFSETS IN			
SPLITS IN				VEHICLE PERMISSIVE 2 LENGTH			
CROSSING ARTERY PATTERN				ACTION PLAN			
VEHICLE PERMISSIVE 1 LENGTH				TIMING PLAN			
VEHICLE PERMISSIVE 2 DISPLACEMENT				PHASE RESERVICE			
ACTUATED COORDINATION							
ACTUATED REST IN WALK							
RING SPLIT EXTENSION (SECONDS)							
SPLIT DEMAND PATTERN							
RING DISPLACEMENT							
PREFERENCE 1 PHASES							
PREFERENCE 2 PHASES							

COORDINATOR PATTERN				SPLIT PATTERN			
CYCLE LENGTH (SECONDS)				SEQUENCE			
OFFSET VALUE				OFFSETS IN			
SPLITS IN				VEHICLE PERMISSIVE 2 LENGTH			
CROSSING ARTERY PATTERN				ACTION PLAN			
VEHICLE PERMISSIVE 1 LENGTH				TIMING PLAN			
VEHICLE PERMISSIVE 2 DISPLACEMENT				PHASE RESERVICE			
ACTUATED COORDINATION							
ACTUATED REST IN WALK							
RING SPLIT EXTENSION (SECONDS)							
SPLIT DEMAND PATTERN							
RING DISPLACEMENT							
PREFERENCE 1 PHASES							
PREFERENCE 2 PHASES							

COORDINATOR PATTERN				SPLIT PATTERN			
CYCLE LENGTH (SECONDS)				SEQUENCE			
OFFSET VALUE				OFFSETS IN			
SPLITS IN				VEHICLE PERMISSIVE 2 LENGTH			
CROSSING ARTERY PATTERN				ACTION PLAN			
VEHICLE PERMISSIVE 1 LENGTH				TIMING PLAN			
VEHICLE PERMISSIVE 2 DISPLACEMENT				PHASE RESERVICE			
ACTUATED COORDINATION							
ACTUATED REST IN WALK							
RING SPLIT EXTENSION (SECONDS)							
SPLIT DEMAND PATTERN							
RING DISPLACEMENT							
PREFERENCE 1 PHASES							
PREFERENCE 2 PHASES							

COORDINATOR PATTERN				SPLIT PATTERN			
CYCLE LENGTH (SECONDS)				SEQUENCE			
OFFSET VALUE				OFFSETS IN			
SPLITS IN				VEHICLE PERMISSIVE 2 LENGTH			
CROSSING ARTERY PATTERN				ACTION PLAN			
VEHICLE PERMISSIVE 1 LENGTH				TIMING PLAN			
VEHICLE PERMISSIVE 2 DISPLACEMENT				PHASE RESERVICE			
ACTUATED COORDINATION							
ACTUATED REST IN WALK							
RING SPLIT EXTENSION (SECONDS)							
SPLIT DEMAND PATTERN							
RING DISPLACEMENT							
PREFERENCE 1 PHASES							
PREFERENCE 2 PHASES							

3-2 COORDINATOR PATTERN (CONTINUED)

COORDINATOR PATTERN		SPLIT PATTERN	
CYCLE LENGTH (SECONDS)			
OFFSET VALUE		SEQUENCE	
SPLITS IN		OFFSETS IN	
CROSSING ARTERY PATTERN			
VEHICLE PERMISSIVE 1 LENGTH		VEHICLE PERMISSIVE 2 LENGTH	
VEHICLE PERMISSIVE 2 DISPLACEMENT		ACTION PLAN	
ACTUATED COORDINATION		TIMING PLAN	
ACTUATED REST IN WALK		PHASE RESERVICE	
		1	2
RING SPLIT EXTENSION (SECONDS)			
SPLIT DEMAND PATTERN			
		3	4
RING DISPLACEMENT			
	1 2 3 4 5	8 9	1 1 1 1
		0 1	3 5
PREFERENCE 1 PHASES			
PREFERENCE 2 PHASES			

COORDINATOR PATTERN		SPLIT PATTERN	
CYCLE LENGTH (SECONDS)			
OFFSET VALUE		SEQUENCE	
SPLITS IN		OFFSETS IN	
CROSSING ARTERY PATTERN			
VEHICLE PERMISSIVE 1 LENGTH		VEHICLE PERMISSIVE 2 LENGTH	
VEHICLE PERMISSIVE 2 DISPLACEMENT		ACTION PLAN	
ACTUATED COORDINATION		TIMING PLAN	
ACTUATED REST IN WALK		PHASE RESERVICE	
		1	2
RING SPLIT EXTENSION (SECONDS)			
SPLIT DEMAND PATTERN			
		3	4
RING DISPLACEMENT			
	1 2 3 4 5	8 9	1 1 1 1
		0 1	3 5
PREFERENCE 1 PHASES			
PREFERENCE 2 PHASES			

COORDINATOR PATTERN		SPLIT PATTERN	
CYCLE LENGTH (SECONDS)			
OFFSET VALUE		SEQUENCE	
SPLITS IN		OFFSETS IN	
CROSSING ARTERY PATTERN			
VEHICLE PERMISSIVE 1 LENGTH		VEHICLE PERMISSIVE 2 LENGTH	
VEHICLE PERMISSIVE 2 DISPLACEMENT		ACTION PLAN	
ACTUATED COORDINATION		TIMING PLAN	
ACTUATED REST IN WALK		PHASE RESERVICE	
		1	2
RING SPLIT EXTENSION (SECONDS)			
SPLIT DEMAND PATTERN			
		3	4
RING DISPLACEMENT			
	1 2 3 4 5	8 9	1 1 1 1
		0 1	3 5
PREFERENCE 1 PHASES			
PREFERENCE 2 PHASES			

COORDINATOR PATTERN		SPLIT PATTERN	
CYCLE LENGTH (SECONDS)			
OFFSET VALUE		SEQUENCE	
SPLITS IN		OFFSETS IN	
CROSSING ARTERY PATTERN			
VEHICLE PERMISSIVE 1 LENGTH		VEHICLE PERMISSIVE 2 LENGTH	
VEHICLE PERMISSIVE 2 DISPLACEMENT		ACTION PLAN	
ACTUATED COORDINATION		TIMING PLAN	
ACTUATED REST IN WALK		PHASE RESERVICE	
		1	2
RING SPLIT EXTENSION (SECONDS)			
SPLIT DEMAND PATTERN			
		3	4
RING DISPLACEMENT			
	1 2 3 4 5	8 9	1 1 1 1
		0 1	3 5
PREFERENCE 1 PHASES			
PREFERENCE 2 PHASES			

COORDINATOR PATTERN																
CYCLE LENGTH (SECONDS)		SPLIT PATTERN														
OFFSET VALUE		SEQUENCE														
SPLITS IN		OFFSETS IN														
CROSSING ARTERY PATTERN																
VEHICLE PERMISSIVE 1 LENGTH		VEHICLE PERMISSIVE 2 LENGTH														
VEHICLE PERMISSIVE 2 DISPLACEMENT		ACTION PLAN														
ACTUATED COORDINATION		TIMING PLAN														
ACTUATED REST IN WALK		PHASE RESERVICE														
RING SPLIT EXTENSION (SECONDS)		1	2	3	4											
SPLIT DEMAND PATTERN																
RING DISPLACEMENT																
		1	2	3	4	5		8	9	1	1	1	1	1	1	1
										0	1		3		5	
PREFERENCE 1 PHASES																
PREFERENCE 2 PHASES																

COORDINATOR PATTERN																
CYCLE LENGTH (SECONDS)		SPLIT PATTERN														
OFFSET VALUE		SEQUENCE														
SPLITS IN		OFFSETS IN														
CROSSING ARTERY PATTERN																
VEHICLE PERMISSIVE 1 LENGTH		VEHICLE PERMISSIVE 2 LENGTH														
VEHICLE PERMISSIVE 2 DISPLACEMENT		ACTION PLAN														
ACTUATED COORDINATION		TIMING PLAN														
ACTUATED REST IN WALK		PHASE RESERVICE														
RING SPLIT EXTENSION (SECONDS)		1	2	3	4											
SPLIT DEMAND PATTERN																
RING DISPLACEMENT																
		1	2	3	4	5	6	7	8	9	1	1	1	1	1	1
											0	1	2	3	4	5
PREFERENCE 1 PHASES																
PREFERENCE 2 PHASES																

3-3 SPLIT PATTERN

SPLIT PATTERN NUMBER		1																		
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	1
COORDINATED PHASE(S)			X				X													
PHASE		1	2	3	4	5	6	7	8											
SPLIT VALUE		9	56	0	35	0	65	0	35											
MODE																				
PHASE		9	10	11	12	13	14	15	16											
SPLIT VALUE																				
MODE																				

SPLIT PATTERN NUMBER		2																		
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	1
COORDINATED PHASE(S)			X				X													
PHASE		1	2	3	4	5	6	7	8											
SPLIT VALUE		10	52	0	38	0	62	0	38											
MODE																				
PHASE		9	10	11	12	13	14	15	16											
SPLIT VALUE																				
MODE																				

SPLIT PATTERN NUMBER		3																		
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	1
COORDINATED PHASE(S)			X				X													
PHASE		1	2	3	4	5	6	7	8											
SPLIT VALUE		12	53	0	35	0	65	0	35											
MODE																				
PHASE		9	10	11	12	13	14	15	16											
SPLIT VALUE																				
MODE																				

SPLIT PATTERN NUMBER		4																		
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	1
COORDINATED PHASE(S)			X				X													
PHASE		1	2	3	4	5	6	7	8											
SPLIT VALUE		11	44	0	45	0	44	0	45											
MODE																				
PHASE		9	10	11	12	13	14	15	16											
SPLIT VALUE																				
MODE																				

SPLIT PATTERN NUMBER																				
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	1
COORDINATED PHASE(S)																				
PHASE		1	2	3	4	5	6	7	8											
SPLIT VALUE																				
MODE																				
PHASE		9	10	11	12	13	14	15	16											
SPLIT VALUE																				
MODE																				

SPLIT PATTERN NUMBER																				
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	1
COORDINATED PHASE(S)																				
PHASE		1	2	3	4	5	6	7	8											
SPLIT VALUE																				
MODE																				
PHASE		9	10	11	12	13	14	15	16											
SPLIT VALUE																				
MODE																				

SPLIT PATTERN NUMBER																				
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	1
COORDINATED PHASE(S)																				
PHASE		1	2	3	4	5	6	7	8											
SPLIT VALUE																				
MODE																				
PHASE		9	10	11	12	13	14	15	16											
SPLIT VALUE																				
MODE																				

SPLIT PATTERN NUMBER																				
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	1
COORDINATED PHASE(S)																				
PHASE		1	2	3	4	5	6	7	8											
SPLIT VALUE																				
MODE																				
PHASE		9	10	11	12	13	14	15	16											
SPLIT VALUE																				
MODE																				

3-3 SPLIT PATTERN (CONTINUED)

SPLIT PATTERN NUMBER																	
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
COORDINATED PHASE(S)																	
PHASE	1	2	3	4	5	6	7	8									
SPLIT VALUE																	
MODE																	
PHASE	9	10	11	12	13	14	15	16									
SPLIT VALUE																	
MODE																	

SPLIT PATTERN NUMBER																	
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
COORDINATED PHASE(S)																	
PHASE	1	2	3	4	5	6	7	8									
SPLIT VALUE																	
MODE																	
PHASE	9	10	11	12	13	14	15	16									
SPLIT VALUE																	
MODE																	

SPLIT PATTERN NUMBER																	
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
COORDINATED PHASE(S)																	
PHASE	1	2	3	4	5	6	7	8									
SPLIT VALUE																	
MODE																	
PHASE	9	10	11	12	13	14	15	16									
SPLIT VALUE																	
MODE																	

SPLIT PATTERN NUMBER																	
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
COORDINATED PHASE(S)																	
PHASE	1	2	3	4	5	6	7	8									
SPLIT VALUE																	
MODE																	
PHASE	9	10	11	12	13	14	15	16									
SPLIT VALUE																	
MODE																	

SPLIT PATTERN NUMBER																	
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
COORDINATED PHASE(S)																	
PHASE	1	2	3	4	5	6	7	8									
SPLIT VALUE																	
MODE																	
PHASE	9	10	11	12	13	14	15	16									
SPLIT VALUE																	
MODE																	

SPLIT PATTERN NUMBER																	
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
COORDINATED PHASE(S)																	
PHASE	1	2	3	4	5	6	7	8									
SPLIT VALUE																	
MODE																	
PHASE	9	10	11	12	13	14	15	16									
SPLIT VALUE																	
MODE																	

SPLIT PATTERN NUMBER																	
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
COORDINATED PHASE(S)																	
PHASE	1	2	3	4	5	6	7	8									
SPLIT VALUE																	
MODE																	
PHASE	9	10	11	12	13	14	15	16									
SPLIT VALUE																	
MODE																	

SPLIT PATTERN NUMBER																	
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
COORDINATED PHASE(S)																	
PHASE	1	2	3	4	5	6	7	8									
SPLIT VALUE																	
MODE																	
PHASE	9	10	11	12	13	14	15	16									
SPLIT VALUE																	
MODE																	

3-3 SPLIT PATTERN (CONTINUED)

SPLIT PATTERN NUMBER																	
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
COORDINATED PHASE(S)																	
PHASE	1	2	3	4	5	6	7	8									
SPLIT VALUE																	
MODE																	
PHASE	9	10	11	12	13	14	15	16									
SPLIT VALUE																	
MODE																	

SPLIT PATTERN NUMBER																	
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
COORDINATED PHASE(S)																	
PHASE	1	2	3	4	5	6	7	8									
SPLIT VALUE																	
MODE																	
PHASE	9	10	11	12	13	14	15	16									
SPLIT VALUE																	
MODE																	

SPLIT PATTERN NUMBER																	
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
COORDINATED PHASE(S)																	
PHASE	1	2	3	4	5	6	7	8									
SPLIT VALUE																	
MODE																	
PHASE	9	10	11	12	13	14	15	16									
SPLIT VALUE																	
MODE																	

SPLIT PATTERN NUMBER																	
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
COORDINATED PHASE(S)																	
PHASE	1	2	3	4	5	6	7	8									
SPLIT VALUE																	
MODE																	
PHASE	9	10	11	12	13	14	15	16									
SPLIT VALUE																	
MODE																	

3-4 AUTO PERMISSIVE MINIMUM GREEN TIME

PHASE	1	2	3	4	5	6	7	8
MINIMUM GREEN								
PHASE	9	10	11	12	13	14	15	16
MINIMUM GREEN								

3-5 SPLIT DEMAND

PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
DEMAND 1																	
DEMAND 2																	
DEMAND	1		2														
DETECTOR																	
CALL TIME (SECONDS)																	
CYCLE COUNT																	

PREEMPTOR SUBMENU

4-1 PREEMPTOR

PREEMPTOR NUMBER	1																			
ACTIVE	NON-LOCK INPUT																			
PREEMPTION OVERRIDE	INTERLOCK ENABLE																			
DELAY TIME (SECONDS)	INHIBIT TIME (SECONDS)																			
EXTEND INPUT (SECONDS)	MAX PRESENCE TIME (SECONDS)																			
DURATION TIME (SECONDS)	TRACK CLEARANCE RESERVICE																			
PED DARK	RESERVICE TIME																			
AUTOMATIC FLASH HAS PRIORITY	RED CLEAR GOES GREEN																			
TERMINATE OVERLAPS ASAP	PED CLEAR THROUGH YELLOW																			
RING	1				2				3				4							
FREE DURING PREEMPTION																				
	WALK				PED CLEAR				GREEN				YELLOW				RED			
ENTERING MINIMUM TIME																				
TRACK CLEARANCE TIME																				
MIN DWELL – CYCLE GREEN/ EXIT YELLOW /RED																				
DWELL FLASH	FLASH EXIT COLOR																			
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1			
TRACK CLEAR PHASE																				
DWELL PHASE																				
DWELL PEDESTRIAN																				
CYCLING PHASE																				
CYCLING PEDESTRIAN																				
EXIT PHASE																				
EXIT CALLS																				
SPECIAL FUNCTION																				
PREEMPTION TO COORDINATION									EXIT TIMING PLAN											
LINKED PREEMPTOR																				
PREEMPTOR ACTIVE OUTPUTS																				
PREEMPTOR ACTIVE OUT									PREEMPTOR ACTIVE OUT IN DWELL											
OTHER PRIORITY PREEMPTOR OUT									NON-PRIORITY PREEMPTOR OUT											
OVERLAP	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P				
TRACK CLEAR OVERLAP																				
DWELL OVERLAP																				
CYCLING OVERLAP																				

PREEMPTOR NUMBER	2																			
ACTIVE	NON-LOCK INPUT																			
PREEMPTION OVERRIDE	INTERLOCK ENABLE																			
DELAY TIME (SECONDS)	INHIBIT TIME (SECONDS)																			
EXTEND INPUT (SECONDS)	MAX PRESENCE TIME (SECONDS)																			
DURATION TIME (SECONDS)	TRACK CLEARANCE RESERVICE																			
PED DARK	RESERVICE TIME																			
AUTOMATIC FLASH HAS PRIORITY	RED CLEAR GOES GREEN																			
TERMINATE OVERLAPS ASAP	PED CLEAR THROUGH YELLOW																			
RING	1				2				3				4							
FREE DURING PREEMPTION																				
	WALK				PED CLEAR				GREEN				YELLOW				RED			
ENTERING MINIMUM TIME																				
TRACK CLEARANCE TIME																				
MIN DWELL – CYCLE GREEN/EXIT YELLOW/RED																				
DWELL FLASH	FLASH EXIT COLOR																			
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1			
TRACK CLEAR PHASE																				
DWELL PHASE																				
DWELL PEDESTRIAN																				
CYCLING PHASE																				
CYCLING PEDESTRIAN																				
EXIT PHASE																				
EXIT CALLS																				
SPECIAL FUNCTION																				
PREEMPTION TO COORDINATION									EXIT TIMING PLAN											
LINKED PREEMPTOR																				
PREEMPTOR ACTIVE OUTPUTS																				
PREEMPTOR ACTIVE OUT									PREEMPTOR ACTIVE OUT IN DWELL											
OTHER PRIORITY PREEMPTOR OUT									NON-PRIORITY PREEMPTOR OUT											
OVERLAP	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P				
TRACK CLEAR OVERLAP																				
DWELL OVERLAP																				
CYCLING OVERLAP																				

4-2 LOW PRIORITY PREEMPTOR SELECTION

FILTERED INPUT	SOLID	PULSING
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

4-1 PREEMPTOR (CONTINUED)

PREEMPTOR NUMBER		3															
ACTIVE	NON-LOCK INPUT																
PREEMPTION OVERRIDE	INTERLOCK ENABLE																
DELAY TIME (SECONDS)	INHIBIT TIME (SECONDS)																
EXTEND INPUT (SECONDS)	MAX PRESENCE TIME (SECONDS)																
DURATION TIME (SECONDS)	TRACK CLEARANCE RESERVICE																
PED DARK	RESERVICE TIME																
AUTOMATIC FLASH HAS PRIORITY	RED CLEAR GOES GREEN																
TERMINATE OVERLAPS ASAP	PC THROUGH YELLOW																
RING	1	2	3	4													
FREE DURING PREEMPTION																	
	WALK	PED CLEAR	GREEN	YELLOW	RED												
ENTERING MINIMUM TIME																	
TRACK CLEARANCE TIME																	
MIN DWELL - CYCLE GREEN/ EXIT YELLOW /RED																	
DWELL FLASH		FLASH EXIT COLOR															
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRACK CLEAR PHASE																	
DWELL PHASE																	
DWELL PEDESTRIAN																	
CYCLING PHASE																	
CYCLING PEDESTRIAN																	
EXIT PHASE																	
EXIT CALLS																	
SPECIAL FUNCTION																	
PREEMPTION TO COORDINATION		EXIT TIMING PLAN															
LINKED PREEMPTOR																	
PREEMPTOR ACTIVE OUTPUTS																	
PREEMPTOR ACTIVE OUT		PREEMPTOR ACTIVE OUT IN DWELL															
OTHER PRIORITY PREEMPTOR OUT		NON-PRIORITY PREEMPTOR OUT															
OVERLAP	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	
TRACK CLEAR OVERLAP																	
DWELL OVERLAP																	
CYCLING OVERLAP																	

PREEMPTOR NUMBER		4															
ACTIVE	NON-LOCK INPUT																
PREEMPTION OVERRIDE	INTERLOCK ENABLE																
DELAY TIME (SECONDS)	INHIBIT TIME (SECONDS)																
EXTEND INPUT (SECONDS)	MAX PRESENCE TIME (SECONDS)																
DURATION TIME (SECONDS)	TRACK CLEARANCE RESERVICE																
PED DARK	RESERVICE TIME																
AUTOMATIC FLASH HAS PRIORITY	RED CLEAR GOES GREEN																
TERMINATE OVERLAPS ASAP	PC THROUGH YELLOW																
RING	1	2	3	4													
FREE DURING PREEMPTION																	
	WALK	PED CLEAR	GREEN	YELLOW	RED												
ENTERING MINIMUM TIME																	
TRACK CLEARANCE TIME																	
MIN DWELL - CYCLE GREEN/ EXIT YELLOW /RED																	
DWELL FLASH		FLASH EXIT COLOR															
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRACK CLEAR PHASE																	
DWELL PHASE																	
DWELL PEDESTRIAN																	
CYCLING PHASE																	
CYCLING PEDESTRIAN																	
EXIT PHASE																	
EXIT CALLS																	
SPECIAL FUNCTION																	
PREEMPTION TO COORDINATION		EXIT TIMING PLAN															
LINKED PREEMPTOR																	
PREEMPTOR ACTIVE OUTPUTS																	
PREEMPTOR ACTIVE OUT		PREEMPTOR ACTIVE OUT IN DWELL															
OTHER PRIORITY PREEMPTOR OUT		NON-PRIORITY PREEMPTOR OUT															
OVERLAP	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	
TRACK CLEAR OVERLAP																	
DWELL OVERLAP																	
CYCLING OVERLAP																	

4-1 PREEMPTOR (CONTINUED)

PREEMPTOR NUMBER		5															
ACTIVE	NON-LOCK INPUT																
PREEMPTION OVERRIDE	INTERLOCK ENABLE																
DELAY TIME (SECONDS)	INHIBIT TIME (SECONDS)																
EXTEND INPUT (SECONDS)	MAX PRESENCE TIME (SECONDS)																
DURATION TIME (SECONDS)	TRACK CLEARANCE RESERVICE																
PED DARK	RESERVICE TIME																
AUTOMATIC FLASH HAS PRIORITY	RED CLEAR GOES GREEN																
TERMINATE OVERLAPS ASAP	PC THROUGH YELLOW																
RING	1	2	3	4													
FREE DURING PREEMPTION																	
	WALK	PED CLEAR	GREEN	YELLOW	RED												
ENTERING MINIMUM TIME																	
TRACK CLEARANCE TIME																	
MIN DWELL - CYCLE GREEN/ EXIT YELLOW /RED																	
DWELL FLASH																	
FLASH EXIT COLOR																	
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRACK CLEAR PHASE																	
DWELL PHASE																	
DWELL PEDESTRIAN																	
CYCLING PHASE																	
CYCLING PEDESTRIAN																	
EXIT PHASE																	
EXIT CALLS																	
SPECIAL FUNCTION																	
PREEMPTION TO COORDINATION					EXIT TIMING PLAN												
LINKED PREEMPTOR																	
PREEMPTOR ACTIVE OUTPUTS																	
PREEMPTOR ACTIVE OUT					PREEMPTOR ACTIVE OUT IN DWELL												
OTHER PRIORITY PREEMPTOR OUT					NON-PRIORITY PREEMPTOR OUT												
OVERLAP	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	
TRACK CLEAR OVERLAP																	
DWELL OVERLAP																	
CYCLING OVERLAP																	

PREEMPTOR NUMBER		6															
ACTIVE	NON-LOCK INPUT																
PREEMPTION OVERRIDE	INTERLOCK ENABLE																
DELAY TIME (SECONDS)	INHIBIT TIME (SECONDS)																
EXTEND INPUT (SECONDS)	MAX PRESENCE TIME (SECONDS)																
DURATION TIME (SECONDS)	TRACK CLEARANCE RESERVICE																
PED DARK	RESERVICE TIME																
AUTOMATIC FLASH HAS PRIORITY	RED CLEAR GOES GREEN																
TERMINATE OVERLAPS ASAP	PC THROUGH YELLOW																
RING	1	2	3	4													
FREE DURING PREEMPTION																	
	WALK	PED CLEAR	GREEN	YELLOW	RED												
ENTERING MINIMUM TIME																	
TRACK CLEARANCE TIME																	
MIN DWELL - CYCLE GREEN/ EXIT YELLOW /RED																	
DWELL FLASH																	
FLASH EXIT COLOR																	
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1
TRACK CLEAR PHASE																	
DWELL PHASE																	
DWELL PEDESTRIAN																	
CYCLING PHASE																	
CYCLING PEDESTRIAN																	
EXIT PHASE																	
EXIT CALLS																	
SPECIAL FUNCTION																	
PREEMPTION TO COORDINATION					EXIT TIMING PLAN												
LINKED PREEMPTOR																	
PREEMPTOR ACTIVE OUTPUTS																	
PREEMPTOR ACTIVE OUT					PREEMPTOR ACTIVE OUT IN DWELL												
OTHER PRIORITY PREEMPTOR OUT					NON-PRIORITY PREEMPTOR OUT												
OVERLAP	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	
TRACK CLEAR OVERLAP																	
DWELL OVERLAP																	
CYCLING OVERLAP																	

4-1 PREEMPTOR (CONTINUED)

PREEMPTOR NUMBER		7																
ACTIVE	NON-LOCK INPUT																	
PREEMPTION OVERRIDE	INTERLOCK ENABLE																	
DELAY TIME (SECONDS)	INHIBIT TIME (SECONDS)																	
EXTEND INPUT (SECONDS)	MAX PRESENCE TIME (SECONDS)																	
DURATION TIME (SECONDS)	TRACK CLEARANCE RESERVICE																	
PED DARK	RESERVICE TIME																	
AUTOMATIC FLASH HAS PRIORITY	RED CLEAR GOES GREEN																	
TERMINATE OVERLAPS ASAP	PC THROUGH YELLOW																	
RING	1	2	3	4														
FREE DURING PREEMPTION																		
	WALK	PED CLEAR	GREEN	YELLOW	RED													
ENTERING MINIMUM TIME																		
TRACK CLEARANCE TIME																		
MIN DWELL - CYCLE GREEN/ EXIT YELLOW /RED																		
DWELL FLASH		FLASH EXIT COLOR																
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	
TRACK CLEAR PHASE																		
DWELL PHASE																		
DWELL PEDESTRIAN																		
CYCLING PHASE																		
CYCLING PEDESTRIAN																		
EXIT PHASE																		
EXIT CALLS																		
SPECIAL FUNCTION																		
PREEMPTION TO COORDINATION		EXIT TIMING PLAN																
LINKED PREEMPTOR																		
PREEMPTOR ACTIVE OUTPUTS																		
PREEMPTOR ACTIVE OUT		PREEMPTOR ACTIVE OUT IN DWELL																
OTHER PRIORITY PREEMPTOR OUT		NON-PRIORITY PREEMPTOR OUT																
OVERLAP	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P		
TRACK CLEAR OVERLAP																		
DWELL OVERLAP																		
CYCLING OVERLAP																		

