Salotto Building Group Inc.

TRANSPORTATION IMPACT STUDY

PROPOSED RESIDENTIAL DEVELOPMENT

4375 Millcroft Park Drive
City of Burlington

October 2021
22099

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October 19, 2021

Reference Number: 22099

Lisa La Civita, MCIP, RPP
Development Manager
Armland Group
8700 Dufferin Street
Concord, ON L4K 4S6

Dear Lisa La Civita,

RE: Transportation Impact Study
Proposed Residential Development
4375 Millcroft Park Drive, City of Burlington

LEA Consulting Ltd. (LEA) is pleased to present the findings of our Transportation Impact Study for the proposed residential development located at 4375 Millcroft Park Drive in the City of Burlington. This study has been prepared on behalf of Salotto Building Group Inc. in support of their Plan of Subdivision application. This report concludes that the traffic associated with the proposed development will have an acceptable impact on the surrounding road network.

Should you have any questions regarding this Transportation Impact Study, please do not hesitate to contact the undersigned at KChan@lea.ca.

Yours truly,

LEA CONSULTING LTD.

Kenneth Chan, P. Eng., PTOE, PMP
Vice President, Transportation Engineering and Planning

Zara Georgis, M. Eng., P. Eng.
Project Manager

Encl. Transportation Impact Study – 4375 Millcroft Park Drive

Executive Summary

The development proposal consists of 30 single-detached homes and a new local road, which will intersect with Millcroft Park Drive at two locations. It is understood that each single-detached home will be able to accommodate two (2) parking spaces each in accordance with the City of Burlington Zoning By-Law 2020 requirement.

Under existing conditions, the signalized and unsignalized intersections are operating with overall levels of service of "B" or better during both peak hours. Under future background conditions, the signalized and unsignalized intersections are operating with acceptable overall levels of service of "C" of better during both peak hours.

The proposed development is expected to generate a total of 22 two-way trips during the weekday AM peak hour (5 inbound, 17 outbound) and 32 two-way trips during the weekday PM peak hour (20 inbound, 12 outbound). The site generated trips were distributed onto the surrounding road network based on TTS data and the most logical routing given the proposed site access.

Similar to future background conditions, under future total conditions, the signalized intersections are operating at acceptable overall levels of service of "C" or better during both peak hours. The results indicate minimal increases in v/c ratios and delay when compared to future background conditions. The unsignalized intersections also continue to operate within the roadway capacity and with acceptable delays during the weekday AM and PM peak hours. Overall, the addition of the proposed development is expected to have an acceptable impact on the surrounding road network.

Lastly, a set of TDM measures have been provided containing pedestrian-based, cycling-based, and transit-based strategies to facilitate a reduction in automobile reliance through alternative methods of travel. Furthermore, the transit stops in the surrounding area provide future residents and visitors with an opportunity to shift their preferred mode use to public transit.

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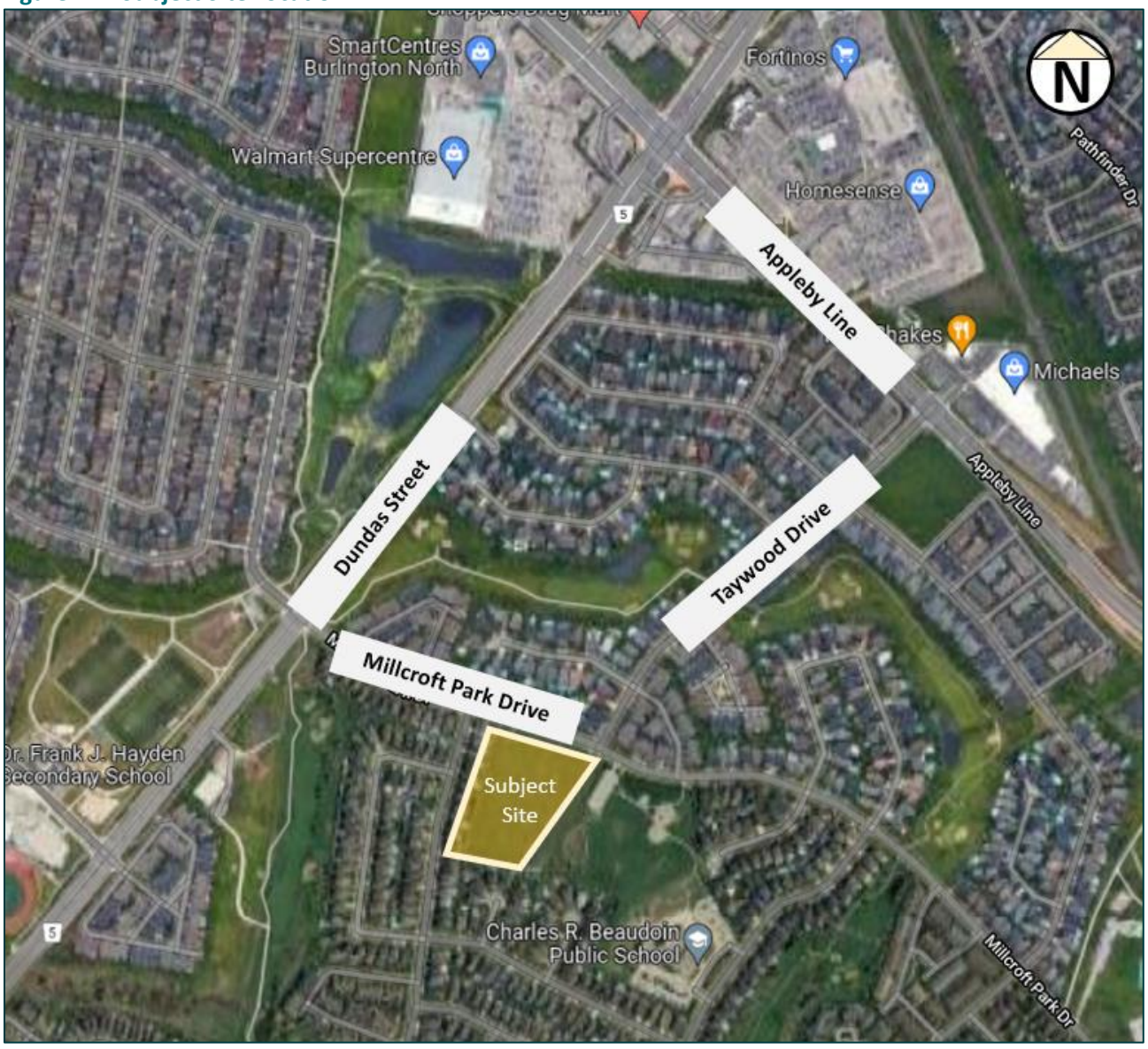
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1 INTRODUCTION

LEA Consulting Ltd. (LEA) has been retained to undertake a Transportation Impact Study (TIS) for the proposed residential development located at 4375 Millcroft Park Drive in the City of Burlington. The subject site is located on the west side of Millcroft Park Drive and is currently vacant. **Figure 1-1** illustrates the subject site context.

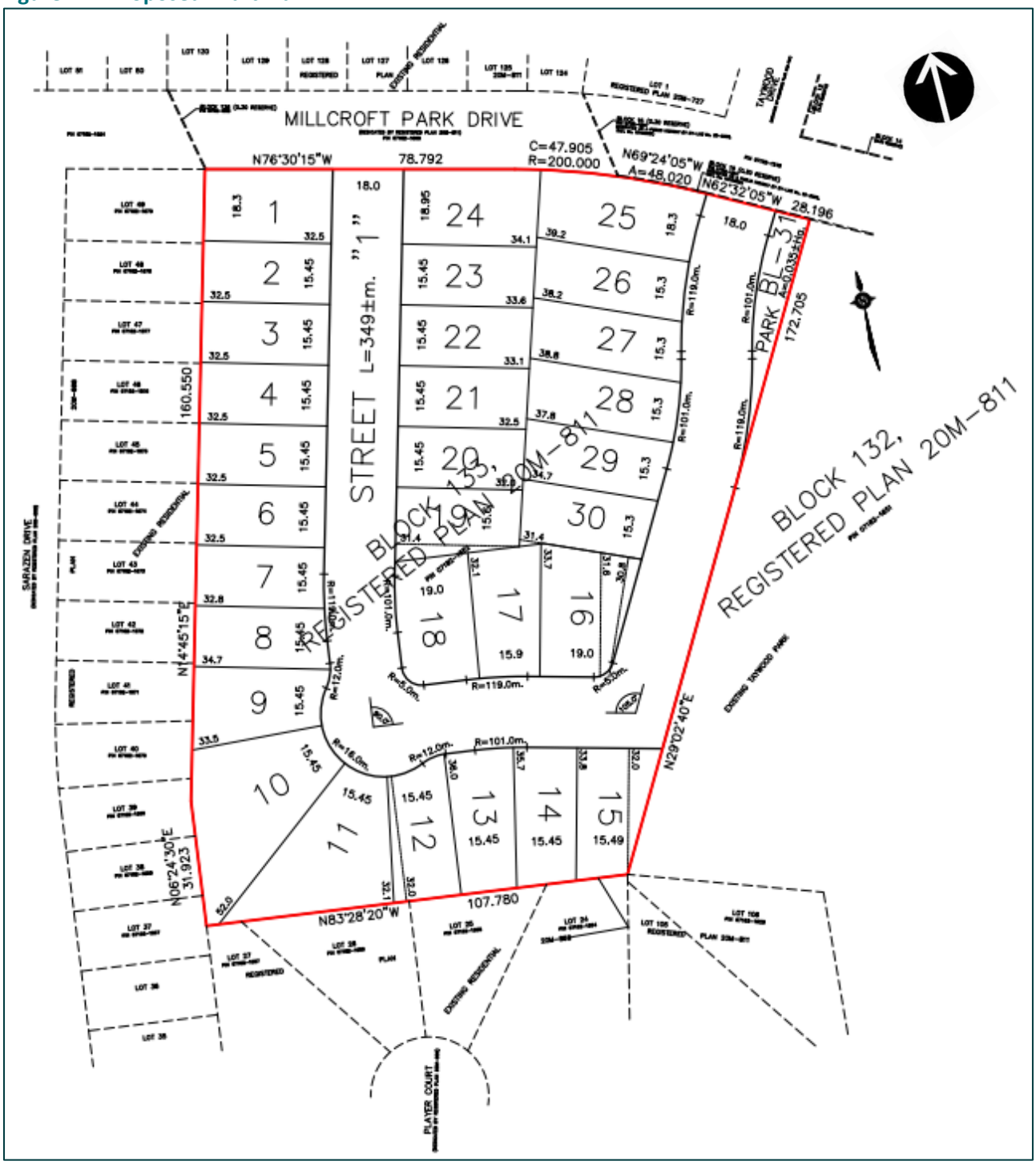
Figure 1-1: Subject Site Location



Source: Google Maps, 2021

The development proposal consists of 30 single-detached homes and a new local road, which will intersect with Millcroft Park Drive at two locations. The proposed draft plan for the development proposal is illustrated below in **Figure 1-2**.

Figure 1-2: Proposed Draft Plan



Source: KLM Planning, October 2021

2 EXISTING CONDITIONS

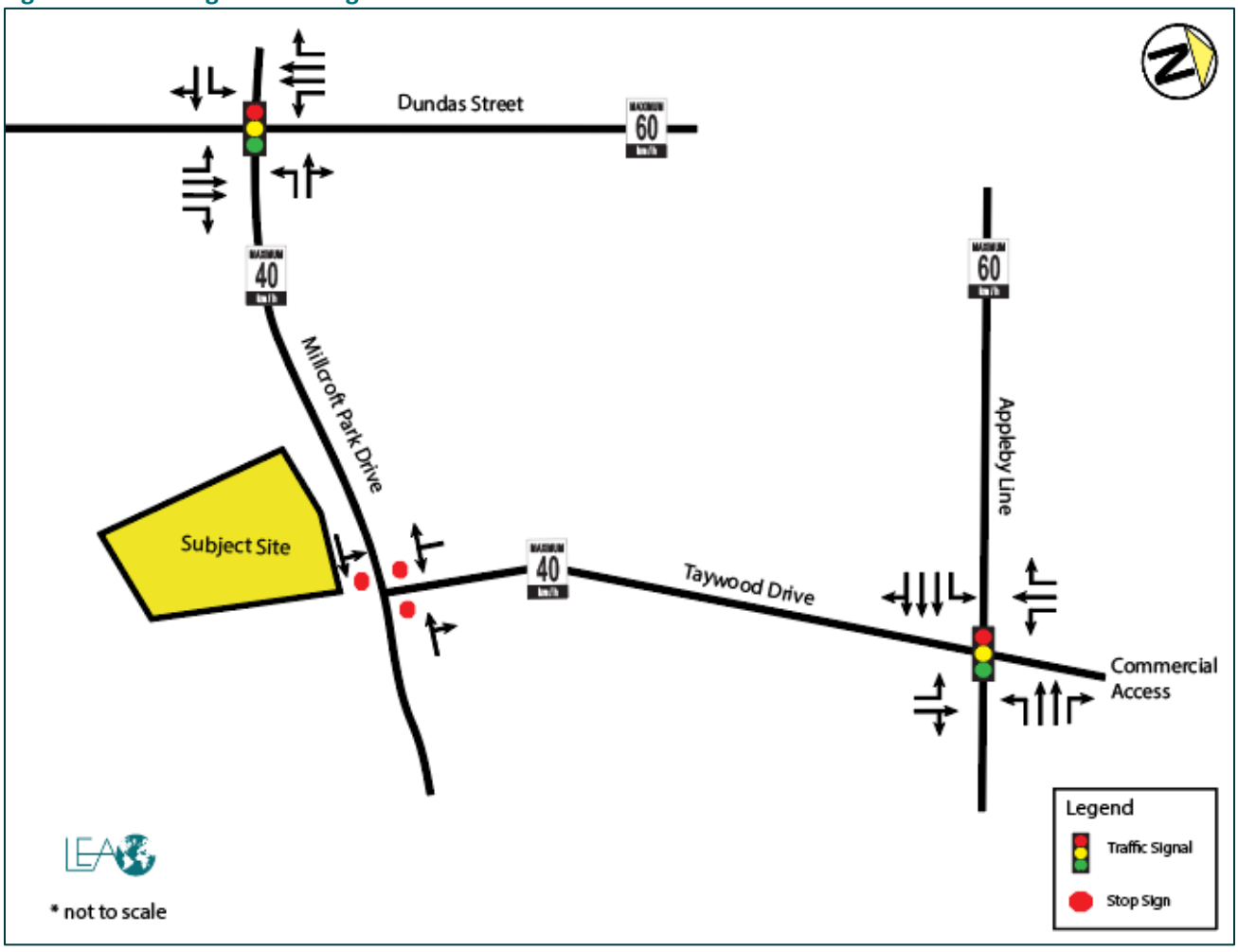
2.1 ROAD NETWORK

This section identifies and assesses the existing transportation conditions within the study area, including the road, transit, cycling, and pedestrian networks. The study area was determined by assessing the size of the proposed development and its anticipated transportation impact, and through consultation with City staff. The study area includes the following intersections:

- Millcroft Park Drive and Dundas Street (Signalized);
- Appleby Line and Taywood Drive (Signalized);
- Millcroft Park Drive and Taywood Drive (Unsignalized).

The following section provides a description and classification of the roadways within the study area. **Figure 2-1** illustrating the existing lane configuration.

Figure 2-1: Existing Lane Configuration



Millcroft Park Drive is a collector road under the jurisdiction of the City of Burlington that operates with a two-lane cross-section (one lane in each direction) within the study area. Millcroft Park Drive operates between Dundas Street in the north and Walkers Line in the west. The roadway operates with a posted speed limit of 40 km/h within the study area.

Dundas Street is an east-west major arterial road under the jurisdiction of Halton Region that operates with a four-lane cross section (two lanes per direction). Dundas Street operates between Highway 6 in the west and Kingston Road in the east. The roadway operates with a posted speed limit of 60 km/h within the study area.

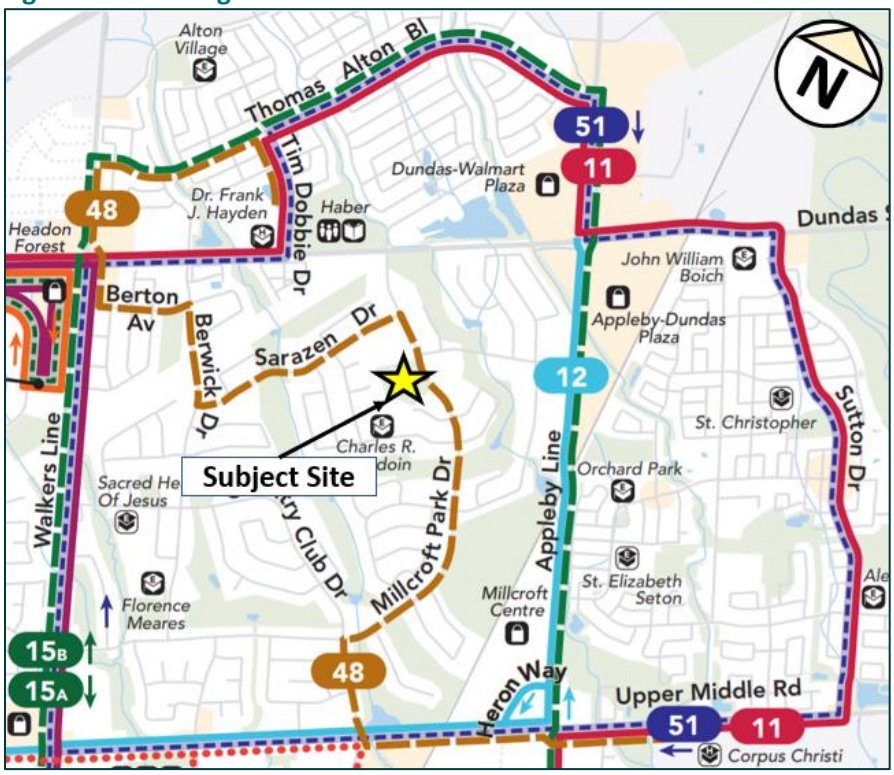
Appleby Line is a north-south minor arterial road under the jurisdiction of Halton Region that operates with a four-lane cross section (two lanes per direction) within the study area. Appleby Line operates between Campbellville Road in the north and Lakeshore Boulevard in the south. The roadway operates with a posted speed limit of 60 km/h.

Taywood Drive is an east-west local road under the jurisdiction of the City of Burlington that operates with a two-lane cross-section (one lane per direction). Taywood Drive operates between Appleby Line in the north and Millcroft Park Drive in the south. The roadway operates with a posted speed limit of 40 km/h within the study area.

2.2 TRANSIT NETWORK

The subject site is located in an area well-serviced by the Burlington Transit and Oakville Transit network. The subject site is located with doorstop access to the Millcroft at Taywood bus stop and within a 5-minute walking distance of bus stops located at Dundas Street & Millcroft Park Drive intersection. Transit routes servicing the area are illustrated below in **Figure 2-2**.

Figure 2-2: Existing Transit Network



Source: Burlington Transit, October 2021

Burlington Transit Bus Route 48 – Millcroft is a bus route that generally operates in north-south direction between Haber Community Centre in the north and Corpis Christi Secondary School in the south. The route provides service on weekdays from the morning hours to the afternoon. Between Monday and Friday, service operates with mainly 10-minute headways in the morning and afternoon hours, respectively.

Access Location: Route 48 is accessible at the intersection of Millcroft Park Drive & Taywood Drive, which is located adjacent to the subject site.

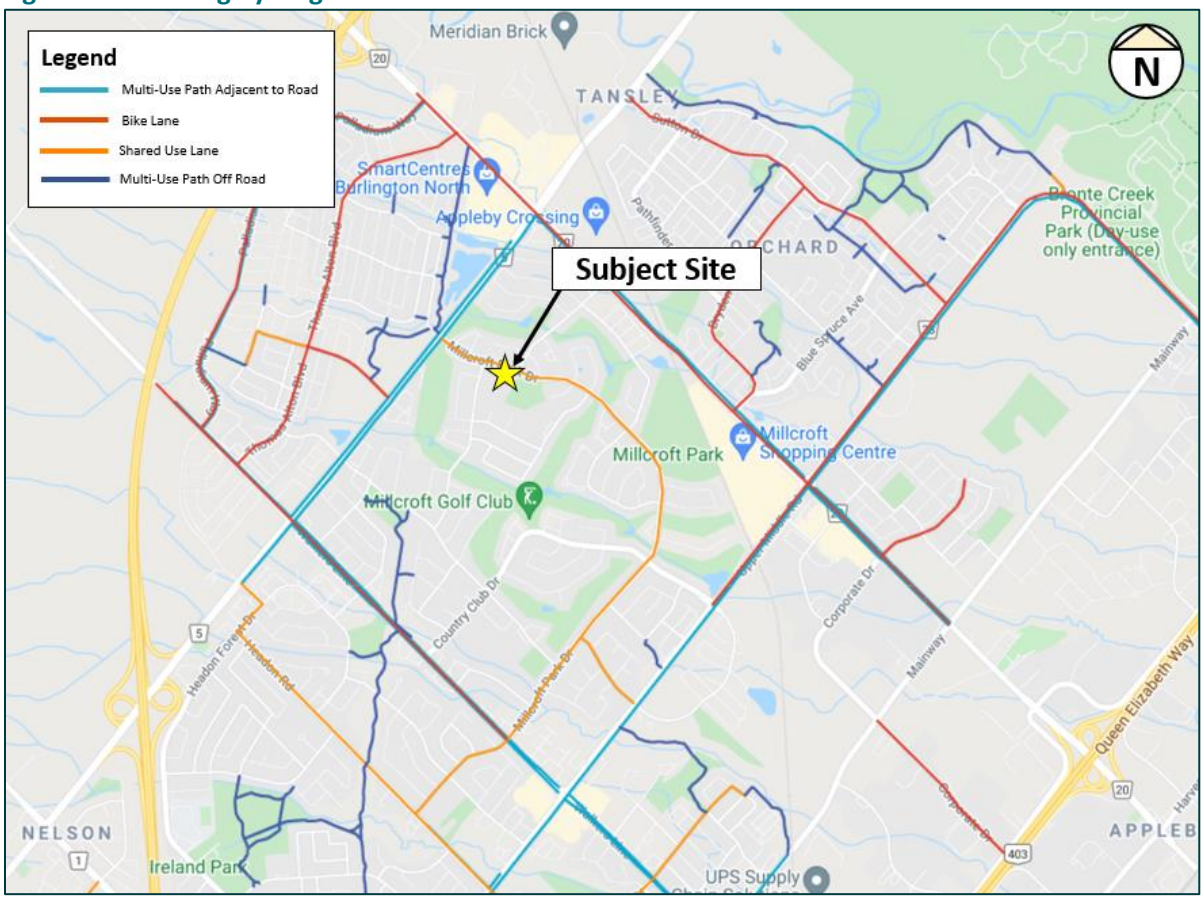
Oakville Transit Bus Route 5/5A – Dundas is a bus route that generally operates in a north-south direction between Oakville GO Station and Dundas GO Station. Both branches of this bus route; Branch 5 and 5A, operate every day for all hours of the day. Service operates with approximately 15-minute headways in the morning and evening hours, respectively.

Access Location: Route 5/5A is accessible near the intersection of Dundas Street & Millcroft Park Drive, which is approximately 400m from the subject site (equivalent to a 5-minute walk).

2.3 CYCLING NETWORK

The subject site is located in an area with excellent access to cycling infrastructure. **Figure 2-3** below details the nearby cycling infrastructure from the subject site. Millcroft Park Drive is a multi-use roadway which is located adjacent to the subject site and offers bicycling connections to the multi-use path along Dundas Street and Walkers Line. Appleby Line also has bike lanes and multi-use paths on both sides of the roadway, offering an extensive north-south biking connection across the City of Burlington.

Figure 2-3: Existing Cycling Network



Source: City of Burlington, 2021

2.4 PEDESTRIAN NETWORK

In the area immediately surrounding the subject site, the existing pedestrian network consists of sidewalks along both sides of Millcroft Park Drive, Dundas Street, Taywood Drive, and Appleby Line. Pedestrian crosswalks are available on all approaches with protected pedestrian phases at all signalized intersections in the study area. The existing pedestrian network provides good connections between the residential and commercial uses in the area as well as nearby transit stops.

2.5 EXISTING TRAFFIC CONDITIONS

Turning movement counts (TMCs) were used as the source of traffic data for the intersection capacity analysis. A summary of the TMC data collected is provided in **Table 2-1**. Detailed traffic counts and signal timing plans are provided in **Appendix A**.

Table 2-1: Summary of Existing Traffic Data

Intersection	Date	Source
Millcroft Drive Park & Dundas Street	**October 7, 2021**	**LEA Consulting Ltd.**
Millcroft Drive Park & Dundas Street	September 10, 2019	Spectrum Traffic
Millcroft Park Drive & Taywood Drive	**October 7, 2021**	**LEA Consulting Ltd.**
Appleby Line & Taywood Drive	**October 10, 2019**	**Halton Region**

Note: The bolded counts have been used for the intersection capacity analysis within this report

Due to limitations ensued by the COVID-19 pandemic in capturing accurate traffic data during typical weekday periods, LEA has used the most appropriate turning movement count (TMC) data available for the study area intersections. Since no recent counts were available for Millcroft Park Drive & Taywood Drive, LEA undertook TMC surveys for the intersections in October 2021. LEA also undertook surveys for the intersection of Millcroft Park Drive & Dundas Street to calculate a COVID-19 adjustment factor for the intersection of Millcroft Park Drive & Taywood Drive.

The COVID-19 adjustment factor was calculated by comparing the pre-COVID-19 September 2019 counts at Millcroft Park Drive & Dundas Street with the COVID-19 October 2021 counts at Millcroft Park Drive & Dundas Street. More specifically, the northbound, southbound, eastbound and westbound volumes were observed and the overall change was determined by dividing Spectrum's 2019 volumes by LEA's 2021 volumes for each peak hour. A summary of the calculations is shown in **Table 2-2.** The average COVID-19 adjustment factors were applied to all the movements at the intersections of Millcroft Park Drive & Dundas Street and Millcroft Park Drive & Taywood Drive.

Table 2-2: COVID-19 Adjustment Factor Calculations

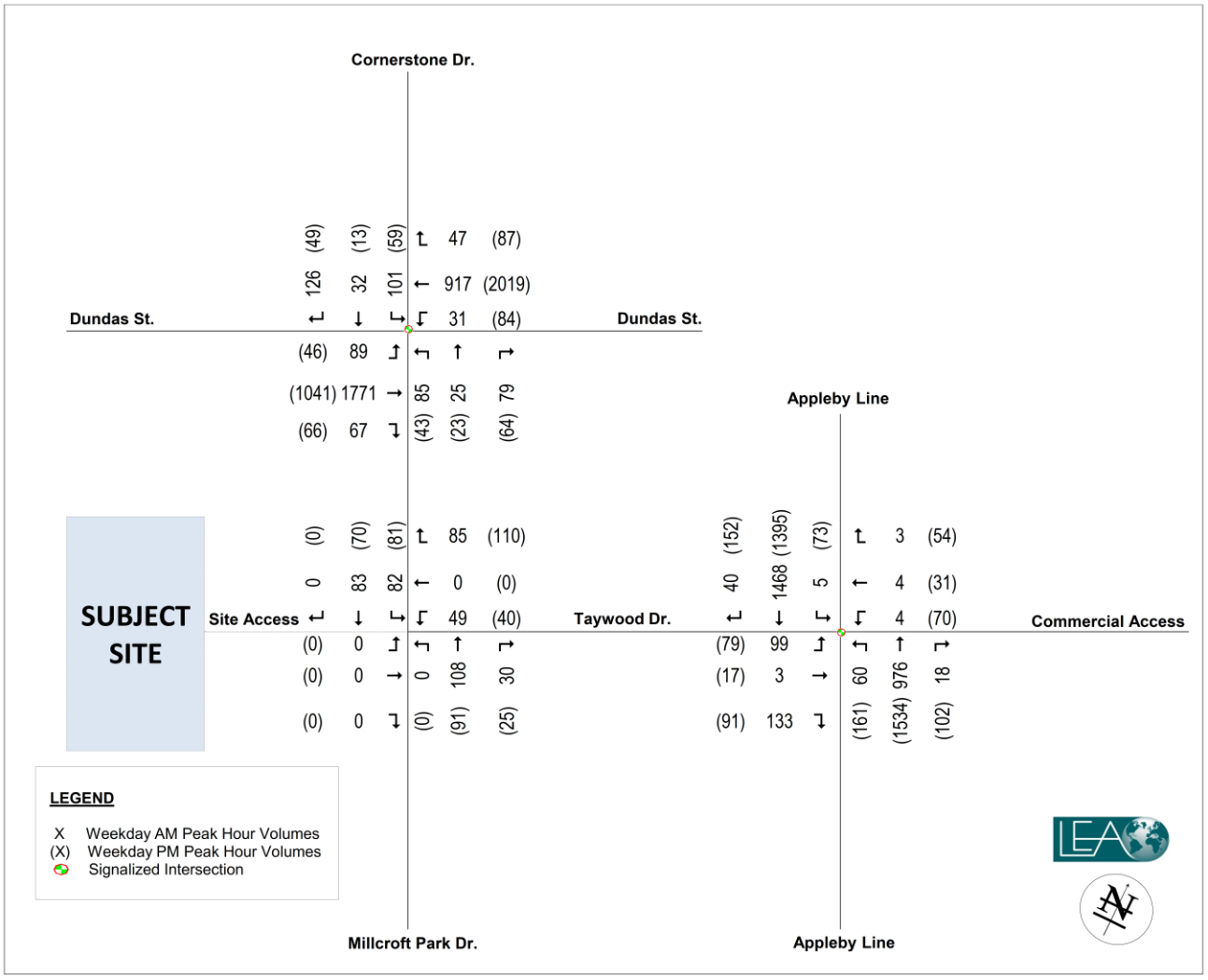
Source of Data	Spectrum (2019)	LEA Consulting (2021)	COVID-19 Adjustment Factor
AM Peak Period			
NB Volumes	180	158	1.1
SB Volumes	242	216	1.1
EB Volumes	2035	1606	1.3
WB Volumes	1000	829	1.2
		Average	**1.2**
PM Peak Period			
NB Volumes	125	130	1.0
SB Volumes	99	121	0.8
EB Volumes	1175	1153	1.0
WB Volumes	2309	2190	1.1
		Average	**1.0**

2.6 INTERSECTION CAPACITY ANALYSIS

Existing traffic operations were assessed to provide a baseline for future traffic operations. The capacity analysis was undertaken using Synchro version 11.0, which is based on the Highway Capacity Manual 2000 methodology and adhering to the Halton Region TIS Guidelines. The peak hour factors (PHFs) have been calculated based on the turning movement counts. It is noted that the Synchro analysis parameters for existing AM and PM condition have calibrated, and the parameters can be found in **Appendix B.**

In accordance with the Halton Region TIS Guidelines, movements of interest for signalized intersections are defined as movements with a volume-to-capacity (V/C) ratio greater than 0.85 for overall intersection operations, through movements, or shared through/turning movements and V/C ratio greater than 0.95 for exclusive movements. For unsignalized intersections, movements of interest have been identified for individual movements with level of service (LOS) of "D" or worse. The existing traffic volumes in the study area during the weekday AM and PM peak hours are illustrated in **Figure 2-4.**

Figure 2-4: Existing Peak Hour Traffic Volumes



The intersection capacity analysis was conducted under existing conditions during the weekday AM and PM peak hours. The results for the analysis are summarized in **Table 2-3** and **Table 2-4** for the signalized and unsignalized intersections, respectively. Detailed existing capacity analysis results can be found in **Appendix B.**

Table 2-3: Existing Intersection Capacity Analysis (Signalized)

Intersection	Overall			Movements of Interest					
	V/C	Delay (s)	LOS	Movement	V/C	Delay (s)	LOS	Queue (m)	
								50th	95th
Weekday AM Peak Hour									
Millcroft Park Drive and Dundas Street	0.74	18.6	B	EBL	0.24	5.0	A	5.1	11.8
				EBT	0.76	14.4	B	175.9	249.7
				EBR	0.05	5.8	A	0.0	5.6
				WBL	0.23	12.6	B	1.7	5.2
				WBT	0.43	10.0	B	59.6	91.4
				WBR	0.03	6.8	A	0.0	2.7
				NBL	0.67	68.4	E	25.1	42.9
				NBTR	0.17	53.5	D	7.0	24.1
				SBL	0.64	64.4	E	29.8	48.3
				SBTR	0.25	55.2	E	8.9	30.5
Appleby Line and Taywood Drive	0.48	10.7	B	EBL	0.51	49.8	D	23.7	40.1
				EBTR	0.10	46.7	D	0.7	18.5
				WBL	0.03	44.4	D	0.9	4.1
				WBT	0.02	46.0	D	0.9	4.2
				NBL	0.27	5.1	A	2.7	7.2
				NBT	0.40	4.9	A	35.9	57.7
				NBR	0.01	3.1	A	0.0	0.8
				SBL	0.01	5.8	A	0.4	2.1
				SBTR	0.46	8.8	A	58.9	84.9
Weekday PM Peak Hour									
Millcroft Park Drive and Dundas Street	0.75	14.8	B	EBL	0.34	16.9	B	1.9	8.1
				EBT	0.41	7.6	A	55.4	80.9
				EBR	0.05	5.2	A	0.0	4.4
				WBL	0.22	3.9	A	3.5	8.3
				WBT	0.80	14.1	B	185.8	266.3
				WBR	0.06	4.9	A	0.0	5.4
				NBL	0.30	57.8	E	12.0	23.9
				NBTR	0.19	58.0	E	6.5	23.2
				SBL	0.45	60.7	E	17.0	31.3
				SBTR	0.12	58.3	E	3.5	17.9
Appleby Line and Taywood Drive	0.68	15.7	B	EBL	0.51	59.8	E	23.5	40.0
				EBTR	0.16	56.7	E	4.8	23.0
				WBL	0.58	64.2	E	20.9	36.9
				WBT	0.17	56.7	E	8.9	18.9
				WBR	0.04	55.6	E	0.0	12.3
				NBL	0.62	13.5	B	8.3	35.2
				NBT	0.67	12.0	B	121.7	186.7
				NBR	0.07	5.8	A	1.2	8.2
				SBL	0.32	8.8	A	3.5	8.6
				SBTR	0.49	11.0	B	74.7	113.1

Under existing conditions, during the weekday AM and PM peak hours, all signalized intersections within the study area are operating with good levels of service. Both signalized intersections are operating with an overall LOS of "B" during both peak hours. It is noted that a number of movements are operating with LOS "D" and "E" however, all the movements continue to operate with ample residual capacity. Furthermore, the results indicate that all 95th percentile queues can be accommodated within the available storage length.

Table 2-4: Existing Intersection Capacity Analysis (Unsignalized)

Intersection	Movement of Interest	Weekday AM Peak Hour					
		Flow Rate (vph)	Capacity (vph)	Control Delay (s)	95th Queue (m)	V/C	LOS
Millcroft Park Drive and Taywood Drive	NBTR	155	889	7.8	-	-	A
	SBLT	185	861	8.3	-	-	A
Intersection	**Movement of Interest**	**Weekday PM Peak Hour**					
		Flow Rate (vph)	**Capacity (vph)**	**Control Delay (s)**	**95th Queue (m)**	**V/C**	**LOS**
Millcroft Park Drive and Taywood Drive	NBTR	124	895	7.6	-	-	A
	SBLT	160	864	8.1	-	-	A

Under existing conditions, during the weekday AM and PM peak hours, all unsignalized intersections are operating with excellent levels of service. No constraints have been identified.

3 FUTURE CONDITIONS

Future background traffic includes the traffic added to the network from other future developments within the surrounding study area, corridor growth, as well as all planned infrastructure improvements within the study area. The future background conditions will be used as the baseline for evaluating the impact of the proposed development. This study considers a five-year horizon to the year 2026.

3.1 BACKGROUND DEVELOPMENTS

Six (6) background developments were identified within the study area. Background development traffic volumes were extracted from their respective traffic studies and were subsequently assigned to the study area road network. The site statistics of the background developments are summarized in **Table 3.1**, and excerpts from the studies are provided in **Appendix C**.

Table 3.1: Background Developments

Address	Document/Date	Prepared By	Units / GFA
Millcroft Greens	Transportation Impact Study, October 2020	C.F. Crozier & Associates Consulting Engineers	98 detached residential units and 126 condominium units
2273 Turnberry Road	Transportation Impact Study, May 2020	Paradigm Transportation Solutions Limited	70 townhouse units
4721 Palladium Way	Transportation Impact Study, September 2017	Paradigm Transportation Solutions Limited	A Place of worship with a small office component
4853 Palladium Way	Transportation Impact Study, June 2016	Paradigm Transportation Solutions Limited	Ten (10) employment blocks with approximately 24,498 m^2
4853 Thomas Alton Boulevard	Transportation Impact Study, September 2015	Paradigm Transportation Solutions Limited	691 residential units consisting of 498 high-rise condominium units, 160 stacked townhouse units, 21 regular townhouse units, and 12 back-to-back townhouse units
4880 Valera Road	Response to Transportation Staff Comments, June 2018	Paradigm Transportation Solutions Limited	70 townhouse units, 344 high-rise condominium and 2,100 ft^2 of ground floor commercial retail

3.2 CORRIDOR GROWTH

Based on discussions with the City of Burlington, a 2% growth rate per annum was applied to the through movements at all study area intersections.

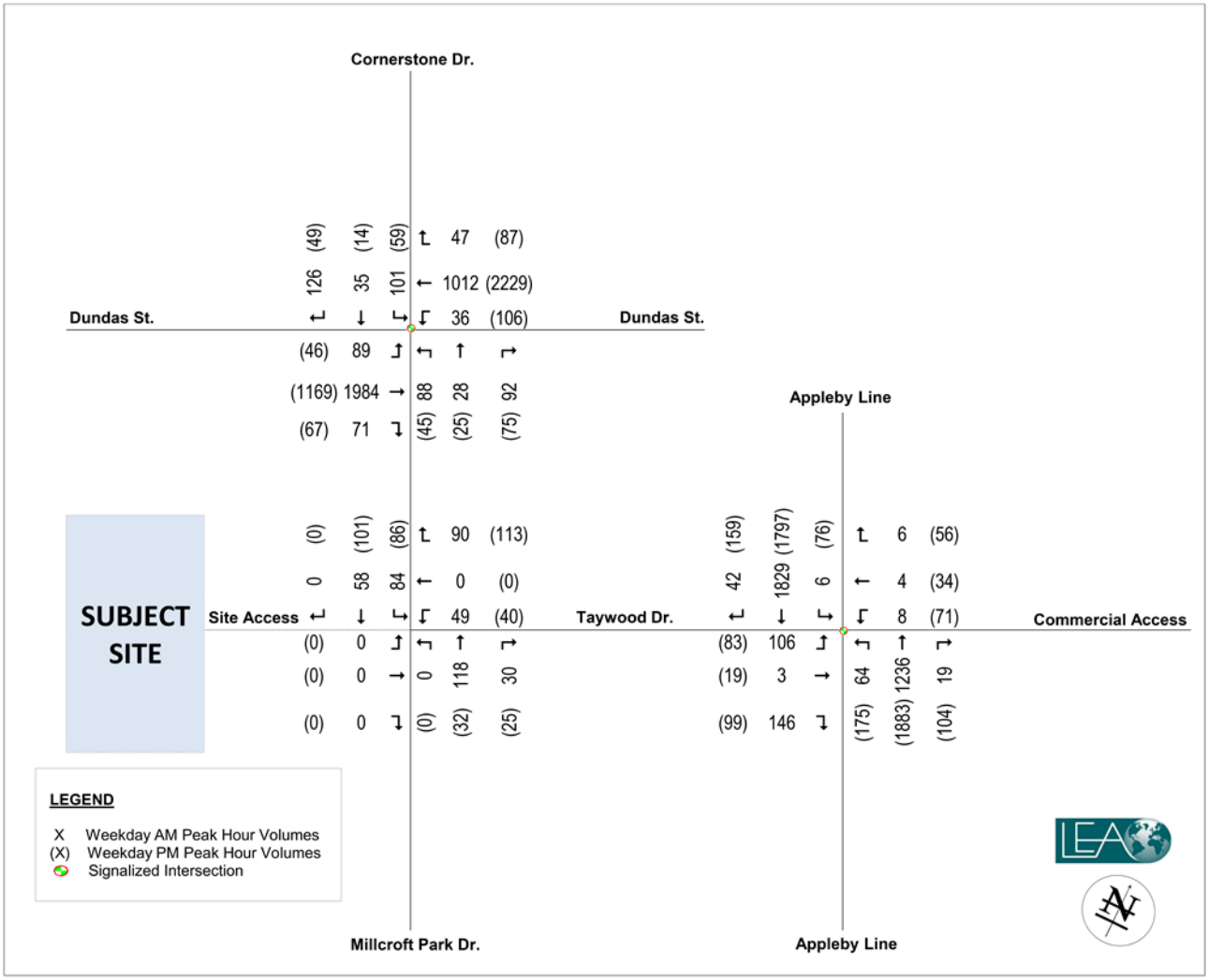
3.3 INFRASTRUCTURE IMPROVEMENTS

No infrastructure improvements have been identified within the study area.

3.4 INTERSECTION CAPCITY ANALYSIS

Future background traffic conditions were determined by incorporating background development traffic, corridor growth and existing traffic volumes. It is noted that the study area intersections lane configurations remain unchanged from existing conditions. The future background traffic volumes for the weekday AM and PM peak hours are illustrated in **Figure 3-1**.