PREEMPTOR NUMBER		8																
ACTIVE	NON-LOCK INPUT																	
PREEMPTION OVERRIDE	INTERLOCK ENABLE																	
DELAY TIME (SECONDS)	INHIBIT TIME (SECONDS)																	
EXTEND INPUT (SECONDS)	MAX PRESENCE TIME (SECONDS)																	
DURATION TIME (SECONDS)	TRACK CLEARANCE RESERVICE																	
PED DARK	RESERVICE TIME																	
AUTOMATIC FLASH HAS PRIORITY	RED CLEAR GOES GREEN																	
TERMINATE OVERLAPS ASAP	PC THROUGH YELLOW																	
RING	1	2	3	4														
FREE DURING PREEMPTION																		
	WALK	PED CLEAR	GREEN	YELLOW	RED													
ENTERING MINIMUM TIME																		
TRACK CLEARANCE TIME																		
MIN DWELL - CYCLE GREEN/ EXIT YELLOW /RED																		
DWELL FLASH		FLASH EXIT COLOR																
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	
TRACK CLEAR PHASE																		
DWELL PHASE																		
DWELL PEDESTRIAN																		
CYCLING PHASE																		
CYCLING PEDESTRIAN																		
EXIT PHASE																		
EXIT CALLS																		
SPECIAL FUNCTION																		
PREEMPTION TO COORDINATION		EXIT TIMING PLAN																
LINKED PREEMPTOR																		
PREEMPTOR ACTIVE OUTPUTS																		
PREEMPTOR ACTIVE OUT		PREEMPTOR ACTIVE OUT IN DWELL																
OTHER PRIORITY PREEMPTOR OUT		NON-PRIORITY PREEMPTOR OUT																
OVERLAP	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P		
TRACK CLEAR OVERLAP																		
DWELL OVERLAP																		
CYCLING OVERLAP																		

4-1 PREEMPTOR (CONTINUED)

PREEMPTOR NUMBER		9																
ACTIVE	NON-LOCK INPUT																	
PREEMPTION OVERRIDE	INTERLOCK ENABLE																	
DELAY TIME (SECONDS)	INHIBIT TIME (SECONDS)																	
EXTEND INPUT (SECONDS)	MAX PRESENCE TIME (SECONDS)																	
DURATION TIME (SECONDS)	TRACK CLEARANCE RESERVICE																	
PED DARK	RESERVICE TIME																	
AUTOMATIC FLASH HAS PRIORITY	RED CLEAR GOES GREEN																	
TERMINATE OVERLAPS ASAP	PC THROUGH YELLOW																	
RING	1	2	3	4														
FREE DURING PREEMPTION																		
	WALK	PED CLEAR	GREEN	YELLOW	RED													
ENTERING MINIMUM TIME																		
TRACK CLEARANCE TIME																		
MIN DWELL - CYCLE GREEN/ EXIT YELLOW /RED																		
DWELL FLASH		FLASH EXIT COLOR																
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	
TRACK CLEAR PHASE																		
DWELL PHASE																		
DWELL PEDESTRIAN																		
CYCLING PHASE																		
CYCLING PEDESTRIAN																		
EXIT PHASE																		
EXIT CALLS																		
SPECIAL FUNCTION																		
PREEMPTION TO COORDINATION		EXIT TIMING PLAN																
LINKED PREEMPTOR																		
PREEMPTOR ACTIVE OUTPUTS																		
PREEMPTOR ACTIVE OUT		PREEMPTOR ACTIVE OUT IN DWELL																
OTHER PRIORITY PREEMPTOR OUT		NON-PRIORITY PREEMPTOR OUT																
OVERLAP	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P		
TRACK CLEAR OVERLAP																		
DWELL OVERLAP																		
CYCLING OVERLAP																		

PREEMPTOR NUMBER		10																
ACTIVE	NON-LOCK INPUT																	
PREEMPTION OVERRIDE	INTERLOCK ENABLE																	
DELAY TIME (SECONDS)	INHIBIT TIME (SECONDS)																	
EXTEND INPUT (SECONDS)	MAX PRESENCE TIME (SECONDS)																	
DURATION TIME (SECONDS)	TRACK CLEARANCE RESERVICE																	
PED DARK	RESERVICE TIME																	
AUTOMATIC FLASH HAS PRIORITY	RED CLEAR GOES GREEN																	
TERMINATE OVERLAPS ASAP	PC THROUGH YELLOW																	
RING	1	2	3	4														
FREE DURING PREEMPTION																		
	WALK	PED CLEAR	GREEN	YELLOW	RED													
ENTERING MINIMUM TIME																		
TRACK CLEARANCE TIME																		
MIN DWELL - CYCLE GREEN/ EXIT YELLOW /RED																		
DWELL FLASH		FLASH EXIT COLOR																
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	
TRACK CLEAR PHASE																		
DWELL PHASE																		
DWELL PEDESTRIAN																		
CYCLING PHASE																		
CYCLING PEDESTRIAN																		
EXIT PHASE																		
EXIT CALLS																		
SPECIAL FUNCTION																		
PREEMPTION TO COORDINATION		EXIT TIMING PLAN																
LINKED PREEMPTOR																		
PREEMPTOR ACTIVE OUTPUTS																		
PREEMPTOR ACTIVE OUT		PREEMPTOR ACTIVE OUT IN DWELL																
OTHER PRIORITY PREEMPTOR OUT		NON-PRIORITY PREEMPTOR OUT																
OVERLAP	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P		
TRACK CLEAR OVERLAP																		
DWELL OVERLAP																		
CYCLING OVERLAP																		

TIME BASE SUBMENU

5-1 CLOCK/CALENDAR DATA

DATE SET:	
TIME SET:	
MANUAL ACTION PLAN	
SYNC REFERENCE TIME	
SYNC REFERENCE	
DAYLIGHT SAVINGS	
TIME RESET INPUT TIME SET	
STANDARD TIME FROM GMT	

5-2 SCHEDULE

SCHEDULE NUMBER	1
DAY PLAN NUMBER	1

MONTH	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE				
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER				
DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT			
		x	x	x	x	x				
DAY OF MONTH (DOM)	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22	23	24	25	26	27	28	29	30
	31									

SCHEDULE NUMBER	1
DAY PLAN NUMBER	2

MONTH	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE				
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER				
DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT			
	x						x			
DAY OF MONTH (DOM)	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22	23	24	25	26	27	28	29	30
	31									

SCHEDULE NUMBER	
DAY PLAN NUMBER	

MONTH	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE				
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER				
DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT			
DAY OF MONTH (DOM)	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22	23	24	25	26	27	28	29	30
	31									

SCHEDULE NUMBER	
DAY PLAN NUMBER	

MONTH	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE				
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER				
DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT			
DAY OF MONTH (DOM)	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22	23	24	25	26	27	28	29	30
	31									

SCHEDULE NUMBER	
DAY PLAN NUMBER	

MONTH	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE				
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER				
DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT			
DAY OF MONTH (DOM)	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22	23	24	25	26	27	28	29	30
	31									

SCHEDULE NUMBER												
DAY PLAN NUMBER												
MONTH	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE						
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER						
DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT					
DAY OF MONTH (DOM)	1	2	3	4	5	6	7	8	9	10		
	11	12	13	14	15	16	17	18	19	20		
	21	22	23	24	25	26	27	28	29	30		
	31											

SCHEDULE NUMBER												
DAY PLAN NUMBER												
MONTH	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE						
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER						
DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT					
DAY OF MONTH (DOM)	1	2	3	4	5	6	7	8	9	10		
	11	12	13	14	15	16	17	18	19	20		
	21	22	23	24	25	26	27	28	29	30		
	31											

SCHEDULE NUMBER												
DAY PLAN NUMBER												
MONTH	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE						
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER						
DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT					
DAY OF MONTH (DOM)	1	2	3	4	5	6	7	8	9	10		
	11	12	13	14	15	16	17	18	19	20		
	21	22	23	24	25	26	27	28	29	30		
	31											

SCHEDULE NUMBER												
DAY PLAN NUMBER												
MONTH	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE						
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER						
DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT					
DAY OF MONTH (DOM)	1	2	3	4	5	6	7	8	9	10		
	11	12	13	14	15	16	17	18	19	20		
	21	22	23	24	25	26	27	28	29	30		
	31											

SCHEDULE NUMBER												
DAY PLAN NUMBER												
MONTH	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE						
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER						
DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT					
DAY OF MONTH (DOM)	1	2	3	4	5	6	7	8	9	10		
	11	12	13	14	15	16	17	18	19	20		
	21	22	23	24	25	26	27	28	29	30		
	31											

SCHEDULE NUMBER												
DAY PLAN NUMBER												
MONTH	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE						
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER						
DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT					
DAY OF MONTH (DOM)	1	2	3	4	5	6	7	8	9	10		
	11	12	13	14	15	16	17	18	19	20		
	21	22	23	24	25	26	27	28	29	30		
	31											

SCHEDULE NUMBER												
DAY PLAN NUMBER												
MONTH	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE						
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER						
DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT					
DAY OF MONTH (DOM)	1	2	3	4	5	6	7	8	9	10		
	11	12	13	14	15	16	17	18	19	20		
	21	22	23	24	25	26	27	28	29	30		
	31											

SCHEDULE NUMBER												
DAY PLAN NUMBER												
MONTH	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE						
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER						
DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT					
DAY OF MONTH (DOM)	1	2	3	4	5	6	7	8	9	10		
	11	12	13	14	15	16	17	18	19	20		
	21	22	23	24	25	26	27	28	29	30		
	31											

SCHEDULE NUMBER												
DAY PLAN NUMBER												
MONTH	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE						
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER						
DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT					
DAY OF MONTH (DOM)	1	2	3	4	5	6	7	8	9	10		
	11	12	13	14	15	16	17	18	19	20		
	21	22	23	24	25	26	27	28	29	30		
	31											

PATTERN		1		SYSTEM OVERRIDE												
VEHICLE DETECTOR PLAN				DETECTOR LOG												
FLASH				VEHICLE DET DIAGNOSTIC PLAN												
RED REST				PED DET DIAGNOSTIC PLAN												
CONTROLLER SEQUENCE				DIMMING ENABLE												
TIMING PLAN																
PHASE	1	2	3	4	5	6	7	8	9	1	1	1	1	1	1	1
PED RECALL																
WALK 2																
VEH EXT 2																
VEH RECALL																
MAX RECALL																
MAX 2																
MAX 3																
CS INHIBIT																
PHASE OMIT																
SPEC FUNCTION																(1-8)
AUX FUNCTION				(1-3)												
	1	2	3	4	5	6	7	8	9	10						
LP 1-10																
LP 11-20																
LP 21-30																
LP 31-40																
LP 41-50																
LP 51-60																
LP 61-70																
LP 71-80																
LP 81-90																
LP 91-100																

ACTION PLAN		3		SYSTEM OVERRIDE												
VEHICLE DETECTOR PLAN				DETECTOR LOG												
FLASH				VEHICLE DET DIAGNOSTIC PLAN												
RED REST				PED DET DIAGNOSTIC PLAN												
CONTROLLER SEQUENCE				DIMMING ENABLE												
TIMING PLAN																
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1
PED RECALL																
WALK 2																
VEH EXT 2																
VEH RECALL																
MAX RECALL																
MAX 2																
MAX 3																
CS INHIBIT																
PHASE OMIT																
SPEC FUNCTION																(1-8)
AUX FUNCTION				(1-3)												
	1	2	3	4	5	6	7	8	9	10						
LP 1-10																
LP 11-20																
LP 21-30																
LP 31-40																
LP 41-50																
LP 51-60																
LP 61-70																
LP 71-80																
LP 81-90																
LP 91-100																

ACTION PLAN		2		SYSTEM OVERRIDE												
VEHICLE DETECTOR PLAN				DETECTOR LOG												
FLASH				VEHICLE DET DIAGNOSTIC PLAN												
RED REST				PED DET DIAGNOSTIC PLAN												
CONTROLLER SEQUENCE				DIMMING ENABLE												
TIMING PLAN																
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1
PED RECALL																
WALK 2																
VEH EXT 2																
VEH RECALL																
MAX RECALL																
MAX 2																
MAX 3																
CS INHIBIT																
PHASE OMIT																
SPEC FUNCTION																(1-8)
AUX FUNCTION				(1-3)												
	1	2	3	4	5	6	7	8	9	10						
LP 1-10																
LP 11-20																
LP 21-30																
LP 31-40																
LP 41-50																
LP 51-60																
LP 61-70																
LP 71-80																
LP 81-90																
LP 91-100																

ACTION PLAN		4		SYSTEM OVERRIDE												
VEHICLE DETECTOR PLAN				DETECTOR LOG												
FLASH				VEHICLE DET DIAGNOSTIC PLAN												
RED REST				PED DET DIAGNOSTIC PLAN												
CONTROLLER SEQUENCE				DIMMING ENABLE												
TIMING PLAN																
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1
PED RECALL																
WALK 2																
VEH EXT 2																
VEH RECALL																
MAX RECALL																
MAX 2																
MAX 3																
CS INHIBIT																
PHASE OMIT																
SPEC FUNCTION																(1-8)
AUX FUNCTION				(1-3)												
	1	2	3	4	5	6	7	8	9	10						
LP 1-10																
LP 11-20																
LP 21-30																
LP 31-40																
LP 41-50																
LP 51-60																
LP 61-70																
LP 71-80																
LP 81-90																
LP 91-100																

ACTION PLAN																				
PATTERN	5	SYSTEM OVERRIDE																		
VEHICLE DETECTOR PLAN		DETECTOR LOG																		
FLASH		VEHICLE DET DIAGNOSTIC PLAN																		
RED REST		PED DET DIAGNOSTIC PLAN																		
CONTROLLER SEQUENCE		DIMMING ENABLE																		
TIMING PLAN																				
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	1
PED RECALL																				
WALK 2																				
VEH EXT 2																				
VEH RECALL																				
MAX RECALL																				
MAX 2																				
MAX 3																				
CS INHIBIT																				
PHASE OMIT																				
SPEC FUNCTION																				(1-8)
AUX FUNCTION					(1-3)															
		1	2	3	4	5	6	7	8	9	10									
LP 1-10																				
LP 11-20																				
LP 21-30																				
LP 31-40																				
LP 41-50																				
LP 51-60																				
LP 61-70																				
LP 71-80																				
LP 81-90																				
LP 91-100																				

ACTION PLAN																				
PATTERN		SYSTEM OVERRIDE																		
VEHICLE DETECTOR PLAN		DETECTOR LOG																		
FLASH		VEHICLE DET DIAGNOSTIC PLAN																		
RED REST		PED DET DIAGNOSTIC PLAN																		
CONTROLLER SEQUENCE		DIMMING ENABLE																		
TIMING PLAN																				
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	1
PED RECALL																				
WALK 2																				
VEH EXT 2																				
VEH RECALL																				
MAX RECALL																				
MAX 2																				
MAX 3																				
CS INHIBIT																				
PHASE OMIT																				
SPEC FUNCTION																				(1-8)
AUX FUNCTION					(1-3)															
		1	2	3	4	5	6	7	8	9	10									
LP 1-10																				
LP 11-20																				
LP 21-30																				
LP 31-40																				
LP 41-50																				
LP 51-60																				
LP 61-70																				
LP 71-80																				
LP 81-90																				
LP 91-100																				

ACTION PLAN																				
PATTERN		SYSTEM OVERRIDE																		
VEHICLE DETECTOR PLAN		DETECTOR LOG																		
FLASH		VEHICLE DET DIAGNOSTIC PLAN																		
RED REST		PED DET DIAGNOSTIC PLAN																		
CONTROLLER SEQUENCE		DIMMING ENABLE																		
TIMING PLAN																				
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	1
PED RECALL																				
WALK 2																				
VEH EXT 2																				
VEH RECALL																				
MAX RECALL																				
MAX 2																				
MAX 3																				
CS INHIBIT																				
PHASE OMIT																				
SPEC FUNCTION																				(1-8)
AUX FUNCTION					(1-3)															
		1	2	3	4	5	6	7	8	9	10									
LP 1-10																				
LP 11-20																				
LP 21-30																				
LP 31-40																				
LP 41-50																				
LP 51-60																				
LP 61-70																				
LP 71-80																				
LP 81-90																				
LP 91-100																				

ACTION PLAN																				
PATTERN		SYSTEM OVERRIDE																		
VEHICLE DETECTOR PLAN		DETECTOR LOG																		
FLASH		VEHICLE DET DIAGNOSTIC PLAN																		
RED REST		PED DET DIAGNOSTIC PLAN																		
CONTROLLER SEQUENCE		DIMMING ENABLE																		
TIMING PLAN																				
PHASE		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	1
PED RECALL																				
WALK 2																				
VEH EXT 2																				
VEH RECALL																				
MAX RECALL																				
MAX 2																				
MAX 3																				
CS INHIBIT																				
PHASE OMIT																				
SPEC FUNCTION																				(1-8)
AUX FUNCTION					(1-3)															
		1	2	3	4	5	6	7	8	9	10									
LP 1-10																				
LP 11-20																				
LP 21-30																				
LP 31-40																				
LP 41-50																				
LP 51-60																				
LP 61-70																				
LP 71-80																				
LP 81-90																				
LP 91-100																				

5-5 EXCEPTION DAY PROGRAM

EXCEPTION DAY	FLOAT / FIXED	MON / MON	DOW / DOM	WOM / YEAR	DAY PLAN
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
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20					
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23					
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25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					

DETECTORS

6-1. DETECTOR TYPE AND TS SELECT

DET	TYPE	TS1 DETECTOR
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		
31		
32		

DET	TYPE	TS1 DETECTOR
33		
34		
35		
36		
37		
38		
39		
40		
41		
42		
43		
44		
45		
46		
47		
48		
49		
50		
51		
52		
53		
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60		
61		
62		
63		
64		

VEHICLE PLAN NUMBER		
DETECTOR NUMBER		
ASSIGNED PHASE		ADDED INITIAL OPTION
SWITCH PHASE		CALL DETECTOR OPTION
EXTEND TIME		PASSAGE DETECTOR OPTION
DELAY TIME		QUEUE DETECTOR OPTION
QUEUE LIMIT		NTCIP OCCUPANCY LOG
FAIL TIME		NTCIP VOLUME LOG
FAIL CALL DELAY		ECPI LOG
YELLOW LOCK		RED LOCK
PHASE	1 2 3 4 5 6 7 8 9 0 1 1 1 1 1 1 1	
CALLED		

VEHICLE PLAN NUMBER		
DETECTOR NUMBER		
ASSIGNED PHASE		ADDED INITIAL OPTION
SWITCH PHASE		CALL DETECTOR OPTION
EXTEND TIME		PASSAGE DETECTOR OPTION
DELAY TIME		QUEUE DETECTOR OPTION
QUEUE LIMIT		NTCIP OCCUPANCY LOG
FAIL TIME		NTCIP VOLUME LOG
FAIL CALL DELAY		ECPI LOG
YELLOW LOCK		RED LOCK
PHASE	1 2 3 4 5 6 7 8 9 0 1 1 1 1 1 1 1	
CALLED		

VEHICLE PLAN NUMBER		
DETECTOR NUMBER		
ASSIGNED PHASE		ADDED INITIAL OPTION
SWITCH PHASE		CALL DETECTOR OPTION
EXTEND TIME		PASSAGE DETECTOR OPTION
DELAY TIME		QUEUE DETECTOR OPTION
QUEUE LIMIT		NTCIP OCCUPANCY LOG
FAIL TIME		NTCIP VOLUME LOG
FAIL CALL DELAY		ECPI LOG
YELLOW LOCK		RED LOCK
PHASE	1 2 3 4 5 6 7 8 9 0 1 1 1 1 1 1 1	
CALLED		

VEHICLE PLAN NUMBER		
DETECTOR NUMBER		
ASSIGNED PHASE		ADDED INITIAL OPTION
SWITCH PHASE		CALL DETECTOR OPTION
EXTEND TIME		PASSAGE DETECTOR OPTION
DELAY TIME		QUEUE DETECTOR OPTION
QUEUE LIMIT		NTCIP OCCUPANCY LOG
FAIL TIME		NTCIP VOLUME LOG
FAIL CALL DELAY		ECPI LOG
YELLOW LOCK		RED LOCK
PHASE	1 2 3 4 5 6 7 8 9 0 1 1 1 1 1 1 1	
CALLED		

6-2 VEHICLE DETECTOR SETUP

VEHICLE PLAN NUMBER		
DETECTOR NUMBER		
ASSIGNED PHASE		ADDED INITIAL OPTION
SWITCH PHASE		CALL DETECTOR OPTION
EXTEND TIME		PASSAGE DETECTOR OPTION
DELAY TIME		QUEUE DETECTOR OPTION
QUEUE LIMIT		NTCIP OCCUPANCY LOG
FAIL TIME		NTCIP VOLUME LOG
FAIL CALL DELAY		ECPI LOG
YELLOW LOCK		RED LOCK
PHASE	1 2 3 4 5 6 7 8 9 0 1 1 1 1 1 1 1	
CALLED		

VEHICLE PLAN NUMBER		
DETECTOR NUMBER		
ASSIGNED PHASE		ADDED INITIAL OPTION
SWITCH PHASE		CALL DETECTOR OPTION
EXTEND TIME		PASSAGE DETECTOR OPTION
DELAY TIME		QUEUE DETECTOR OPTION
QUEUE LIMIT		NTCIP OCCUPANCY LOG
FAIL TIME		NTCIP VOLUME LOG
FAIL CALL DELAY		ECPI LOG
YELLOW LOCK		RED LOCK
PHASE	1 2 3 4 5 6 7 8 9 0 1 1 1 1 1 1 1	
CALLED		

VEHICLE PLAN NUMBER																		
DETECTOR NUMBER																		
ASSIGNED PHASE		ADDED INITIAL OPTION																
SWITCH PHASE		CALL DETECTOR OPTION																
EXTEND TIME		PASSAGE DETECTOR OPTION																
DELAY TIME		QUEUE DETECTOR OPTION																
QUEUE LIMIT		NTCIP OCCUPANCY LOG																
FAIL TIME		NTCIP VOLUME LOG																
FAIL CALL DELAY		ECPI LOG																
YELLOW LOCK		RED LOCK																
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1
CALLED																		

VEHICLE PLAN NUMBER																		
DETECTOR NUMBER																		
ASSIGNED PHASE		ADDED INITIAL OPTION																
SWITCH PHASE		CALL DETECTOR OPTION																
EXTEND TIME		PASSAGE DETECTOR OPTION																
DELAY TIME		QUEUE DETECTOR OPTION																
QUEUE LIMIT		NTCIP OCCUPANCY LOG																
FAIL TIME		NTCIP VOLUME LOG																
FAIL CALL DELAY		ECPI LOG																
YELLOW LOCK		RED LOCK																
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1
CALLED																		

VEHICLE PLAN NUMBER																		
DETECTOR NUMBER																		
ASSIGNED PHASE		ADDED INITIAL OPTION																
SWITCH PHASE		CALL DETECTOR OPTION																
EXTEND TIME		PASSAGE DETECTOR OPTION																
DELAY TIME		QUEUE DETECTOR OPTION																
QUEUE LIMIT		NTCIP OCCUPANCY LOG																
FAIL TIME		NTCIP VOLUME LOG																
FAIL CALL DELAY		ECPI LOG																
YELLOW LOCK		RED LOCK																
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1
CALLED																		

VEHICLE PLAN NUMBER																		
DETECTOR NUMBER																		
ASSIGNED PHASE		ADDED INITIAL OPTION																
SWITCH PHASE		CALL DETECTOR OPTION																
EXTEND TIME		PASSAGE DETECTOR OPTION																
DELAY TIME		QUEUE DETECTOR OPTION																
QUEUE LIMIT		NTCIP OCCUPANCY LOG																
FAIL TIME		NTCIP VOLUME LOG																
FAIL CALL DELAY		ECPI LOG																
YELLOW LOCK		RED LOCK																
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1
CALLED																		

VEHICLE PLAN NUMBER																		
DETECTOR NUMBER																		
ASSIGNED PHASE		ADDED INITIAL OPTION																
SWITCH PHASE		CALL DETECTOR OPTION																
EXTEND TIME		PASSAGE DETECTOR OPTION																
DELAY TIME		QUEUE DETECTOR OPTION																
QUEUE LIMIT		NTCIP OCCUPANCY LOG																
FAIL TIME		NTCIP VOLUME LOG																
FAIL CALL DELAY		ECPI LOG																
YELLOW LOCK		RED LOCK																
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1
CALLED																		

VEHICLE PLAN NUMBER																		
DETECTOR NUMBER																		
ASSIGNED PHASE		ADDED INITIAL OPTION																
SWITCH PHASE		CALL DETECTOR OPTION																
EXTEND TIME		PASSAGE DETECTOR OPTION																
DELAY TIME		QUEUE DETECTOR OPTION																
QUEUE LIMIT		NTCIP OCCUPANCY LOG																
FAIL TIME		NTCIP VOLUME LOG																
FAIL CALL DELAY		ECPI LOG																
YELLOW LOCK		RED LOCK																
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1
CALLED																		

VEHICLE PLAN NUMBER																		
DETECTOR NUMBER																		
ASSIGNED PHASE		ADDED INITIAL OPTION																
SWITCH PHASE		CALL DETECTOR OPTION																
EXTEND TIME		PASSAGE DETECTOR OPTION																
DELAY TIME		QUEUE DETECTOR OPTION																
QUEUE LIMIT		NTCIP OCCUPANCY LOG																
FAIL TIME		NTCIP VOLUME LOG																
FAIL CALL DELAY		ECPI LOG																
YELLOW LOCK		RED LOCK																
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1
CALLED																		

VEHICLE PLAN NUMBER																		
DETECTOR NUMBER																		
ASSIGNED PHASE		ADDED INITIAL OPTION																
SWITCH PHASE		CALL DETECTOR OPTION																
EXTEND TIME		PASSAGE DETECTOR OPTION																
DELAY TIME		QUEUE DETECTOR OPTION																
QUEUE LIMIT		NTCIP OCCUPANCY LOG																
FAIL TIME		NTCIP VOLUME LOG																
FAIL CALL DELAY		ECPI LOG																
YELLOW LOCK		RED LOCK																
PHASE	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1
CALLED																		

6-3 PHASE DETECTOR OPTIONS

PHASE DETECTOR OPTION PLAN NUMBER										1						
PHASE	1	2	3	4	5	6	7	8	9	1	1	1	1	1	1	1
DETECTOR LOCK																
VEH RECALL																
PED RECALL																
MAX RECALL																
SOFT RECALL																
NO REST																
ADD INIT CALC																

PHASE DETECTOR OPTION PLAN NUMBER										2						
PHASE	1	2	3	4	5	6	7	8	9	1	1	1	1	1	1	1
DETECTOR LOCK																
VEH RECALL																
PED RECALL																
MAX RECALL																
SOFT RECALL																
NO REST																
ADD INIT CALC																

PHASE DETECTOR OPTION PLAN NUMBER										3						
PHASE	1	2	3	4	5	6	7	8	9	1	1	1	1	1	1	1
DETECTOR LOCK																
VEH RECALL																
PED RECALL																
MAX RECALL																
SOFT RECALL																
NO REST																
ADD INIT CALC																

PHASE DETECTOR OPTION PLAN NUMBER										4						
PHASE	1	2	3	4	5	6	7	8	9	1	1	1	1	1	1	1
DETECTOR LOCK																
VEH RECALL																
PED RECALL																
MAX RECALL																
SOFT RECALL																
NO REST																
ADD INIT CALC																