Figure 3-1: Future Background Traffic Volumes



The intersection capacity analysis was conducted under future background conditions during the weekday AM and PM peak hours, where the results for the studied signalized and unsignalized intersections are summarized in **Table 3-2** and **Table 3-3**, respectively. Detailed capacity results are provided in **Appendix D.**

Table 3-2: Future Background Capacity Analysis (Signalized)

Intersection	Overall			Movements of Interest					
	V/C	Delay (s)	LOS	Movement	V/C	Delay (s)	LOS	Queue (m) 50th	Queue (m) 95th
Weekday AM Peak Hour									
Millcroft Park Drive and Dundas Street	0.83	22.0	C	EBL	0.27	5.8	A	5.3	12.2
				EBT	0.87	20.4	C	234.2	366.4
				EBR	0.05	6.5	A	0.0	6.1
				WBL	0.30	22.2	C	2.1	8.5
				WBT	0.48	11.0	B	70.2	107.7
				WBR	0.03	7.1	A	0.0	2.8
				NBL	0.68	68.5	E	26.2	44.6
				NBTR	0.19	53.1	D	7.8	25.9
				SBL	0.67	66.2	E	29.8	48.6
				SBTR	0.31	55.2	E	12.7	34.6
Appleby Line and Taywood Drive	0.58	11.8	B	EBL	0.53	49.7	D	25.3	42.1
				EBTR	0.22	47.2	D	6.5	25.6
				WBL	0.06	44.2	D	1.7	6.2
				WBT	0.02	45.5	D	0.9	4.1
				NBL	0.38	8.2	A	3.0	8.8
				NBT	0.52	6.0	A	53.2	84.7
				NBR	0.01	3.2	A	0.0	0.9
				SBL	0.02	6.2	A	0.5	2.5
				SBTR	0.58	10.6	B	84.2	124.9
Weekday PM Peak Hour									
Millcroft Park Drive and Dundas Street	0.83	17.4	B	EBL	0.37	26.4	C	1.9	12.5
				EBT	0.46	8.3	A	66.0	97.8
				EBR	0.05	5.4	A	0.0	4.7
				WBL	0.31	4.8	A	4.5	10.1
				WBT	0.89	18.5	B	243.1	367.1
				WBR	0.06	5.0	A	0.0	5.4
				NBL	0.32	57.8	E	12.5	25.0
				NBTR	0.20	58.1	E	7.0	24.9
				SBL	0.49	61.5	E	17.0	31.5
				SBTR	0.13	58.2	E	3.8	18.2
Appleby Line and Taywood Drive	0.81	23.0	C	EBL	0.52	59.8	E	24.6	41.3
				EBTR	0.20	56.6	E	6.4	25.5
				WBL	0.60	65.5	E	21.3	37.6
				WBT	0.18	56.4	E	9.9	20.4
				WBR	0.04	55.2	E	0.0	13.0
				NBL	0.59	40.2	D	34.2	74.7
				NBT	0.84	18.3	B	198.5	321.4
				NBR	0.08	6.4	A	2.6	11.0
				SBL	0.45	19.0	B	3.8	19.8
				SBTR	0.70	20.3	C	145.4	163.6

Under future background conditions, during the weekday AM and PM peak hours, all signalized intersections within the study area are anticipated to continue operating with good levels of service. Both signalized intersections are operating with an overall LOS of “C” or better during both peak hours.

Table 3-3: Future Background Intersection Capacity Analysis (Unsignalized)

Intersection	Movement of Interest	Weekday AM Peak Hour					
		Flow Rate (vph)	Capacity (vph)	Control Delay (s)	95th Queue (m)	V/C	LOS
Millcroft Park Drive and Taywood Drive	NBTR	167	894	7.8	-	-	A
	SBLT	159	854	8.1	-	-	A
Intersection	**Movement of Interest**	**Weekday PM Peak Hour**					
		Flow Rate (vph)	Capacity (vph)	Control Delay (s)	95th Queue (m)	V/C	LOS
Millcroft Park Drive and Taywood Drive	NBTR	61	918	7.1	-	-	A
	SBLT	198	882	8.2	-	-	A

All movements for the unsignalized intersection also continue to operate well within capacity and minimal delay during the weekday AM and PM peak hours under future background conditions.

4 SITE GENERATED TRAFFIC

The development proposal consists of 30 single-detached homes. The sections below discuss the calculation, distribution, and assignment of site-generated vehicle trips.

4.1 MODAL SPLIT

The subject site is located within a neighbourhood that is well serviced by transit. Data from the 2016 Transportation Tomorrow Survey (TTS) was extracted to identify the modal split of the neighbourhood for home-based trips originating from the area during the AM and PM peak periods (TAZs 4079, 4080, 4188, 4189). The modal split is summarized in **Table 4-1** with detailed calculated provided in **Appendix E.**

Table 4-1: Modal Split

	Driver	Transit	Passenger	Cycle	Walk
AM Inbound	87%	5%	6%	0%	2%
AM Outbound	87%	5%	6%	0%	2%
PM Inbound	85%	6%	7%	0%	2%
PM Outbound	85%	6%	7%	0%	2%

4.2 TRIP GENERATION

Trip generation for the proposed development was estimated using baseline trip rates from the Institute of Transportation Engineers (ITE) Trip Generation Manual 10th Edition. ITE rates for LUC 210 Single-Family Detached Housing were used to get the baseline vehicle trips. The subject site's trip generation is provided in **Table 4-2**.

Table 4-2: Subject Site Trip Generation

Land Use	Description	Weekday AM Peak Hour			Weekday PM Peak Hour		
		In	Out	Total	In	Out	Total
Single-Family Detached Housing 30 Dwelling units	Vehicle Trip Rates	0.19	0.56	0.74	0.62	0.37	0.99
	ITE Vehicle Trips	6	17	22	19	11	30
	Person Trips	6	19	25	23	14	37
	Driver	5	17	22	20	12	32
	Transit	0	1	1	1	1	2
	Passenger	0	1	2	2	1	3
	Walk/Cycle	1	0	0	0	0	0
Net Auto Trips		**5**	**17**	**22**	**20**	**12**	**32**

The subject site is anticipated to generate 22 two-way trips during the AM peak hour (5 inbound and 17 outbound), and 32 more two-way trips during the PM peak hour (20 inbound and 12 outbound).

4.3 TRIP DISTRIBUTION AND ASSIGNMENT

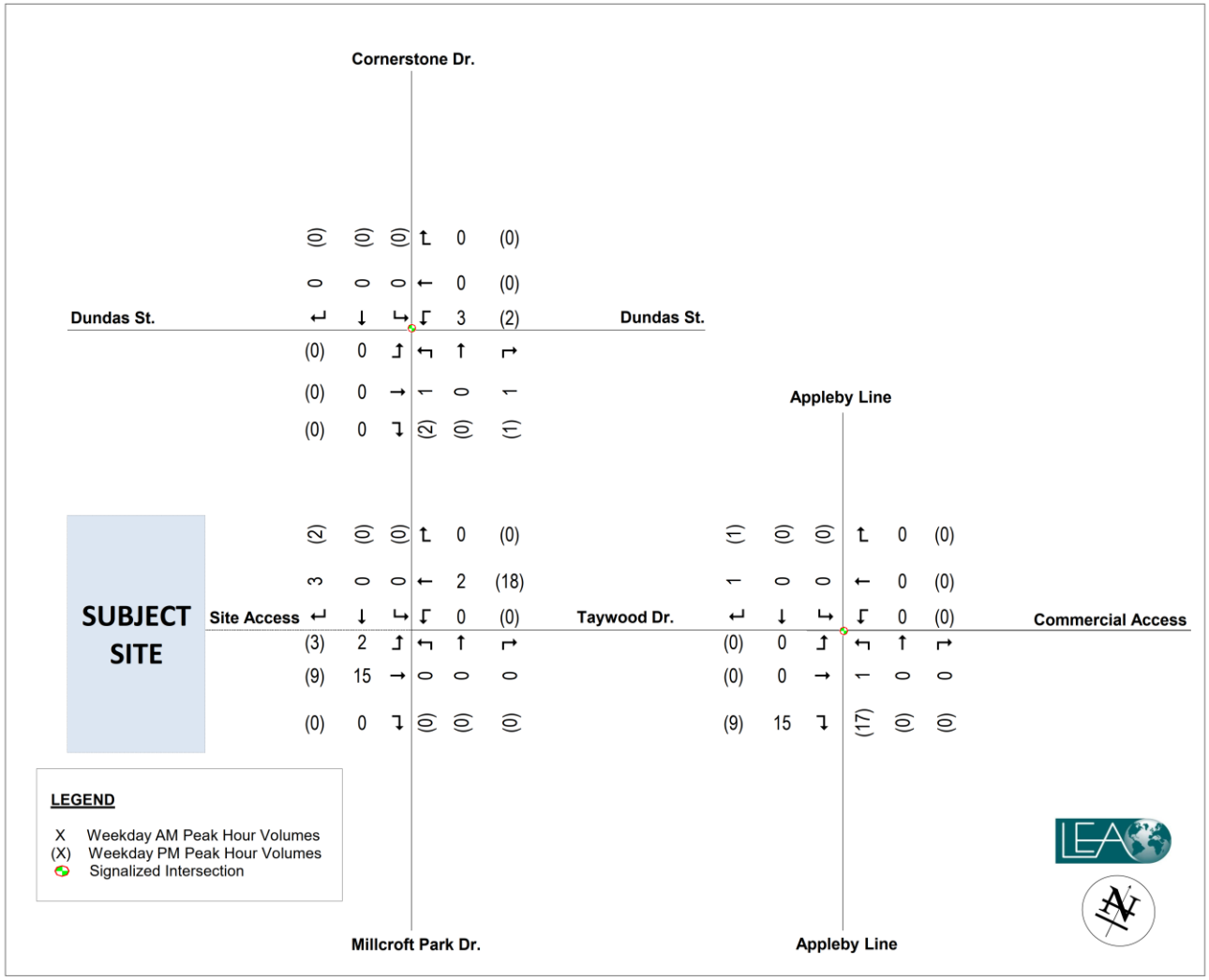
Directional trip distribution of the site traffic was derived using Transportation Tomorrow Survey (TTS) 2016 data. The site traffic was assigned to the road network based on trip patterns in the study area, location and configuration of the site access, and the route providing the shortest travel time. **Table 4-3** below outlines the trip assignment for this study. Detailed TTS calculations are provided in **Appendix E.**

Table 4-3: Trip Assignment

Time Periods	Internal				External			
	N	E	S	W	N	E	S	W
AM (IN)	0%	0%	53%	17%	0%	15%	10%	6%
AM (OUT)	0%	0%	22%	8%	4%	54%	3%	10%
PM (IN)	0%	0%	14%	3%	0%	83%	0%	0%
PM (OUT)	3%	0%	53%	18%	4%	11%	2%	9%

The site-generated traffic volumes for the weekday AM and PM peak hours are illustrated below in **Figure 4-1**

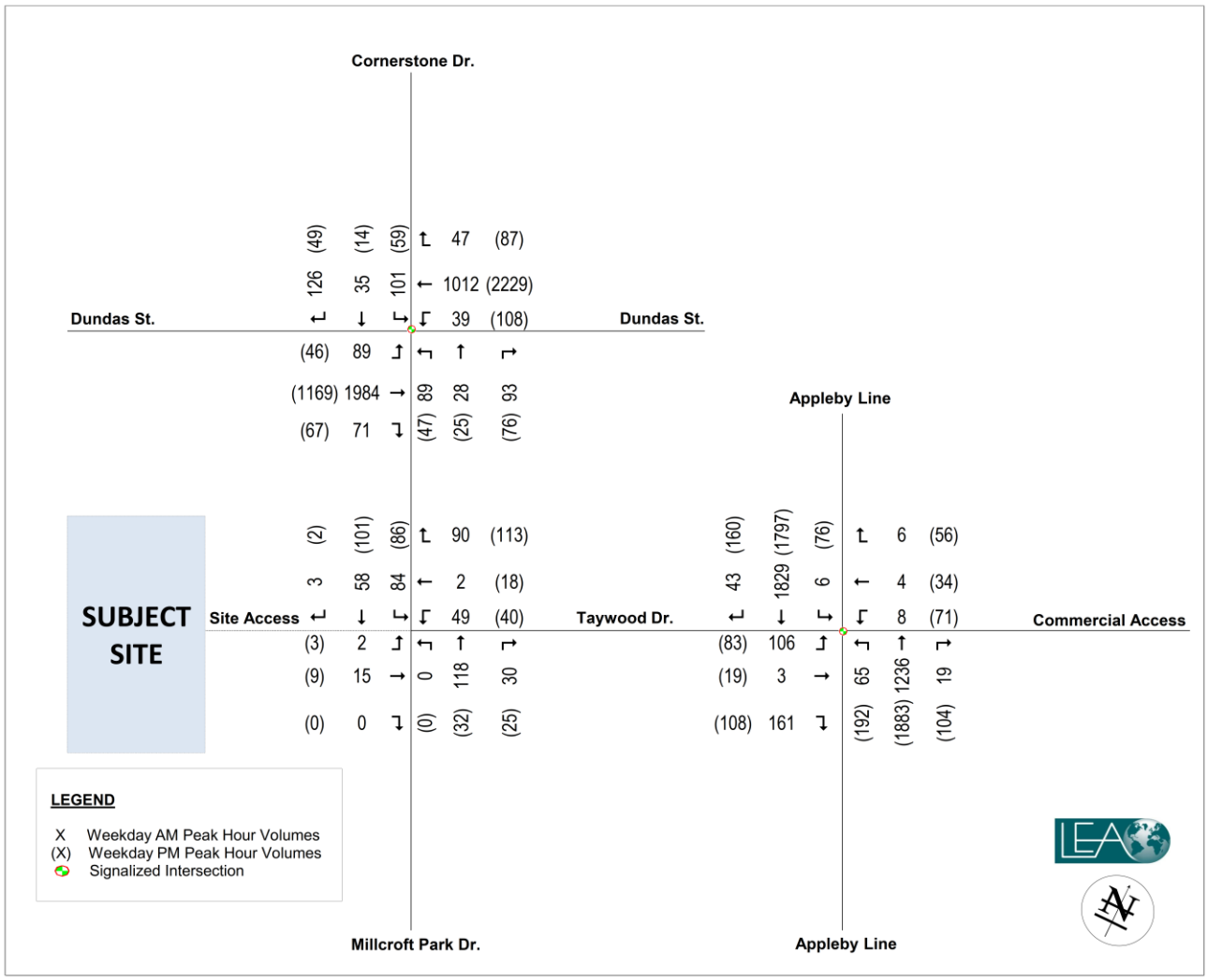
Figure 4-1: Site Generated Peak Hour Traffic Volumes



5 FUTURE CONDITIONS

Future total traffic conditions include the addition of site trips to the future background volumes. The future total traffic volumes for the weekday AM and PM peak hours are illustrated **Figure 5-1**.

Figure 5-1: Future Total Traffic Volumes



5.1 INTERSECTION CAPACITY ANALYSIS

Intersection capacity analysis was conducted under future total conditions during the weekday AM and PM peak hours. **Table 5-1** and **Table 5-2** details the capacity analysis for the signalized intersections and unsignalized intersections, respectively. Detailed capacity results are provided in **Appendix F**.

Table 5-1: Future Total Intersection Capacity Analysis (Signalized)

Intersection	Overall			Movements of Interest					
	V/C	Delay (s)	LOS	Movement	V/C	Delay (s)	LOS	Queue (m)	
								50th	95th
Weekday AM Peak Hour									
Millcroft Park Drive and Dundas Street	0.83	22.1	C	EBL	0.27	5.8	A	5.3	12.3
				EBT	0.87	20.5	C	234.2	368.4
				EBR	0.05	6.6	A	0.0	6.2
				WBL	0.32	22.8	C	2.2	9.9
				WBT	0.48	11.0	B	70.2	107.8
				WBR	0.03	7.1	A	0.0	2.8
				NBL	0.69	69.0	E	26.5	44.5
				NBTR	0.19	53.1	D	7.7	26.2
				SBL	0.67	66.8	E	29.9	48.6
				SBTR	0.31	55.2	E	12.7	34.6
Appleby Line and Taywood Drive	0.58	12.0	B	EBL	0.53	49.7	D	25.3	42.1
				EBTR	0.29	47.9	D	9.9	30.3
				WBL	0.06	44.2	D	1.7	6.2
				WBT	0.02	45.5	D	0.9	4.1
				NBL	0.39	8.3	A	3.0	9.3
				NBT	0.52	6.0	A	53.2	84.7
				NBR	0.01	3.2	A	0.0	0.9
				SBL	0.02	6.2	A	0.5	2.5
				SBTR	0.58	10.6	B	84.3	124.9
Weekday PM Peak Hour									
Millcroft Park Drive and Dundas Street	0.83	17.5	B	EBL	0.37	26.5	C	1.9	12.5
				EBT	0.46	8.3	A	66.3	97.8
				EBR	0.05	5.4	A	0.0	4.7
				WBL	0.31	4.8	A	4.6	10.4
				WBT	0.89	18.6	B	243.8	367.1
				WBR	0.06	5.0	A	0.0	5.4
				NBL	0.33	57.9	E	13.1	25.5
				NBTR	0.20	58.0	E	7.0	24.9
				SBL	0.49	61.4	E	17.0	31.5
				SBTR	0.13	58.1	E	3.8	18.2
Appleby Line and Taywood Drive	0.82	23.5	C	EBL	0.51	59.2	E	24.6	41.1
				EBTR	0.25	56.9	E	9.1	29.0
				WBL	0.63	68.0	E	21.3	37.8
				WBT	0.18	56.1	E	9.9	20.3
				WBR	0.04	54.9	D	0.0	13.0
				NBL	0.65	43.8	D	39.8	89.4
				NBT	0.84	18.6	B	200.2	330.1
				NBR	0.08	6.5	A	2.6	11.1
				SBL	0.46	19.4	B	3.8	20.0
				SBTR	0.71	20.6	C	146.8	163.9

Similar to future background conditions, under future total conditions, the signalized intersections are operating at acceptable overall levels of service of "C" or better during both peak hours. The results indicate minimal increases in v/c ratios and delay when compared to future background conditions.

Table 5-2: Future Total Intersection Capacity Analysis (Unsignalized)

Intersection	Movement of Interest	Weekday AM Peak Hour					
		Flow Rate (vph)	Capacity (vph)	Control Delay (s)	95th Queue (m)	V/C	LOS
Millcroft Park Drive and Taywood Drive	EBLTR	19	668	8.0	-	-	A
	WBLTR	158	759	8.5	-	-	A
	NBLTR	167	776	8.5	-	-	A
	SBLTR	162	740	8.8	-	-	A
Intersection	Movement of Interest	Weekday PM Peak Hour					
		Flow Rate (vph)	Capacity (vph)	Control Delay (s)	95th Queue (m)	V/C	LOS
Millcroft Park Drive and Taywood Drive	EBLTR	13	693	7.9	-	-	A
	WBLTR	182	804	8.3	-	-	A
	NBLTR	61	781	7.7	-	-	A
	SBLTR	200	760	9.0	-	-	A

The unsignalized intersections also continue to operate within the roadway capacity and with acceptable delays during the weekday AM and PM peak hours. Overall, the addition of the proposed development is expected to have an acceptable impact on the surrounding road network.

6 PARKING REQUIREMENTS

6.1 VEHICLE PARKING

According to the City of Burlington Zoning By-Law 2020, a total of 60 residential parking spaces are required for the proposed development. It is understood that each single-detached home will be able to accommodate two (2) parking spaces satisfying the by-law requirements. **Table 6-1** summarizes the parking requirements, as well as the proposed parking supply.

Table 6-1: City of Burlington By-law 2020 Parking Requirements

Use	Unit Count	Minimum Parking Rate	Parking Requirement	Parking Proposed
Detached Dwelling	30	2 per unit	60	60

7 ACCESS REVIEW

Access to the subject site will be provided via a new local road that will connect to Millcroft Park Drive. The road has been designed in accordance with the City of Burlington Standard Roadway Section for 18m Road Allowance – Sidewalk on Both Sides (DWG No. S-18A)

A review of the functionality and accessibility of the new local road indicates that fire trucks, garbage trucks, and passenger vehicles can safely access the subject site. Swept path diagrams are provided in **Appendix G**.

8 TRANSPORTATION DEMAND MANAGEMENT (TDM)

Transportation Demand Management (TDM) is a set of strategies which strive towards a more efficient transportation network by influencing travel behavior. Effective TDM measures can reduce vehicle usage and encourage people to engage in more sustainable methods of travel. There are various opportunities to incorporate TDM measures that support alternative modes of transportation. The recommendations should enhance non-single occupancy auto vehicle trips for the future residents of the subject development. These TDM strategies are critical in achieving a balanced multi-modal transportation system in the City of Burlington. A variety of TDM measures are proposed for the subject site, which are detailed below.

8.1 PEDESTRIAN BASED STRATEGIES

Connections to pedestrian pathways

The proposed subject site development will include an accessible local road throughout the development, which will provide pedestrian connections to Millcroft Park Drive. This local road will provide convenient access for pedestrians, transit users and cyclists who are accessing the neighbouring roads and amenities. The subject site is also situated in a location with high pedestrian connectivity, with sidewalks located along both sides of Millcroft Park Drive, Dundas Street, Taywood Drive, and Appleby Line.

Walking distance to nearby amenities

The subject site is ideally located from a pedestrian perspective. Burlington Transit bus stops are located with doorstep access and Oakville Transit bus stops are within a 5-minute walk. The area also provides excellent access to parks, grocery stores, restaurants, retail stores, and pharmacies, amongst other uses. This variety of uses can be accessed within a 15-minute walking distance.

8.2 TRANSIT-BASED STRATEGIES

Connections to transit network

The proposed development is within the area of existing bus routes operated by Burlington Transit and Oakville Transit. Pedestrian pathways are along Millcroft Park Drive and Dundas Street to provide direct connection to the current Burlington Transit and Oakville Transit bus stops at Millcroft Park Drive & Taywood Drive and Dundas Street & Millcroft Park Drive, respectively.

8.3 CYCLING-BASED STRATEGIES

Bicycle connectivity

The subject site is located in close proximity to an extensive cycling network, including bike lanes along Millcroft Park Drive, Dundas Street, and Walkers Line. Cyclists can easily access these bike lanes from the subject site by cycling along the new local road within the proposed development, which provides connections to the Millcroft Park Drive bike lane. Cyclists can also use the Millcroft Park Drive and Dundas Street bike lanes to access a range of amenities including grocery stores, restaurants, and retail stores, which are located within a 5-minute biking distance.

9 CONCLUSIONS

- The proposed development consists of 30 single-detached homes and a new local road with two (2) connections to Millcroft Park Drive. It is understood that each single-detached home will be able to accommodate two (2) parking spaces each in accordance with the City of Burlington Zoning By-Law 2020 requirement.
- The subject site is located in an area that is well-serviced by the Burlington Transit and Oakville Transit network. The site is within walkable distance of bus stops located at Millcroft Park Drive & Taywood Drive and Dundas Street & Millcroft Park Drive.
- The site is expected to generate a total of 22 two-way trips during the weekday AM peak hour (5 inbound, 17 outbound), and 32 two-way trips during the weekday PM peak hour (20 inbound, 12 outbound). The site generated trips were distributed onto the surrounding road network based on TTS data and the most logical routing given the proposed site access.
- Under existing conditions for the signalized and unsignalized intersections for both weekday AM and PM peak hours, all study area intersections are operating at a good level of service 'B' or better.
- Under future background conditions, both signalized and unsignalized intersections, during both weekday AM and PM peak hours are expected to operate at a good levels of service of 'C' or better.
- Under future total conditions, the study area intersections are expected to operate with similar levels of service as future background conditions. The proposed development is anticipated to have an acceptable impact on the surrounding road network.
- In accordance with the City of Burlington Zoning By-Law 2020, a minimum total of 60 residential spaces are required. It is understood that each single-detached home will be able to accommodate two (2) parking spaces thus satisfying the Zoning By-Law requirement.
- A set of TDM measures have been provided containing pedestrian-based, cycling-based, and transit-based strategies to facilitate a reduction in automobile reliance through alternative methods of travel.

APPENDIX A

Existing Traffic Data

Appleby Line @ Taywood Dr

Morning Peak Diagram

Specified Period
From: 7:00:00
To: 9:00:00

One Hour Peak
From: 7:45:00
To: 8:45:00

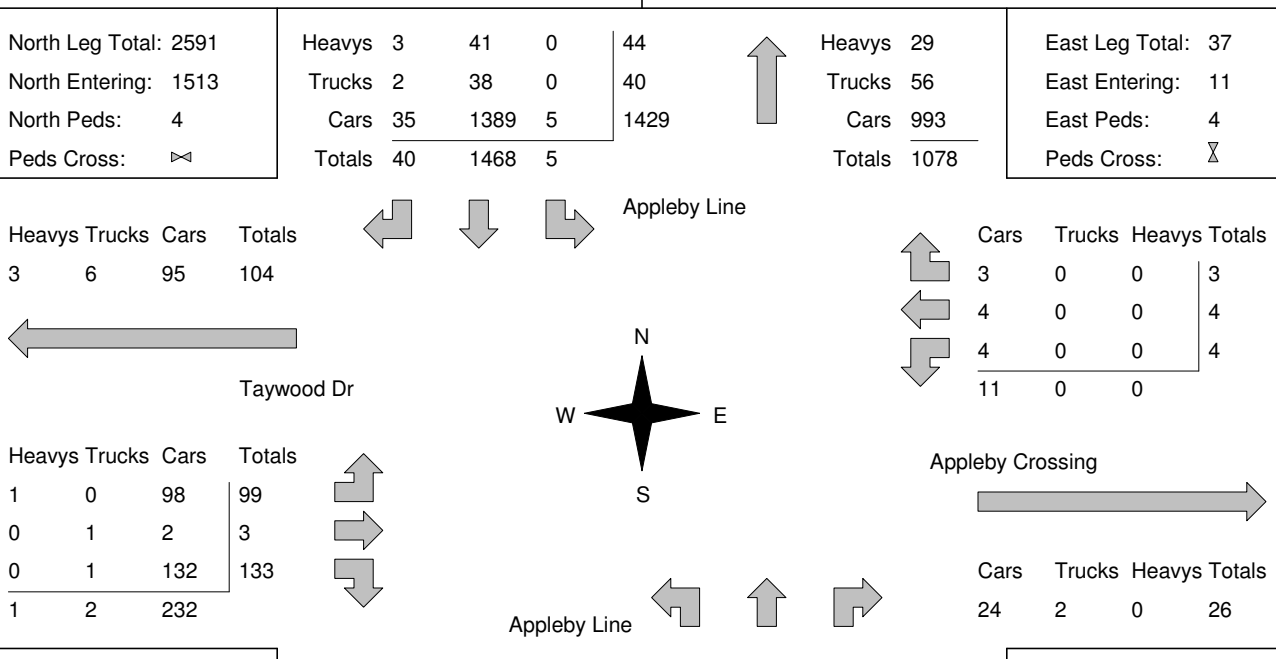
Municipality: Halton Region
Site #: 0000003323
Intersection: Appleby Line & Taywood Dr
TFR File #: 1
Count date: 10-Oct-2019

Weather conditions:
Sunny/Dry

Person(s) who counted:
Ela M
Teresa

**** Signalized Intersection ****

Major Road: Appleby Line runs N/S



Comments

Appleby Line @ Taywood Dr

Mid-day Peak Diagram

Specified Period
From: 11:00:00
To: 14:00:00

One Hour Peak
From: 12:00:00
To: 13:00:00

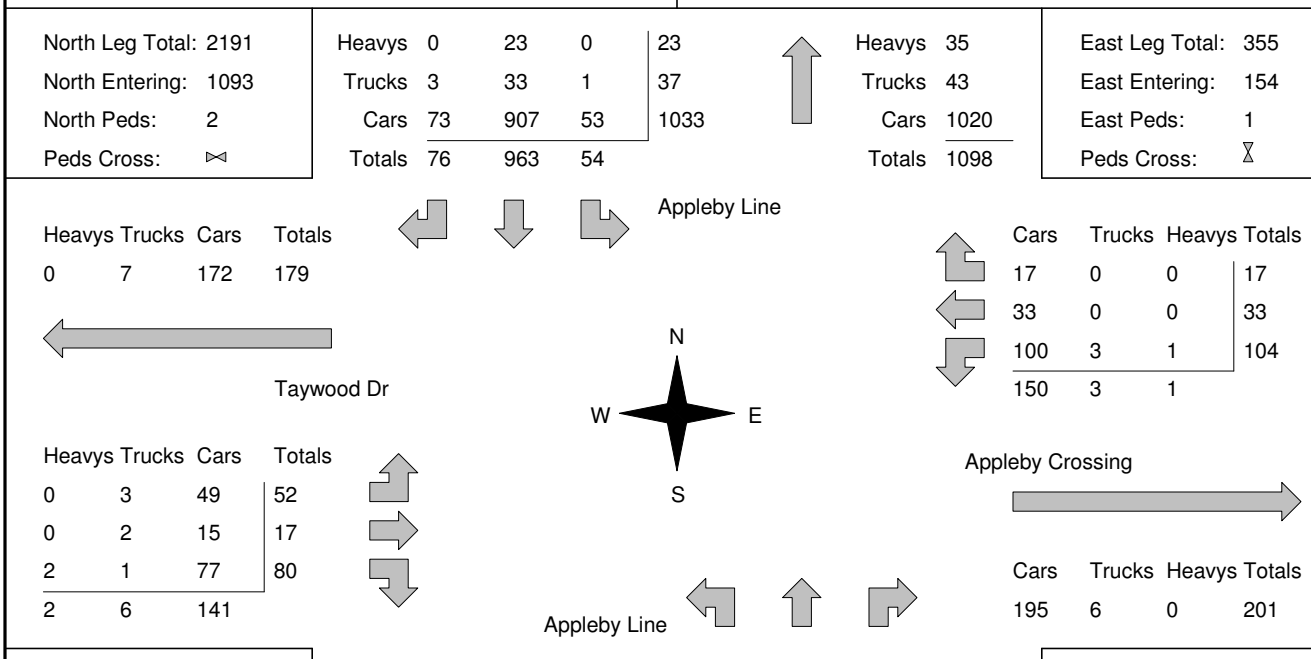
Municipality: Halton Region
Site #: 0000003323
Intersection: Appleby Line & Taywood Dr
TFR File #: 1
Count date: 10-Oct-2019

Weather conditions:
Sunny/Dry

Person(s) who counted:
Ela M
Teresa

**** Signalized Intersection ****

Major Road: Appleby Line runs N/S



Comments

Appleby Line @ Taywood Dr

Afternoon Peak Diagram

Specified Period
From: 15:00:00
To: 18:00:00

One Hour Peak
From: 16:45:00
To: 17:45:00

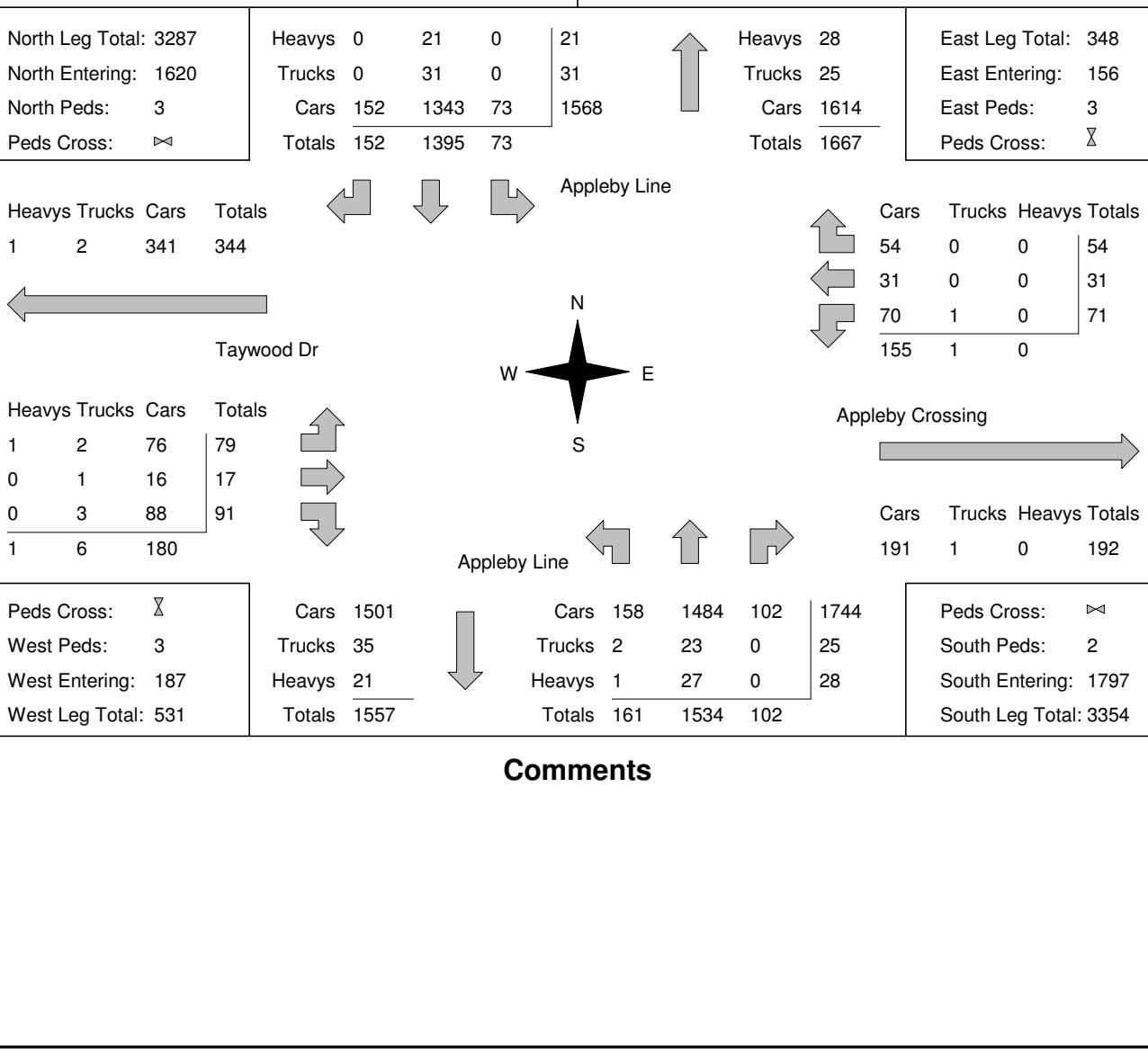
Municipality: Halton Region
Site #: 0000003323
Intersection: Appleby Line & Taywood Dr
TFR File #: 1
Count date: 10-Oct-2019

Weather conditions:
Sunny/Dry

Person(s) who counted:
Ela M
Teresa

**** Signalized Intersection ****

Major Road: Appleby Line runs N/S



Comments

Appleby Line @ Taywood Dr

Total Count Diagram

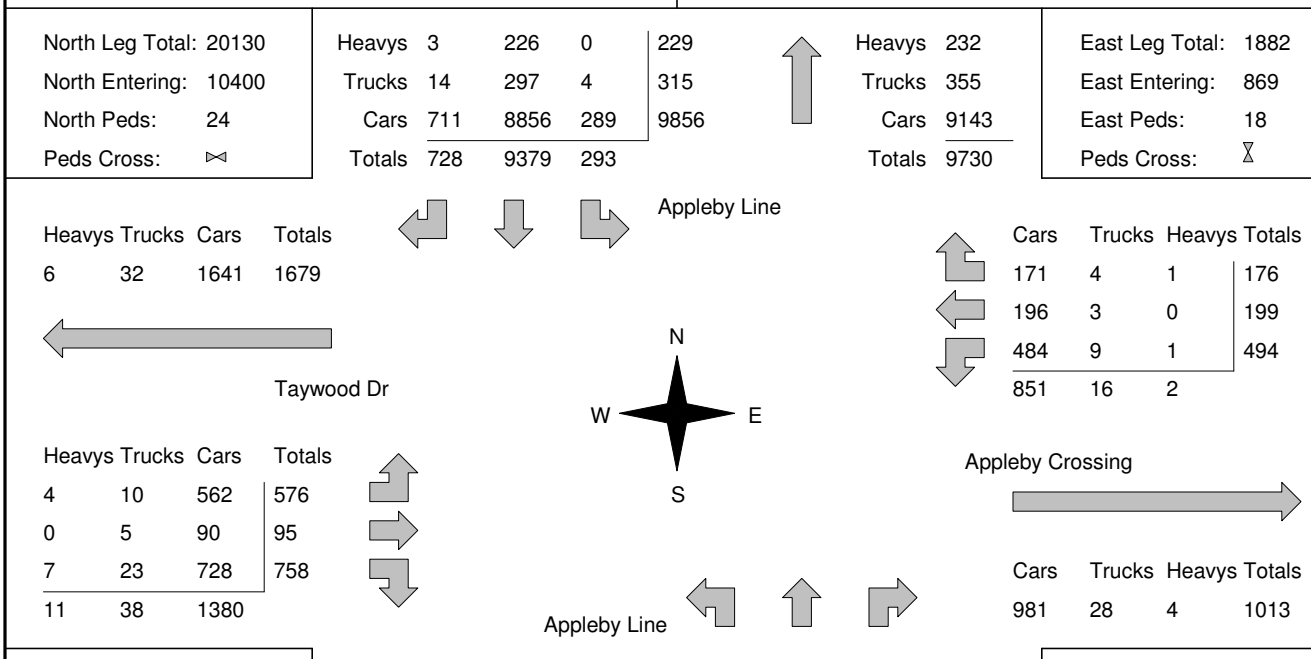
Municipality: Halton Region
Site #: 0000003323
Intersection: Appleby Line & Taywood Dr
TFR File #: 1
Count date: 10-Oct-2019

Weather conditions:
Sunny/Dry

Person(s) who counted:
Ela M
Teresa

**** Signalized Intersection ****

Major Road: Appleby Line runs N/S



Comments

Spectrum

Turning Movement Count
Location Name: DUNDAS ST & MILLCROFT PARK DR / CORNERSTONE DR
Date: Tue, Sep 10, 2019 Deployment Lead: Theo Daglis

Turning Movement Count (2 . DUNDAS ST & MILLCROFT PARK DR / CORNERSTONE DR)

Start Time	N Approach CORNERSTONE DR						E Approach DUNDAS ST						S Approach MILLCROFT PARK DR						W Approach DUNDAS ST						Int. Total (15 min)	Int. Total (1 hr)
	Right N:W	Thru N:S	Left N:E	U-Turn N:N	Peds N:	Approach Total	Right E:N	Thru E:W	Left E:S	U-Turn E:E	Peds E:	Approach Total	Right S:E	Thru S:N	Left S:W	U-Turn S:S	Peds S:	Approach Total	Right W:S	Thru W:E	Left W:N	U-Turn W:W	Peds W:	Approach Total		
06:00:00	2	0	11	0	0	13	1	35	0	0	1	36	7	0	0	0	0	7	1	183	1	0	0	185	241	
06:15:00	4	0	9	0	0	13	0	37	0	0	0	37	11	0	1	0	0	12	2	286	2	0	0	290	352	
06:30:00	9	2	22	0	1	33	5	72	6	0	0	83	22	0	2	0	0	24	1	361	1	0	0	363	503	
06:45:00	12	2	18	0	0	32	1	80	2	0	1	83	17	1	3	0	0	21	5	436	2	0	2	443	579	1675
07:00:00	9	1	19	0	1	29	5	87	5	0	0	97	21	0	9	0	3	30	3	492	2	0	0	497	653	2087
07:15:00	15	5	35	0	0	55	8	170	2	0	0	180	27	4	4	0	0	35	3	519	6	0	4	528	798	2533
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09:45:00	7	1	15	0	1	23	11	168	3	0	1	182	14	2	11	0	0	27	12	232	8	0	3	252	484	2306
BREAK																										
15:00:00	11	3	7	0	13	21	23	351	13	0	9	387	13	7	7	0	14	27	15	251	14	0	32	280	715	
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18:30:00	14	6	12	0	0	32	21	319	9	0	5	349	16	5	9	0	3	30	15	238	16	0	4	269	680	2999
18:45:00	16	1	11	0	1	28	23	301	11	0	1	335	17	4	10	0	4	31	8	238	24	0	1	270	664	2837
Grand Total	442	147	511	0	96	1100	445	9443	459	1	40	10348	557	164	321	0	65	1042	318	10378	360	0	148	11056	**23546**	-
Approach%	40.2%	13.4%	46.5%	0%		-	4.3%	91.3%	4.4%	0%		-	53.5%	15.7%	30.8%	0%		-	2.9%	93.9%	3.3%	0%		-	**-**	-
Totals %	1.9%	0.6%	2.2%	0%		4.7%	1.9%	40.1%	1.9%	0%		43.9%	2.4%	0.7%	1.4%	0%		4.4%	1.4%	44.1%	1.5%	0%		47%	**-**	-
Heavy	7	4	4	0		-	8	400	11	0		-	9	4	5	0		-	7	408	11	0		-	**-**	-
Heavy %	1.6%	2.7%	0.8%	0%		-	1.8%	4.2%	2.4%	0%		-	1.6%	2.4%	1.6%	0%		-	2.2%	3.9%	3.1%	0%		-	**-**	-
Bicycles	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	**-**	-
Bicycle %	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	**-**	-

Spectrum

Turning Movement Count
Location Name: DUNDAS ST & MILLCROFT PARK DR / CORNERSTONE DR
Date: Tue, Sep 10, 2019 Deployment Lead: Theo Daglis

Peak Hour: 08:00 AM - 09:00 AM Weather: Scattered Clouds (11.07 °C)