6-4 PEDESTRIAN AND SYSTEM DETECTOR OPTIONS

PHASE PEDESTRIAN DETECTOR								
	1	2	3	4	5	6	7	8
PED DET INPUT								
	9	10	11	12	13	14	15	16
PED DET INPUT								
LOCAL SYSTEM DETECTOR								
	1	2	3	4	5	6	7	8
VEH DET INPUT								
	9	10	11	12	13	14	15	16
VEH DET INPUT								

6-5 LOG – SPEED DETECTOR SET UP

NTCIP LOG PERIOD								
ECPI LOG PERIOD								
LENGTH UNIT								
SPEED DETECTOR	1	2	3	4	5	6	7	8
LOCAL DETECTOR								
ONE / TWO DET								
VEH LENGTH								
TRAP LENGTH								
ENABLE LOG								
SPEED DETECTOR	9	10	11	12	13	14	15	16
LOCAL DETECTOR								
ONE / TWO DET								
VEH LENGTH								
TRAP LENGTH								
ENABLE LOG								

6-6 VEHICLE DETECTOR DIAGNOSTICS

VEHICLE DIAGNOSTIC PLAN NUMBER					1				
DET	COUNTS	ACTUATIONS	PRESENCE	MULTIPLIER	DET	COUNTS	ACTUATIONS	PRESENCE	MULTIPLIER
1					33				
2					34				
3					35				
4					36				
5					37				
6					38				
7					39				
8					40				
9					41				
10					42				
11					43				
12					44				
13					45				
14					46				
15					47				
16					48				
17					49				
18					50				
19					51				
20					52				
21					53				
22					54				
23					55				
24					56				
25					57				
26					58				
27					59				
28					60				
29					61				
30					62				
31					63				
32					64				

VEHICLE DIAGNOSTIC PLAN NUMBER					2				
DET	COUNTS	ACTUATIONS	PRESENCE	MULTIPLIER	DET	COUNTS	ACTUATIONS	PRESENCE	MULTIPLIER
1					33				
2					34				
3					35				
4					36				
5					37				
6					38				
7					39				
8					40				
9					41				
10					42				
11					43				
12					44				
13					45				
14					46				
15					47				
16					48				
17					49				
18					50				
19					51				
20					52				
21					53				
22					54				
23					55				
24					56				
25					57				
26					58				
27					59				
28					60				
29					61				
30					62				
31					63				
32					64				

**6-6 VEHICLE DETECTOR DIAGNOSTICS
(CONTINUED)**

VEHICLE DIAGNOSTIC PLAN NUMBER					3
DET	COUNTS	ACTUATIONS	PRESENCE	MULTIPLIER	
1					33
2					34
3					35
4					36
5					37
6					38
7					39
8					40
9					41
10					42
11					43
12					44
13					45
14					46
15					47
16					48
17					49
18					50
19					51
20					52
21					53
22					54
23					55
24					56
25					57
26					58
27					59
28					60
29					61
30					62
31					63
32					64

VEHICLE DIAGNOSTIC PLAN NUMBER					4
DET	COUNTS	ACTUATIONS	PRESENCE	MULTIPLIER	
1					33
2					34
3					35
4					36
5					37
6					38
7					39
8					40
9					41
10					42
11					43
12					44
13					45
14					46
15					47
16					48
17					49
18					50
19					51
20					52
21					53
22					54
23					55
24					56
25					57
26					58
27					59
28					60
29					61
30					62
31					63
32					64

6-7 PEDESTRIAN DETECTOR DIAGNOSTICS

PED DIAGNOSTIC PLAN NUMBER 1					PED DIAGNOSTIC PLAN NUMBER 2				
DET	COUNTS	ACTUATIONS	PRESENCE	MULTIPLIER	DET	COUNTS	ACTUATIONS	PRESENCE	MULTIPLIER
1					1				
2					2				
3					3				
4					4				
5					5				
6					6				
7					7				
8					8				
9					9				
10					10				
11					11				
12					12				
13					13				
14					14				
15					15				
16					16				

























PED DIAGNOSTIC PLAN NUMBER 3					PED DIAGNOSTIC PLAN NUMBER 4				
DET	COUNTS	ACTUATIONS	PRESENCE	MULTIPLIER	DET	COUNTS	ACTUATIONS	PRESENCE	MULTIPLIER
1					1				
2					2				
3					3				
4					4				
5					5				
6					6				
7					7				
8					8				
9					9				
10					10				
11					11				
12					12				
13					13				
14					14				
15					15				
16					16				

Appendix B

Existing Traffic Level of Service Calculations

Lanes, Volumes, Timings
3: Eighth Line & Dundas Street E

06-27-2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	2243	120	64	1154	21	161	20	160	98	62	27
Future Volume (vph)	12	2243	120	64	1154	21	161	20	160	98	62	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)		0%			0%			0%			0%	
Storage Length (m)	115.0		75.0	155.0		85.0	45.0		0.0	45.0		0.0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Satd. Flow (prot)	1638	5079	1526	1785	4706	1572	1785	1789	1566	1785	1842	1597
Flt Permitted	0.223			0.046			0.717			0.744		
Satd. Flow (perm)	384	5079	1526	86	4706	1572	1347	1789	1566	1398	1842	1597
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			84			67			120			67
Link Speed (k/h)		70			70			50				50
Link Distance (m)		310.7			586.1			253.5				312.8
Travel Time (s)		16.0			30.1			18.3				22.5
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour 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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	9%	1%	3%	0%	9%	0%	0%	5%	2%	0%	2%	0%
Bus Blockages (#/hr)	0	0	4	0	0	4	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%				0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	12	2243	120	64	1154	21	161	20	160	98	62	27
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)		3.5			3.5			3.5				3.5
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		4.8			4.8			4.8				4.8
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.04	1.01	1.01	1.04	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			8				4
Permitted Phases	2		2	6		6	8		8	4		4
Detector Phase	5	2	2	1	6	6	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	11.5	38.0	38.0	11.5	38.0	38.0	46.0	46.0	46.0	46.0	46.0	46.0
Total Split (s)	11.7	70.2	70.2	11.7	70.2	70.2	48.1	48.1	48.1	48.1	48.1	48.1
Total Split (%)	9.0%	54.0%	54.0%	9.0%	54.0%	54.0%	37.0%	37.0%	37.0%	37.0%	37.0%	37.0%
Maximum Green (s)	7.7	63.2	63.2	7.7	63.2	63.2	41.1	41.1	41.1	41.1	41.1	41.1
Yellow Time (s)	3.0	3.3	3.3	3.0	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	1.0	3.7	3.7	1.0	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
Lost Time Adjust (s)	-3.0	-2.0	-2.0	-3.0	-2.0	-2.0	-3.0	-3.0	-3.0	-3.0	-3.0	-3.0
Total Lost Time (s)	1.0	5.0	5.0	1.0	5.0	5.0	4.0	4.0	4.0	4.0	4.0	4.0

Lanes, Volumes, Timings
3: Eighth Line & Dundas Street E

06-27-2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	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	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	C-Max	C-Max	None	Max	Max	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)		24.0	24.0		24.0	24.0	32.0	32.0	32.0	32.0	32.0	32.0
Pedestrian Calls (#/hr)		0	0		0	0	0	0	0	0	0	0
Act Effct Green (s)	99.7	87.7	87.7	100.8	92.6	92.6	24.0	24.0	24.0	24.0	24.0	24.0
Actuated g/C Ratio	0.77	0.67	0.67	0.78	0.71	0.71	0.18	0.18	0.18	0.18	0.18	0.18
v/c Ratio	0.03	0.66	0.11	0.31	0.34	0.02	0.65	0.06	0.41	0.38	0.18	0.08
Control Delay	4.8	15.1	4.0	12.1	16.3	3.2	60.5	40.8	16.0	49.1	43.6	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.8	15.1	4.0	12.1	16.3	3.2	60.5	40.8	16.0	49.1	43.6	0.4
LOS	A	B	A	B	B	A	E	D	B	D	D	A
Approach Delay		14.5			15.9			38.5			40.3	
Approach LOS		B			B			D			D	
Queue Length 50th (m)	0.6	124.2	3.1	8.8	75.7	0.1	40.6	4.5	9.1	23.4	14.3	0.0
Queue Length 95th (m)	2.7	179.5	12.9	14.4	103.1	4.0	60.7	11.1	27.5	38.3	25.4	0.0
Internal Link Dist (m)		286.7			562.1			229.5			288.8	
Turn Bay Length (m)	115.0		75.0	155.0		85.0	45.0			45.0		
Base Capacity (vph)	399	3424	1056	211	3352	1139	456	606	610	474	624	586
Starvation Cap Reductn	0	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	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.66	0.11	0.30	0.34	0.02	0.35	0.03	0.26	0.21	0.10	0.05

Intersection Summary

Area Type:	Other
Cycle Length:	130
Actuated Cycle Length:	130
Offset:	23 (18%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle:	110
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.66
Intersection Signal Delay:	18.1
Intersection LOS:	B
Intersection Capacity Utilization:	75.6%
ICU Level of Service:	D
Analysis Period (min):	15

Splits and Phases: 3: Eighth Line & Dundas Street E



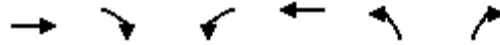
Lanes, Volumes, Timings
6: Prince Michael Drive & Dundas Street E

06-27-2022

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↗	↘	↑↑↑	↘	↗
Traffic Volume (vph)	2407	114	63	1094	114	181
Future Volume (vph)	2407	114	63	1094	114	181
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)	0%			0%	0%	
Storage Length (m)		75.0	125.0		65.0	0.0
Storage Lanes		1	1		1	1
Taper Length (m)			7.5		7.5	
Satd. Flow (prot)	5079	1511	1785	4596	1767	1581
Flt Permitted			0.044		0.950	
Satd. Flow (perm)	5079	1511	83	4596	1767	1581
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		73				169
Link Speed (k/h)	70			70	50	
Link Distance (m)	586.1			572.2	226.5	
Travel Time (s)	30.1			29.4	16.3	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	4%	0%	11%	1%	1%
Bus Blockages (#/hr)	0	4	0	4	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	2407	114	63	1094	114	181
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.5			3.5	3.5	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.01	1.04	1.01	1.02	1.01	1.01
Turning Speed (k/h)		15	25		25	15
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2	6			8
Detector Phase	2	2	1	6	8	8
Switch Phase						
Minimum Initial (s)	20.0	20.0	7.0	20.0	10.0	10.0
Minimum Split (s)	25.2	25.2	11.0	25.2	22.5	22.5
Total Split (s)	68.9	68.9	15.6	84.5	45.5	45.5
Total Split (%)	53.0%	53.0%	12.0%	65.0%	35.0%	35.0%
Maximum Green (s)	63.7	63.7	11.6	79.3	41.2	41.2
Yellow Time (s)	4.2	4.2	3.0	4.2	3.3	3.3
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.2	-0.2	-3.0	-0.2	-3.3	0.0
Total Lost Time (s)	5.0	5.0	1.0	5.0	1.0	4.3

Lanes, Volumes, Timings
6: Prince Michael Drive & Dundas Street E

06-27-2022

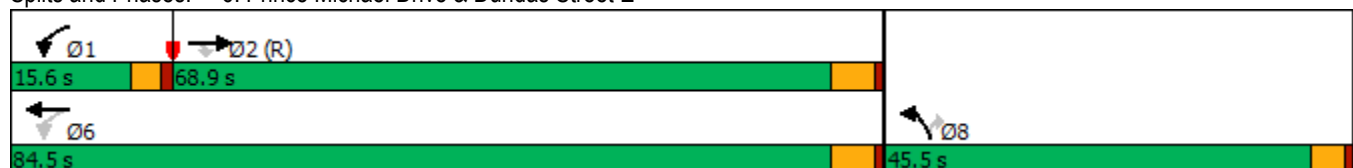


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	C-Max	C-Max	None	Max	None	None
Walk Time (s)	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0	0
Act Effct Green (s)	97.5	97.5	110.6	106.6	17.4	14.1
Actuated g/C Ratio	0.75	0.75	0.85	0.82	0.13	0.11
v/c Ratio	0.63	0.10	0.31	0.29	0.48	0.56
Control Delay	2.6	0.3	28.8	2.1	58.5	16.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2.6	0.3	28.8	2.1	58.5	16.3
LOS	A	A	C	A	E	B
Approach Delay	2.5			3.5	32.6	
Approach LOS	A			A	C	
Queue Length 50th (m)	16.1	0.0	4.7	11.9	28.9	3.0
Queue Length 95th (m)	21.6	m0.4	22.0	16.4	46.6	24.8
Internal Link Dist (m)	562.1			548.2	202.5	
Turn Bay Length (m)		75.0	125.0		65.0	
Base Capacity (vph)	3809	1151	261	3769	604	616
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.63	0.10	0.24	0.29	0.19	0.29

Intersection Summary

Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 60 (46%), Referenced to phase 2:EBT, Start of Green
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.63
 Intersection Signal Delay: 5.0 Intersection LOS: A
 Intersection Capacity Utilization 68.2% ICU Level of Service C
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Prince Michael Drive & Dundas Street E



Lanes, Volumes, Timings
8: Meadowridge Drive & Dundas Street E

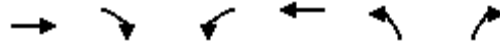
06-27-2022

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↗	↘	↑↑↑	↘	↗
Traffic Volume (vph)	2551	52	94	1166	53	281
Future Volume (vph)	2551	52	94	1166	53	281
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)	0%			0%	0%	
Storage Length (m)		80.0	140.0		40.0	0.0
Storage Lanes		1	1		1	1
Taper Length (m)			7.5		7.5	
Satd. Flow (prot)	5079	1541	1767	4681	1750	1597
Flt Permitted			0.044		0.950	
Satd. Flow (perm)	5079	1541	82	4681	1750	1597
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		34				150
Link Speed (k/h)	70			70	50	
Link Distance (m)	572.2			334.1	216.4	
Travel Time (s)	29.4			17.2	15.6	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	2%	1%	9%	2%	0%
Bus Blockages (#/hr)	0	4	0	4	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	2551	52	94	1166	53	281
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.5			3.5	3.5	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.01	1.04	1.01	1.02	1.01	1.01
Turning Speed (k/h)		15	25		25	15
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2	6			8
Detector Phase	2	2	1	6	8	8
Switch Phase						
Minimum Initial (s)	20.0	20.0	7.0	20.0	10.0	10.0
Minimum Split (s)	26.7	26.7	11.5	28.4	24.9	24.9
Total Split (s)	70.0	70.0	14.0	84.0	46.0	46.0
Total Split (%)	53.8%	53.8%	10.8%	64.6%	35.4%	35.4%
Maximum Green (s)	63.3	63.3	10.0	77.3	39.1	39.1
Yellow Time (s)	4.2	4.2	3.0	4.2	3.3	3.3
All-Red Time (s)	2.5	2.5	1.0	2.5	3.6	3.6
Lost Time Adjust (s)	-1.7	-1.7	-3.0	-1.7	-1.9	-1.9
Total Lost Time (s)	5.0	5.0	1.0	5.0	5.0	5.0

Lanes, Volumes, Timings

8: Meadowridge Drive & Dundas Street E

06-27-2022



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	C-Max	C-Max	None	Max	None	None
Walk Time (s)	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0	0
Act Effct Green (s)	88.0	88.0	104.3	100.3	19.7	19.7
Actuated g/C Ratio	0.68	0.68	0.80	0.77	0.15	0.15
v/c Ratio	0.74	0.05	0.44	0.32	0.20	0.76
Control Delay	6.4	1.0	45.2	3.7	47.3	37.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.4	1.0	45.2	3.7	47.3	37.1
LOS	A	A	D	A	D	D
Approach Delay	6.3			6.8	38.7	
Approach LOS	A			A	D	
Queue Length 50th (m)	32.3	0.2	9.4	19.3	12.7	34.6
Queue Length 95th (m)	39.0	m0.7	27.3	25.8	23.3	61.9
Internal Link Dist (m)	548.2			310.1	192.4	
Turn Bay Length (m)		80.0	140.0		40.0	
Base Capacity (vph)	3437	1053	238	3612	551	606
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.74	0.05	0.39	0.32	0.10	0.46

Intersection Summary

Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 70 (54%), Referenced to phase 2:EBT, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.76
 Intersection Signal Delay: 9.0
 Intersection LOS: A
 Intersection Capacity Utilization 75.1%
 ICU Level of Service D
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: Meadowridge Drive & Dundas Street E



Lanes, Volumes, Timings
10: Dundas Street E & William Cutmore Blvd































06-27-2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↗	↑↑↑	↑↑↑	↖	↘	↘
Traffic Volume (vph)	26	2806	1200	46	132	74
Future Volume (vph)	26	2806	1200	46	132	74
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)		0%	0%		0%	
Storage Length (m)	100.0			85.0	45.0	0.0
Storage Lanes	1			1	1	1
Taper Length (m)	7.5				7.5	
Satd. Flow (prot)	1785	5051	4706	1572	1785	1597
Flt Permitted	0.216				0.950	
Satd. Flow (perm)	406	5051	4706	1572	1785	1597
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				46		74
Link Speed (k/h)		70	70		50	
Link Distance (m)		334.1	505.1		180.3	
Travel Time (s)		17.2	26.0		13.0	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	9%	0%	0%	0%
Bus Blockages (#/hr)	0	4	0	4	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	26	2806	1200	46	132	74
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.5	3.5		3.5	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.01	1.02	1.01	1.04	1.01	1.01
Turning Speed (k/h)	25			15	25	15
Turn Type	Perm	NA	NA	Perm	Prot	Perm
Protected Phases		2	6		4	
Permitted Phases	2			6		4
Detector Phase	2	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	20.0	20.0	20.0	20.0	10.0	10.0
Minimum Split (s)	24.5	24.5	24.5	24.5	22.5	22.5
Total Split (s)	106.0	106.0	106.0	106.0	24.0	24.0
Total Split (%)	81.5%	81.5%	81.5%	81.5%	18.5%	18.5%
Maximum Green (s)	101.5	101.5	101.5	101.5	19.5	19.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5

Lanes, Volumes, Timings
14: Ninth Line & Dundas Street E

06-27-2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  			 			 	
Traffic Volume (vph)	230	2350	378	127	943	129	200	332	162	193	552	104
Future Volume (vph)	230	2350	378	127	943	129	200	332	162	193	552	104
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)		0%			0%			0%			0%	
Storage Length (m)	225.0		85.0	230.0		85.0	160.0		130.0	130.0		55.0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Satd. Flow (prot)	1785	5079	1572	1750	4706	1572	1594	3500	1551	1785	3570	1597
Flt Permitted	0.242			0.060			0.219			0.437		
Satd. Flow (perm)	455	5079	1572	111	4706	1572	367	3500	1551	821	3570	1597
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			245			129			154			104
Link Speed (k/h)		70			70			60				60
Link Distance (m)		505.1			255.3			487.3				810.8
Travel Time (s)		26.0			13.1			29.2				48.6
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour 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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	2%	9%	0%	12%	2%	3%	0%	0%	0%
Bus Blockages (#/hr)	0	0	4	0	0	4	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	230	2350	378	127	943	129	200	332	162	193	552	104
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)		3.5			3.5			3.5			3.5	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.04	1.01	1.01	1.04	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2		2	6		6	4		4	8		8
Detector Phase	5	2	2	1	6	6	7	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	20.0	20.0	7.0	20.0	20.0
Minimum Split (s)	11.0	45.3	45.3	11.0	45.3	45.3	11.0	47.5	47.5	11.0	47.5	47.5
Total Split (s)	11.0	60.0	60.0	11.0	60.0	60.0	11.0	48.0	48.0	11.0	48.0	48.0
Total Split (%)	8.5%	46.2%	46.2%	8.5%	46.2%	46.2%	8.5%	36.9%	36.9%	8.5%	36.9%	36.9%
Maximum Green (s)	7.0	53.7	53.7	7.0	53.7	53.7	7.0	41.5	41.5	7.0	41.5	41.5
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7
All-Red Time (s)	1.0	2.6	2.6	1.0	2.6	2.6	1.0	2.8	2.8	1.0	2.8	2.8
Lost Time Adjust (s)	-3.0	-1.3	-1.3	-3.0	-1.3	-1.3	-3.0	-1.5	-1.5	-3.0	-1.5	-1.5
Total Lost Time (s)	1.0	5.0	5.0	1.0	5.0	5.0	1.0	5.0	5.0	1.0	5.0	5.0

Lanes, Volumes, Timings
14: Ninth Line & Dundas Street E

06-27-2022

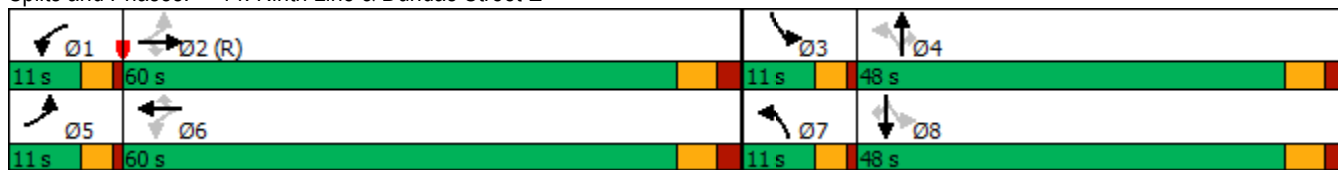


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	C-Max	C-Max	None	Max	Max	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		32.0	32.0		32.0	32.0		34.0	34.0		34.0	34.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	85.5	66.8	66.8	83.1	65.3	65.3	41.5	27.5	27.5	41.5	27.5	27.5
Actuated g/C Ratio	0.66	0.51	0.51	0.64	0.50	0.50	0.32	0.21	0.21	0.32	0.21	0.21
v/c Ratio	0.51	0.90	0.41	0.52	0.40	0.15	0.95	0.45	0.36	0.58	0.73	0.25
Control Delay	11.2	28.9	8.6	28.5	21.8	4.0	86.6	46.0	9.2	40.0	53.6	8.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.2	28.9	8.6	28.5	21.8	4.0	86.6	46.0	9.2	40.0	53.6	8.5
LOS	B	C	A	C	C	A	F	D	A	D	D	A
Approach Delay		24.9			20.6			49.1			45.0	
Approach LOS		C			C			D			D	
Queue Length 50th (m)	19.7	185.7	29.4	15.1	55.7	0.0	41.7	41.5	1.7	39.4	74.0	0.0
Queue Length 95th (m)	42.5	#285.3	34.3	37.3	79.4	12.1	#67.6	53.2	19.4	56.1	88.7	14.5
Internal Link Dist (m)		481.1			231.3			463.3			786.8	
Turn Bay Length (m)	225.0		85.0	230.0		85.0	160.0		130.0	130.0		55.0
Base Capacity (vph)	455	2609	926	244	2364	853	211	1157	616	335	1180	597
Starvation Cap Reductn	0	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	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.90	0.41	0.52	0.40	0.15	0.95	0.29	0.26	0.58	0.47	0.17

Intersection Summary

Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 12 (9%), Referenced to phase 2:EBTL, Start of Green
 Natural Cycle: 135
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.95
 Intersection Signal Delay: 30.0
 Intersection LOS: C
 Intersection Capacity Utilization 95.2%
 ICU Level of Service F
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 14: Ninth Line & Dundas Street E



HCM Unsignalized Intersection Capacity Analysis
 12: Eighth Line/Threshing Mill Blvd & Wheat Boom Drive





























06-27-2022



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	24	7	60	210	0
Future Volume (Veh/h)	0	24	7	60	210	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	24	7	60	210	0
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None	None		
Median storage veh						
Upstream signal (m)	313					
pX, platoon unblocked						
vC, conflicting volume	284	210	210			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	284	210	210			
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	97	99			
cM capacity (veh/h)	707	835	1373			
Direction, Lane #	EB 1	EB 2	NB 1	SB 1		
Volume Total	0	24	67	210		
Volume Left	0	0	7	0		
Volume Right	0	24	0	0		
cSH	1700	835	1373	1700		
Volume to Capacity	0.00	0.03	0.01	0.12		
Queue Length 95th (m)	0.0	0.7	0.1	0.0		
Control Delay (s)	0.0	9.4	0.8	0.0		
Lane LOS	A	A	A			
Approach Delay (s)	9.4		0.8	0.0		
Approach LOS	A					
Intersection Summary						
Average Delay			0.9			
Intersection Capacity Utilization			21.1%	ICU Level of Service	A	
Analysis Period (min)			15			

Lanes, Volumes, Timings
3: Eighth Line & Dundas Street E

06-27-2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  							
Traffic Volume (vph)	10	1396	192	191	2595	73	174	31	119	35	14	11
Future Volume (vph)	10	1396	192	191	2595	73	174	31	119	35	14	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)		0%			0%			0%			0%	
Storage Length (m)	115.0		75.0	155.0		85.0	45.0		0.0	45.0		0.0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Satd. Flow (prot)	1785	4980	1541	1785	5079	1572	1767	1824	1597	1785	1879	1597
Flt Permitted	0.049			0.148			0.748			0.737		
Satd. Flow (perm)	92	4980	1541	278	5079	1572	1391	1824	1597	1385	1879	1597
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			192			67			119			67
Link Speed (k/h)		70			70			50			50	
Link Distance (m)		310.7			586.1			253.5			312.8	
Travel Time (s)		16.0			30.1			18.3			22.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour 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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	3%	2%	0%	1%	0%	1%	3%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	4	0	0	4	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	10	1396	192	191	2595	73	174	31	119	35	14	11
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)		3.5			3.5			3.5			3.5	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.04	1.01	1.01	1.04	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2		2	6		6	8		8	4		4
Detector Phase	5	2	2	1	6	6	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	11.5	38.0	38.0	11.5	38.0	38.0	46.0	46.0	46.0	46.0	46.0	46.0
Total Split (s)	12.0	68.0	68.0	16.0	72.0	72.0	46.0	46.0	46.0	46.0	46.0	46.0
Total Split (%)	9.2%	52.3%	52.3%	12.3%	55.4%	55.4%	35.4%	35.4%	35.4%	35.4%	35.4%	35.4%
Maximum Green (s)	8.0	61.0	61.0	12.0	65.0	65.0	39.0	39.0	39.0	39.0	39.0	39.0
Yellow Time (s)	3.0	3.3	3.3	3.0	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	1.0	3.7	3.7	1.0	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
Lost Time Adjust (s)	-3.0	-1.7	-1.7	-3.0	-1.7	-1.7	-3.0	-3.0	-3.0	-3.0	-3.0	-3.0
Total Lost Time (s)	1.0	5.3	5.3	1.0	5.3	5.3	4.0	4.0	4.0	4.0	4.0	4.0