Start Time	N Approach CORNERSTONE DR						E Approach DUNDAS ST						S Approach MILLCROFT PARK DR						W Approach DUNDAS ST						Int. Total (15 min)
	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	
08:00:00	19	5	12	0	4	36	2	212	9	0	1	223	26	0	22	0	0	48	13	493	13	0	3	519	826
08:15:00	29	7	30	0	7	66	9	249	9	0	0	267	18	4	33	0	9	55	20	480	14	0	40	514	902
08:30:00	45	10	29	0	6	84	6	240	9	0	5	255	20	6	14	0	2	40	24	474	10	0	14	508	887
08:45:00	28	8	20	0	1	56	7	238	10	0	1	255	19	4	14	0	1	37	15	468	11	0	5	494	842
Grand Total	121	30	91	0	18	242	24	939	37	0	7	1000	83	14	83	0	12	180	72	1915	48	0	62	2035	**3457**
Approach%	50%	12.4%	37.6%	0%		-	2.4%	93.9%	3.7%	0%		-	46.1%	7.8%	46.1%	0%		-	3.5%	94.1%	2.4%	0%		-	**-**
Totals %	3.5%	0.9%	2.6%	0%		7%	0.7%	27.2%	1.1%	0%		28.9%	2.4%	0.4%	2.4%	0%		5.2%	2.1%	55.4%	1.4%	0%		58.9%	**-**
PHF	0.67	0.75	0.76	0		0.72	0.67	0.94	0.93	0		0.94	0.8	0.58	0.63	0		0.82	0.75	0.97	0.86	0		0.98	**-**
Heavy	1	0	1	0		2	1	79	2	0		82	1	0	0	0		1	1	93	3	0		97	**-**
Heavy %	0.8%	0%	1.1%	0%		0.8%	4.2%	8.4%	5.4%	0%		8.2%	1.2%	0%	0%	0%		0.6%	1.4%	4.9%	6.3%	0%		4.8%	**-**
Lights	120	30	90	0		240	23	860	34	0		917	82	14	83	0		179	71	1821	45	0		1937	**-**
Lights %	99.2%	100%	98.9%	0%		99.2%	95.8%	91.6%	91.9%	0%		91.7%	98.8%	100%	100%	0%		99.4%	98.6%	95.1%	93.8%	0%		95.2%	**-**
Single-Unit Trucks	0	0	0	0		0	0	37	2	0		39	0	0	0	0		0	0	45	0	0		45	**-**
Single-Unit Trucks %	0%	0%	0%	0%		0%	0%	3.9%	5.4%	0%		3.9%	0%	0%	0%	0%		0%	0%	2.3%	0%	0%		2.2%	**-**
Buses	1	0	1	0		2	1	21	0	0		22	1	0	0	0		1	1	12	3	0		16	**-**
Buses %	0.8%	0%	1.1%	0%		0.8%	4.2%	2.2%	0%	0%		2.2%	1.2%	0%	0%	0%		0.6%	1.4%	0.6%	6.3%	0%		0.8%	**-**
Articulated Trucks	0	0	0	0		0	0	21	0	0		21	0	0	0	0		0	0	36	0	0		36	**-**
Articulated Trucks %	0%	0%	0%	0%		0%	0%	2.2%	0%	0%		2.1%	0%	0%	0%	0%		0%	0%	1.9%	0%	0%		1.8%	**-**
Bicycles on Road	0	0	0	0		0	0	0	1	0		1	0	0	0	0		0	0	1	0	0		1	**-**
Bicycles on Road %	0%	0%	0%	0%		0%	0%	0%	2.7%	0%		0.1%	0%	0%	0%	0%		0%	0%	0.1%	0%	0%		0%	**-**
Pedestrians	-	-	-	-	4	-	-	-	-	-	4	-	-	-	-	-	3	-	-	-	-	-	25	-	**-**
Pedestrians%	-	-	-	-	4%		-	-	-	-	4%		-	-	-	-	3%		-	-	-	-	25.3%		**-**
Bicycles on Crosswalk	-	-	-	-	14	-	-	-	-	-	3	-	-	-	-	-	9	-	-	-	-	-	37	-	**-**
Bicycles on Crosswalk%	-	-	-	-	14.1%		-	-	-	-	3%		-	-	-	-	9.1%		-	-	-	-	37.4%		**-**

Spectrum

Turning Movement Count
Location Name: DUNDAS ST & MILLCROFT PARK DR / CORNERSTONE DR
Date: Tue, Sep 10, 2019 Deployment Lead: Theo Daglis

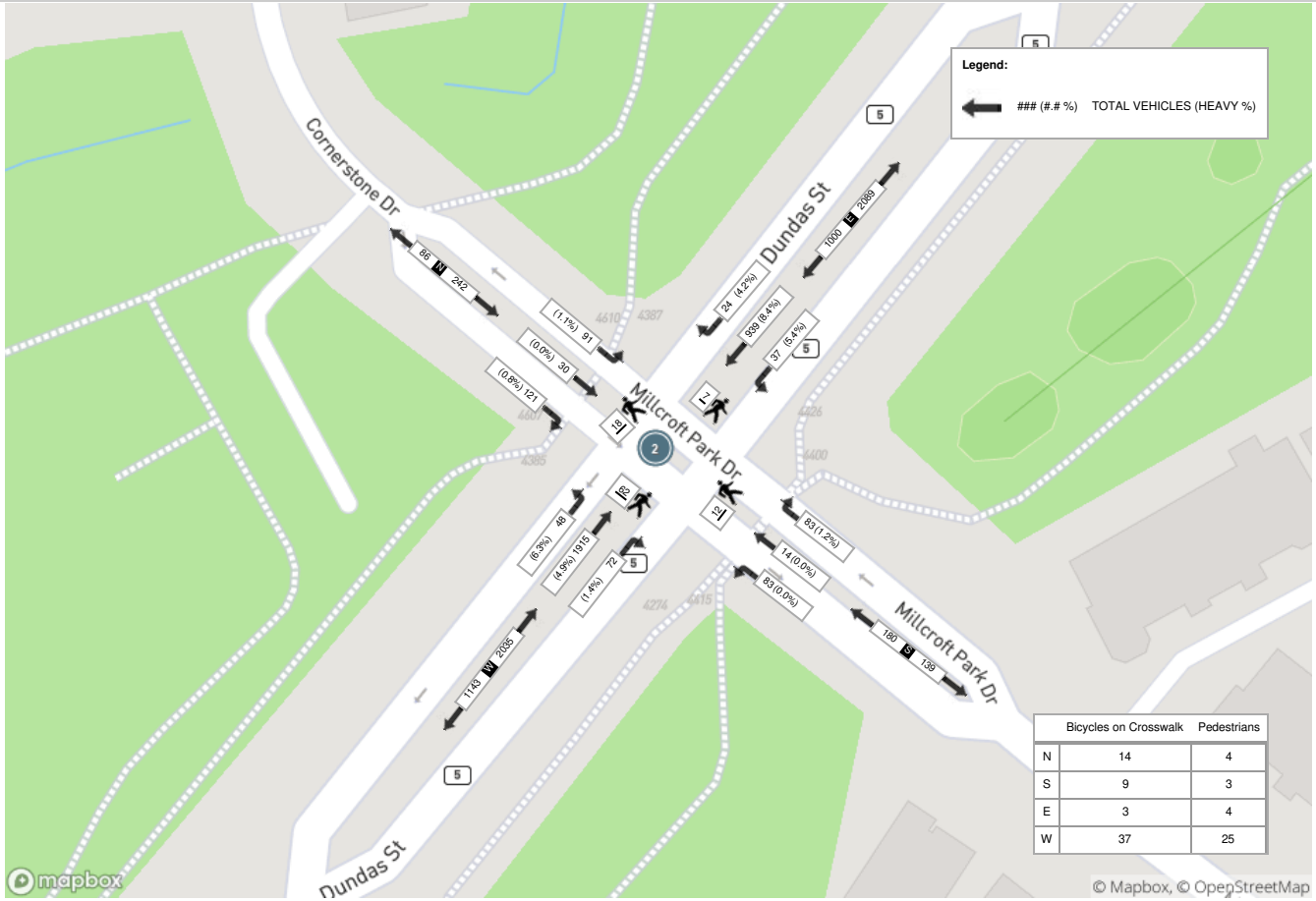
Peak Hour: 04:15 PM - 05:15 PM Weather: Broken Clouds (22.61 °C)

Start Time	N Approach CORNERSTONE DR						E Approach DUNDAS ST						S Approach MILLCROFT PARK DR						W Approach DUNDAS ST						Int. Total (15 min)
	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	
16:15:00	13	3	8	0	3	24	19	554	34	0	0	607	14	7	10	0	1	31	9	288	16	0	0	313	975
16:30:00	9	8	11	0	3	28	19	505	30	0	0	554	14	8	8	0	1	30	14	236	13	0	5	263	875
16:45:00	9	7	10	0	10	26	24	537	36	0	3	597	14	10	10	0	2	34	14	283	10	0	7	307	964
17:00:00	10	4	7	0	4	21	22	497	32	0	2	551	9	11	10	0	1	30	11	257	24	0	4	292	894
Grand Total	41	22	36	0	20	99	84	2093	132	0	5	2309	51	36	38	0	5	125	48	1064	63	0	16	1175	**3708**
Approach%	41.4%	22.2%	36.4%	0%		-	3.6%	90.6%	5.7%	0%		-	40.8%	28.8%	30.4%	0%		-	4.1%	90.6%	5.4%	0%		-	**-**
Totals %	1.1%	0.6%	1%	0%		2.7%	2.3%	56.4%	3.6%	0%		62.3%	1.4%	1%	1%	0%		3.4%	1.3%	28.7%	1.7%	0%		31.7%	**-**
PHF	0.79	0.69	0.82	0		0.88	0.88	0.94	0.92	0		0.95	0.91	0.82	0.95	0		0.92	0.86	0.92	0.66	0		0.94	**-**
Heavy	2	1	1	0		4	2	52	3	0		57	0	1	0	0		1	0	39	1	0		40	**-**
Heavy %	4.9%	4.5%	2.8%	0%		4%	2.4%	2.5%	2.3%	0%		2.5%	0%	2.8%	0%	0%		0.8%	0%	3.7%	1.6%	0%		3.4%	**-**
Lights	38	21	35	0		94	82	2041	129	0		2252	51	35	38	0		124	47	1025	62	0		1134	**-**
Lights %	92.7%	95.5%	97.2%	0%		94.9%	97.6%	97.5%	97.7%	0%		97.5%	100%	97.2%	100%	0%		99.2%	97.9%	96.3%	98.4%	0%		96.5%	**-**
Single-Unit Trucks	1	0	1	0		2	0	29	3	0		32	0	0	0	0		0	0	13	0	0		13	**-**
Single-Unit Trucks %	2.4%	0%	2.8%	0%		2%	0%	1.4%	2.3%	0%		1.4%	0%	0%	0%	0%		0%	0%	1.2%	0%	0%		1.1%	**-**
Buses	1	1	0	0		2	2	12	0	0		14	0	1	0	0		1	0	15	1	0		16	**-**
Buses %	2.4%	4.5%	0%	0%		2%	2.4%	0.6%	0%	0%		0.6%	0%	2.8%	0%	0%		0.8%	0%	1.4%	1.6%	0%		1.4%	**-**
Articulated Trucks	0	0	0	0		0	0	11	0	0		11	0	0	0	0		0	0	11	0	0		11	**-**
Articulated Trucks %	0%	0%	0%	0%		0%	0%	0.5%	0%	0%		0.5%	0%	0%	0%	0%		0%	0%	1%	0%	0%		0.9%	**-**
Bicycles on Road	1	0	0	0		1	0	0	0	0		0	0	0	0	0		0	1	0	0	0		1	**-**
Bicycles on Road %	2.4%	0%	0%	0%		1%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	2.1%	0%	0%	0%		0.1%	**-**
Pedestrians	-	-	-	-	8	-	-	-	-	-	2	-	-	-	-	-	3	-	-	-	-	-	9	-	**-**
Pedestrians%	-	-	-	-	17.4%		-	-	-	-	4.3%		-	-	-	-	6.5%		-	-	-	-	19.6%		**-**
Bicycles on Crosswalk	-	-	-	-	12	-	-	-	-	-	3	-	-	-	-	-	2	-	-	-	-	-	7	-	**-**
Bicycles on Crosswalk%	-	-	-	-	26.1%		-	-	-	-	6.5%		-	-	-	-	4.3%		-	-	-	-	15.2%		**-**

Spectrum

Turning Movement Count
Location Name: DUNDAS ST & MILLCROFT PARK DR / CORNERSTONE DR
Date: Tue, Sep 10, 2019 Deployment Lead: Theo Daglis

Peak Hour: 08:00 AM - 09:00 AM **Weather: Scattered Clouds (11.07 °C)**

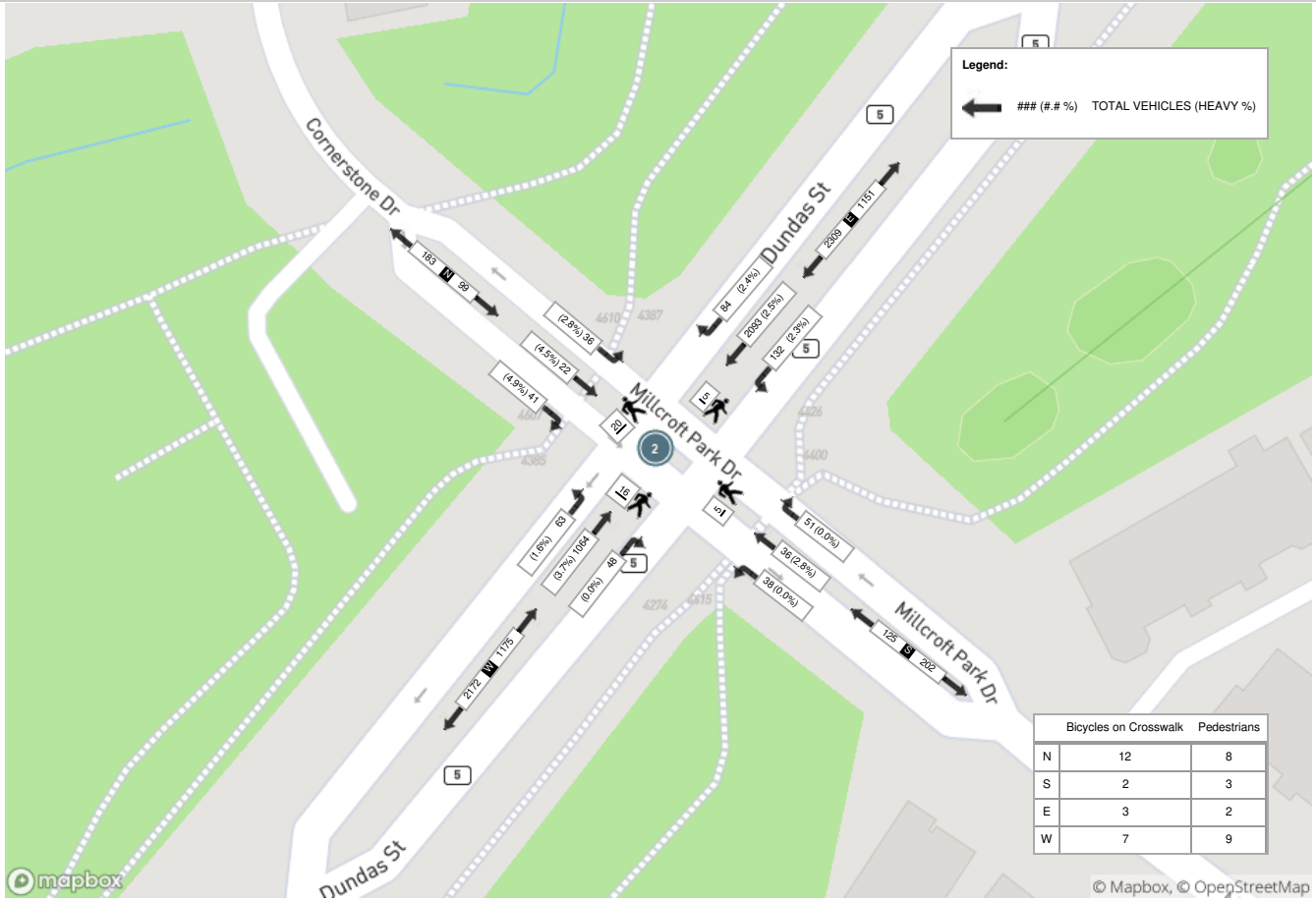


	Bicycles on Crosswalk	Pedestrians
N	14	4
S	9	3
E	3	4
W	37	25

Spectrum

Turning Movement Count
Location Name: DUNDAS ST & MILLCROFT PARK DR / CORNERSTONE DR
Date: Tue, Sep 10, 2019 Deployment Lead: Theo Daglis

Peak Hour: 04:15 PM - 05:15 PM Weather: Broken Clouds (22.61 °C)



	Bicycles on Crosswalk	Pedestrians
N	12	8
S	2	3
E	3	2
W	7	9

LEA Consulting Ltd.

625 Cochrane Drive, 9th Floor
Markham, ON L3R 9R9

Project No.: 22099
Intersection: Millcroft & Dundas
Weather: Cloudy
Surveyor(s): ML & NL

File Name : Millcroft Park Dr & Dundas St-AM
Site Code : 22099016
Start Date : 2021-10-07
Page No : 1

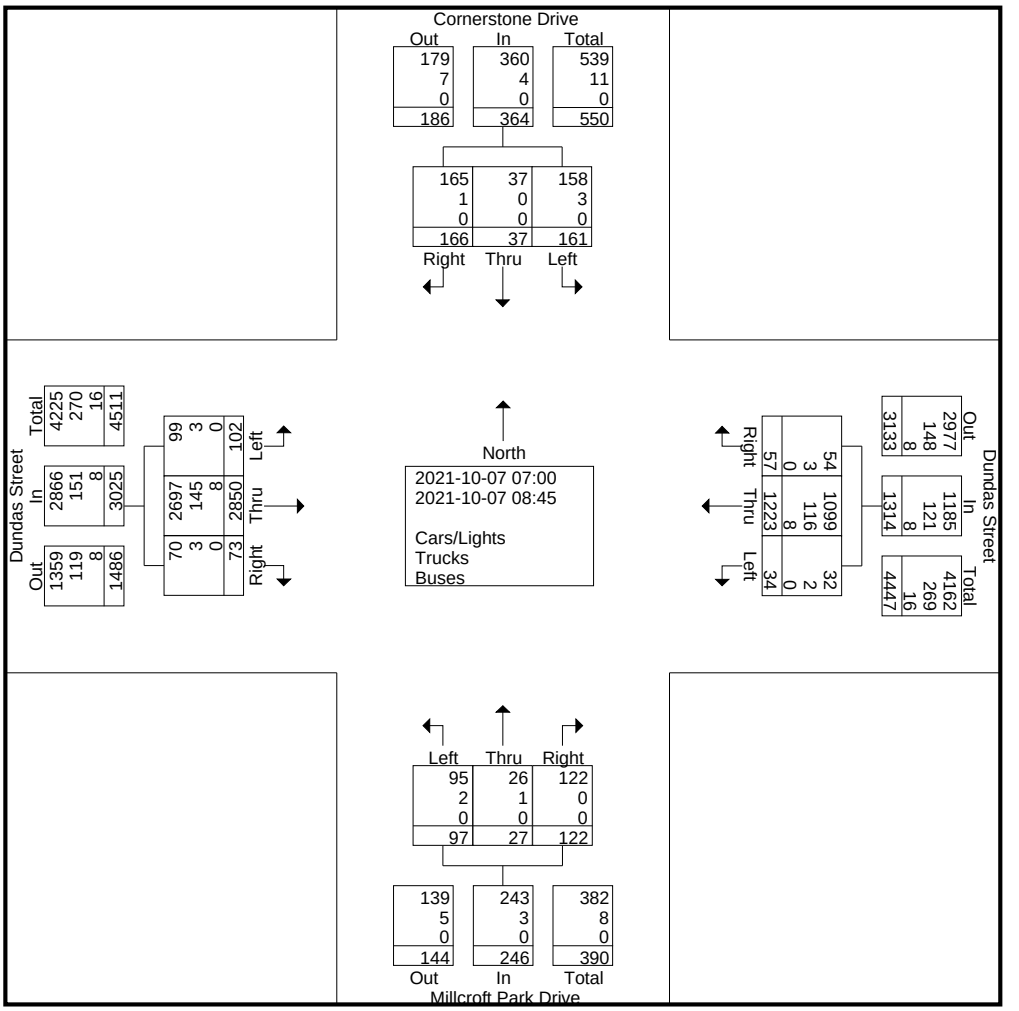
Groups Printed- Cars/Lights - Trucks - Buses

	Cornerstone Drive Southbound					Dundas Street Westbound					Millcroft Park Drive Northbound					Dundas Street Eastbound							
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00	13	0	12	[0]	25	2	80	4	[0]	86	1	0	8	[1]	9	5	304	2	[0]	311	1	431	432
07:15	24	1	10	[1]	35	1	111	3	[0]	115	5	0	14	[2]	19	4	357	4	[1]	365	4	534	538
07:30	17	2	16	[0]	35	2	117	3	[0]	122	8	2	21	[0]	31	6	395	4	[0]	405	0	593	593
07:45	23	7	23	[0]	53	3	151	8	[0]	162	12	4	13	[0]	29	13	318	7	[0]	338	0	582	582
Total	77	10	61	[1]	148	8	459	18	[0]	485	26	6	56	[3]	88	28	1374	17	[1]	1419	5	2140	2145
08:00	14	5	12	[4]	31	7	172	9	[2]	188	11	2	21	[2]	34	12	392	6	[1]	410	9	663	672
08:15	24	6	26	[2]	56	4	229	15	[6]	248	20	10	20	[15]	50	21	359	10	[20]	390	43	744	787
08:30	25	10	38	[1]	73	7	182	4	[0]	193	27	6	14	[5]	47	29	375	19	[17]	423	23	736	759
08:45	21	6	29	[4]	56	8	181	11	[0]	200	13	3	11	[2]	27	12	350	21	[3]	383	9	666	675
Total	84	27	105	[11]	216	26	764	39	[8]	829	71	21	66	[24]	158	74	1476	56	[41]	1606	84	2809	2893
Grand Total	161	37	166	[12]	364	34	1223	57	[8]	1314	97	27	122	[27]	246	102	2850	73	[42]	3025	89	4949	5038
Apprch %	44.2	10.2	45.6			2.6	93.1	4.3			39.4	11	49.6			3.4	94.2	2.4					
Total %	3.3	0.7	3.4		7.4	0.7	24.7	1.2		26.6	2	0.5	2.5		5	2.1	57.6	1.5		61.1	1.8	98.2	
Cars/Lights	158	37	165		370	32	1099	54		1185	95	26	122		251	99	2697	70		2908	0	0	4714
% Cars/Lights	98.1	100	99.4	83.3	98.4	94.1	89.9	94.7	0	89.6	97.9	96.3	100	29.6	91.9	97.1	94.6	95.9	100	94.8	0	0	93.6
Trucks	3	0	1		6	2	116	3		129	2	1	0		22	3	145	3		151	0	0	308
% Trucks	1.9	0	0.6	16.7	1.6	5.9	9.5	5.3	100	9.8	2.1	3.7	0	70.4	8.1	2.9	5.1	4.1	0	4.9	0	0	6.1
Buses	0	0	0		0	0	8	0		8	0	0	0		0	0	8	0		8	0	0	16
% Buses	0	0	0	0	0	0	0.7	0	0	0.6	0	0	0	0	0	0	0.3	0	0	0.3	0	0	0.3

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625 Cochrane Drive, 9th Floor
Markham, ON L3R 9R9

File Name : Millcroft Park Dr & Dundas St-AM
Site Code : 22099016
Start Date : 2021-10-07
Page No : 2

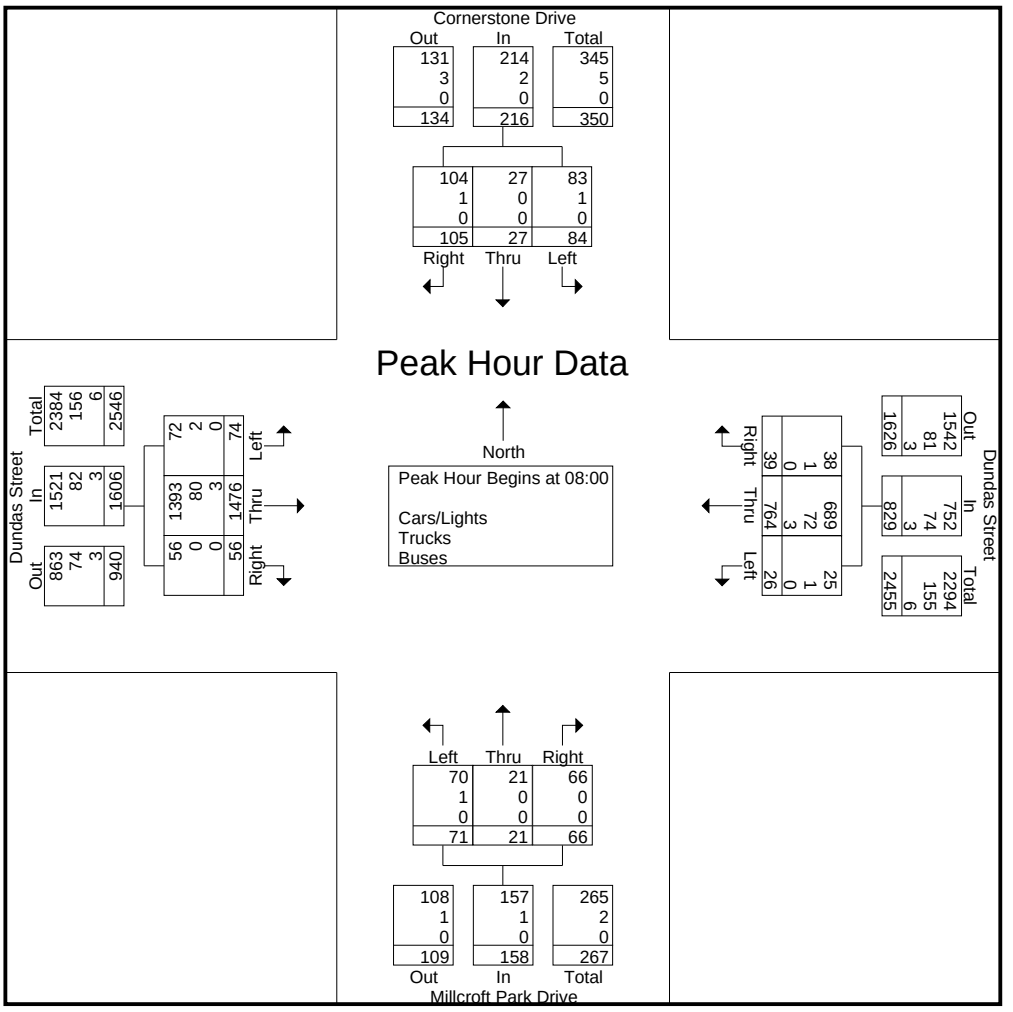


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625 Cochrane Drive, 9th Floor
Markham, ON L3R 9R9

File Name : Millcroft Park Dr & Dundas St-AM
Site Code : 22099016
Start Date : 2021-10-07
Page No : 3

	Cornerstone Drive Southbound				Dundas Street Westbound				Millcroft Park Drive Northbound				Dundas Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00																	
08:00	14	5	12	31	7	172	9	188	11	2	**21**	34	12	**392**	6	410	663
08:15	24	6	26	56	4	**229**	**15**	**248**	20	**10**	20	**50**	21	359	10	390	**744**
08:30	**25**	**10**	**38**	**73**	7	182	4	193	**27**	6	14	47	**29**	375	19	**423**	736
08:45	21	6	29	56	**8**	181	11	200	13	3	11	27	12	350	**21**	383	666
Total Volume	84	27	105	216	26	764	39	829	71	21	66	158	74	1476	56	1606	2809
% App. Total	38.9	12.5	48.6		3.1	92.2	4.7		44.9	13.3	41.8		4.6	91.9	3.5		
PHF	.840	.675	.691	.740	.813	.834	.650	.836	.657	.525	.786	.790	.638	.941	.667	.949	.944
Cars/Lights	83	27	104	214	25	689	38	752	70	21	66	157	72	1393	56	1521	2644
% Cars/Lights	98.8	100	99.0	99.1	96.2	90.2	97.4	90.7	98.6	100	100	99.4	97.3	94.4	100	94.7	94.1
Trucks	1	0	1	2	1	72	1	74	1	0	0	1	2	80	0	82	159
% Trucks	1.2	0	1.0	0.9	3.8	9.4	2.6	8.9	1.4	0	0	0.6	2.7	5.4	0	5.1	5.7
Buses	0	0	0	0	0	3	0	3	0	0	0	0	0	3	0	3	6
% Buses	0	0	0	0	0	0.4	0	0.4	0	0	0	0	0	0.2	0	0.2	0.2



LEA Consulting Ltd.

625 Cochrane Drive, 9th Floor
Markham, ON L3R 9R9

Project No.: 22099
Intersection: Millcroft & Dundas
Weather: Cloudy
Surveyor(s): ML & NL

File Name : Millcroft Park Dr & Dundas St-PM
Site Code : 22099016
Start Date : 2021-10-07
Page No : 1

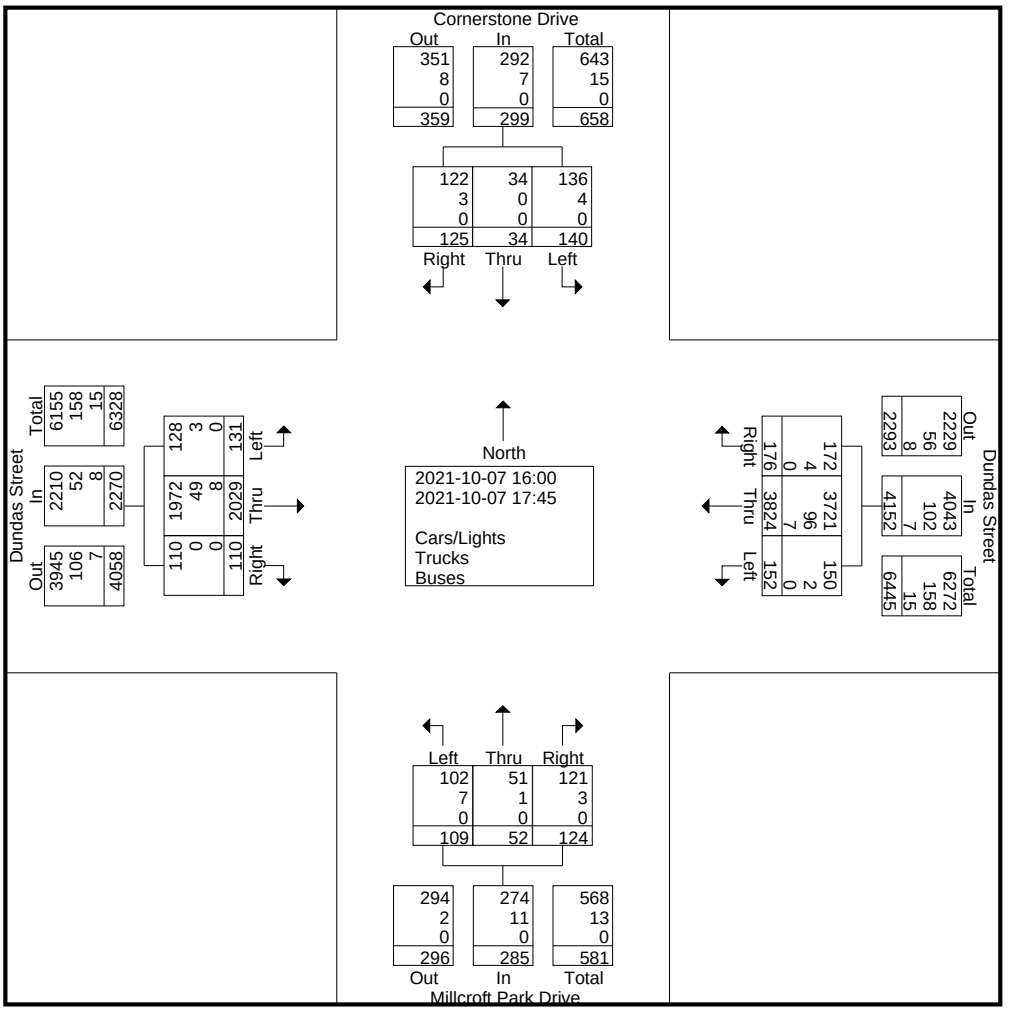
Groups Printed- Cars/Lights - Trucks - Buses

	Cornerstone Drive Southbound					Dundas Street Westbound					Millcroft Park Drive Northbound					Dundas Street Eastbound							
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Exclu. Total	Inclu. Total	Int. Total
16:00	21	3	19	[1]	43	19	440	27	[1]	486	9	4	14	[10]	27	23	213	18	[6]	254	18	810	828
16:15	17	3	15	[0]	35	23	536	19	[1]	578	13	4	17	[7]	34	17	247	14	[7]	278	15	925	940
16:30	12	6	11	[1]	29	26	475	22	[3]	523	15	7	10	[1]	32	8	245	21	[3]	274	8	858	866
16:45	15	4	12	[1]	31	16	519	24	[1]	559	7	1	19	[0]	27	10	281	16	[7]	307	9	924	933
Total	65	16	57	[3]	138	84	1970	92	[6]	2146	44	16	60	[18]	120	58	986	69	[23]	1113	50	3517	3567
17:00	15	0	11	[2]	26	19	489	22	[1]	530	8	11	18	[0]	37	11	268	15	[6]	294	9	887	896
17:15	25	8	20	[3]	53	17	443	23	[1]	483	31	9	14	[4]	54	20	284	8	[4]	312	12	902	914
17:30	20	4	21	[4]	45	14	469	17	[1]	500	13	8	18	[1]	39	23	243	10	[6]	276	12	860	872
17:45	15	6	16	[7]	37	18	453	22	[1]	493	13	8	14	[0]	35	19	248	8	[4]	275	12	840	852
Total	75	18	68	[16]	161	68	1854	84	[4]	2006	65	36	64	[5]	165	73	1043	41	[20]	1157	45	3489	3534
Grand Total	140	34	125	[19]	299	152	3824	176	[10]	4152	109	52	124	[23]	285	131	2029	110	[43]	2270	95	7006	7101
Apprch %	46.8	11.4	41.8			3.7	92.1	4.2			38.2	18.2	43.5			5.8	89.4	4.8					
Total %	2	0.5	1.8		4.3	2.2	54.6	2.5		59.3	1.6	0.7	1.8		4.1	1.9	29	1.6		32.4	1.3	98.7	
Cars/Lights	136	34	122		307	150	3721	172		4044	102	51	121		294	128	1972	110		2224	0	0	6869
% Cars/Lights	97.1	100	97.6	78.9	96.5	98.7	97.3	97.7	10	97.2	93.6	98.1	97.6	87	95.5	97.7	97.2	100	32.6	96.2	0	0	96.7
Trucks	4	0	3		11	2	96	4		111	7	1	3		14	3	49	0		81	0	0	217
% Trucks	2.9	0	2.4	21.1	3.5	1.3	2.5	2.3	90	2.7	6.4	1.9	2.4	13	4.5	2.3	2.4	0	67.4	3.5	0	0	3.1
Buses	0	0	0		0	0	7	0		7	0	0	0		0	0	8	0		8	0	0	15
% Buses	0	0	0	0	0	0	0.2	0	0	0.2	0	0	0	0	0	0	0.4	0	0	0.3	0	0	0.2

LEA Consulting Ltd.

625 Cochrane Drive, 9th Floor
Markham, ON L3R 9R9

File Name : Millcroft Park Dr & Dundas St-PM
Site Code : 22099016
Start Date : 2021-10-07
Page No : 2

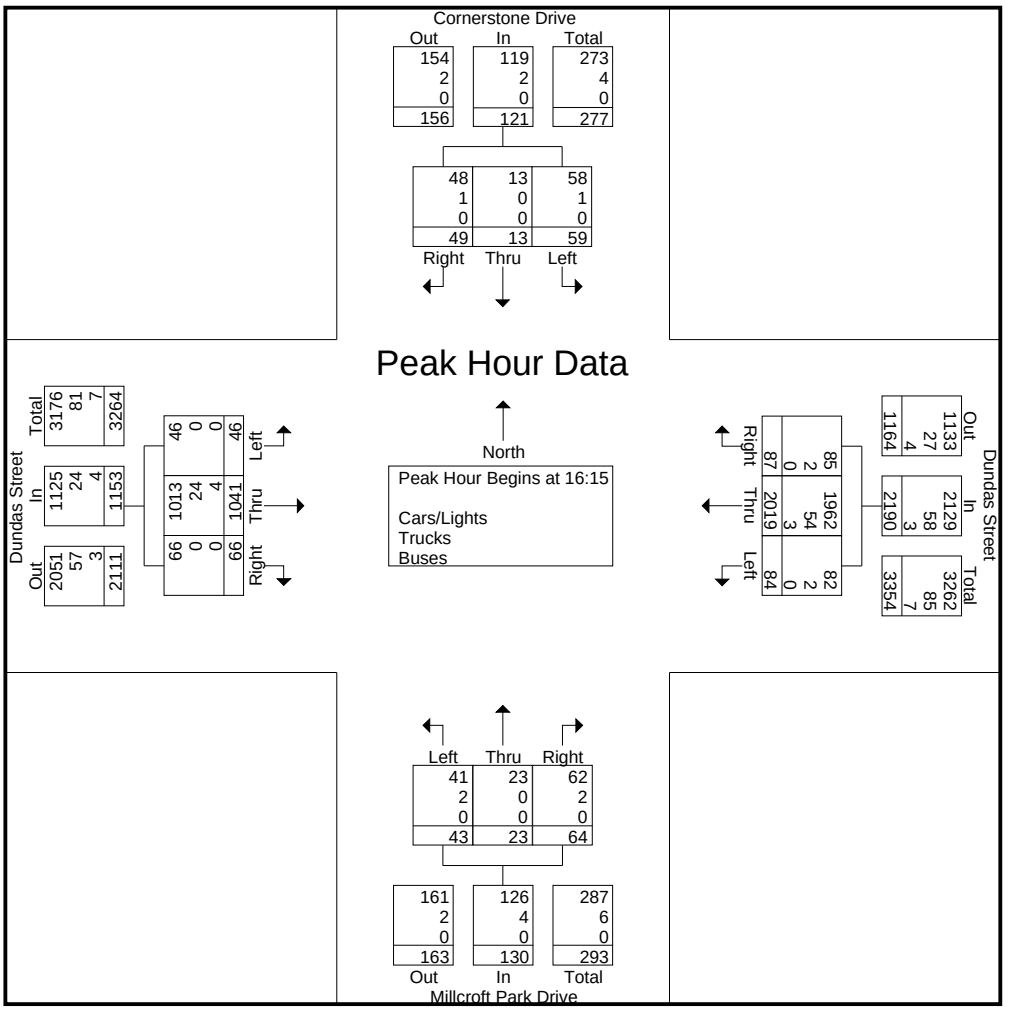


LEA Consulting Ltd.

625 Cochrane Drive, 9th Floor
Markham, ON L3R 9R9

File Name : Millcroft Park Dr & Dundas St-PM
Site Code : 22099016
Start Date : 2021-10-07
Page No : 3

	Cornerstone Drive Southbound				Dundas Street Westbound				Millcroft Park Drive Northbound				Dundas Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 16:15																	
16:15	**17**	3	**15**	**35**	23	**536**	19	**578**	13	4	17	34	**17**	247	14	278	**925**
16:30	12	**6**	11	29	**26**	475	22	523	**15**	7	10	32	8	245	**21**	274	858
16:45	15	4	12	31	16	519	**24**	559	7	1	**19**	27	10	**281**	16	**307**	924
17:00	15	0	11	26	19	489	22	530	8	**11**	18	**37**	11	268	15	294	887
Total Volume	59	13	49	121	84	2019	87	2190	43	23	64	130	46	1041	66	1153	3594
% App. Total	48.8	10.7	40.5		3.8	92.2	4		33.1	17.7	49.2		4	90.3	5.7		
PHF	.868	.542	.817	.864	.808	.942	.906	.947	.717	.523	.842	.878	.676	.926	.786	.939	.971
Cars/Lights	58	13	48	119	82	1962	85	2129	41	23	62	126	46	1013	66	1125	3499
% Cars/Lights	98.3	100	98.0	98.3	97.6	97.2	97.7	97.2	95.3	100	96.9	96.9	100	97.3	100	97.6	97.4
Trucks	1	0	1	2	2	54	2	58	2	0	2	4	0	24	0	24	88
% Trucks	1.7	0	2.0	1.7	2.4	2.7	2.3	2.6	4.7	0	3.1	3.1	0	2.3	0	2.1	2.4
Buses	0	0	0	0	0	3	0	3	0	0	0	0	0	4	0	4	7
% Buses	0	0	0	0	0	0.1	0	0.1	0	0	0	0	0	0.4	0	0.3	0.2



LEA Consulting Ltd.