Lanes, Volumes, Timings
6: Prince Michael Drive & Dundas Street E

06-27-2022

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↗	↘	↑↑↑	↘	↗
Traffic Volume (vph)	1404	159	241	2700	161	190
Future Volume (vph)	1404	159	241	2700	161	190
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)	0%			0%	0%	
Storage Length (m)		75.0	125.0		65.0	0.0
Storage Lanes		1	1		1	1
Taper Length (m)			7.5		7.5	
Satd. Flow (prot)	4980	1541	1785	5051	1785	1597
Flt Permitted			0.150		0.950	
Satd. Flow (perm)	4980	1541	282	5051	1785	1597
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		159				190
Link Speed (k/h)	70			70	50	
Link Distance (m)	586.1			572.2	226.5	
Travel Time (s)	30.1			29.4	16.3	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	2%	0%	1%	0%	0%
Bus Blockages (#/hr)	0	4	0	4	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1404	159	241	2700	161	190
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.5			3.5	3.5	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.01	1.04	1.01	1.02	1.01	1.01
Turning Speed (k/h)		15	25		25	15
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2	6			8
Detector Phase	2	2	1	6	8	8
Switch Phase						
Minimum Initial (s)	20.0	20.0	7.0	20.0	10.0	10.0
Minimum Split (s)	26.8	26.8	11.0	26.8	24.9	24.9
Total Split (s)	69.0	69.0	16.0	85.0	45.0	45.0
Total Split (%)	53.1%	53.1%	12.3%	65.4%	34.6%	34.6%
Maximum Green (s)	62.2	62.2	12.0	78.2	38.1	38.1
Yellow Time (s)	4.2	4.2	3.0	4.2	3.5	3.5
All-Red Time (s)	2.6	2.6	1.0	2.6	3.4	3.4
Lost Time Adjust (s)	-1.8	-1.8	-3.0	-1.8	-1.9	-1.9
Total Lost Time (s)	5.0	5.0	1.0	5.0	5.0	5.0

Lanes, Volumes, Timings
6: Prince Michael Drive & Dundas Street E

06-27-2022

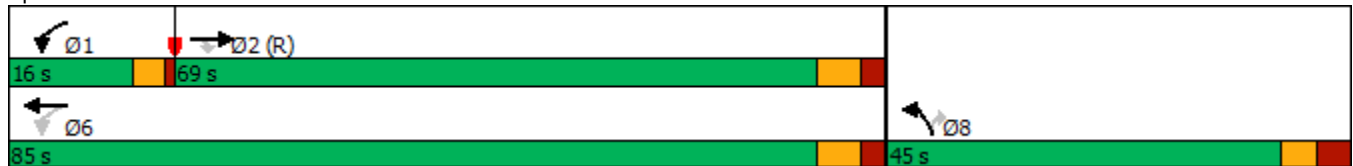


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	C-Max	C-Max	None	Max	None	None
Walk Time (s)	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0	0
Act Effct Green (s)	84.1	84.1	105.0	101.0	19.0	19.0
Actuated g/C Ratio	0.65	0.65	0.81	0.78	0.15	0.15
v/c Ratio	0.44	0.15	0.59	0.69	0.62	0.48
Control Delay	7.5	0.7	12.3	15.8	61.8	10.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.5	0.7	12.3	15.8	61.8	10.4
LOS	A	A	B	B	E	B
Approach Delay	6.8			15.5	34.0	
Approach LOS	A			B	C	
Queue Length 50th (m)	28.2	0.0	15.8	228.4	41.3	0.0
Queue Length 95th (m)	35.4	2.2	47.4	232.8	62.0	20.4
Internal Link Dist (m)	562.1			548.2	202.5	
Turn Bay Length (m)		75.0	125.0		65.0	
Base Capacity (vph)	3221	1052	427	3923	549	622
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.44	0.15	0.56	0.69	0.29	0.31

Intersection Summary

Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 11.8 (9%), Referenced to phase 2:EBT, Start of Green
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.69
 Intersection Signal Delay: 14.0
 Intersection LOS: B
 Intersection Capacity Utilization 69.4%
 ICU Level of Service C
 Analysis Period (min) 15

Splits and Phases: 6: Prince Michael Drive & Dundas Street E



Lanes, Volumes, Timings
8: Meadowridge Drive & Dundas Street E

06-27-2022

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↗	↘	↑↑↑	↘	↗
Traffic Volume (vph)	1455	75	233	2890	42	148
Future Volume (vph)	1455	75	233	2890	42	148
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)	0%			0%	0%	
Storage Length (m)		80.0	140.0		40.0	0.0
Storage Lanes		1	1		1	1
Taper Length (m)			7.5		7.5	
Satd. Flow (prot)	4980	1572	1785	5051	1785	1597
Flt Permitted			0.146		0.950	
Satd. Flow (perm)	4980	1572	274	5051	1785	1597
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		75				148
Link Speed (k/h)	70			70	50	
Link Distance (m)	572.2			334.1	216.4	
Travel Time (s)	29.4			17.2	15.6	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	0%	0%	1%	0%	0%
Bus Blockages (#/hr)	0	4	0	4	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1455	75	233	2890	42	148
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.5			3.5	3.5	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.01	1.04	1.01	1.02	1.01	1.01
Turning Speed (k/h)		15	25		25	15
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2	6			8
Detector Phase	2	2	1	6	8	8
Switch Phase						
Minimum Initial (s)	20.0	20.0	7.0	20.0	10.0	10.0
Minimum Split (s)	26.7	26.7	11.5	28.4	24.9	24.9
Total Split (s)	64.0	64.0	20.0	84.0	46.0	46.0
Total Split (%)	49.2%	49.2%	15.4%	64.6%	35.4%	35.4%
Maximum Green (s)	57.3	57.3	16.0	77.3	39.1	39.1
Yellow Time (s)	4.2	4.2	3.0	4.2	3.3	3.3
All-Red Time (s)	2.5	2.5	1.0	2.5	3.6	3.6
Lost Time Adjust (s)	-1.7	-1.7	-3.0	-1.7	-1.9	-1.9
Total Lost Time (s)	5.0	5.0	1.0	5.0	5.0	5.0

Lanes, Volumes, Timings

8: Meadowridge Drive & Dundas Street E

06-27-2022



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	C-Max	C-Max	None	Max	None	None
Walk Time (s)	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0	0
Act Effct Green (s)	89.9	89.9	111.6	107.6	12.4	12.4
Actuated g/C Ratio	0.69	0.69	0.86	0.83	0.10	0.10
v/c Ratio	0.42	0.07	0.54	0.69	0.25	0.52
Control Delay	8.1	1.8	15.5	1.1	58.0	15.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.1	1.8	15.5	1.1	58.0	15.1
LOS	A	A	B	A	E	B
Approach Delay	7.8			2.1	24.6	
Approach LOS	A			A	C	
Queue Length 50th (m)	97.8	0.5	14.5	0.6	10.7	0.0
Queue Length 95th (m)	39.0	2.8	m19.6	0.5	22.5	20.5
Internal Link Dist (m)	548.2			310.1	192.4	
Turn Bay Length (m)		80.0	140.0		40.0	
Base Capacity (vph)	3445	1110	467	4179	562	604
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.42	0.07	0.50	0.69	0.07	0.25

Intersection Summary

Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 75 (58%), Referenced to phase 2:EBT, Start of Green
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.69
 Intersection Signal Delay: 4.8
 Intersection LOS: A
 Intersection Capacity Utilization 72.5%
 ICU Level of Service C
 Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: Meadowridge Drive & Dundas Street E



Lanes, Volumes, Timings
 10: Dundas Street E & William Cutmore Blvd

06-27-2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↩	↑↑↑	↑↑↑	↪	↩	↪
Traffic Volume (vph)	80	1536	3100	142	99	56
Future Volume (vph)	80	1536	3100	142	99	56
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)		0%	0%		0%	
Storage Length (m)	100.0			85.0	45.0	0.0
Storage Lanes	1			1	1	1
Taper Length (m)	7.5				7.5	
Satd. Flow (prot)	1785	4953	5079	1572	1785	1597
Flt Permitted	0.040				0.950	
Satd. Flow (perm)	75	4953	5079	1572	1785	1597
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				142		56
Link Speed (k/h)		70	70		50	
Link Distance (m)		334.1	505.1		180.3	
Travel Time (s)		17.2	26.0		13.0	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	3%	1%	0%	0%	0%
Bus Blockages (#/hr)	0	4	0	4	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	80	1536	3100	142	99	56
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.5	3.5		3.5	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.01	1.02	1.01	1.04	1.01	1.01
Turning Speed (k/h)	25			15	25	15
Turn Type	pm+pt	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases	2			6		4
Detector Phase	5	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	5.0	20.0	20.0	20.0	10.0	10.0
Minimum Split (s)	9.0	24.5	24.5	24.5	22.5	22.5
Total Split (s)	9.0	107.0	98.0	98.0	23.0	23.0
Total Split (%)	6.9%	82.3%	75.4%	75.4%	17.7%	17.7%
Maximum Green (s)	5.0	102.5	93.5	93.5	18.5	18.5
Yellow Time (s)	3.0	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.5	4.5	4.5	4.5	4.5

Lanes, Volumes, Timings
 10: Dundas Street E & William Cutmore Blvd

06-27-2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
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
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	C-Max	Max	Max	None	None
Walk Time (s)		7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)		11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)		0	0	0	0	0
Act Effct Green (s)	108.5	108.0	97.2	97.2	13.0	13.0
Actuated g/C Ratio	0.83	0.83	0.75	0.75	0.10	0.10
v/c Ratio	0.53	0.37	0.82	0.12	0.56	0.27
Control Delay	39.9	3.2	10.1	0.0	67.4	16.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.9	3.2	10.1	0.0	67.4	16.0
LOS	D	A	B	A	E	B
Approach Delay		5.0	9.7		48.8	
Approach LOS		A	A		D	
Queue Length 50th (m)	14.2	25.0	54.2	0.0	26.0	0.0
Queue Length 95th (m)	31.1	45.1	m33.6	m0.0	43.7	13.0
Internal Link Dist (m)		310.1	481.1		156.3	
Turn Bay Length (m)	100.0			85.0	45.0	
Base Capacity (vph)	152	4116	3798	1211	254	275
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.53	0.37	0.82	0.12	0.39	0.20

Intersection Summary

Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.82
 Intersection Signal Delay: 9.4 Intersection LOS: A
 Intersection Capacity Utilization 82.3% ICU Level of Service E
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 10: Dundas Street E & William Cutmore Blvd



Lanes, Volumes, Timings
14: Ninth Line & Dundas Street E

06-27-2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	137	1290	208	150	2653	141	382	741	562	110	317	207
Future Volume (vph)	137	1290	208	150	2653	141	382	741	562	110	317	207
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)		0%			0%			0%			0%	
Storage Length (m)	225.0		85.0	230.0		85.0	160.0		130.0	130.0		55.0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Satd. Flow (prot)	1785	4980	1541	1750	5079	1572	1750	3535	1521	1750	3535	1597
Flt Permitted	0.069			0.129			0.506			0.201		
Satd. Flow (perm)	130	4980	1541	238	5079	1572	932	3535	1521	370	3535	1597
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			208			97			171			130
Link Speed (k/h)		70			70			60			60	
Link Distance (m)		505.1			255.3			487.3			810.8	
Travel Time (s)		26.0			13.1			29.2			48.6	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour 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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	3%	2%	2%	1%	0%	2%	1%	5%	2%	1%	0%
Bus Blockages (#/hr)	0	0	4	0	0	4	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	137	1290	208	150	2653	141	382	741	562	110	317	207
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)		3.5			3.5			3.5			3.5	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.04	1.01	1.01	1.04	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2		2	6		6	4		4	8		8
Detector Phase	5	2	2	1	6	6	7	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	20.0	20.0	7.0	20.0	20.0
Minimum Split (s)	11.0	45.3	45.3	11.0	45.3	45.3	11.0	47.5	47.5	11.0	47.5	47.5
Total Split (s)	11.0	60.0	60.0	11.0	60.0	60.0	11.0	48.0	48.0	11.0	48.0	48.0
Total Split (%)	8.5%	46.2%	46.2%	8.5%	46.2%	46.2%	8.5%	36.9%	36.9%	8.5%	36.9%	36.9%
Maximum Green (s)	7.0	53.7	53.7	7.0	53.7	53.7	7.0	41.5	41.5	7.0	41.5	41.5
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7
All-Red Time (s)	1.0	2.6	2.6	1.0	2.6	2.6	1.0	2.8	2.8	1.0	2.8	2.8
Lost Time Adjust (s)	-3.0	-1.3	-1.3	-3.0	-1.3	-1.3	-3.0	-1.5	-1.5	-3.0	-1.5	-1.5
Total Lost Time (s)	1.0	5.0	5.0	1.0	5.0	5.0	1.0	5.0	5.0	1.0	5.0	5.0

Lanes, Volumes, Timings
14: Ninth Line & Dundas Street E

06-27-2022

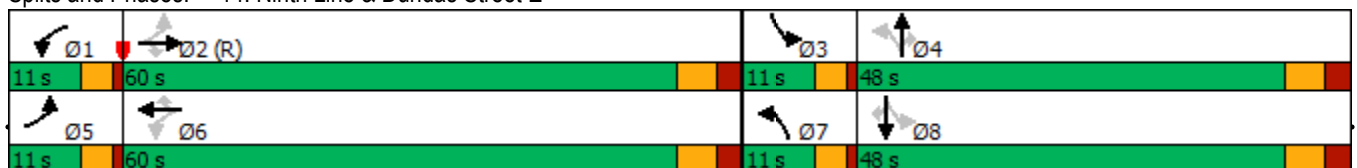


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	C-Max	C-Max	None	Max	Max	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		32.0	32.0		32.0	32.0		34.0	34.0		34.0	34.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	70.8	56.6	56.6	70.8	56.6	56.6	55.2	41.2	41.2	55.2	41.2	41.2
Actuated g/C Ratio	0.54	0.44	0.44	0.54	0.44	0.44	0.42	0.32	0.32	0.42	0.32	0.32
v/c Ratio	0.69	0.59	0.26	0.61	1.20	0.19	0.83	0.66	0.94	0.42	0.28	0.35
Control Delay	42.3	40.8	16.6	25.7	128.0	9.0	46.7	41.4	54.4	26.8	33.7	14.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.3	40.8	16.6	25.7	128.0	9.0	46.7	41.4	54.4	26.8	33.7	14.1
LOS	D	D	B	C	F	A	D	D	D	C	C	B
Approach Delay		37.8			117.1			46.9			26.1	
Approach LOS		D			F			D			C	
Queue Length 50th (m)	29.2	132.9	25.4	19.7	~323.9	7.0	71.7	88.7	108.0	17.2	33.0	14.6
Queue Length 95th (m)	#48.8	145.3	39.7	31.8	#351.8	20.5	#110.6	110.7	#181.2	29.6	45.6	35.3
Internal Link Dist (m)		481.1			231.3			463.3			786.8	
Turn Bay Length (m)	225.0		85.0	230.0		85.0	160.0		130.0	130.0		55.0
Base Capacity (vph)	200	2169	788	247	2212	740	458	1169	617	263	1169	615
Starvation Cap Reductn	0	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	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.69	0.59	0.26	0.61	1.20	0.19	0.83	0.63	0.91	0.42	0.27	0.34

Intersection Summary

Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 12 (9%), Referenced to phase 2:EBTL, Start of Green
 Natural Cycle: 145
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.20
 Intersection Signal Delay: 72.8 Intersection LOS: E
 Intersection Capacity Utilization 111.7% ICU Level of Service H
 Analysis Period (min) 15
 ~ 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.

Splits and Phases: 14: Ninth Line & Dundas Street E



HCM Unsignalized Intersection Capacity Analysis
 12: Eighth Line/Threshing Mill Blvd & Wheat Boom Drive

06-27-2022



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	15	26	140	74	0
Future Volume (Veh/h)	0	15	26	140	74	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	15	26	140	74	0
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (m)	313					
pX, platoon unblocked						
vC, conflicting volume	266	74	74			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	266	74	74			
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	98	98			
cM capacity (veh/h)	715	993	1538			
Direction, Lane #	EB 1	EB 2	NB 1	SB 1		
Volume Total	0	15	166	74		
Volume Left	0	0	26	0		
Volume Right	0	15	0	0		
cSH	1700	993	1538	1700		
Volume to Capacity	0.00	0.02	0.02	0.04		
Queue Length 95th (m)	0.0	0.4	0.4	0.0		
Control Delay (s)	0.0	8.7	1.3	0.0		
Lane LOS	A	A	A			
Approach Delay (s)	8.7		1.3	0.0		
Approach LOS	A					
Intersection Summary						
Average Delay	1.3					
Intersection Capacity Utilization	18.8%			ICU Level of Service	A	
Analysis Period (min)	15					

Appendix C

Background Developments



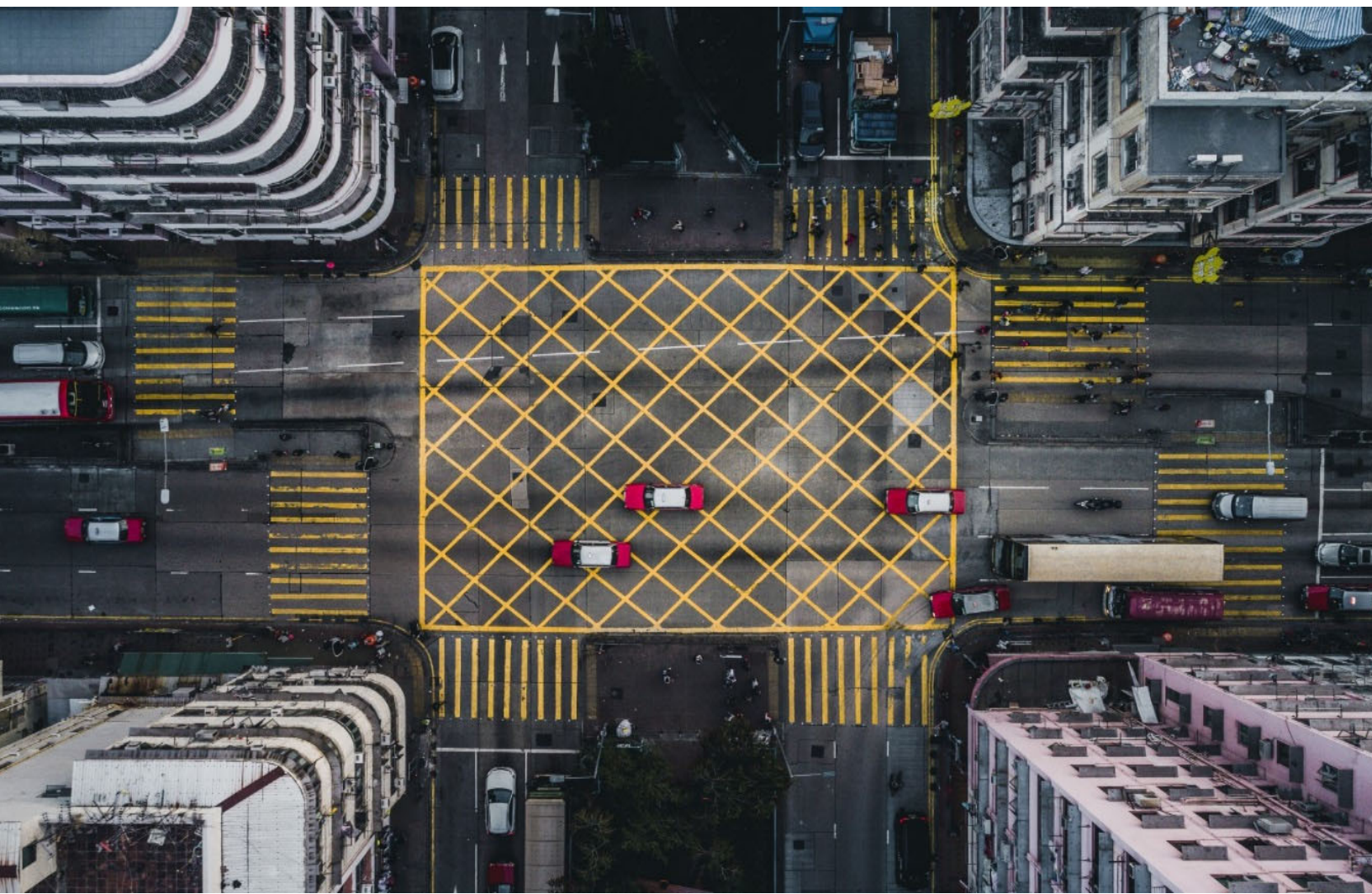
Traffic Impact Study

Joshua Creek Phase 3

Mattamy (Joshua Creek) Limited

18 April 2022

→ The Power of Commitment



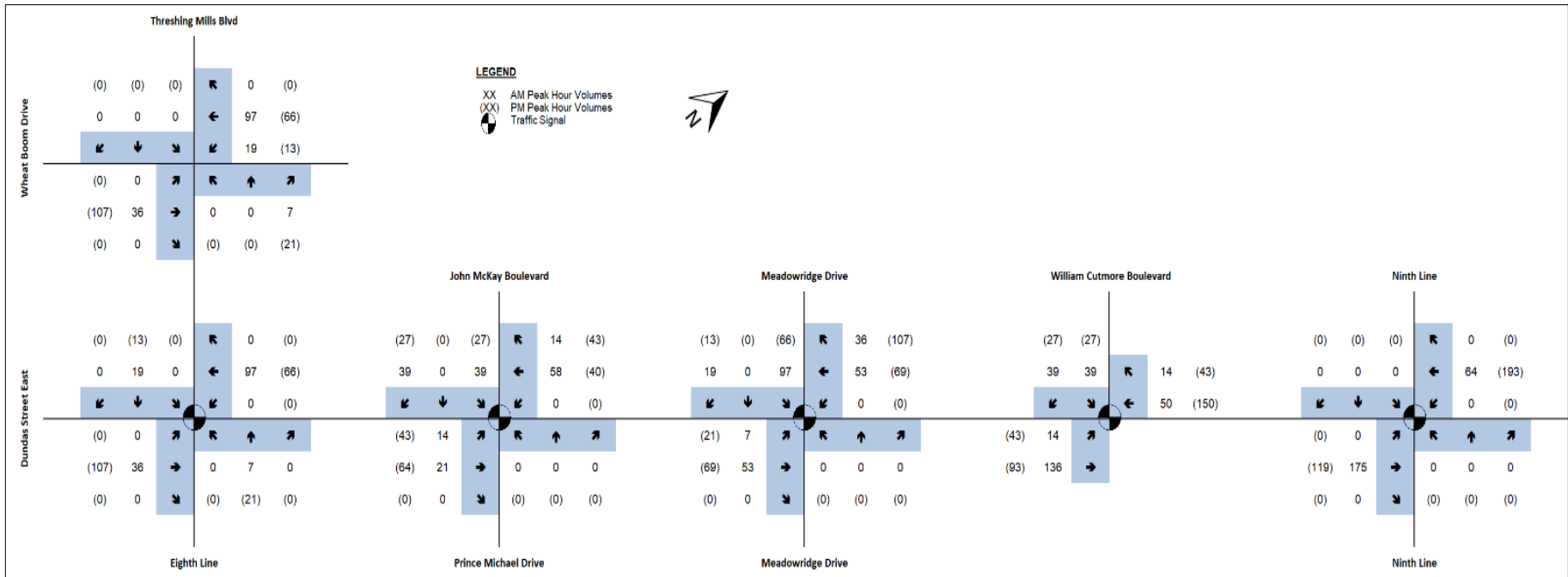
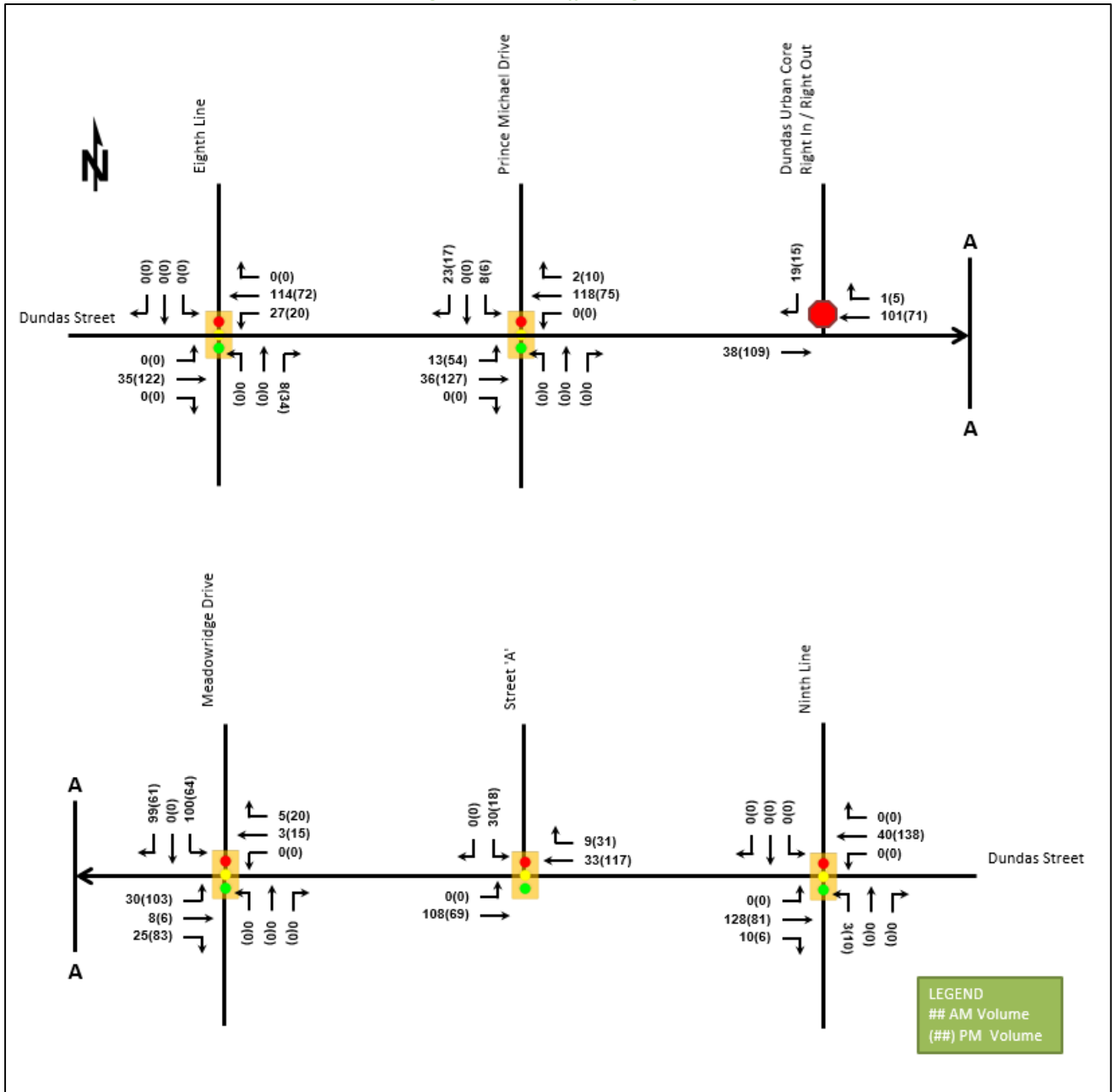


Figure 8 Site Trip Assignment

Figure 17: 2024 Traffic Assignment





Capoak Inc. and Redoak G & A Inc. Proposed Residential Development

Traffic Impact Study



Table 2 Site Trip Distribution

Trip Orientation	Trip Distribution
North	25%
South	10%
East	45%
West	20%
Total	100%

5.3 Site Trips Volumes

The estimated site trips generated by the proposed development for the 2% transit modal split scenario and the 10% transit modal split scenario, as assigned to the nearby road network for the weekday peak hours, is shown in **Figure 5** and **Figure 6**, respectively.