625 Cochrane Drive, 9th Floor
Markham, ON L3R 9R9

Project No.: 22099
Intersection: Millcroft & Taywood
Weather: Cloudy
Surveyor(s): BW

File Name : Millcroft Park Dr & Taywood Dr-AM
Site Code : 22099001
Start Date : 2021-10-07
Page No : 1

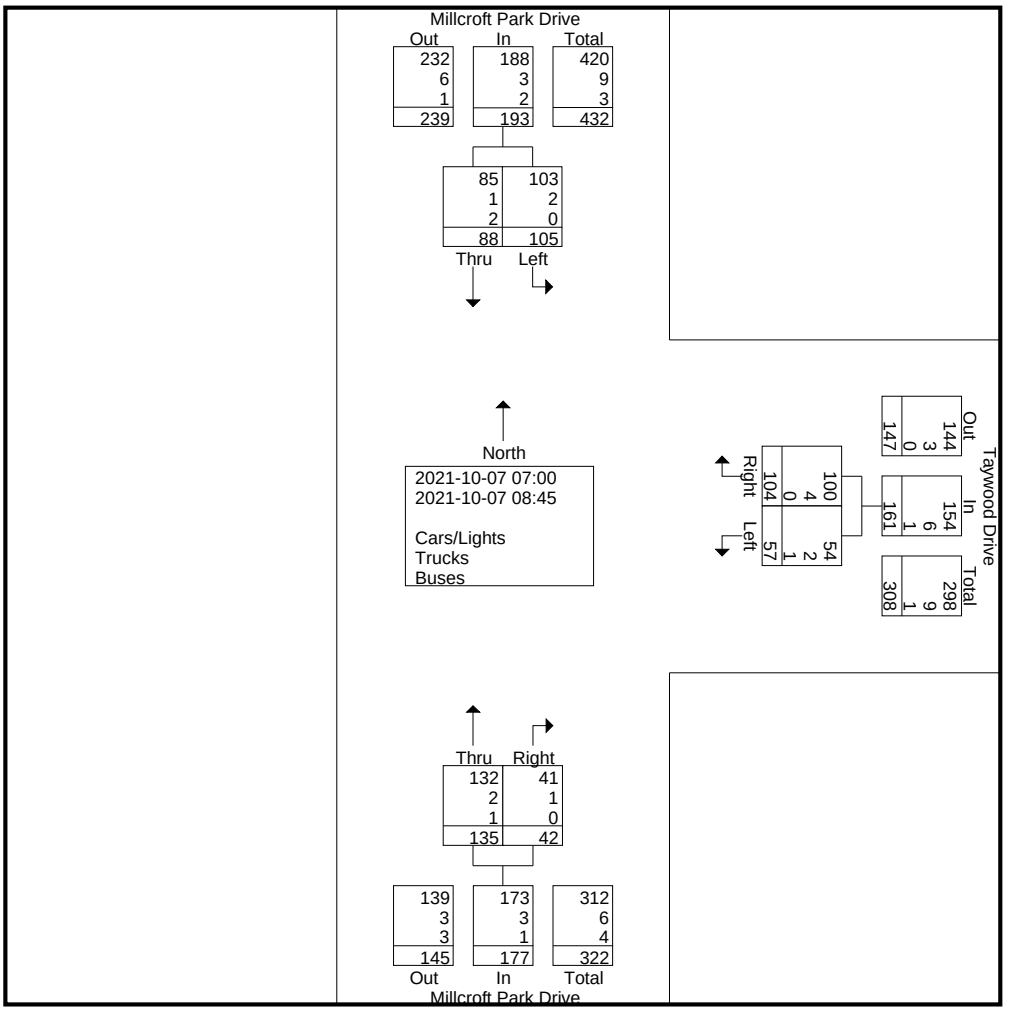
Groups Printed- Cars/Lights - Trucks - Buses

	Millcroft Park Drive Southbound				Taywood Drive Westbound				Millcroft Park Drive Northbound						
Start Time	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	Thru	Right	Peds	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00	2	2	[1]	4	0	6	[2]	6	5	3	[2]	8	5	18	23
07:15	3	6	[0]	9	5	9	[1]	14	12	4	[0]	16	1	39	40
07:30	16	5	[0]	21	4	8	[3]	12	18	5	[0]	23	3	56	59
07:45	16	6	[0]	22	7	10	[3]	17	10	5	[0]	15	3	54	57
Total	37	19	[1]	56	16	33	[9]	49	45	17	[2]	62	12	167	179
08:00	21	8	[1]	29	4	15	[1]	19	22	5	[0]	27	2	75	77
08:15	16	10	[0]	26	9	19	[8]	28	33	7	[0]	40	8	94	102
08:30	18	24	[0]	42	9	22	[2]	31	16	4	[0]	20	2	93	95
08:45	13	27	[13]	40	19	15	[0]	34	19	9	[0]	28	13	102	115
Total	68	69	[14]	137	41	71	[11]	112	90	25	[0]	115	25	364	389
Grand Total	105	88	[15]	193	57	104	[20]	161	135	42	[2]	177	37	531	568
Apprch %	54.4	45.6			35.4	64.6			76.3	23.7					
Total %	19.8	16.6		36.3	10.7	19.6		30.3	25.4	7.9		33.3	6.5	93.5	
Cars/Lights	103	85		202	54	100		165	132	41		175	0	0	542
% Cars/Lights	98.1	96.6	93.3	97.1	94.7	96.2	55	91.2	97.8	97.6	100	97.8	0	0	95.4
Trucks	2	1		4	2	4		15	2	1		3	0	0	22
% Trucks	1.9	1.1	6.7	1.9	3.5	3.8	45	8.3	1.5	2.4	0	1.7	0	0	3.9
Buses	0	2		2	1	0		1	1	0		1	0	0	4
% Buses	0	2.3	0	1	1.8	0	0	0.6	0.7	0	0	0.6	0	0	0.7

LEA Consulting Ltd.

625 Cochrane Drive, 9th Floor
Markham, ON L3R 9R9

File Name : Millcroft Park Dr & Taywood Dr-AM
Site Code : 22099001
Start Date : 2021-10-07
Page No : 2

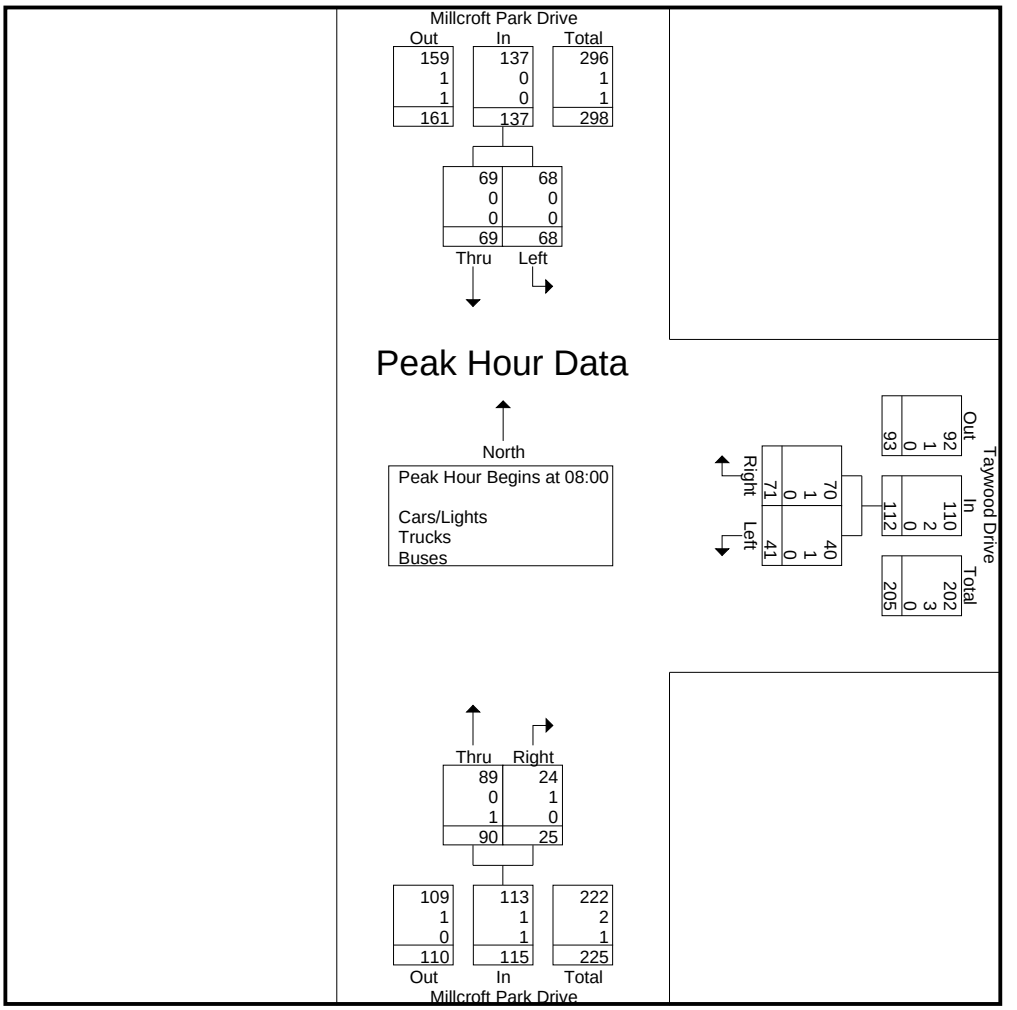


LEA Consulting Ltd.

625 Cochrane Drive, 9th Floor
Markham, ON L3R 9R9

File Name : Millcroft Park Dr & Taywood Dr-AM
Site Code : 22099001
Start Date : 2021-10-07
Page No : 3

	Millcroft Park Drive Southbound			Taywood Drive Westbound			Millcroft Park Drive Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:00										
08:00	**21**	8	29	4	15	19	22	5	27	75
08:15	16	10	26	9	19	28	**33**	7	**40**	94
08:30	18	24	**42**	9	**22**	31	16	4	20	93
08:45	13	**27**	40	**19**	15	**34**	19	**9**	28	**102**
Total Volume	68	69	137	41	71	112	90	25	115	364
% App. Total	49.6	50.4		36.6	63.4		78.3	21.7		
PHF	.810	.639	.815	.539	.807	.824	.682	.694	.719	.892
Cars/Lights	68	69	137	40	70	110	89	24	113	360
% Cars/Lights	100	100	100	97.6	98.6	98.2	98.9	96.0	98.3	98.9
Trucks	0	0	0	1	1	2	0	1	1	3
% Trucks	0	0	0	2.4	1.4	1.8	0	4.0	0.9	0.8
Buses	0	0	0	0	0	0	1	0	1	1
% Buses	0	0	0	0	0	0	1.1	0	0.9	0.3



LEA Consulting Ltd.

625 Cochrane Drive, 9th Floor
Markham, ON L3R 9R9

Project No.: 22099
Intersection: Millcroft & Taywood
Weather: Cloudy
Surveyor(s): BW

File Name : Millcroft Park Dr & Taywood Dr-PM
Site Code : 22099001
Start Date : 2021-10-07
Page No : 1

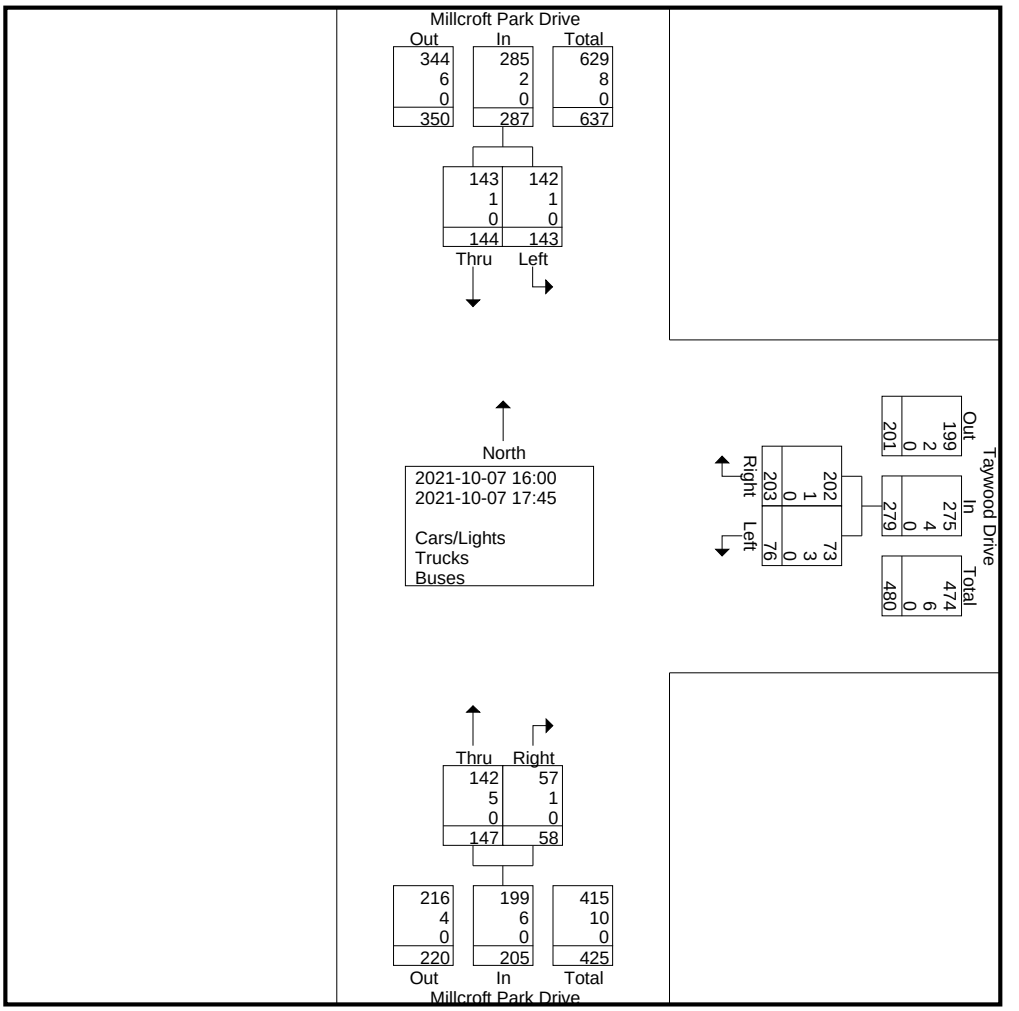
Groups Printed- Cars/Lights - Trucks - Buses

	Millcroft Park Drive Southbound				Taywood Drive Westbound				Millcroft Park Drive Northbound						
Start Time	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	Thru	Right	Peds	App. Total	Exclu. Total	Inclu. Total	Int. Total
16:00	15	22	[2]	37	8	23	[0]	31	12	8	[0]	20	2	88	90
16:15	18	15	[13]	33	8	24	[0]	32	11	11	[0]	22	13	87	100
16:30	12	23	[0]	35	12	24	[0]	36	18	10	[0]	28	0	99	99
16:45	20	22	[0]	42	8	31	[0]	39	17	4	[0]	21	0	102	102
Total	65	82	[15]	147	36	102	[0]	138	58	33	[0]	91	15	376	391
17:00	22	14	[3]	36	16	16	[0]	32	27	5	[0]	32	3	100	103
17:15	21	16	[2]	37	6	37	[2]	43	25	6	[0]	31	4	111	115
17:30	18	18	[0]	36	10	26	[0]	36	22	10	[0]	32	0	104	104
17:45	17	14	[9]	31	8	22	[1]	30	15	4	[0]	19	10	80	90
Total	78	62	[14]	140	40	101	[3]	141	89	25	[0]	114	17	395	412
Grand Total	143	144	[29]	287	76	203	[3]	279	147	58	[0]	205	32	771	803
Apprch %	49.8	50.2			27.2	72.8			71.7	28.3					
Total %	18.5	18.7		37.2	9.9	26.3		36.2	19.1	7.5		26.6	4	96	
Cars/Lights	142	143		309	73	202		278	142	57		199	0	0	786
% Cars/Lights	99.3	99.3	82.8	97.8	96.1	99.5	100	98.6	96.6	98.3	0	97.1	0	0	97.9
Trucks	1	1		7	3	1		4	5	1		6	0	0	17
% Trucks	0.7	0.7	17.2	2.2	3.9	0.5	0	1.4	3.4	1.7	0	2.9	0	0	2.1
Buses	0	0		0	0	0		0	0	0		0	0	0	0
% Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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625 Cochrane Drive, 9th Floor
Markham, ON L3R 9R9

File Name : Millcroft Park Dr & Taywood Dr-PM
Site Code : 22099001
Start Date : 2021-10-07

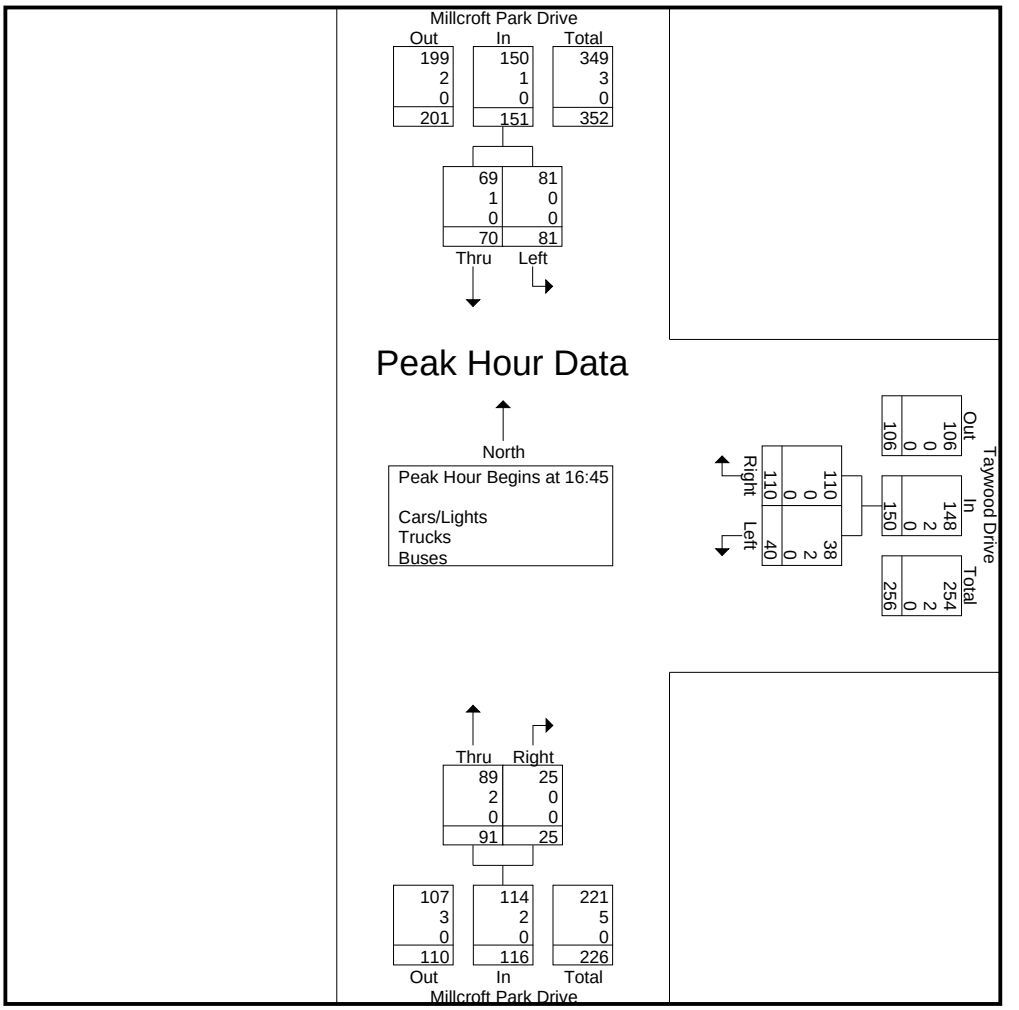


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625 Cochrane Drive, 9th Floor
Markham, ON L3R 9R9

File Name : Millcroft Park Dr & Taywood Dr-PM
Site Code : 22099001
Start Date : 2021-10-07
Page No : 3

	Millcroft Park Drive Southbound			Taywood Drive Westbound			Millcroft Park Drive Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 16:45										
16:45	20	**22**	**42**	8	31	39	17	4	21	102
17:00	**22**	14	36	**16**	16	32	**27**	5	**32**	100
17:15	21	16	37	6	**37**	**43**	25	6	31	**111**
17:30	18	18	36	10	26	36	22	**10**	32	104
Total Volume	81	70	151	40	110	150	91	25	116	417
% App. Total	53.6	46.4		26.7	73.3		78.4	21.6		
PHF	.920	.795	.899	.625	.743	.872	.843	.625	.906	.939
Cars/Lights	81	69	150	38	110	148	89	25	114	412
% Cars/Lights	100	98.6	99.3	95.0	100	98.7	97.8	100	98.3	98.8
Trucks	0	1	1	2	0	2	2	0	2	5
% Trucks	0	1.4	0.7	5.0	0	1.3	2.2	0	1.7	1.2
Buses	0	0	0	0	0	0	0	0	0	0
% Buses	0	0	0	0	0	0	0	0	0	0



City of Burlington

ECONOLITE

MOVING TRAFFIC FORWARD

Dundas St @ Millcroft Park Dr / Cornerstone Dr - TS 791 - Econolite Type - ASC/3

Configuration Controller Sequence

Phase Ring Sequence and Assignment (MM) 1-1-1

Hardware Alternate Sequence Enable: No

Phase Ring Sequence.....(Note: Sequences identical to the prior one are not printed)

	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
	B		B		B		B		B							
Sequence 1																
Ring 1	1	2	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 2																
Ring 1	2	1	3	4	10	9	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 3																
Ring 1	1	2	4	3	9	10	14	13	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 4																
Ring 1	2	1	4	3	10	9	14	13	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 5																
Ring 1	1	2	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	12	11	15	16	.	.	.	.	.	.	.	.
Sequence 6																
Ring 1	2	1	3	4	10	9	13	14	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	12	11	15	16	.	.	.	.	.	.	.	.
Sequence 7																
Ring 1	1	2	4	3	9	10	14	13	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	12	11	15	16	.	.	.	.	.	.	.	.
Sequence 8																
Ring 1	2	1	4	3	10	9	14	13	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	12	11	15	16	.	.	.	.	.	.	.	.
Sequence 9																
Ring 1	1	2	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	11	12	16	15	.	.	.	.	.	.	.	.
Sequence 10																
Ring 1	2	1	3	4	10	9	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	11	12	16	15	.	.	.	.	.	.	.	.
Sequence 11																
Ring 1	1	2	4	3	9	10	14	13	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	11	12	16	15	.	.	.	.	.	.	.	.
Sequence 12																
Ring 1	2	1	4	3	10	9	14	13	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	11	12	16	15	.	.	.	.	.	.	.	.
Sequence 13																
Ring 1	1	2	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	6	5	8	7	12	11	16	15	.	.	.	.	.	.	.	.
Sequence 14																
Ring 1	2	1	3	4	10	9	13	14	.	.	.	.	.	.	.	.
Ring 2	6	5	8	7	12	11	16	15	.	.	.	.	.	.	.	.
Sequence 15																
Ring 1	1	2	4	3	9	10	14	13	.	.	.	.	.	.	.	.
Ring 2	6	5	8	7	12	11	16	15	.	.	.	.	.	.	.	.
Sequence 16																
Ring 1	2	1	4	3	10	9	14	13	.	.	.	.	.	.	.	.
Ring 2	6	5	8	7	12	11	16	15	.	.	.	.	.	.	.	.