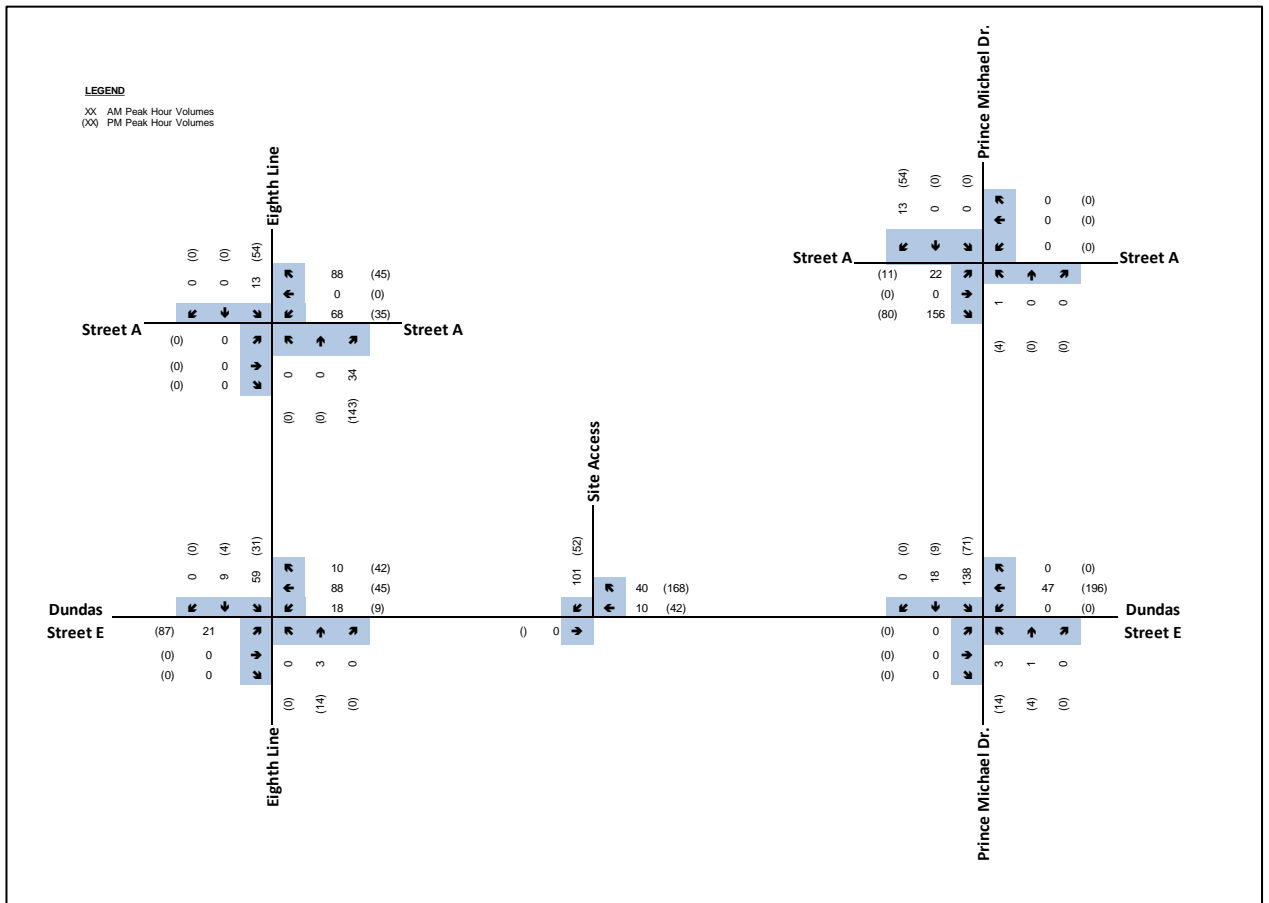


Figure 5 Site Trips with 2% Transit Modal Split



Dunoak and Bressa Draft Plans Proposed Residential Developments

Traffic Impact Study

GHD | 6705 Millcreek Drive Mississauga Ontario L5N 5M4 Canada
11194035 | 800 | Report No 2 | July 2020



Table 3 Site Trip Distribution

To/From	Road	Distribution	Inbound Route	Outbound Route
South	Ninth Line	20%	Northbound left-turn from Ninth Line onto Dundas Street E	Eastbound right-turn from Dundas Street E onto Ninth Line
East	Dundas Street East	37%	Westbound right-turn into given street from Dundas Street E	Southbound left-turn from given street onto Dundas Street E
West	Dundas Street East	43%	Eastbound left-turn into given street from Dundas Street E	Southbound right-turn from given street onto Dundas Street E
Total		100%		

The estimated site trips generated by the proposed development assigned to the adjacent road network for the weekday a.m. and p.m. peak hours are shown below in **Figure 8**.

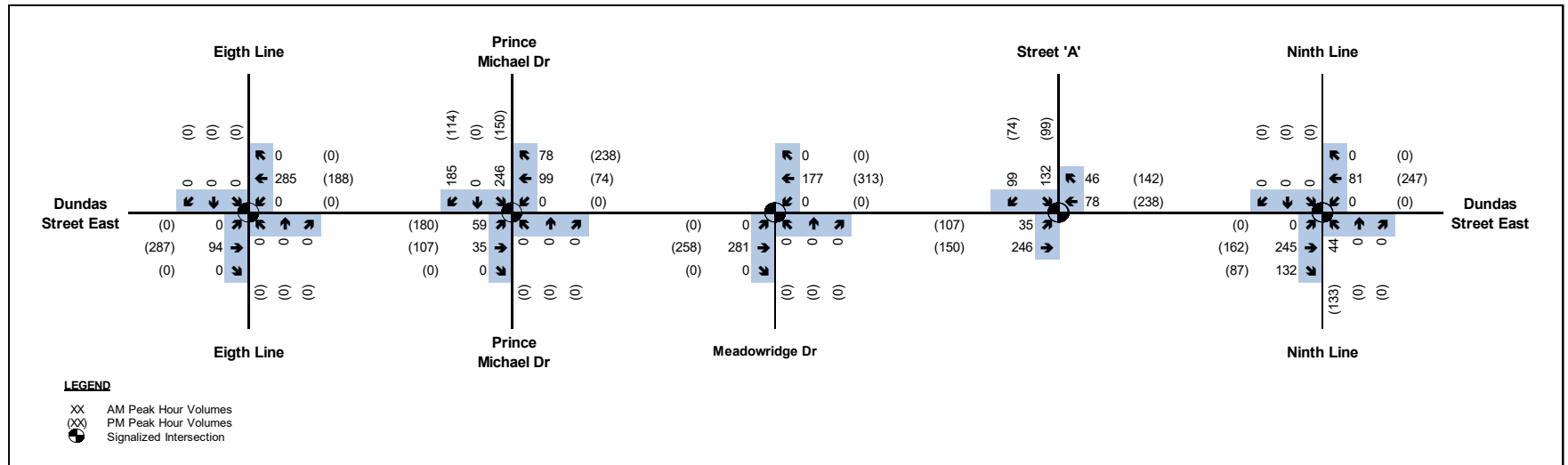
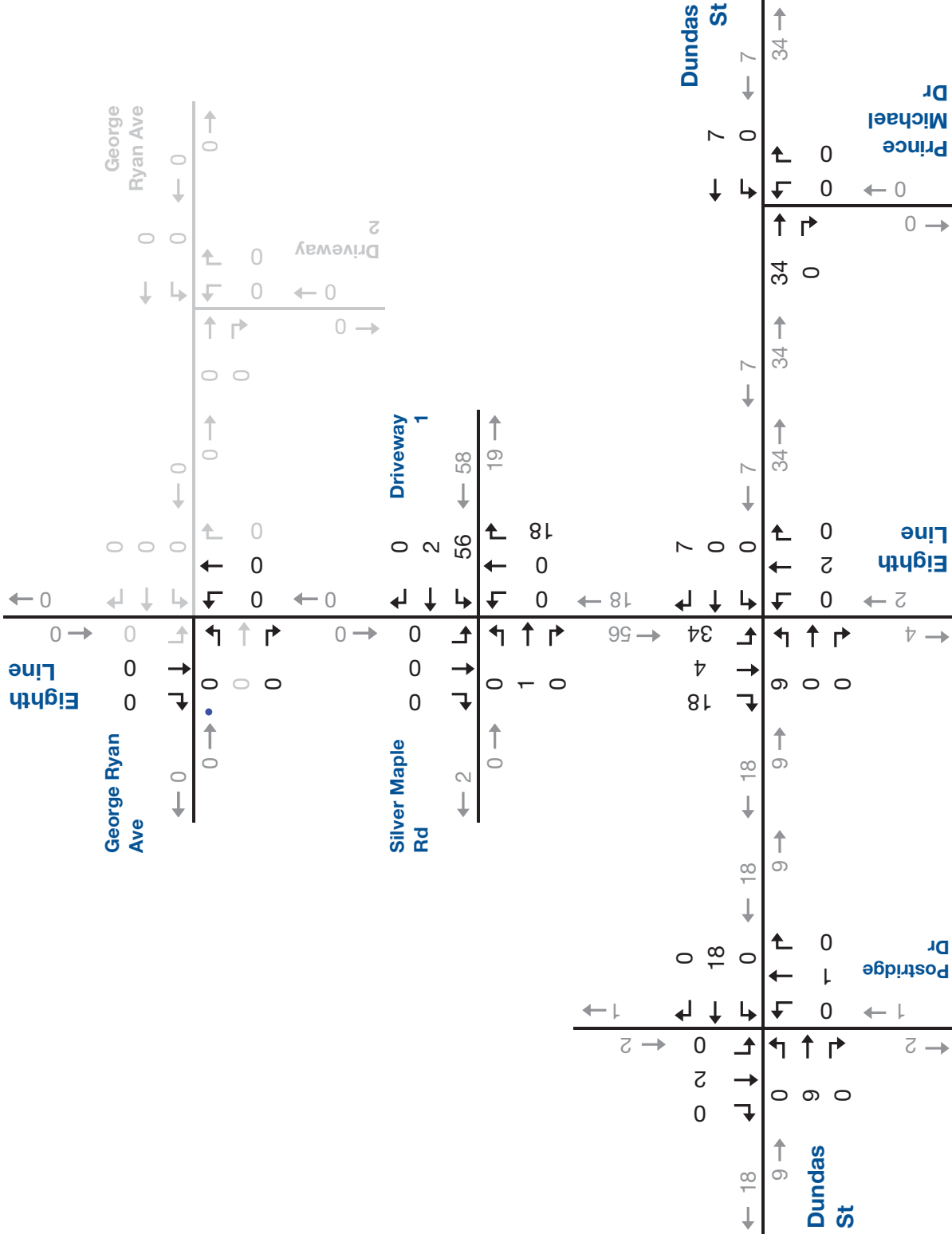


Figure 8 Site Traffic



Scenario 2 AM Peak Hour Site Generated Trip Assignment

Figure 3.3a

Appendix D

Future Background Level of Service Calculations

Lanes, Volumes, Timings 3: Eighth Line & Dundas Street E

06-28-2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	42	2589	132	111	1687	41	178	38	185	190	109	43
Future Volume (vph)	42	2589	132	111	1687	41	178	38	185	190	109	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)		0%			0%			0%			0%	
Storage Length (m)	115.0		75.0	155.0		85.0	45.0		0.0	45.0		0.0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Satd. Flow (prot)	1638	5079	1526	1785	4706	1572	1785	1789	1566	1785	1842	1597
Flt Permitted	0.108			0.049			0.620			0.732		
Satd. Flow (perm)	186	5079	1526	92	4706	1572	1165	1789	1566	1375	1842	1597
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			80			67			119			67
Link Speed (k/h)		70			70			50				50
Link Distance (m)		310.7			586.1			253.5				312.8
Travel Time (s)		16.0			30.1			18.3				22.5
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour 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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	9%	1%	3%	0%	9%	0%	0%	5%	2%	0%	2%	0%
Bus Blockages (#/hr)	0	0	4	0	0	4	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%				0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	42	2589	132	111	1687	41	178	38	185	190	109	43
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)		3.5			3.5			3.5				3.5
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		4.8			4.8			4.8				4.8
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.04	1.01	1.01	1.04	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			8				4
Permitted Phases	2		2	6		6	8		8	4		4
Detector Phase	5	2	2	1	6	6	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	11.5	38.0	38.0	11.5	38.0	38.0	46.0	46.0	46.0	46.0	46.0	46.0
Total Split (s)	11.7	70.2	70.2	11.7	70.2	70.2	48.1	48.1	48.1	48.1	48.1	48.1
Total Split (%)	9.0%	54.0%	54.0%	9.0%	54.0%	54.0%	37.0%	37.0%	37.0%	37.0%	37.0%	37.0%
Maximum Green (s)	7.7	63.2	63.2	7.7	63.2	63.2	41.1	41.1	41.1	41.1	41.1	41.1
Yellow Time (s)	3.0	3.3	3.3	3.0	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	1.0	3.7	3.7	1.0	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
Lost Time Adjust (s)	-3.0	-2.0	-2.0	-3.0	-2.0	-2.0	-3.0	-3.0	-3.0	-3.0	-3.0	-3.0
Total Lost Time (s)	1.0	5.0	5.0	1.0	5.0	5.0	4.0	4.0	4.0	4.0	4.0	4.0

Lanes, Volumes, Timings
3: Eighth Line & Dundas Street E

06-28-2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	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	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	C-Max	C-Max	None	Max	Max	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)		24.0	24.0		24.0	24.0	32.0	32.0	32.0	32.0	32.0	32.0
Pedestrian Calls (#/hr)		0	0		0	0	0	0	0	0	0	0
Act Effct Green (s)	94.5	80.4	80.4	97.7	85.0	85.0	27.1	27.1	27.1	27.1	27.1	27.1
Actuated g/C Ratio	0.73	0.62	0.62	0.75	0.65	0.65	0.21	0.21	0.21	0.21	0.21	0.21
v/c Ratio	0.17	0.82	0.14	0.48	0.55	0.04	0.74	0.10	0.44	0.66	0.28	0.11
Control Delay	7.1	23.9	6.2	17.4	16.0	3.1	65.1	39.1	18.8	57.7	43.4	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	0.0
Total Delay	7.1	23.9	6.2	17.4	16.0	3.1	65.1	39.1	18.8	57.7	43.4	3.7
LOS	A	C	A	B	B	A	E	D	B	E	D	A
Approach Delay		22.8			15.8			41.2				46.4
Approach LOS		C			B			D				D
Queue Length 50th (m)	2.5	185.5	5.2	8.9	109.8	1.0	45.2	8.4	14.9	47.5	24.9	0.0
Queue Length 95th (m)	7.3	#292.0	17.8	28.4	143.9	m5.2	66.5	16.7	34.4	67.9	38.6	4.6
Internal Link Dist (m)		286.7			562.1			229.5				288.8
Turn Bay Length (m)	115.0		75.0	155.0		85.0	45.0			45.0		
Base Capacity (vph)	255	3139	973	236	3076	1050	395	606	609	466	624	586
Starvation Cap Reductn	0	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	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.82	0.14	0.47	0.55	0.04	0.45	0.06	0.30	0.41	0.17	0.07

Intersection Summary

Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 23 (18%), Referenced to phase 2:EBTL, Start of Green
 Natural Cycle: 120
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.82
 Intersection Signal Delay: 23.3
 Intersection LOS: C
 Intersection Capacity Utilization 84.2%
 ICU Level of Service E
 Analysis Period (min) 15

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.

Splits and Phases: 3: Eighth Line & Dundas Street E
































2027 Future Background AM Peak 1:06 pm 06-27-2022 Baseline

Lanes, Volumes, Timings

6: Prince Michael Drive/John McKay Boulevard & Dundas Street E

06-28-2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  			 			 	
Traffic Volume (vph)	68	2794	125	69	1435	94	128	1	200	404	14	195
Future Volume (vph)	68	2794	125	69	1435	94	128	1	200	404	14	195
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)		0%			0%			0%			0%	
Storage Length (m)	120.0		75.0	125.0		85.0	65.0		0.0	15.0		15.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Satd. Flow (prot)	1785	5079	1511	1785	4596	1597	1767	1583	0	1785	1879	1597
Flt Permitted	0.160			0.053			0.748			0.202		
Satd. Flow (perm)	301	5079	1511	100	4596	1597	1391	1583	0	380	1879	1597
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			78			94		96				52
Link Speed (k/h)		70			70			50				50
Link Distance (m)		586.1			572.2			226.5				194.2
Travel Time (s)		30.1			29.4			16.3				14.0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour 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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	4%	0%	11%	0%	1%	0%	1%	0%	0%	0%
Bus Blockages (#/hr)	0	0	4	0	4	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%				0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	68	2794	125	69	1435	94	128	201	0	404	14	195
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)		3.5			3.5			3.5				3.5
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		4.8			4.8			4.8				4.8
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.04	1.01	1.02	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	Perm	NA		pm+pt	NA	Perm
Protected Phases		2		1	6			4		3	8	
Permitted Phases	2		2	6		6	4			8		8
Detector Phase	2	2	2	1	6	6	4	4		3	8	8
Switch Phase												
Minimum Initial (s)	20.0	20.0	20.0	7.0	20.0	20.0	10.0	10.0		7.0	10.0	10.0
Minimum Split (s)	25.2	25.2	25.2	11.0	25.2	25.2	22.5	22.5		11.0	24.3	24.3
Total Split (s)	72.0	72.0	72.0	11.0	83.0	83.0	23.0	23.0		24.0	47.0	47.0
Total Split (%)	55.4%	55.4%	55.4%	8.5%	63.8%	63.8%	17.7%	17.7%		18.5%	36.2%	36.2%
Maximum Green (s)	66.8	66.8	66.8	7.0	77.8	77.8	18.7	18.7		20.0	42.7	42.7
Yellow Time (s)	4.2	4.2	4.2	3.0	4.2	4.2	3.3	3.3		3.0	3.3	3.3
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	-0.2	-0.2	-3.0	-0.2	0.0	-3.3	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.2	5.0	5.0	1.0	5.0	5.2	1.0	4.3		4.0	4.3	4.3

Lanes, Volumes, Timings

6: Prince Michael Drive/John McKay Boulevard & Dundas Street E

06-28-2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
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
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Recall Mode	C-Max	C-Max	C-Max	None	Max	Max	None	None		None	None	None
Walk Time (s)	7.0	7.0	7.0		7.0	7.0	7.0	7.0			7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0		11.0	11.0	11.0	11.0			11.0	11.0
Pedestrian Calls (#/hr)	0	0	0		0	0	0	0			0	0
Act Effct Green (s)	71.8	72.0	72.0	84.9	80.9	80.7	19.1	15.8		40.1	39.8	39.8
Actuated g/C Ratio	0.55	0.55	0.55	0.65	0.62	0.62	0.15	0.12		0.31	0.31	0.31
v/c Ratio	0.41	0.99	0.14	0.35	0.50	0.09	0.63	0.73		1.21	0.02	0.37
Control Delay	14.2	34.0	1.7	31.5	7.1	0.3	65.5	43.6		155.6	30.1	27.1
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	14.2	34.0	1.7	31.5	7.1	0.3	65.5	43.6		155.6	30.1	27.1
LOS	B	C	A	C	A	A	E	D		F	C	C
Approach Delay		32.2			7.8			52.1			111.9	
Approach LOS		C			A			D			F	
Queue Length 50th (m)	9.3	~301.2	5.4	6.3	41.4	0.1	32.4	27.1		~114.2	2.6	29.2
Queue Length 95th (m)	m6.6	#336.9	m1.2	20.3	46.9	0.4	53.9	54.7		#177.7	7.6	50.2
Internal Link Dist (m)		562.1			548.2			202.5			170.2	
Turn Bay Length (m)	120.0		75.0	125.0		85.0	65.0			15.0		15.0
Base Capacity (vph)	166	2813	871	195	2859	1026	235	309		333	617	559
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	0.41	0.99	0.14	0.35	0.50	0.09	0.54	0.65		1.21	0.02	0.35

Intersection Summary

Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 60 (46%), Referenced to phase 2:EBTL, Start of Green
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.21
 Intersection Signal Delay: 35.1
 Intersection LOS: D
 Intersection Capacity Utilization 103.2%
 ICU Level of Service G
 Analysis Period (min) 15

~ 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.

Splits and Phases: 6: Prince Michael Drive/John McKay Boulevard & Dundas Street E



Lanes, Volumes, Timings
8: Meadowridge Drive & Dundas Street E

06-28-2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  						 	
Traffic Volume (vph)	30	3208	82	104	1464	41	59	0	310	197	0	93
Future Volume (vph)	30	3208	82	104	1464	41	59	0	310	197	0	93
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)		0%			0%			0%			0%	
Storage Length (m)	80.0		80.0	140.0		70.0	25.0		25.0	15.0		15.0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Satd. Flow (prot)	1785	5079	1541	1767	4681	1597	1750	1879	1597	1785	1879	1597
Flt Permitted	0.168			0.045			0.757			0.757		
Satd. Flow (perm)	316	5079	1541	84	4681	1597	1394	1879	1597	1422	1879	1597
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			66			41			118			85
Link Speed (k/h)		70			70			50				50
Link Distance (m)		572.2			334.1			216.4				176.9
Travel Time (s)		29.4			17.2			15.6				12.7
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour 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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	2%	1%	9%	0%	2%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	4	0	4	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%				0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	30	3208	82	104	1464	41	59	0	310	197	0	93
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)		3.5			3.5			3.5				3.5
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		4.8			4.8			4.8				4.8
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.04	1.01	1.02	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	Perm		Perm	Perm		Perm
Protected Phases		2		1	6			4				8
Permitted Phases	2		2	6		6	4		4	8		8
Detector Phase	2	2	2	1	6	6	4	4	4	8	8	8
Switch Phase												
Minimum Initial (s)	20.0	20.0	20.0	7.0	20.0	20.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	26.7	26.7	26.7	11.5	28.4	28.4	24.9	24.9	24.9	24.9	24.9	24.9
Total Split (s)	90.0	90.0	90.0	14.0	104.0	104.0	26.0	26.0	26.0	26.0	26.0	26.0
Total Split (%)	69.2%	69.2%	69.2%	10.8%	80.0%	80.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%
Maximum Green (s)	83.3	83.3	83.3	10.0	97.3	97.3	19.1	19.1	19.1	19.1	19.1	19.1
Yellow Time (s)	4.2	4.2	4.2	3.0	4.2	4.2	3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	2.5	2.5	2.5	1.0	2.5	2.5	3.6	3.6	3.6	3.6	3.6	3.6
Lost Time Adjust (s)	0.0	-1.7	-1.7	-3.0	-1.7	0.0	-1.9	0.0	-1.9	0.0	0.0	0.0
Total Lost Time (s)	6.7	5.0	5.0	1.0	5.0	6.7	5.0	6.9	5.0	6.9	6.9	6.9

Lanes, Volumes, Timings
8: Meadowridge Drive & Dundas Street E

06-28-2022

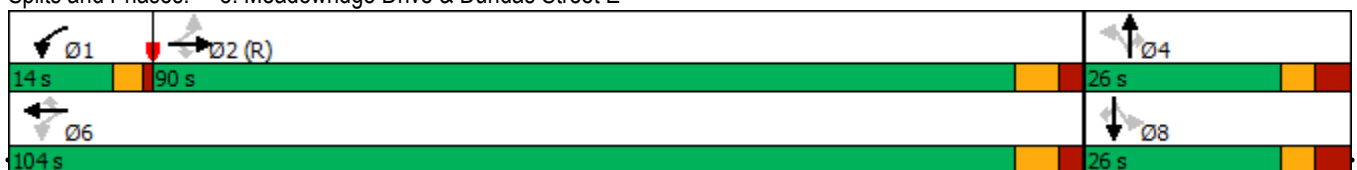


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lead/Lag	Lag	Lag	Lag	Lead								
Lead-Lag Optimize?	Yes	Yes	Yes	Yes								
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	C-Max	C-Max	C-Max	None	Max	Max	None	None	None	None	None	None
Walk Time (s)	7.0	7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0		11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0		0	0	0	0	0	0	0	0
Act Effct Green (s)	84.9	86.6	86.6	103.0	99.0	97.3	21.0		21.0	19.1		19.1
Actuated g/C Ratio	0.65	0.67	0.67	0.79	0.76	0.75	0.16		0.16	0.15		0.15
v/c Ratio	0.15	0.95	0.08	0.49	0.41	0.03	0.26		0.87	0.95		0.30
Control Delay	5.7	10.9	0.3	31.1	2.9	0.1	51.3		57.2	105.0		14.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0		35.3	45.3		0.0
Total Delay	5.7	10.9	0.3	31.1	2.9	0.1	51.3		92.5	150.3		14.8
LOS	A	B	A	C	A	A	D		F	F		B
Approach Delay		10.6			4.6			85.9				106.8
Approach LOS		B			A			F				F
Queue Length 50th (m)	1.6	62.7	0.2	5.8	5.1	0.0	14.1		52.6	53.4		1.9
Queue Length 95th (m)	m1.6	m63.4	m0.2	20.7	6.1	0.3	28.2		#105.0	#102.3		17.8
Internal Link Dist (m)		548.2			310.1			192.4				152.9
Turn Bay Length (m)	80.0		80.0	140.0		70.0	25.0		25.0	15.0		15.0
Base Capacity (vph)	206	3381	1048	234	3564	1205	225		356	208		307
Starvation Cap Reductn	0	0	0	0	0	0	0		0	0		0
Spillback Cap Reductn	0	0	0	0	0	0	0		62	44		0
Storage Cap Reductn	0	0	0	0	0	0	0		0	0		0
Reduced v/c Ratio	0.15	0.95	0.08	0.44	0.41	0.03	0.26		1.05	1.20		0.30

Intersection Summary

Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 70 (54%), Referenced to phase 2:EBTL, Start of Green
 Natural Cycle: 110
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.95
 Intersection Signal Delay: 18.9 Intersection LOS: B
 Intersection Capacity Utilization 106.2% ICU Level of Service G
 Analysis Period (min) 15
 # 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.

Splits and Phases: 8: Meadowridge Drive & Dundas Street E



2027 Future Background AM Peak 1:06 pm 06-27-2022 Baseline

Lanes, Volumes, Timings
 10: Dundas Street E & William Cutmore Blvd

06-28-2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	40	3676	1536	69	201	113
Future Volume (vph)	40	3676	1536	69	201	113
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)		0%	0%		0%	
Storage Length (m)	100.0			85.0	45.0	0.0
Storage Lanes	1			1	1	1
Taper Length (m)	7.5				7.5	
Satd. Flow (prot)	1785	5051	4706	1572	1785	1597
Flt Permitted	0.144				0.950	
Satd. Flow (perm)	271	5051	4706	1572	1785	1597
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				69		80
Link Speed (k/h)		70	70		50	
Link Distance (m)		334.1	505.1		180.3	
Travel Time (s)		17.2	26.0		13.0	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	9%	0%	0%	0%
Bus Blockages (#/hr)	0	4	0	4	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	40	3676	1536	69	201	113
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.5	3.5		3.5	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.01	1.02	1.01	1.04	1.01	1.01
Turning Speed (k/h)	25			15	25	15
Turn Type	Perm	NA	NA	Perm	Prot	Perm
Protected Phases		2	6		4	
Permitted Phases	2			6		4
Detector Phase	2	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	20.0	20.0	20.0	20.0	10.0	10.0
Minimum Split (s)	24.5	24.5	24.5	24.5	22.5	22.5
Total Split (s)	106.0	106.0	106.0	106.0	24.0	24.0
Total Split (%)	81.5%	81.5%	81.5%	81.5%	18.5%	18.5%
Maximum Green (s)	101.5	101.5	101.5	101.5	19.5	19.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5

Lanes, Volumes, Timings
14: Ninth Line & Dundas Street E

06-28-2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	259	3126	515	141	1232	143	256	367	179	213	609	119
Future Volume (vph)	259	3126	515	141	1232	143	256	367	179	213	609	119
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)		0%			0%			0%			0%	
Storage Length (m)	225.0		85.0	230.0		85.0	160.0		130.0	130.0		55.0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Satd. Flow (prot)	1785	5079	1572	1750	4706	1572	1594	3500	1551	1785	3570	1597
Flt Permitted	0.144			0.067			0.195			0.413		
Satd. Flow (perm)	271	5079	1572	123	4706	1572	327	3500	1551	776	3570	1597
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			234			143			147			119
Link Speed (k/h)		70			70			60			60	
Link Distance (m)		505.1			255.3			487.3			810.8	
Travel Time (s)		26.0			13.1			29.2			48.6	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour 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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	2%	9%	0%	12%	2%	3%	0%	0%	0%
Bus Blockages (#/hr)	0	0	4	0	0	4	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	259	3126	515	141	1232	143	256	367	179	213	609	119
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)		3.5			3.5			3.5			3.5	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.04	1.01	1.01	1.04	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2		2	6		6	4		4	8		8
Detector Phase	5	2	2	1	6	6	7	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	20.0	20.0	7.0	20.0	20.0
Minimum Split (s)	11.0	45.3	45.3	11.0	45.3	45.3	11.0	47.5	47.5	11.0	47.5	47.5
Total Split (s)	11.0	60.0	60.0	11.0	60.0	60.0	11.0	48.0	48.0	11.0	48.0	48.0
Total Split (%)	8.5%	46.2%	46.2%	8.5%	46.2%	46.2%	8.5%	36.9%	36.9%	8.5%	36.9%	36.9%
Maximum Green (s)	7.0	53.7	53.7	7.0	53.7	53.7	7.0	41.5	41.5	7.0	41.5	41.5
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7
All-Red Time (s)	1.0	2.6	2.6	1.0	2.6	2.6	1.0	2.8	2.8	1.0	2.8	2.8
Lost Time Adjust (s)	-3.0	-1.3	-1.3	-3.0	-1.3	-1.3	-3.0	-1.5	-1.5	-3.0	-1.5	-1.5
Total Lost Time (s)	1.0	5.0	5.0	1.0	5.0	5.0	1.0	5.0	5.0	1.0	5.0	5.0

Lanes, Volumes, Timings

14: Ninth Line & Dundas Street E

06-28-2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	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	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	C-Max	C-Max	None	Max	Max	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		32.0	32.0		32.0	32.0		34.0	34.0		34.0	34.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	83.1	64.1	64.1	76.2	58.0	58.0	43.7	29.7	29.7	43.7	29.7	29.7
Actuated g/C Ratio	0.64	0.49	0.49	0.59	0.45	0.45	0.34	0.23	0.23	0.34	0.23	0.23
v/c Ratio	0.63	1.25	0.58	0.57	0.59	0.18	1.24	0.46	0.38	0.63	0.75	0.26
Control Delay	24.9	143.5	16.8	32.0	28.9	4.1	172.9	44.4	11.7	40.5	52.3	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	0.0
Total Delay	24.9	143.5	16.8	32.0	28.9	4.1	172.9	44.4	11.7	40.5	52.3	7.7
LOS	C	F	B	C	C	A	F	D	B	D	D	A
Approach Delay		118.9			26.8			78.1			44.0	
Approach LOS		F			C			E			D	
Queue Length 50th (m)	40.4	~386.9	50.5	19.1	91.0	0.0	~60.5	45.1	6.8	42.5	80.7	0.0
Queue Length 95th (m)	m51.3	#447.7	m65.9	41.7	109.8	12.8	#108.1	56.8	25.6	59.2	95.5	14.9
Internal Link Dist (m)		481.1			231.3			463.3			786.8	
Turn Bay Length (m)	225.0		85.0	230.0		85.0	160.0		130.0	130.0		55.0
Base Capacity (vph)	408	2502	893	249	2100	780	207	1157	611	338	1180	607
Starvation Cap Reductn	0	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	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.63	1.25	0.58	0.57	0.59	0.18	1.24	0.32	0.29	0.63	0.52	0.20

Intersection Summary

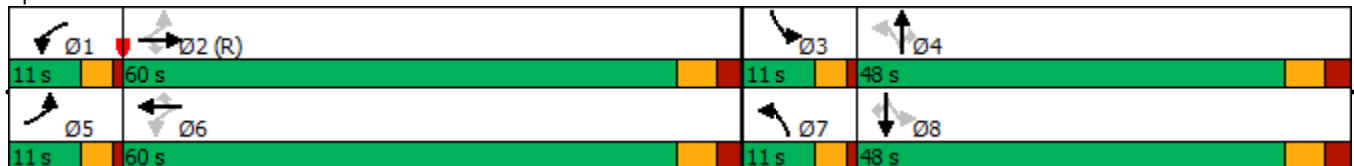
Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 12 (9%), Referenced to phase 2:EBTL, Start of Green
 Natural Cycle: 145
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.25
 Intersection Signal Delay: 85.0
 Intersection LOS: F
 Intersection Capacity Utilization 114.2%
 ICU Level of Service H
 Analysis Period (min) 15

~ 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.

Splits and Phases: 14: Ninth Line & Dundas Street E































HCM Unsignalized Intersection Capacity Analysis
 12: Eighth Line/Threshing Mill Blvd & Wheat Boom Drive

06-28-2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	74	29	85	203	71	12	66	48	14	232	0
Future Volume (Veh/h)	0	74	29	85	203	71	12	66	48	14	232	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour 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
Hourly flow rate (vph)	0	74	29	85	203	71	12	66	48	14	232	0
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type												
Median storage veh												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	546	398	232	440	374	90	232			114		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	546	398	232	440	374	90	232			114		
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 %	100	86	96	81	63	93	99			99		
cM capacity (veh/h)	294	533	812	451	550	973	1348			1488		
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1							
Volume Total	0	103	359	126	246							
Volume Left	0	0	85	12	14							
Volume Right	0	29	71	48	0							
cSH	1700	590	569	1348	1488							
Volume to Capacity	0.00	0.17	0.63	0.01	0.01							
Queue Length 95th (m)	0.0	5.0	35.1	0.2	0.2							
Control Delay (s)	0.0	12.4	21.5	0.8	0.5							
Lane LOS	A	B	C	A	A							
Approach Delay (s)	12.4		21.5	0.8	0.5							
Approach LOS	B		C									
Intersection Summary												
Average Delay			11.1									
Intersection Capacity Utilization			48.4%		ICU Level of Service					A		
Analysis Period (min)			15									

Lanes, Volumes, Timings
3: Eighth Line & Dundas Street E

06-27-2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  							
Traffic Volume (vph)	94	1942	212	240	3155	150	192	89	165	80	43	27
Future Volume (vph)	94	1942	212	240	3155	150	192	89	165	80	43	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)		0%			0%			0%			0%	
Storage Length (m)	115.0		75.0	155.0		85.0	45.0		0.0	45.0		0.0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Satd. Flow (prot)	1785	4980	1541	1785	5079	1572	1767	1824	1597	1785	1879	1597
Flt Permitted	0.058			0.057			0.729			0.664		
Satd. Flow (perm)	109	4980	1541	107	5079	1572	1356	1824	1597	1248	1879	1597
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			179			87			110			67
Link Speed (k/h)		70			70			50				50
Link Distance (m)		310.7			586.1			253.5				312.8
Travel Time (s)		16.0			30.1			18.3				22.5
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour 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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	3%	2%	0%	1%	0%	1%	3%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	4	0	0	4	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%				0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	94	1942	212	240	3155	150	192	89	165	80	43	27
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)		3.5			3.5			3.5				3.5
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		4.8			4.8			4.8				4.8
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.04	1.01	1.01	1.04	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			8				4
Permitted Phases	2		2	6		6	8		8	4		4
Detector Phase	5	2	2	1	6	6	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	11.0	38.0	38.0	11.0	38.0	38.0	46.0	46.0	46.0	46.0	46.0	46.0
Total Split (s)	11.0	73.0	73.0	11.0	73.0	73.0	46.0	46.0	46.0	46.0	46.0	46.0
Total Split (%)	8.5%	56.2%	56.2%	8.5%	56.2%	56.2%	35.4%	35.4%	35.4%	35.4%	35.4%	35.4%
Maximum Green (s)	7.0	66.0	66.0	7.0	66.0	66.0	39.0	39.0	39.0	39.0	39.0	39.0
Yellow Time (s)	3.0	3.3	3.3	3.0	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	1.0	3.7	3.7	1.0	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
Lost Time Adjust (s)	-3.0	-1.7	-1.7	-3.0	-1.7	-1.7	-3.0	-3.0	-3.0	-3.0	-3.0	-3.0
Total Lost Time (s)	1.0	5.3	5.3	1.0	5.3	5.3	4.0	4.0	4.0	4.0	4.0	4.0

Lanes, Volumes, Timings
3: Eighth Line & Dundas Street E

06-27-2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	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	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	C-Max	C-Max	None	Max	Max	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)		24.0	24.0		24.0	24.0	32.0	32.0	32.0	32.0	32.0	32.0
Pedestrian Calls (#/hr)		0	0		0	0	0	0	0	0	0	0
Act Effct Green (s)	84.0	68.0	68.0	97.9	81.0	81.0	27.0	27.0	27.0	27.0	27.0	27.0
Actuated g/C Ratio	0.65	0.52	0.52	0.75	0.62	0.62	0.21	0.21	0.21	0.21	0.21	0.21
v/c Ratio	0.43	0.75	0.24	0.60	1.00	0.15	0.68	0.24	0.39	0.31	0.11	0.07
Control Delay	21.8	26.6	4.2	39.7	26.5	8.6	59.2	42.4	17.5	44.8	39.4	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.8	26.6	4.2	39.7	26.5	8.6	59.2	42.4	17.5	44.8	39.4	0.4
LOS	C	C	A	D	C	A	E	D	B	D	D	A
Approach Delay		24.3			26.6			40.4				35.2
Approach LOS		C			C			D				D
Queue Length 50th (m)	6.4	145.9	4.2	53.0	148.0	9.0	48.3	20.2	12.3	18.5	9.5	0.0
Queue Length 95th (m)	23.3	165.2	17.0	m#48.7	m#312.9	m#7.9	69.0	32.8	30.1	30.9	18.4	0.0
Internal Link Dist (m)		286.7			562.1			229.5				288.8
Turn Bay Length (m)	115.0		75.0	155.0		85.0	45.0			45.0		
Base Capacity (vph)	221	2603	891	400	3164	1012	438	589	590	403	607	561
Starvation Cap Reductn	0	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	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.75	0.24	0.60	1.00	0.15	0.44	0.15	0.28	0.20	0.07	0.05

Intersection Summary

Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 3 (2%), Referenced to phase 2:EBTL, Start of Green
 Natural Cycle: 145
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.00
 Intersection Signal Delay: 27.0 Intersection LOS: C
 Intersection Capacity Utilization 95.2% ICU Level of Service F
 Analysis Period (min) 15
 # 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.

Splits and Phases: 3: Eighth Line & Dundas Street E































Future Background PM Peak 1:06 pm 06-27-2022 Baseline

Lanes, Volumes, Timings

6: Prince Michael Drive/John McKay Boulevard & Dundas Street E

06-27-2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  						 	
Traffic Volume (vph)	218	1774	176	266	3212	281	192	4	100	251	9	125
Future Volume (vph)	218	1774	176	266	3212	281	192	4	100	251	9	125
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)		0%			0%			0%			0%	
Storage Length (m)	120.0		75.0	125.0		85.0	65.0		0.0	15.0		15.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Satd. Flow (prot)	1785	4980	1541	1785	5051	1597	1785	1608	0	1785	1879	1597
Flt Permitted	0.064			0.067			0.752			0.619		
Satd. Flow (perm)	120	4980	1541	126	5051	1597	1413	1608	0	1163	1879	1597
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			176			171			100			125
Link Speed (k/h)		70			70			50			50	
Link Distance (m)		586.1			572.2			226.5			193.9	
Travel Time (s)		30.1			29.4			16.3			14.0	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour 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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	3%	2%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	4	0	4	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	218	1774	176	266	3212	281	192	104	0	251	9	125
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)		3.5			3.5			3.5			3.5	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.04	1.01	1.02	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA		pm+pt	NA	Perm
Protected Phases	5	2		1	6			4		3	8	
Permitted Phases	2		2	6		6	4			8		8
Detector Phase	5	2	2	1	6	6	4	4		3	8	8
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	10.0	10.0		6.5	10.0	10.0
Minimum Split (s)	11.0	26.8	26.8	11.0	26.8	26.8	23.5	23.5		11.0	22.5	22.5
Total Split (s)	17.0	79.5	79.5	16.0	78.5	78.5	23.5	23.5		11.0	34.5	34.5
Total Split (%)	13.1%	61.2%	61.2%	12.3%	60.4%	60.4%	18.1%	18.1%		8.5%	26.5%	26.5%
Maximum Green (s)	13.0	72.7	72.7	12.0	71.7	71.7	19.0	19.0		7.0	30.0	30.0
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2	4.2	3.5	3.5		3.0	3.5	3.5
All-Red Time (s)	1.0	2.6	2.6	1.0	2.6	2.6	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	-1.8	-1.8	-3.0	-1.8	0.0	-1.9	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.0	5.0	5.0	1.0	5.0	6.8	2.6	4.5		4.0	4.5	4.5

Lanes, Volumes, Timings

6: Prince Michael Drive/John McKay Boulevard & Dundas Street E

06-27-2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lead		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
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Recall Mode	None	C-Max	C-Max	None	Max	Max	None	None		None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0	7.0	7.0			7.0	7.0
Flash Dont Walk (s)		11.0	11.0		11.0	11.0	11.0	11.0			11.0	11.0
Pedestrian Calls (#/hr)		0	0		0	0	0	0			0	0
Act Effct Green (s)	75.5	74.5	74.5	78.3	74.3	72.5	20.3	18.4		29.7	29.2	29.2
Actuated g/C Ratio	0.58	0.57	0.57	0.60	0.57	0.56	0.16	0.14		0.23	0.22	0.22
v/c Ratio	0.92	0.62	0.18	0.96	1.11	0.29	0.87	0.33		0.84	0.02	0.27
Control Delay	64.0	8.7	0.5	48.4	69.4	1.9	88.1	13.2		73.5	39.0	8.3
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	64.0	8.7	0.5	48.4	69.4	1.9	88.1	13.2		73.5	39.0	8.3
LOS	E	A	A	D	E	A	F	B		E	D	A
Approach Delay		13.6			62.9			61.7			51.5	
Approach LOS		B			E			E			D	
Queue Length 50th (m)	42.7	34.4	0.0	53.0	~375.4	8.8	50.9	0.9		60.7	1.9	0.0
Queue Length 95th (m)	m#82.3	39.3	m0.9	m51.9	m#360.0	m8.5	#93.8	17.9		#104.5	6.8	16.4
Internal Link Dist (m)		562.1			548.2			202.5			169.9	
Turn Bay Length (m)	120.0		75.0	125.0		85.0	65.0			15.0		15.0
Base Capacity (vph)	236	2853	958	276	2885	965	227	320		301	433	464
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	0.92	0.62	0.18	0.96	1.11	0.29	0.85	0.33		0.83	0.02	0.27

Intersection Summary






























Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 11.8 (9%), Referenced to phase 2:EBTL, Start of Green
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.11
 Intersection Signal Delay: 46.0 Intersection LOS: D
 Intersection Capacity Utilization 106.0% ICU Level of Service G
 Analysis Period (min) 15
 ~ 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.

Splits and Phases: 6: Prince Michael Drive/John McKay Boulevard & Dundas Street E



Lanes, Volumes, Timings
8: Meadowridge Drive & Dundas Street E

06-27-2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  						 	
Traffic Volume (vph)	124	1863	166	258	3722	127	47	0	163	130	0	74
Future Volume (vph)	124	1863	166	258	3722	127	47	0	163	130	0	74
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)		0%			0%			0%			0%	
Storage Length (m)	80.0		80.0	140.0		70.0	25.0		25.0	15.0		15.0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Satd. Flow (prot)	1785	4980	1572	1785	5051	1597	1785	1879	1597	1785	1879	1597
Flt Permitted	0.045			0.087			0.757			0.757		
Satd. Flow (perm)	85	4980	1572	163	5051	1597	1422	1879	1597	1422	1879	1597
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			166			81			107			79
Link Speed (k/h)		70			70			50				50
Link Distance (m)		572.2			334.1			216.4				176.0
Travel Time (s)		29.4			17.2			15.6				12.7
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour 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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	3%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	4	0	4	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%				0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	124	1863	166	258	3722	127	47	0	163	130	0	74
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)		3.5			3.5			3.5				3.5
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		4.8			4.8			4.8				4.8
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.04	1.01	1.02	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm		Perm	Perm		Perm
Protected Phases	5	2		1	6			4				8
Permitted Phases	2		2	6		6	4		4	8		8
Detector Phase	5	2	2	1	6	6	4	4	4	8	8	8
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	11.0	26.7	26.7	11.0	28.4	28.4	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	11.0	96.5	96.5	11.0	96.5	96.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (%)	8.5%	74.2%	74.2%	8.5%	74.2%	74.2%	17.3%	17.3%	17.3%	17.3%	17.3%	17.3%
Maximum Green (s)	7.0	89.8	89.8	7.0	89.8	89.8	18.0	18.0	18.0	18.0	18.0	18.0
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2	4.2	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	2.5	2.5	1.0	2.5	2.5	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	-1.7	-1.7	-3.0	-1.7	0.0	-1.9	0.0	-1.9	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.0	5.0	1.0	5.0	6.7	2.6	4.5	2.6	4.5	4.5	4.5

Lanes, Volumes, Timings
8: Meadowridge Drive & Dundas Street E

06-27-2022

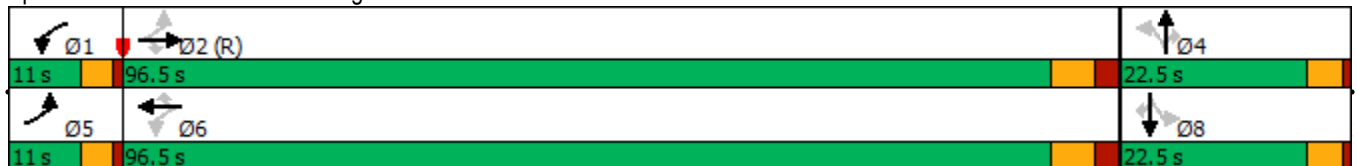


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	C-Max	C-Max	None	Max	Max	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)		11.0	11.0		11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)		0	0		0	0	0	0	0	0	0	0
Act Effct Green (s)	100.0	91.5	91.5	108.2	93.4	91.7	17.6		17.6	15.7		15.7
Actuated g/C Ratio	0.77	0.70	0.70	0.83	0.72	0.71	0.14		0.14	0.12		0.12
v/c Ratio	0.76	0.53	0.14	0.89	1.03	0.11	0.24		0.53	0.76		0.28
Control Delay	60.2	15.9	2.4	29.1	44.9	5.3	52.5		25.6	82.1		12.4
Queue Delay	0.0	0.0	0.0	0.0	12.3	0.0	0.0		0.0	0.0		0.0
Total Delay	60.2	15.9	2.4	29.1	57.2	5.3	52.5		25.6	82.1		12.4
LOS	E	B	A	C	E	A	D		C	F		B
Approach Delay		17.4			53.9			31.6				56.8
Approach LOS		B			D			C				E
Queue Length 50th (m)	13.9	160.6	2.7	33.4	~394.5	6.9	11.3		13.5	33.9		0.0
Queue Length 95th (m)	m#44.9	173.5	m7.7	m25.1	m318.3	m5.5	23.6		36.6	#60.3		13.2
Internal Link Dist (m)		548.2			310.1			192.4				152.0
Turn Bay Length (m)	80.0		80.0	140.0		70.0	25.0		25.0	15.0		15.0
Base Capacity (vph)	163	3505	1155	289	3627	1150	217		335	196		289
Starvation Cap Reductn	0	0	0	0	107	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	0.76	0.53	0.14	0.89	1.06	0.11	0.22		0.49	0.66		0.26

Intersection Summary

Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 75 (58%), Referenced to phase 2:EBTL, Start of Green
 Natural Cycle: 140
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.03
 Intersection Signal Delay: 41.5 Intersection LOS: D
 Intersection Capacity Utilization 103.9% ICU Level of Service G
 Analysis Period (min) 15
 ~ 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.

Splits and Phases: 8: Meadowridge Drive & Dundas Street E



Lanes, Volumes, Timings
 10: Dundas Street E & William Cutmore Blvd

06-27-2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↗	↑↑↑	↑↑↑	↖	↘	↘
Traffic Volume (vph)	123	2048	4142	216	144	83
Future Volume (vph)	123	2048	4142	216	144	83
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)		0%	0%		0%	
Storage Length (m)	100.0			85.0	45.0	0.0
Storage Lanes	1			1	1	1
Taper Length (m)	7.5				7.5	
Satd. Flow (prot)	1785	4953	5079	1572	1785	1597
Flt Permitted	0.041				0.950	
Satd. Flow (perm)	77	4953	5079	1572	1785	1597
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				155		78
Link Speed (k/h)		70	70		50	
Link Distance (m)		334.1	505.1		180.3	
Travel Time (s)		17.2	26.0		13.0	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	3%	1%	0%	0%	0%
Bus Blockages (#/hr)	0	4	0	4	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	123	2048	4142	216	144	83
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.5	3.5		3.5	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.01	1.02	1.01	1.04	1.01	1.01
Turning Speed (k/h)	25			15	25	15
Turn Type	pm+pt	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases	2			6		4
Detector Phase	5	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	7.0	20.0	20.0	20.0	10.0	10.0
Minimum Split (s)	11.0	24.5	24.5	24.5	22.5	22.5
Total Split (s)	11.0	107.0	96.0	96.0	23.0	23.0
Total Split (%)	8.5%	82.3%	73.8%	73.8%	17.7%	17.7%
Maximum Green (s)	7.0	102.5	91.5	91.5	18.5	18.5
Yellow Time (s)	3.0	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.5	4.5	4.5	4.5	4.5

Lanes, Volumes, Timings
14: Ninth Line & Dundas Street E

06-27-2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	154	1749	288	165	3588	156	529	818	621	122	350	240
Future Volume (vph)	154	1749	288	165	3588	156	529	818	621	122	350	240
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)		0%			0%			0%			0%	
Storage Length (m)	225.0		85.0	230.0		85.0	160.0		130.0	130.0		55.0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Satd. Flow (prot)	1785	4980	1541	1750	5079	1572	1750	3535	1521	1750	3535	1597
Flt Permitted	0.071			0.071			0.482			0.171		
Satd. Flow (perm)	133	4980	1541	131	5079	1572	888	3535	1521	315	3535	1597
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			251			97			153			120
Link Speed (k/h)		70			70			60			60	
Link Distance (m)		505.1			255.3			487.3			810.8	
Travel Time (s)		26.0			13.1			29.2			48.6	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour 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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	3%	2%	2%	1%	0%	2%	1%	5%	2%	1%	0%
Bus Blockages (#/hr)	0	0	4	0	0	4	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	154	1749	288	165	3588	156	529	818	621	122	350	240
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)		3.5			3.5			3.5			3.5	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.04	1.01	1.01	1.04	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2		2	6		6	4		4	8		8
Detector Phase	5	2	2	1	6	6	7	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	20.0	20.0	7.0	20.0	20.0
Minimum Split (s)	11.0	45.3	45.3	11.0	45.3	45.3	11.0	47.5	47.5	11.0	47.5	47.5
Total Split (s)	11.0	60.0	60.0	11.0	60.0	60.0	11.0	48.0	48.0	11.0	48.0	48.0
Total Split (%)	8.5%	46.2%	46.2%	8.5%	46.2%	46.2%	8.5%	36.9%	36.9%	8.5%	36.9%	36.9%
Maximum Green (s)	7.0	53.7	53.7	7.0	53.7	53.7	7.0	41.5	41.5	7.0	41.5	41.5
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7
All-Red Time (s)	1.0	2.6	2.6	1.0	2.6	2.6	1.0	2.8	2.8	1.0	2.8	2.8
Lost Time Adjust (s)	-3.0	-1.3	-1.3	-3.0	-1.3	-1.3	-3.0	-1.5	-1.5	-3.0	-1.5	-1.5
Total Lost Time (s)	1.0	5.0	5.0	1.0	5.0	5.0	1.0	5.0	5.0	1.0	5.0	5.0

Lanes, Volumes, Timings
14: Ninth Line & Dundas Street E

06-27-2022

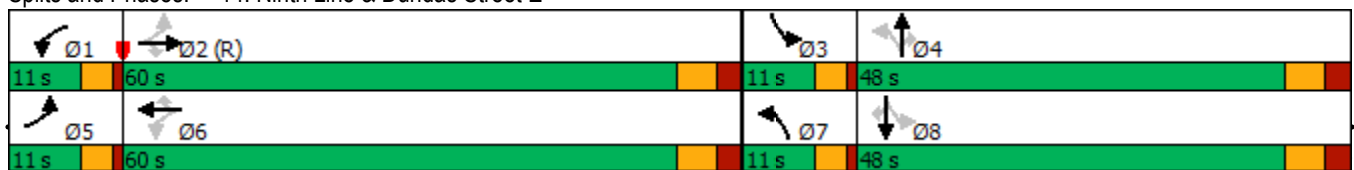


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	C-Max	C-Max	None	Max	Max	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		32.0	32.0		32.0	32.0		34.0	34.0		34.0	34.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	69.0	55.0	55.0	69.0	55.0	55.0	57.0	43.0	43.0	57.0	43.0	43.0
Actuated g/C Ratio	0.53	0.42	0.42	0.53	0.42	0.42	0.44	0.33	0.33	0.44	0.33	0.33
v/c Ratio	0.78	0.83	0.36	0.85	1.67	0.22	1.16	0.70	1.03	0.49	0.30	0.39
Control Delay	62.6	17.6	2.9	62.9	331.6	10.2	126.6	41.7	76.0	28.5	33.2	18.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.6	17.6	2.9	62.9	331.6	10.2	126.6	41.7	76.0	28.5	33.2	18.3
LOS	E	B	A	E	F	B	F	D	E	C	C	B
Approach Delay		18.8			307.4			75.4			27.4	
Approach LOS		B			F			E			C	
Queue Length 50th (m)	27.4	63.9	4.9	27.2	~515.8	9.4	~139.2	100.7	~148.9	19.2	36.8	23.6
Queue Length 95th (m)	#60.3	76.4	6.9	#67.9	#537.9	24.0	#239.3	124.6	#224.0	32.4	50.2	47.5
Internal Link Dist (m)		481.1			231.3			463.3			786.8	
Turn Bay Length (m)	225.0		85.0	230.0		85.0	160.0		130.0	130.0		55.0
Base Capacity (vph)	197	2106	796	194	2148	721	455	1169	605	248	1169	608
Starvation Cap Reductn	0	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	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.78	0.83	0.36	0.85	1.67	0.22	1.16	0.70	1.03	0.49	0.30	0.39

Intersection Summary

Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 12 (9%), Referenced to phase 2:EBTL, Start of Green
 Natural Cycle: 145
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.67
 Intersection Signal Delay: 160.7 Intersection LOS: F
 Intersection Capacity Utilization 138.8% ICU Level of Service H
 Analysis Period (min) 15
 ~ 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.

Splits and Phases: 14: Ninth Line & Dundas Street E



HCM Unsignalized Intersection Capacity Analysis
 12: Eighth Line/Threshing Mill Blvd & Wheat Boom Drive

06-27-2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	256	20	55	134	44	34	154	159	45	82	0
Future Volume (Veh/h)	0	256	20	55	134	44	34	154	159	45	82	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour 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
Hourly flow rate (vph)	0	256	20	55	134	44	34	154	159	45	82	0
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type												
Median storage veh												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	584	553	82	622	474	234	82			313		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	584	553	82	622	474	234	82			313		
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 %	100	39	98	72	71	95	98			96		
cM capacity (veh/h)	300	418	983	194	464	811	1528			1259		
Direction, Lane #												
	EB 1	EB 2	WB 1	NB 1	SB 1							
Volume Total	0	276	233	347	127							
Volume Left	0	0	55	34	45							
Volume Right	0	20	44	159	0							
cSH	1700	437	372	1528	1259							
Volume to Capacity	0.00	0.63	0.63	0.02	0.04							
Queue Length 95th (m)	0.0	34.0	32.6	0.5	0.9							
Control Delay (s)	0.0	26.4	29.6	0.9	3.0							
Lane LOS	A	D	D	A	A							
Approach Delay (s)	26.4		29.6	0.9	3.0							
Approach LOS	D		D									
Intersection Summary												
Average Delay			15.1									
Intersection Capacity Utilization			58.1%		ICU Level of Service					B		
Analysis Period (min)			15									

Appendix E

2016 TTS Data Analysis

Mode of Transportation - AM Peak Period

Cross Tabulation Query Form - Trip - 2016 v1.1

Row: Primary travel mode of trip - mode_prime

Column: 2006 GTA zone of household - gta06_hhld

Filters:

Primary travel mode of trip - mode_prime In B
and

2006 GTA zone of household - gta06_hhld In 4033
and

Start time of trip - start_time In 600-900

Trip 2016

Table:

Mode of Transportation/Traffic Zones	4033	4035	Total	Percentage
Transit excluding GO rail	45	37	82	1%
Auto driver	3712	1277	4989	68%
GO rail only	314	67	381	5%
Joint GO rail and local transit	33	15	48	1%
Auto passenger	1025	190	1215	17%
Walk	448	129	577	8%
Total	5577	1715	7292	100%

Mode of Transportation - PM Peak Period

Cross Tabulation Query Form - Trip - 2016 v1.1

Row: Primary travel mode of trip - mode_prime

Column: 2006 GTA zone of household - gta06_hhld

Filters:

Primary travel mode of trip - mode_prime In B
and

2006 GTA zone of household - gta06_hhld In 4033

and

Start time of trip - start_time In 1600-1900

Trip 2016

Table:

























Mode of Transportation/Traffic Zones	4033	4035	Total	Percentage
Transit excluding GO rail	54	17	71	1%
Cycle	0	17	17	0%
Auto driver	3374	1255	4629	74%
GO rail only	307	67	374	6%
Joint GO rail and local transit	21	25	46	1%
Auto passenger	912	129	1041	17%
Taxi passenger	19	0	19	0%
Walk	43	10	53	1%
Total	4730	1520	6250	100%

Appendix F

Future Total Level of Service Calculations

Lanes, Volumes, Timings
3: Eighth Line & Dundas Street E

06-28-2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	2592	132	111	1705	41	178	40	185	190	112	43
Future Volume (vph)	45	2592	132	111	1705	41	178	40	185	190	112	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)		0%			0%			0%			0%	
Storage Length (m)	115.0		75.0	155.0		85.0	45.0		0.0	45.0		0.0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Satd. Flow (prot)	1638	5079	1526	1785	4706	1572	1785	1789	1566	1785	1842	1597
Flt Permitted	0.105			0.049			0.614			0.731		
Satd. Flow (perm)	181	5079	1526	92	4706	1572	1154	1789	1566	1373	1842	1597
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			80			67			119			67
Link Speed (k/h)		70			70			50				50
Link Distance (m)		310.7			586.1			253.5				312.8
Travel Time (s)		16.0			30.1			18.3				22.5
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour 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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	9%	1%	3%	0%	9%	0%	0%	5%	2%	0%	2%	0%
Bus Blockages (#/hr)	0	0	4	0	0	4	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%				0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	45	2592	132	111	1705	41	178	40	185	190	112	43
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)		3.5			3.5			3.5				3.5
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		4.8			4.8			4.8				4.8
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.04	1.01	1.01	1.04	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			8				4
Permitted Phases	2		2	6		6	8		8	4		4
Detector Phase	5	2	2	1	6	6	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	11.5	38.0	38.0	11.5	38.0	38.0	46.0	46.0	46.0	46.0	46.0	46.0
Total Split (s)	11.7	70.2	70.2	11.7	70.2	70.2	48.1	48.1	48.1	48.1	48.1	48.1
Total Split (%)	9.0%	54.0%	54.0%	9.0%	54.0%	54.0%	37.0%	37.0%	37.0%	37.0%	37.0%	37.0%
Maximum Green (s)	7.7	63.2	63.2	7.7	63.2	63.2	41.1	41.1	41.1	41.1	41.1	41.1
Yellow Time (s)	3.0	3.3	3.3	3.0	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	1.0	3.7	3.7	1.0	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
Lost Time Adjust (s)	-3.0	-2.0	-2.0	-3.0	-2.0	-2.0	-3.0	-3.0	-3.0	-3.0	-3.0	-3.0
Total Lost Time (s)	1.0	5.0	5.0	1.0	5.0	5.0	4.0	4.0	4.0	4.0	4.0	4.0

Lanes, Volumes, Timings
3: Eighth Line & Dundas Street E

06-28-2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	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	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	C-Max	C-Max	None	Max	Max	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)		24.0	24.0		24.0	24.0	32.0	32.0	32.0	32.0	32.0	32.0
Pedestrian Calls (#/hr)		0	0		0	0	0	0	0	0	0	0
Act Effct Green (s)	94.4	80.2	80.2	97.6	84.8	84.8	27.2	27.2	27.2	27.2	27.2	27.2
Actuated g/C Ratio	0.73	0.62	0.62	0.75	0.65	0.65	0.21	0.21	0.21	0.21	0.21	0.21
v/c Ratio	0.18	0.83	0.14	0.48	0.56	0.04	0.74	0.11	0.44	0.66	0.29	0.11
Control Delay	7.3	24.0	6.2	17.4	15.9	3.0	65.4	39.0	18.7	57.5	43.4	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	0.0
Total Delay	7.3	24.0	6.2	17.4	15.9	3.0	65.4	39.0	18.7	57.5	43.4	3.7
LOS	A	C	A	B	B	A	E	D	B	E	D	A
Approach Delay		22.9			15.7			41.3				46.2
Approach LOS		C			B			D				D
Queue Length 50th (m)	2.7	186.1	5.2	8.8	110.0	0.8	45.3	8.8	14.8	47.4	25.6	0.0
Queue Length 95th (m)	7.8	#293.6	17.9	28.0	144.7	m5.2	66.5	17.6	34.4	67.7	39.7	4.5
Internal Link Dist (m)		286.7			562.1			229.5			288.8	
Turn Bay Length (m)	115.0		75.0	155.0		85.0	45.0			45.0		
Base Capacity (vph)	252	3134	972	236	3071	1049	391	606	609	465	624	586
Starvation Cap Reductn	0	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	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.83	0.14	0.47	0.56	0.04	0.46	0.07	0.30	0.41	0.18	0.07

Intersection Summary

Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 23 (18%), Referenced to phase 2:EBTL, Start of Green
 Natural Cycle: 120
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.83
 Intersection Signal Delay: 23.3 Intersection LOS: C
 Intersection Capacity Utilization 84.3% ICU Level of Service E
 Analysis Period (min) 15
 # 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.

Splits and Phases: 3: Eighth Line & Dundas Street E



2027 Future Total AM Peak 1:06 pm 06-27-2022 Baseline

Lanes, Volumes, Timings

6: Prince Michael Drive/John McKay Boulevard & Dundas Street E

06-28-2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	71	2794	125	69	1435	100	128	1	200	420	14	213
Future Volume (vph)	71	2794	125	69	1435	100	128	1	200	420	14	213
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)		0%			0%			0%			0%	
Storage Length (m)	120.0		75.0	125.0		85.0	65.0		0.0	15.0		15.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Satd. Flow (prot)	1785	5079	1511	1785	4596	1597	1767	1583	0	1785	1879	1597
Flt Permitted	0.160			0.053			0.748			0.202		
Satd. Flow (perm)	301	5079	1511	100	4596	1597	1391	1583	0	380	1879	1597
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			78			100			94			52
Link Speed (k/h)		70			70			50				50
Link Distance (m)		586.1			572.2			226.5				194.2
Travel Time (s)		30.1			29.4			16.3				14.0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour 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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	4%	0%	11%	0%	1%	0%	1%	0%	0%	0%
Bus Blockages (#/hr)	0	0	4	0	4	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%				0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	71	2794	125	69	1435	100	128	201	0	420	14	213
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)		3.5			3.5			3.5				3.5
Link Offset(m)		0.0			0.0			0.0				0.0
Crosswalk Width(m)		4.8			4.8			4.8				4.8
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.04	1.01	1.02	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	Perm	NA		pm+pt	NA	Perm
Protected Phases		2		1	6			4		3	8	
Permitted Phases	2		2	6		6	4			8		8
Detector Phase	2	2	2	1	6	6	4	4		3	8	8
Switch Phase												
Minimum Initial (s)	20.0	20.0	20.0	7.0	20.0	20.0	10.0	10.0		7.0	10.0	10.0
Minimum Split (s)	25.2	25.2	25.2	11.0	25.2	25.2	22.5	22.5		11.0	24.3	24.3
Total Split (s)	72.0	72.0	72.0	11.0	83.0	83.0	23.0	23.0		24.0	47.0	47.0
Total Split (%)	55.4%	55.4%	55.4%	8.5%	63.8%	63.8%	17.7%	17.7%		18.5%	36.2%	36.2%
Maximum Green (s)	66.8	66.8	66.8	7.0	77.8	77.8	18.7	18.7		20.0	42.7	42.7
Yellow Time (s)	4.2	4.2	4.2	3.0	4.2	4.2	3.3	3.3		3.0	3.3	3.3
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	-0.2	-0.2	-3.0	-0.2	0.0	-3.3	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.2	5.0	5.0	1.0	5.0	5.2	1.0	4.3		4.0	4.3	4.3

Lanes, Volumes, Timings

6: Prince Michael Drive/John McKay Boulevard & Dundas Street E

06-28-2022

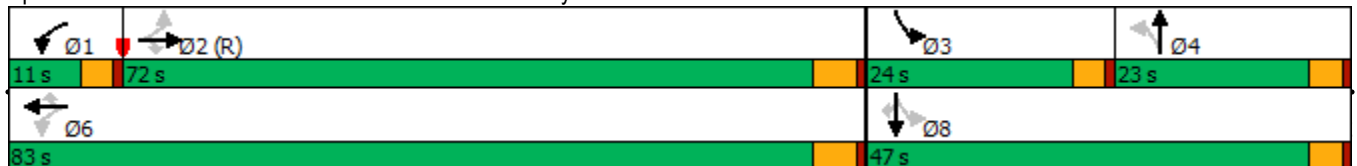


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lead/Lag	Lag	Lag	Lag	Lead			Lag	Lag		Lead		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Recall Mode	C-Max	C-Max	C-Max	None	Max	Max	None	None		None	None	None
Walk Time (s)	7.0	7.0	7.0		7.0	7.0	7.0	7.0			7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0		11.0	11.0	11.0	11.0			11.0	11.0
Pedestrian Calls (#/hr)	0	0	0		0	0	0	0			0	0
Act Effct Green (s)	71.8	72.0	72.0	84.9	80.9	80.7	19.1	15.8		40.1	39.8	39.8
Actuated g/C Ratio	0.55	0.55	0.55	0.65	0.62	0.62	0.15	0.12		0.31	0.31	0.31
v/c Ratio	0.43	0.99	0.14	0.35	0.50	0.10	0.63	0.73		1.26	0.02	0.41
Control Delay	14.8	33.9	1.7	31.2	7.1	0.3	65.5	44.5		173.9	30.1	28.5
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	14.8	33.9	1.7	31.2	7.1	0.3	65.5	44.5		173.9	30.1	28.5
LOS	B	C	A	C	A	A	E	D		F	C	C
Approach Delay		32.1			7.7			52.6			122.9	
Approach LOS		C			A			D			F	
Queue Length 50th (m)	10.0	~301.5	5.3	6.3	41.3	0.1	32.4	27.7		~123.4	2.6	33.4
Queue Length 95th (m)	m7.0	#336.8	m1.1	20.3	46.8	0.4	53.9	55.3		#187.4	7.6	55.6
Internal Link Dist (m)		562.1			548.2			202.5			170.2	
Turn Bay Length (m)	120.0		75.0	125.0		85.0	65.0			15.0		15.0
Base Capacity (vph)	166	2813	871	195	2859	1028	235	308		333	617	559
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	0.43	0.99	0.14	0.35	0.50	0.10	0.54	0.65		1.26	0.02	0.38

Intersection Summary




























Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 60 (46%), Referenced to phase 2:EBTL, Start of Green
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.26
 Intersection Signal Delay: 36.8 Intersection LOS: D
 Intersection Capacity Utilization 105.8% ICU Level of Service G
 Analysis Period (min) 15
 ~ 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.

Splits and Phases: 6: Prince Michael Drive/John McKay Boulevard & Dundas Street E



Lanes, Volumes, Timings
8: Meadowridge Drive & Dundas Street E

06-28-2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  							
Traffic Volume (vph)	30	3224	82	104	1470	46	59	0	310	212	0	93
Future Volume (vph)	30	3224	82	104	1470	46	59	0	310	212	0	93
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)		0%			0%			0%			0%	
Storage Length (m)	80.0		80.0	140.0		70.0	25.0		25.0	15.0		15.0
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Satd. Flow (prot)	1785	5079	1541	1767	4669	0	1750	1879	1597	1785	1879	1597
Flt Permitted	0.159			0.045			0.757			0.757		
Satd. Flow (perm)	299	5079	1541	84	4669	0	1394	1879	1597	1422	1879	1597
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			66		10				118			84
Link Speed (k/h)		70			70			50				50
Link Distance (m)		572.2			334.1			216.4				176.9
Travel Time (s)		29.4			17.2			15.6				12.7
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour 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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	2%	1%	9%	0%	2%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	4	0	4	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	30	3224	82	104	1516	0	59	0	310	212	0	93
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)		3.5			3.5			3.5			3.5	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.04	1.01	1.02	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	Perm	NA	Perm	pm+pt	NA		Perm		Perm	Perm		Perm
Protected Phases		2		1	6			4				8
Permitted Phases	2		2	6			4		4	8		8
Detector Phase	2	2	2	1	6		4	4	4	8	8	8
Switch Phase												
Minimum Initial (s)	20.0	20.0	20.0	7.0	20.0		10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	26.7	26.7	26.7	11.5	28.4		24.9	24.9	24.9	24.9	24.9	24.9
Total Split (s)	90.0	90.0	90.0	14.0	104.0		26.0	26.0	26.0	26.0	26.0	26.0
Total Split (%)	69.2%	69.2%	69.2%	10.8%	80.0%		20.0%	20.0%	20.0%	20.0%	20.0%	20.0%
Maximum Green (s)	83.3	83.3	83.3	10.0	97.3		19.1	19.1	19.1	19.1	19.1	19.1
Yellow Time (s)	4.2	4.2	4.2	3.0	4.2		3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	2.5	2.5	2.5	1.0	2.5		3.6	3.6	3.6	3.6	3.6	3.6
Lost Time Adjust (s)	0.0	-1.7	-1.7	-3.0	-1.7		-1.9	0.0	-1.9	0.0	0.0	0.0
Total Lost Time (s)	6.7	5.0	5.0	1.0	5.0		5.0	6.9	5.0	6.9	6.9	6.9

Lanes, Volumes, Timings

8: Meadowridge Drive & Dundas Street E

06-28-2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lead/Lag	Lag	Lag	Lag	Lead								
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	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	C-Max	C-Max	C-Max	None	Max		None	None	None	None	None	None
Walk Time (s)	7.0	7.0	7.0		7.0		7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0		11.0		11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0		0		0	0	0	0	0	0
Act Effct Green (s)	84.9	86.6	86.6	103.0	99.0		21.0		21.0	19.1		19.1
Actuated g/C Ratio	0.65	0.67	0.67	0.79	0.76		0.16		0.16	0.15		0.15
v/c Ratio	0.15	0.95	0.08	0.49	0.43		0.26		0.87	1.02		0.30
Control Delay	5.7	10.0	0.3	31.3	2.9		51.3		57.2	121.8		15.1
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0		39.1	29.9		0.0
Total Delay	5.7	10.0	0.3	31.3	2.9		51.3		96.3	151.7		15.1
LOS	A	A	A	C	A		D		F	F		B
Approach Delay		9.7			4.8			89.1				110.1
Approach LOS		A			A			F				F
Queue Length 50th (m)	1.7	64.4	0.2	6.0	5.0		14.1		52.6	~59.1		2.1
Queue Length 95th (m)	m1.7	m63.5	m0.2	20.8	6.0		28.2		#105.0	#111.8		18.1
Internal Link Dist (m)		548.2			310.1			192.4				152.9
Turn Bay Length (m)	80.0		80.0	140.0			25.0		25.0	15.0		15.0
Base Capacity (vph)	195	3381	1048	234	3558		225		356	208		306
Starvation Cap Reductn	0	0	0	0	0		0		0	0		0
Spillback Cap Reductn	0	0	0	0	0		0		65	47		0
Storage Cap Reductn	0	0	0	0	0		0		0	0		0
Reduced v/c Ratio	0.15	0.95	0.08	0.44	0.43		0.26		1.07	1.32		0.30

Intersection Summary

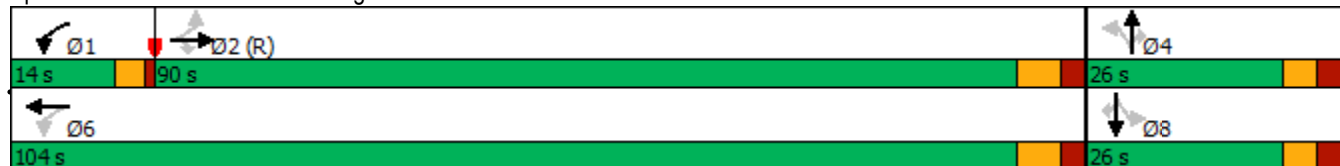
Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 70 (54%), Referenced to phase 2:EBTL, Start of Green
 Natural Cycle: 110
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.02
 Intersection Signal Delay: 18.9 Intersection LOS: B
 Intersection Capacity Utilization 107.3% ICU Level of Service G
 Analysis Period (min) 15

~ 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.

Splits and Phases: 8: Meadowridge Drive & Dundas Street E



Lanes, Volumes, Timings
10: Dundas Street E & William Cutmore Blvd

06-28-2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	40	3707	1547	69	201	113
Future Volume (vph)	40	3707	1547	69	201	113
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)		0%	0%		0%	
Storage Length (m)	100.0			85.0	45.0	0.0
Storage Lanes	1			1	1	1
Taper Length (m)	7.5				7.5	
Satd. Flow (prot)	1785	5051	4706	1572	1785	1597
Flt Permitted	0.142				0.950	
Satd. Flow (perm)	267	5051	4706	1572	1785	1597
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				69		78
Link Speed (k/h)		70	70		50	
Link Distance (m)		334.1	505.1		180.3	
Travel Time (s)		17.2	26.0		13.0	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	9%	0%	0%	0%
Bus Blockages (#/hr)	0	4	0	4	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	40	3707	1547	69	201	113
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.5	3.5		3.5	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.01	1.02	1.01	1.04	1.01	1.01
Turning Speed (k/h)	25			15	25	15
Turn Type	Perm	NA	NA	Perm	Prot	Perm
Protected Phases		2	6		4	
Permitted Phases	2			6		4
Detector Phase	2	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	20.0	20.0	20.0	20.0	10.0	10.0
Minimum Split (s)	24.5	24.5	24.5	24.5	22.5	22.5
Total Split (s)	106.0	106.0	106.0	106.0	24.0	24.0
Total Split (%)	81.5%	81.5%	81.5%	81.5%	18.5%	18.5%
Maximum Green (s)	101.5	101.5	101.5	101.5	19.5	19.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5

Lanes, Volumes, Timings
 10: Dundas Street E & William Cutmore Blvd

06-28-2022

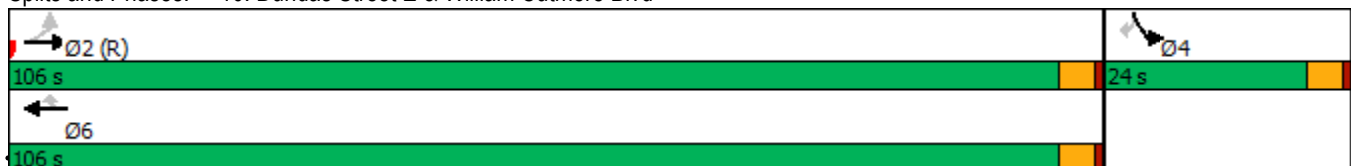


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	C-Max	C-Max	Max	Max	None	None
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0
Act Effct Green (s)	103.1	103.1	103.1	103.1	17.9	17.9
Actuated g/C Ratio	0.79	0.79	0.79	0.79	0.14	0.14
v/c Ratio	0.19	0.93	0.41	0.05	0.82	0.40
Control Delay	6.6	23.8	2.8	0.4	79.8	22.6
Queue Delay	0.0	1.9	0.0	0.0	0.0	0.0
Total Delay	6.6	25.7	2.8	0.4	79.8	22.6
LOS	A	C	A	A	E	C
Approach Delay		25.5	2.7		59.2	
Approach LOS		C	A		E	
Queue Length 50th (m)	2.9	325.4	18.7	0.3	52.6	8.3
Queue Length 95th (m)	m3.5	m342.8	m22.0	m0.1	#88.6	26.9
Internal Link Dist (m)		310.1	481.1		156.3	
Turn Bay Length (m)	100.0			85.0	45.0	
Base Capacity (vph)	211	4005	3732	1260	267	305
Starvation Cap Reductn	0	178	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.97	0.41	0.05	0.75	0.37

Intersection Summary

Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.93
 Intersection Signal Delay: 20.9
 Intersection LOS: C
 Intersection Capacity Utilization 90.3%
 ICU Level of Service E
 Analysis Period (min) 15
 # 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.

Splits and Phases: 10: Dundas Street E & William Cutmore Blvd



Lanes, Volumes, Timings
14: Ninth Line & Dundas Street E

06-28-2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	259	3157	515	141	1243	143	256	367	179	213	609	119
Future Volume (vph)	259	3157	515	141	1243	143	256	367	179	213	609	119
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)		0%			0%			0%			0%	
Storage Length (m)	225.0		85.0	230.0		85.0	160.0		130.0	130.0		55.0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Satd. Flow (prot)	1785	5079	1572	1750	4706	1572	1594	3500	1551	1785	3570	1597
Flt Permitted	0.141			0.067			0.195			0.413		
Satd. Flow (perm)	265	5079	1572	123	4706	1572	327	3500	1551	776	3570	1597
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			234			143			147			119
Link Speed (k/h)		70			70			60			60	
Link Distance (m)		505.1			255.3			487.3			810.8	
Travel Time (s)		26.0			13.1			29.2			48.6	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour 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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	2%	9%	0%	12%	2%	3%	0%	0%	0%
Bus Blockages (#/hr)	0	0	4	0	0	4	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	259	3157	515	141	1243	143	256	367	179	213	609	119
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)		3.5			3.5			3.5			3.5	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.04	1.01	1.01	1.04	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2		2	6		6	4		4	8		8
Detector Phase	5	2	2	1	6	6	7	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	20.0	20.0	7.0	20.0	20.0
Minimum Split (s)	11.0	45.3	45.3	11.0	45.3	45.3	11.0	47.5	47.5	11.0	47.5	47.5
Total Split (s)	11.0	60.0	60.0	11.0	60.0	60.0	11.0	48.0	48.0	11.0	48.0	48.0
Total Split (%)	8.5%	46.2%	46.2%	8.5%	46.2%	46.2%	8.5%	36.9%	36.9%	8.5%	36.9%	36.9%
Maximum Green (s)	7.0	53.7	53.7	7.0	53.7	53.7	7.0	41.5	41.5	7.0	41.5	41.5
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7
All-Red Time (s)	1.0	2.6	2.6	1.0	2.6	2.6	1.0	2.8	2.8	1.0	2.8	2.8
Lost Time Adjust (s)	-3.0	-1.3	-1.3	-3.0	-1.3	-1.3	-3.0	-1.5	-1.5	-3.0	-1.5	-1.5
Total Lost Time (s)	1.0	5.0	5.0	1.0	5.0	5.0	1.0	5.0	5.0	1.0	5.0	5.0

Lanes, Volumes, Timings
14: Ninth Line & Dundas Street E

06-28-2022

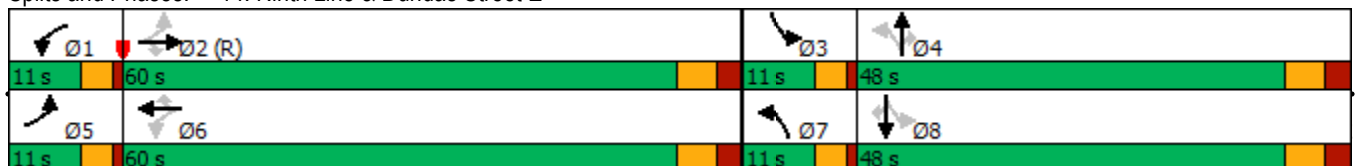


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	C-Max	C-Max	None	Max	Max	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		32.0	32.0		32.0	32.0		34.0	34.0		34.0	34.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	83.1	64.1	64.1	76.0	57.8	57.8	43.7	29.7	29.7	43.7	29.7	29.7
Actuated g/C Ratio	0.64	0.49	0.49	0.58	0.44	0.44	0.34	0.23	0.23	0.34	0.23	0.23
v/c Ratio	0.63	1.26	0.58	0.57	0.59	0.18	1.24	0.46	0.38	0.63	0.75	0.26
Control Delay	25.2	149.0	16.8	32.1	29.1	4.1	172.9	44.4	11.7	40.5	52.3	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	0.0
Total Delay	25.2	149.0	16.8	32.1	29.1	4.1	172.9	44.4	11.7	40.5	52.3	7.7
LOS	C	F	B	C	C	A	F	D	B	D	D	A
Approach Delay		123.5			27.0			78.1			44.0	
Approach LOS		F			C			E			D	
Queue Length 50th (m)	40.8	~393.6	51.1	19.2	92.4	0.0	~60.5	45.1	6.8	42.5	80.7	0.0
Queue Length 95th (m)	m51.3	#453.9	m63.6	41.7	111.1	12.8	#108.1	56.8	25.6	59.2	95.5	14.9
Internal Link Dist (m)		481.1			231.3			463.3			786.8	
Turn Bay Length (m)	225.0		85.0	230.0		85.0	160.0		130.0	130.0		55.0
Base Capacity (vph)	408	2502	893	249	2092	778	207	1157	611	338	1180	607
Starvation Cap Reductn	0	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	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.63	1.26	0.58	0.57	0.59	0.18	1.24	0.32	0.29	0.63	0.52	0.20

Intersection Summary

Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 12 (9%), Referenced to phase 2:EBTL, Start of Green
 Natural Cycle: 145
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.26
 Intersection Signal Delay: 87.6 Intersection LOS: F
 Intersection Capacity Utilization 114.8% ICU Level of Service H
 Analysis Period (min) 15
 ~ 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.


















Splits and Phases: 14: Ninth Line & Dundas Street E



HCM Unsignalized Intersection Capacity Analysis

12: Eighth Line/Threshing Mill Blvd & Wheat Boom Drive

06-28-2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	80	29	88	220	71	12	66	53	14	232	0
Future Volume (Veh/h)	0	80	29	88	220	71	12	66	53	14	232	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour 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
Hourly flow rate (vph)	0	80	29	88	220	71	12	66	53	14	232	0
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type												
Median storage veh												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	558	403	232	446	376	92	232			119		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	558	403	232	446	376	92	232			119		
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 %	100	85	96	80	60	93	99			99		
cM capacity (veh/h)	279	529	812	443	548	970	1348			1482		
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1							
Volume Total	0	109	379	131	246							
Volume Left	0	0	88	12	14							
Volume Right	0	29	71	53	0							
cSH	1700	583	563	1348	1482							
Volume to Capacity	0.00	0.19	0.67	0.01	0.01							
Queue Length 95th (m)	0.0	5.5	40.6	0.2	0.2							
Control Delay (s)	0.0	12.6	23.6	0.8	0.5							
Lane LOS	A	B	C	A	A							
Approach Delay (s)	12.6		23.6	0.8	0.5							
Approach LOS	B		C									
Intersection Summary												
Average Delay			12.2									
Intersection Capacity Utilization			49.5%		ICU Level of Service					A		
Analysis Period (min)			15									

Lanes, Volumes, Timings
3: Eighth Line & Dundas Street E

06-27-2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	103	1952	212	240	3167	150	192	93	165	80	45	27
Future Volume (vph)	103	1952	212	240	3167	150	192	93	165	80	45	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)		0%			0%			0%			0%	
Storage Length (m)	115.0		75.0	155.0		85.0	45.0		0.0	45.0		0.0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Satd. Flow (prot)	1785	4980	1541	1785	5079	1572	1767	1824	1597	1785	1879	1597
Flt Permitted	0.058			0.057			0.728			0.655		
Satd. Flow (perm)	109	4980	1541	107	5079	1572	1354	1824	1597	1231	1879	1597
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			178			87			110			67
Link Speed (k/h)		70			70			50			50	
Link Distance (m)		310.7			586.1			253.5			312.8	
Travel Time (s)		16.0			30.1			18.3			22.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour 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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	3%	2%	0%	1%	0%	1%	3%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	4	0	0	4	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	103	1952	212	240	3167	150	192	93	165	80	45	27
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)		3.5			3.5			3.5			3.5	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.04	1.01	1.01	1.04	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			8				4
Permitted Phases	2		2	6		6	8		8	4		4
Detector Phase	5	2	2	1	6	6	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	11.0	38.0	38.0	11.0	38.0	38.0	46.0	46.0	46.0	46.0	46.0	46.0
Total Split (s)	11.0	73.0	73.0	11.0	73.0	73.0	46.0	46.0	46.0	46.0	46.0	46.0
Total Split (%)	8.5%	56.2%	56.2%	8.5%	56.2%	56.2%	35.4%	35.4%	35.4%	35.4%	35.4%	35.4%
Maximum Green (s)	7.0	66.0	66.0	7.0	66.0	66.0	39.0	39.0	39.0	39.0	39.0	39.0
Yellow Time (s)	3.0	3.3	3.3	3.0	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	1.0	3.7	3.7	1.0	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
Lost Time Adjust (s)	-3.0	-1.7	-1.7	-3.0	-1.7	-1.7	-3.0	-3.0	-3.0	-3.0	-3.0	-3.0
Total Lost Time (s)	1.0	5.3	5.3	1.0	5.3	5.3	4.0	4.0	4.0	4.0	4.0	4.0

Lanes, Volumes, Timings
3: Eighth Line & Dundas Street E

06-27-2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	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	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	C-Max	C-Max	None	Max	Max	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)		24.0	24.0		24.0	24.0	32.0	32.0	32.0	32.0	32.0	32.0
Pedestrian Calls (#/hr)		0	0		0	0	0	0	0	0	0	0
Act Effct Green (s)	84.3	68.0	68.0	97.8	80.6	80.6	27.0	27.0	27.0	27.0	27.0	27.0
Actuated g/C Ratio	0.65	0.52	0.52	0.75	0.62	0.62	0.21	0.21	0.21	0.21	0.21	0.21
v/c Ratio	0.46	0.75	0.24	0.60	1.01	0.15	0.68	0.25	0.39	0.31	0.12	0.07
Control Delay	24.3	26.7	4.3	39.6	28.8	8.6	59.2	42.6	17.5	44.9	39.5	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.3	26.7	4.3	39.6	28.8	8.6	59.2	42.6	17.5	44.9	39.5	0.4
LOS	C	C	A	D	C	A	E	D	B	D	D	A
Approach Delay		24.5			28.7			40.5			35.4	
Approach LOS		C			C			D			D	
Queue Length 50th (m)	8.4	147.0	4.4	52.9	149.3	8.9	48.3	21.2	12.3	18.5	10.0	0.0
Queue Length 95th (m)	26.6	166.6	17.2	m48.5m	#315.1	m7.9	69.0	33.7	30.1	31.0	19.0	0.0
Internal Link Dist (m)		286.7			562.1			229.5			288.8	
Turn Bay Length (m)	115.0		75.0	155.0		85.0	45.0			45.0		
Base Capacity (vph)	226	2603	890	400	3150	1008	437	589	590	397	607	561
Starvation Cap Reductn	0	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	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.46	0.75	0.24	0.60	1.01	0.15	0.44	0.16	0.28	0.20	0.07	0.05

Intersection Summary

Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 3 (2%), Referenced to phase 2:EBTL, Start of Green
 Natural Cycle: 145
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.01
 Intersection Signal Delay: 28.2 Intersection LOS: C
 Intersection Capacity Utilization 95.4% ICU Level of Service F
 Analysis Period (min) 15

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.

Splits and Phases: 3: Eighth Line & Dundas Street E
































Future Total PM Peak 1:06 pm 06-27-2022 Baseline

Lanes, Volumes, Timings

6: Prince Michael Drive/John McKay Boulevard & Dundas Street E

06-27-2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  			 			 	
Traffic Volume (vph)	228	1774	176	266	3212	299	192	4	100	262	9	137
Future Volume (vph)	228	1774	176	266	3212	299	192	4	100	262	9	137
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)		0%			0%			0%			0%	
Storage Length (m)	120.0		75.0	125.0		85.0	65.0		0.0	15.0		15.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Satd. Flow (prot)	1785	4980	1541	1785	5051	1597	1785	1608	0	1785	1879	1597
Flt Permitted	0.064			0.067			0.752			0.619		
Satd. Flow (perm)	120	4980	1541	126	5051	1597	1413	1608	0	1163	1879	1597
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			176			182			100			137
Link Speed (k/h)		70			70			50			50	
Link Distance (m)		586.1			572.2			226.5			193.9	
Travel Time (s)		30.1			29.4			16.3			14.0	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour 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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	3%	2%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	4	0	4	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	228	1774	176	266	3212	299	192	104	0	262	9	137
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)		3.5			3.5			3.5			3.5	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.04	1.01	1.02	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA		pm+pt	NA	Perm
Protected Phases	5	2		1	6			4		3	8	
Permitted Phases	2		2	6		6	4			8		8
Detector Phase	5	2	2	1	6	6	4	4		3	8	8
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	10.0	10.0		6.5	10.0	10.0
Minimum Split (s)	11.0	26.8	26.8	11.0	26.8	26.8	23.5	23.5		11.0	22.5	22.5
Total Split (s)	17.0	79.5	79.5	16.0	78.5	78.5	23.5	23.5		11.0	34.5	34.5
Total Split (%)	13.1%	61.2%	61.2%	12.3%	60.4%	60.4%	18.1%	18.1%		8.5%	26.5%	26.5%
Maximum Green (s)	13.0	72.7	72.7	12.0	71.7	71.7	19.0	19.0		7.0	30.0	30.0
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2	4.2	3.5	3.5		3.0	3.5	3.5
All-Red Time (s)	1.0	2.6	2.6	1.0	2.6	2.6	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	-1.8	-1.8	-3.0	-1.8	0.0	-1.9	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.0	5.0	5.0	1.0	5.0	6.8	2.6	4.5		4.0	4.5	4.5

Lanes, Volumes, Timings

6: Prince Michael Drive/John McKay Boulevard & Dundas Street E

06-27-2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lead		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
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Recall Mode	None	C-Max	C-Max	None	Max	Max	None	None		None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0	7.0	7.0			7.0	7.0
Flash Dont Walk (s)		11.0	11.0		11.0	11.0	11.0	11.0			11.0	11.0
Pedestrian Calls (#/hr)		0	0		0	0	0	0			0	0
Act Effct Green (s)	75.5	74.5	74.5	78.0	74.0	72.2	20.3	18.4		30.0	29.5	29.5
Actuated g/C Ratio	0.58	0.57	0.57	0.60	0.57	0.56	0.16	0.14		0.23	0.23	0.23
v/c Ratio	0.97	0.62	0.18	0.97	1.12	0.31	0.87	0.33		0.87	0.02	0.29
Control Delay	72.7	8.7	0.5	50.2	70.7	1.9	88.1	13.2		77.1	39.0	8.1
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	72.7	8.7	0.5	50.2	70.7	1.9	88.1	13.2		77.1	39.0	8.1
LOS	E	A	A	D	E	A	F	B		E	D	A
Approach Delay		14.7			63.8			61.7			53.1	
Approach LOS		B			E			E			D	
Queue Length 50th (m)	45.5	34.3	0.0	53.0	~375.6	9.5	50.9	0.9		63.8	1.9	0.0
Queue Length 95th (m)	m#88.7	39.3	m0.9	m51.2	m#353.9	m8.9	#93.8	17.9		#113.3	6.8	16.9
Internal Link Dist (m)		562.1			548.2			202.5			169.9	
Turn Bay Length (m)	120.0		75.0	125.0		85.0	65.0			15.0		15.0
Base Capacity (vph)	236	2853	958	273	2876	968	227	320		301	433	473
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	0.97	0.62	0.18	0.97	1.12	0.31	0.85	0.33		0.87	0.02	0.29

Intersection Summary





























Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 11.8 (9%), Referenced to phase 2:EBTL, Start of Green
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.12
 Intersection Signal Delay: 47.0 Intersection LOS: D
 Intersection Capacity Utilization 107.1% ICU Level of Service G
 Analysis Period (min) 15
 ~ 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.

Splits and Phases: 6: Prince Michael Drive/John McKay Boulevard & Dundas Street E



Lanes, Volumes, Timings
8: Meadowridge Drive & Dundas Street E

06-27-2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  							
Traffic Volume (vph)	124	1874	166	258	3740	144	47	0	163	141	0	74
Future Volume (vph)	124	1874	166	258	3740	144	47	0	163	141	0	74
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)		0%			0%			0%			0%	
Storage Length (m)	80.0		80.0	140.0		70.0	25.0		25.0	15.0		15.0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Satd. Flow (prot)	1785	4980	1572	1785	5051	1597	1785	1879	1597	1785	1879	1597
Flt Permitted	0.045			0.086			0.757			0.757		
Satd. Flow (perm)	85	4980	1572	162	5051	1597	1422	1879	1597	1422	1879	1597
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			166			92			106			79
Link Speed (k/h)		70			70			50			50	
Link Distance (m)		572.2			334.1			216.4			176.0	
Travel Time (s)		29.4			17.2			15.6			12.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour 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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	3%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	4	0	4	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	124	1874	166	258	3740	144	47	0	163	141	0	74
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)		3.5			3.5			3.5			3.5	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.04	1.01	1.02	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm		Perm	Perm		Perm
Protected Phases	5	2		1	6			4				8
Permitted Phases	2		2	6		6	4		4	8		8
Detector Phase	5	2	2	1	6	6	4	4	4	8	8	8
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	11.0	26.7	26.7	11.0	28.4	28.4	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	11.0	96.5	96.5	11.0	96.5	96.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (%)	8.5%	74.2%	74.2%	8.5%	74.2%	74.2%	17.3%	17.3%	17.3%	17.3%	17.3%	17.3%
Maximum Green (s)	7.0	89.8	89.8	7.0	89.8	89.8	18.0	18.0	18.0	18.0	18.0	18.0
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2	4.2	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	2.5	2.5	1.0	2.5	2.5	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	-1.7	-1.7	-3.0	-1.7	0.0	-1.9	0.0	-1.9	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.0	5.0	1.0	5.0	6.7	2.6	4.5	2.6	4.5	4.5	4.5

Lanes, Volumes, Timings

8: Meadowridge Drive & Dundas Street E

06-27-2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	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	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	C-Max	C-Max	None	Max	Max	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)		11.0	11.0		11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)		0	0		0	0	0	0	0	0	0	0
Act Effct Green (s)	99.9	91.5	91.5	107.6	92.9	91.2	18.1		18.1	16.2		16.2
Actuated g/C Ratio	0.77	0.70	0.70	0.83	0.71	0.70	0.14		0.14	0.12		0.12
v/c Ratio	0.77	0.53	0.14	0.92	1.04	0.13	0.24		0.52	0.80		0.28
Control Delay	60.8	15.7	2.3	30.9	49.3	5.4	52.0		25.4	85.3		12.2
Queue Delay	0.0	0.0	0.0	0.0	13.1	0.0	0.0		0.0	0.0		0.0
Total Delay	60.8	15.7	2.3	30.9	62.4	5.4	52.0		25.4	85.3		12.2
LOS	E	B	A	C	E	A	D		C	F		B
Approach Delay		17.3			58.5			31.4				60.1
Approach LOS		B			E			C				E
Queue Length 50th (m)	14.0	160.6	2.6	~35.1	~398.3	8.1	11.3		13.7	36.9		0.0
Queue Length 95th (m)	m#44.6	171.2	m7.4	m24.6	m317.2	m6.2	23.6		36.9	#68.1		13.2
Internal Link Dist (m)		548.2			310.1			192.4				152.0
Turn Bay Length (m)	80.0		80.0	140.0		70.0	25.0		25.0	15.0		15.0
Base Capacity (vph)	161	3505	1155	280	3609	1147	217		334	196		289
Starvation Cap Reductn	0	0	0	0	108	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	0.77	0.53	0.14	0.92	1.07	0.13	0.22		0.49	0.72		0.26

Intersection Summary

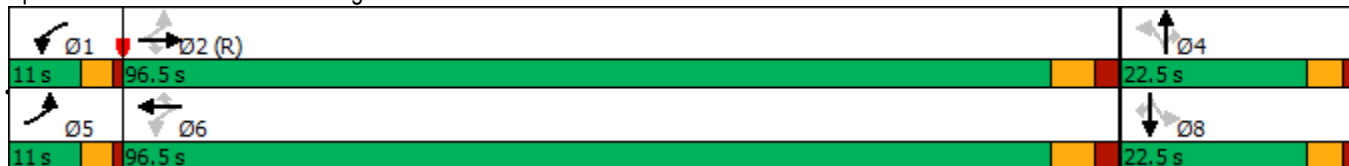
Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 75 (58%), Referenced to phase 2:EBTL, Start of Green
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.04
 Intersection Signal Delay: 44.5 Intersection LOS: D
 Intersection Capacity Utilization 104.9% ICU Level of Service G
 Analysis Period (min) 15

~ 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.

Splits and Phases: 8: Meadowridge Drive & Dundas Street E



Lanes, Volumes, Timings
 10: Dundas Street E & William Cutmore Blvd

06-27-2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	123	2070	4177	216	144	83
Future Volume (vph)	123	2070	4177	216	144	83
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)		0%	0%		0%	
Storage Length (m)	100.0			85.0	45.0	0.0
Storage Lanes	1			1	1	1
Taper Length (m)	7.5				7.5	
Satd. Flow (prot)	1785	4953	5079	1572	1785	1597
Flt Permitted	0.041				0.950	
Satd. Flow (perm)	77	4953	5079	1572	1785	1597
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				153		78
Link Speed (k/h)		70	70		50	
Link Distance (m)		334.1	505.1		180.3	
Travel Time (s)		17.2	26.0		13.0	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	3%	1%	0%	0%	0%
Bus Blockages (#/hr)	0	4	0	4	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	123	2070	4177	216	144	83
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.5	3.5		3.5	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.01	1.02	1.01	1.04	1.01	1.01
Turning Speed (k/h)	25			15	25	15
Turn Type	pm+pt	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases	2			6		4
Detector Phase	5	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	7.0	20.0	20.0	20.0	10.0	10.0
Minimum Split (s)	11.0	24.5	24.5	24.5	22.5	22.5
Total Split (s)	11.0	107.0	96.0	96.0	23.0	23.0
Total Split (%)	8.5%	82.3%	73.8%	73.8%	17.7%	17.7%
Maximum Green (s)	7.0	102.5	91.5	91.5	18.5	18.5
Yellow Time (s)	3.0	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.5	4.5	4.5	4.5	4.5

Lanes, Volumes, Timings
 10: Dundas Street E & William Cutmore Blvd

06-27-2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
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
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	C-Max	Max	Max	None	None
Walk Time (s)		7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)		11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)		0	0	0	0	0
Act Effct Green (s)	106.4	105.9	93.9	93.9	15.1	15.1
Actuated g/C Ratio	0.82	0.81	0.72	0.72	0.12	0.12
v/c Ratio	0.74	0.51	1.14	0.18	0.70	0.33
Control Delay	38.2	15.3	85.5	0.0	72.3	15.5
Queue Delay	0.0	0.0	0.1	0.0	0.0	96.9
Total Delay	38.2	15.3	85.6	0.0	72.3	112.4
LOS	D	B	F	A	E	F
Approach Delay		16.6	81.4		86.9	
Approach LOS		B	F		F	
Queue Length 50th (m)	19.9	142.2	~499.5	0.0	37.7	1.2
Queue Length 95th (m)	m#48.4	163.0	m34.7	m0.0	59.8	16.7
Internal Link Dist (m)		310.1	481.1		156.3	
Turn Bay Length (m)	100.0			85.0	45.0	
Base Capacity (vph)	167	4033	3668	1177	254	294
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	306	0	0	242
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.74	0.51	1.24	0.18	0.57	1.60

Intersection Summary

Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.14
 Intersection Signal Delay: 60.7
 Intersection LOS: E
 Intersection Capacity Utilization 106.7%
 ICU Level of Service G
 Analysis Period (min) 15

- ~ 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.

Splits and Phases: 10: Dundas Street E & William Cutmore Blvd



Lanes, Volumes, Timings
14: Ninth Line & Dundas Street E

06-27-2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	154	1771	288	165	3623	156	529	818	621	122	350	240
Future Volume (vph)	154	1771	288	165	3623	156	529	818	621	122	350	240
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)		0%			0%			0%			0%	
Storage Length (m)	225.0		85.0	230.0		85.0	160.0		130.0	130.0		55.0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Satd. Flow (prot)	1785	4980	1541	1750	5079	1572	1750	3535	1521	1750	3535	1597
Flt Permitted	0.071			0.071			0.482			0.171		
Satd. Flow (perm)	133	4980	1541	131	5079	1572	888	3535	1521	315	3535	1597
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			248			97			152			120
Link Speed (k/h)		70			70			60			60	
Link Distance (m)		505.1			255.3			487.3			810.8	
Travel Time (s)		26.0			13.1			29.2			48.6	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour 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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	3%	2%	2%	1%	0%	2%	1%	5%	2%	1%	0%
Bus Blockages (#/hr)	0	0	4	0	0	4	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	154	1771	288	165	3623	156	529	818	621	122	350	240
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)		3.5			3.5			3.5			3.5	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.04	1.01	1.01	1.04	1.01	1.01	1.01	1.01	1.01	1.01
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2		2	6		6	4		4	8		8
Detector Phase	5	2	2	1	6	6	7	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	20.0	20.0	7.0	20.0	20.0
Minimum Split (s)	11.0	45.3	45.3	11.0	45.3	45.3	11.0	47.5	47.5	11.0	47.5	47.5
Total Split (s)	11.0	60.0	60.0	11.0	60.0	60.0	11.0	48.0	48.0	11.0	48.0	48.0
Total Split (%)	8.5%	46.2%	46.2%	8.5%	46.2%	46.2%	8.5%	36.9%	36.9%	8.5%	36.9%	36.9%
Maximum Green (s)	7.0	53.7	53.7	7.0	53.7	53.7	7.0	41.5	41.5	7.0	41.5	41.5
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7
All-Red Time (s)	1.0	2.6	2.6	1.0	2.6	2.6	1.0	2.8	2.8	1.0	2.8	2.8
Lost Time Adjust (s)	-3.0	-1.3	-1.3	-3.0	-1.3	-1.3	-3.0	-1.5	-1.5	-3.0	-1.5	-1.5
Total Lost Time (s)	1.0	5.0	5.0	1.0	5.0	5.0	1.0	5.0	5.0	1.0	5.0	5.0

Lanes, Volumes, Timings
14: Ninth Line & Dundas Street E

06-27-2022

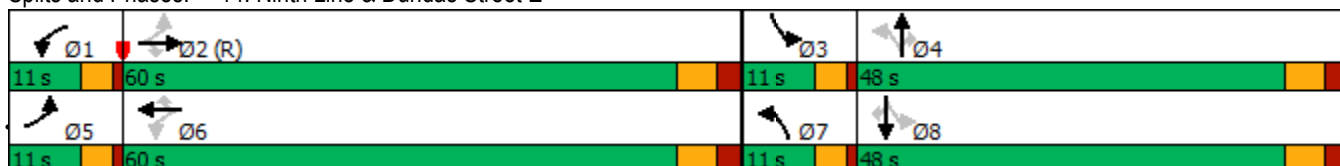


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	C-Max	C-Max	None	Max	Max	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		32.0	32.0		32.0	32.0		34.0	34.0		34.0	34.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	69.0	55.0	55.0	69.0	55.0	55.0	57.0	43.0	43.0	57.0	43.0	43.0
Actuated g/C Ratio	0.53	0.42	0.42	0.53	0.42	0.42	0.44	0.33	0.33	0.44	0.33	0.33
v/c Ratio	0.78	0.84	0.36	0.85	1.69	0.22	1.16	0.70	1.03	0.49	0.30	0.39
Control Delay	62.4	18.3	2.9	62.9	338.7	10.2	126.6	41.7	76.5	28.5	33.2	18.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.4	18.3	2.9	62.9	338.7	10.2	126.6	41.7	76.5	28.5	33.2	18.3
LOS	E	B	A	E	F	B	F	D	E	C	C	B
Approach Delay		19.3			314.2			75.5			27.4	
Approach LOS		B			F			E			C	
Queue Length 50th (m)	27.5	65.0	4.9	27.2	~523.0	9.4	~139.2	100.7	~149.2	19.2	36.8	23.6
Queue Length 95th (m)	#60.2	78.4	6.9	#67.9	#544.9	24.0	#239.3	124.6	#224.4	32.4	50.2	47.5
Internal Link Dist (m)		481.1			231.3			463.3			786.8	
Turn Bay Length (m)	225.0		85.0	230.0		85.0	160.0		130.0	130.0		55.0
Base Capacity (vph)	197	2106	795	194	2148	721	455	1169	604	248	1169	608
Starvation Cap Reductn	0	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	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.78	0.84	0.36	0.85	1.69	0.22	1.16	0.70	1.03	0.49	0.30	0.39

Intersection Summary


















Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 12 (9%), Referenced to phase 2:EBTL, Start of Green
 Natural Cycle: 145
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.69
 Intersection Signal Delay: 164.1 Intersection LOS: F
 Intersection Capacity Utilization 139.5% ICU Level of Service H
 Analysis Period (min) 15
 ~ 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.

Splits and Phases: 14: Ninth Line & Dundas Street E



HCM Unsignalized Intersection Capacity Analysis
 12: Eighth Line/Threshing Mill Blvd & Wheat Boom Drive

















06-27-2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	275	20	57	144	44	34	154	172	45	82	0
Future Volume (Veh/h)	0	275	20	57	144	44	34	154	172	45	82	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour 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
Hourly flow rate (vph)	0	275	20	57	144	44	34	154	172	45	82	0
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type												
								None			None	
Median storage veh												
Upstream signal (m)												
								313				
pX, platoon unblocked	1.00	1.00		1.00	1.00	1.00				1.00		
vC, conflicting volume	596	566	82	638	480	240	82			326		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	596	565	82	637	479	239	82			325		
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 %	100	33	98	67	69	95	98			96		
cM capacity (veh/h)	287	411	983	171	460	804	1528			1245		
Direction, Lane #												
	EB 1	EB 2	WB 1	NB 1	SB 1							
Volume Total	0	295	245	360	127							
Volume Left	0	0	57	34	45							
Volume Right	0	20	44	172	0							
cSH	1700	428	349	1528	1245							
Volume to Capacity	0.00	0.69	0.70	0.02	0.04							
Queue Length 95th (m)	0.0	40.7	40.6	0.5	0.9							
Control Delay (s)	0.0	30.1	36.3	0.9	3.0							
Lane LOS	A	D	E	A	A							
Approach Delay (s)	30.1		36.3	0.9	3.0							
Approach LOS	D		E									
Intersection Summary												
Average Delay			18.0									
Intersection Capacity Utilization			60.5%		ICU Level of Service				B			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

3:

















06-28-2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	17	18	44	0	11	4	35	27	0	1	10	6
Future Volume (vph)	17	18	44	0	11	4	35	27	0	1	10	6
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)	18	20	48	0	12	4	38	29	0	1	11	7
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	86	16	67	19								
Volume Left (vph)	18	0	38	1								
Volume Right (vph)	48	4	0	7								
Hadj (s)	-0.29	-0.12	0.13	-0.19								
Departure Headway (s)	3.8	4.0	4.3	4.0								
Degree Utilization, x	0.09	0.02	0.08	0.02								
Capacity (veh/h)	917	863	817	873								
Control Delay (s)	7.2	7.1	7.6	7.1								
Approach Delay (s)	7.2	7.1	7.6	7.1								
Approach LOS	A	A	A	A								
Intersection Summary												
Delay			7.3									
Level of Service			A									
Intersection Capacity Utilization			31.1%	ICU Level of Service	A							
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

3:

06-28-2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	6	10	50	0	12	3	54	19	0	4	30	10
Future Volume (vph)	6	10	50	0	12	3	54	19	0	4	30	10
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)	7	11	54	0	13	3	59	21	0	4	33	11
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	72	16	80	48								
Volume Left (vph)	7	0	59	4								
Volume Right (vph)	54	3	0	11								
Hadj (s)	-0.43	-0.08	0.16	-0.10								
Departure Headway (s)	3.8	4.2	4.3	4.1								
Degree Utilization, x	0.08	0.02	0.10	0.05								
Capacity (veh/h)	919	830	814	860								
Control Delay (s)	7.1	7.2	7.7	7.3								
Approach Delay (s)	7.1	7.2	7.7	7.3								
Approach LOS	A	A	A	A								
Intersection Summary												
Delay			7.4									
Level of Service			A									
Intersection Capacity Utilization			30.6%	ICU Level of Service	A							
Analysis Period (min)			15									