Phases In Use/Exclusive Ped (MM) 1-2

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phases In Use	X	X		X	X	X		X								
Exclusive Ped																

Phase Compatibility (MM) 1-1-2

Phase	
n/a	Barrier Mode

Phase and Overlap Descriptions

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	WBLT	EB		NB	EBLT	WB		SB								
Overlap	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**
Description																

Administration (MM) 1-7-1

Enable Controller/Cabinet Interlock CRC	No
CRC (16 bit)	176B
Enable Automatic Backup to Datakey	No

Backup Prevent (MM) 1-1-3

	Phases	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Timing	**1**		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Phases	**2**	X		.	.	.	.	.	.	.	.	.	.	.	.	.	.
	3	.	.		.	.	.	.	.	.	.	.	.	.	.	.	.
	4	.	.	X		.	.	.	.	.	.	.	.	.	.	.	.
	5	.	.	.	.		.	.	.	.	.	.	.	.	.	.	.
	6	.	.	.	.	X		.	.	.	.	.	.	.	.	.	.
	7	.	.	.	.	.	.		.	.	.	.	.	.	.	.	.
	8	.	.	.	.	.	.	X		.	.	.	.	.	.	.	.
	9	.	.	.	.	.	.	.	.		.	.	.	.	.	.	.
	10	.	.	.	.	.	.	.	.	.		.	.	.	.	.	.
	11	.	.	.	.	.	.	.	.	.	.		.	.	.	.	.
	12	.	.	.	.	.	.	.	.	.	.	.		.	.	.	.
	13	.	.	.	.	.	.	.	.	.	.	.	.		.	.	.
	14	.	.	.	.	.	.	.	.	.	.	.	.	.		.	.
	15	.	.	.	.	.	.	.	.	.	.	.	.	.	.		.
	16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	

Simultaneous Gap (MM) 1-1-4

	Phases	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	1		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	2	.		.	.	.	.	.	.	.	.	.	.	.	.	.	.
	3	.	.		.	.	.	.	.	.	.	.	.	.	.	.	.
	4	.	.	.		.	.	.	.	.	.	.	.	.	.	.	.
	5	.	.	.	.		.	.	.	.	.	.	.	.	.	.	.
Phase	**6**	.	.	.	.	.		.	.	.	.	.	.	.	.	.	.
Must	**7**	.	.	.	.	.	.		.	.	.	.	.	.	.	.	.
Gap	**8**	.	.	.	.	.	.	.		.	.	.	.	.	.	.	.
With	**9**	.	.	.	.	.	.	.	.		.	.	.	.	.	.	.
Phase	**10**	.	.	.	.	.	.	.	.	.		.	.	.	.	.	.
	11	.	.	.	.	.	.	.	.	.	.		.	.	.	.	.
	12	.	.	.	.	.	.	.	.	.	.	.		.	.	.	.
	13	.	.	.	.	.	.	.	.	.	.	.	.		.	.	.
	14	.	.	.	.	.	.	.	.	.	.	.	.	.		.	.
	15	.	.	.	.	.	.	.	.	.	.	.	.	.	.		.
	16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
	Disable	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Load Switch Assignments (MM) 1-3

	Phase / Overlap	Type	Dimming				Power Up	Auto		Flash Together
			Red	Yellow	Green	Dark		Red	Yellow	
1	1	V				-	Auto	X		
2	2	V				-	Auto	X		X
3	3	V				-	Auto	X		
4	4	V				-	Auto	X		X
5	5	V				+	Auto	X		
6	6	V				+	Auto	X		X
7	7	V				+	Auto	X		
8	8	V				+	Auto	X		X
9	2	P				-	Auto			
10	4	P				-	Auto			
11	6	P				+	Auto			
12	8	P				+	Auto			
13	1	O				-	Auto	X		
14	2	O				+	Auto	X		X
15	3	O				-	Auto	X		
16	4	O				+	Auto	X		X

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Dundas St @ Millcroft Park Dr / Cornerstone Dr - TS 791 - Econolite Type - ASC/3

Configuration Port 1 (SDLC)

Port 1 SDLC (MM) 1-4-1

BIU	1	2	3	4	5	6	7	8
Term & Facility	X	X						
Detector Rack	X							

Enable TS2/MMU Type Cabinet: No
Enable MMU Extended Status: Yes
Enable SDLC Stop Time: Yes
Enable 3 Critical RFE's Lockup: No

MMU Program (MM) 1-4-2

Channel Can Serve With Channel	
Channel 1	**Channel 2**
1	5
1	6
1	11
2	5
2	6
2	9
2	11
3	7
3	8
3	12
4	7
4	8
4	10
4	12
5	9
6	9
6	11
7	10
8	10
8	12
9	11
10	12

Color Check Enable (MM) 1-4-3

Enable Color Check: No

MMU/LS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Green																
Yellow																
Red																

Secondary Stations/Tests (MM) 1-4-4

ID	1	2	3	4	5	6	7	8	MMU
Term & Facility									

ID	1	2	3	4	5	6	7	8	Diag
Detector Rack									

Enable SDLC Diagnostic Test: No

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Configuration Communications 1 (SDLC)

Ethernet Port Configuration (MM) 1-5-1

Controller IP:	172.24.241.2
Subnet Mask:	255.255.0.0
Default Gateway IP:	172.24.254.254
Server IP:	192.168.210.120

NTCIP (MM) 1-5-5

NTCIP Backup Time (Sec):	0
NTCIP UDP Port:	501
Ethernet Priority:	1
Port 2 Priority (Port C50S for 2070):	4
Port 3A Priority (Port C21S for 2070):	2
Port 3B Priority (Port C22S for 2070):	3

Port Configuration (MM) 1-5-2 to 1-5-4

Port	2 (C50S)	3A (C21S)	3B (C22S)
Protocol	NTCIP	NTCIP	NTCIP
Enable	No	No	No
Data Rate (BPS)	19.2K	19.2K	19.2K
Data, Parity, Stop	8 N 1	8 N 1	8 N 1
Address	0	0	0
Telemetry Response Delay	0.0	0.0	0.0
Duplex - Half or Full	Full	Full	Full
Flow Control	Yes	Yes	Yes
Group Address	0	0	0
Single Flag Enable	Yes	Yes	Yes
RTS to CTS Delay	n/a	n/a	0.0
RTS Turn Off Delay	n/a	n/a	0.0
Dropout Time	10	10	10
Early RTS	n/a	n/a	No
Telemetry Mode	n/a	n/a	FSK
ATCS Railroad	0	n/a	n/a
ATCS Railroad Line	0	n/a	n/a
ATCS Group	0	n/a	n/a
Wayside Device	0	n/a	n/a
ATC Device	0	n/a	n/a
Wayside Subnode	0	n/a	n/a
ATC Subnode	0	n/a	n/a

ECPIP (MM) 1-5-6

Controller Address:	0
Expanded System Detector Address:	0

System Detector Assignment

System Detector	Local Detector

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Configuration Logging / Display

Event Logging (MM) 1-6-1

Critical RFE's (MMU/TF)	Yes	3 Critical Errors Within 24 Hours	No
MMU Flash Faults	Yes	Local Flash Fault	Yes
Non-Critical RFE's (Det/Test)	No	Detector Errors	No
Coordination Errors	Yes	Controller Download	Yes
Preemption Events	Yes	TSP Events	Yes
Power On/Off	Yes	Low Battery	Yes
Access	Yes	Data Change	Yes
Online / Offline	Yes		

Alarm Event	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Enable Logging	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Display Options (MM) 1-7-2

Key Click Enable:	No
Backlight Enable:	Yes
LED Mode:	Auto
Display Mode:	Basic
Screen Format:	Basic
Trans Mode Pop-Up Disable:	No

Sign On (MM) 8-5

Sign On Message Line 1: Solutions that Move the World
Sign On Message Line 2:

Software Modules (MM) 8-7

Application Version: 02.64.00
OS (Boot) Version: 01.14.03

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Logic Processor Page 1

Logic Statement Control (MM) 1-8-1

Logic #	Statement Control

City of Burlington

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Logic Processor Page 2

Logic Statements (MM) 1-8-2

City of Burlington

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Min initial

Dundas St @ Millcroft Park Dr / Cornerstone Dr - TS 791 - Econolite Type - ASC/3

Controller Timing Plan (MM) 2-1

For phases of interest, Max Split and cycle length refer to the corresponding Action Plan/Coordination Pattern on Pg 19 and 20

Plan 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction	WBLT	EB		NB	EBLT	WB		SB								
Min Green	7	8	0	8	7	8	0	8	5	5	5	5	5	5	5	5
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	7	0	7	0	7	0	7	0	10	0	10	0	10	0	10
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	21	0	24	0	21	0	24	0	16	0	16	0	16	0	16
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	3.0	3.0	0.0	3.0	3.0	3.0	0.0	3.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	15	55	0	35	15	55	0	35	35	35	35	35	35	35	35	35
Max2	15	55	0	35	15	55	0	35	40	40	40	40	40	40	40	40
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	3.0	3.7	0.0	3.0	3.0	3.7	0.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	1.0	2.8	0.0	4.2	1.0	2.8	0.0	4.2	1.0	2.0	1.0	3.0	1.0	2.0	1.0	1.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Walk

Flash don't walk

All red

Plan 2

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction	WBLT	EB		NB	EBLT	WB		SB								
Min Green	7	8	0	8	7	8	0	8	5	5	5	5	5	5	5	5
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	7	0	7	0	7	0	7	0	10	0	10	0	10	0	10
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	21	0	24	0	21	0	24	0	16	0	16	0	16	0	16
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	3.0	3.0	0.0	3.0	3.0	3.0	0.0	3.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	15	55	0	35	15	55	0	35	35	35	35	35	35	35	35	35
Max2	15	55	0	35	15	55	0	35	40	40	40	40	40	40	40	40
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	3.0	4.0	0.0	4.0	3.0	4.0	0.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	1.0	2.0	0.0	3.0	1.0	2.0	0.0	3.0	1.0	2.0	1.0	3.0	1.0	2.0	1.0	1.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Plan 3

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction	WBLT	EB		NB	EBLT	WB		SB								
Min Green	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	0	0	0	0	0	0	0	0	10	0	10	0	10	0	10
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	0	0	0	0	0	0	0	0	16	0	16	0	16	0	16
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
Max2	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Plan 4

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction	WBLT	EB		NB	EBLT	WB		SB								
Min Green	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	0	0	0	0	0	0	0	0	10	0	10	0	10	0	10
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	0	0	0	0	0	0	0	0	16	0	16	0	16	0	16
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
Max2	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

City of Burlington

ECONOLITE

MOVING TRAFFIC FORWARD

Dundas St @ Millcroft Park Dr / Cornerstone Dr - TS 791 - Econolite Type - ASC/3

Controller Overlaps

Vehicle Overlaps (MM) 2-2

Overlap	Type	Lag Green	Yellow	Red	Adv. Green

Phases

Overlap	Phase	Included	Protect	Ped Protect	Not Overlap	Modifier	Lag X Phases	Lag 2 Phases	Flash Green

PPLT FYA

Overlap	Protected Phase (Left Turn)	Permissive Phase (Opposing Thru)	Flashing Arrow Output	Flashing Arrow Output CH	Delay Start of FYA	Delay Start of Clearance	Action Plan SF Bit Disable	Ped Protected Enable

Guaranteed Minimum Time Data (MM) 2-4

Phase	Min Green	Walk	Ped Clear	Yellow	Red Clear	Overlap Green
A01	5	0	7	3.0	0.0	5
B02	5	0	7	3.0	0.0	5
C03	5	0	7	3.0	0.0	5
D04	5	0	7	3.0	0.0	5
E05	5	0	7	3.0	0.0	5
F06	5	0	7	3.0	0.0	5
G07	5	0	7	3.0	0.0	5
H08	5	0	7	3.0	0.0	5
I09	5	0	7	3.0	0.0	5
J10	5	0	7	3.0	0.0	5
K11	5	0	7	3.0	0.0	5
L12	5	0	7	3.0	0.0	5
M13	5	0	7	3.0	0.0	5
N14	5	0	7	3.0	0.0	5
O15	5	0	7	3.0	0.0	5
P16	5	0	7	3.0	0.0	5

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Dundas St @ Millcroft Park Dr / Cornerstone Dr - TS 791 - Econolite Type - ASC/3

Controller Pedestrian Overlaps
Vehicle / Pedestrian Overlaps (MM) 2-3

Included	Pedestrian Overlaps

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Controller Start / Flash Data (MM) 2-5

Start Up

Phase	Phase Setting
1	.
2	Y
3	.
4	.
5	.
6	Y
7	.
8	.
9	.
10	.
11	.
12	.
13	.
14	.
15	.
16	.

Overlap
A
B
C
D

Flash Thru Mon: No
Flash Time: 0
All Red: 0
Power Start Seq: 1
MUTCD Enabled: No
Y->G: n/a

Automatic Flash

Entry
2
6

Exit
2
6

Overlap Exit
A
B
C
D

Flash Thru Mon: No
Exit Flash: W
Minimum Flash: 8
Mimimum Recall: No
Cycle Through Phase: No

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Controller Options

Controller Options (MM) 2-6-1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Flashing Grn Ph	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Guar Passage																
Non-Act I		X				X										
Non-Act II																
Dual Entry		X		X		X		X								
Cond Service																
Cond Reservice																
Ped Re-Service																
Rest In Walk		X				X										
Flashing Walk																
Ped Clr-Yel																
Ped Clr-Red																
IGRN + Veh Ext																

Ped Clear Protect: Off Unit Red Revert: 2.0 MUTCD 3 Seconds Don't Walk: No

Pre-Timed Mode (MM) 2-7

Enable Pre-Timed Mode: No Free Input Disables Pre-Timed: No

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Pre-Timed																

2 and 6 are Max Recall, 4 and 8 is non-recall

Phase Recall Options (MM) 2-8

Plan # 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Lock Detector									X	X	X	X	X	X	X	X
Vehicle Recall																
Ped Recall		X				X										
Max Recall		X				X										
Soft Recall																
No Rest																
AI Calc																

Plan # 2

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Lock Detector									X	X	X	X	X	X	X	X
Vehicle Recall		X				X										
Ped Recall		X				X										
Max Recall																
Soft Recall																
No Rest																
AI Calc																

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Coordination Options

Options (MM) 3-1

Manual Pattern	Auto	ECPI Coord	Yes
System Source	SYS	System Format	PTN
Splits In	Seconds	Offsets In	Seconds
Transition	Smooth	Max Select	MAXINH
Dwell / Add Time	0		
Delay Coord Wk-LZ	No	Force Off	Float
Offset Reference	Lead	Use Ped Time	No
Ped Recall	No	Ped Reservice	No
Local Zero Override	No	FO Added Ini Green	No
Re-sync Count	0	Multisync	No

Auto Perm Minimum Green (Seconds) (MM) 3-4

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Minimum Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Split Demand (MM) 3-5

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

Demand	1	2
Detector	0	0
Call Time (Sec)	0	0
Cycle Count	0	0

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Coordination Pattern Data
Coordinator Pattern Data (MM) 3-2

Action Plan 1

Coordinator Pattern # 1

Split Pattern	1	TS2 (Pat-Off)	0-1	Splits In	Seconds
Cycle	140	Std (COS)	9	Offsets In	Seconds
Offset Value	123s	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	1		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	WBLT	EB		NB	EBLT	WB		SB								
Splits (Split Pat 1)	13	86	0	41	13	86	0	41	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	140s	140s	0s	0s

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall		X				X										
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X
Special Funciton Outputs																

Coordinator Pattern # 2

Split Pattern	2	TS2 (Pat-Off)	0-2	Splits In	Seconds
Cycle	110	Std (COS)	17	Offsets In	Seconds
Offset Value	51s	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	1		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	WBLT	EB		NB	EBLT	WB		SB								
Splits (Split Pat 2)	12	58	0	40	12	58	0	40	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	110s	110s	0s	0s

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall		X				X										
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X
Special Funciton Outputs																

Action Plan 3

Coordinator Pattern # 3

Split Pattern	3	TS2 (Pat-Off)	0-3	Splits In	Seconds
Cycle	140	Std (COS)	25	Offsets In	Seconds
Offset Value	139s	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	1		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	WBLT	EB		NB	EBLT	WB		SB								
Splits (Split Pat 3)	13	86	0	41	13	86	0	41	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	140s	140s	0s	0s

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall		X				X										
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X
Special Funciton Outputs																

Coordinator Pattern # 7

Split Pattern	7	TS2 (Pat-Off)	2-1	Splits In	Seconds
Cycle	140	Std (COS)	81	Offsets In	Seconds
Offset Value	123s	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	1		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	WBLT	EB		NB	EBLT	WB		SB								
Splits (Split Pat 7)	13	86	0	41	13	86	0	41	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	140s	140s	0s	0s

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall		X				X										
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X
Special Funciton Outputs																

Coordinator Pattern # 8

Split Pattern	8	TS2 (Pat-Off)	2-2	Splits In	Seconds
Cycle	115	Std (COS)	89	Offsets In	Seconds
Offset Value	51s	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	1		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	WBLT	EB		NB	EBLT	WB		SB								
Splits (Split Pat 8)	12	63	0	40	12	63	0	40	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	115s	115s	0s	0s

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall		X				X										
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X
Special Funciton Outputs																

Coordinator Pattern # 9

Split Pattern	9	TS2 (Pat-Off)	2-3	Splits In	Seconds
Cycle	140	Std (COS)	97	Offsets In	Seconds
Offset Value	139s	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	1		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	WBLT	EB		NB	EBLT	WB		SB								
Splits (Split Pat 9)	13	86	0	41	13	86	0	41	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	140s	140s	0s	0s

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall		X				X										
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X
Special Funciton Outputs																

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Coordination Split Pattern
Split Pattern Data (MM) 3-3

Split Pattern # 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	WBLT	EB		NB	EBLT	WB		SB								
Split (seconds)	13	86	0	41	13	86	0	41	0	0	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall		X				X										
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	140s	140s	0s	0s

Split Pattern # 2

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	WBLT	EB		NB	EBLT	WB		SB								
Split (seconds)	12	58	0	40	12	58	0	40	0	0	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall		X				X										
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	110s	110s	0s	0s

Split Pattern # 3

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	WBLT	EB		NB	EBLT	WB		SB								
Split (seconds)	13	86	0	41	13	86	0	41	0	0	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall		X				X										
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	140s	140s	0s	0s

Split Pattern # 7

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	WBLT	EB		NB	EBLT	WB		SB								
Split (seconds)	13	86	0	41	13	86	0	41	0	0	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall		X				X										
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	140s	140s	0s	0s

Split Pattern # 8

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	WBLT	EB		NB	EBLT	WB		SB								
Split (seconds)	12	63	0	40	12	63	0	40	0	0	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall		X				X										
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	115s	115s	0s	0s

Split Pattern # 9

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	WBLT	EB		NB	EBLT	WB		SB								
Split (seconds)	13	86	0	41	13	86	0	41	0	0	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall		X				X										
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	140s	140s	0s	0s

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Preempt Plan

Preempt Plan (MM) 4-1

Preempt Plan 5

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Trk Clr Veh	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Trk Clr Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Enable Trailing																
Dwell Veh	.	X	.	.	.	X	.	.	.	.	.	.	.	.	.	.
Dwell Ped																
Dwell Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cycling Veh	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cycling Ped																
Cycling Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Exit Phases		X				X										
Exit Calls																
Special Function																

Enable	Yes	Preempt Override	Yes	Interlock Enable	No
Det Lock	Yes	Delay	0	Inhibit	0
Override Flash	Yes	Duration	0	CLR > GRN	No
Term Ovlp Asap	No	PC Through Yel	No	Terminate Phase	No
Ped Dark	No	Track Clear Rsrv	No	Dwell Flash	Off
Linked Pmt	0	FL Exit Color	Red	Exit Options	Off
Exit Timing Plan	0	Reservice	0	Fault Type	Hard

Ring	1	2	3	4
Free During Pmt	No	No	No	No

Timing	Walk	Ped Clr	Min Grn	Yellow	Red
Entrance	0	8	5	3.0	1.0
	Min Grn	Ext Grn	Max Grn	Yellow	Red
Track Clear	0	0	0	3.0	1.0
	Min Dwell	Pmt Ext	Max Time	Yellow	Red
Dwell / Cycle-Exit	0	0.0	25	3.0	1.0

Preemption Active Out	On	Preempt Act Dwell	No
Other - Priority Preempt	Off	Non-Priority Pmt	Off
Inhibit Extension Time	0.0	Ped Priority Return	Off
Veh Priority Return	Off	Queue Delay	Off
Conditional Delay	Off		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Veh Pri Return %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Preempt Plan 6

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Trk Clr Veh	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Trk Clr Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Enable Trailing																
Dwell Veh	.	X	.	.	.	X	.	.	.	.	.	.	.	.	.	.
Dwell Ped																
Dwell Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cycling Veh	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cycling Ped																

Cycling Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Exit Phases		X				X										
Exit Calls																
Special Function																

Enable	Yes	Preempt Override	Yes	Interlock Enable	No
Det Lock	Yes	Delay	0	Inhibit	0
Override Flash	Yes	Duration	0	CLR > GRN	No
Term Ovlp Asap	No	PC Through Yel	No	Terminate Phase	No
Ped Dark	No	Track Clear Rsrv	No	Dwell Flash	Off
Linked Pmt	0	FL Exit Color	Red	Exit Options	Off
Exit Timing Plan	0	Reservice	0	Fault Type	Hard

Ring	**1**	**2**	**3**	**4**
Free During Pmt	No	No	No	No

Timing	**Walk**	**Ped Clr**	**Min Grn**	**Yellow**	**Red**
Entrance	0	8	5	3.0	1.0
	Min Grn	**Ext Grn**	**Max Grn**	**Yellow**	**Red**
Track Clear	0	0	0	3.0	1.0
	Min Dwell	**Pmt Ext**	**Max Time**	**Yellow**	**Red**
Dwell / Cycle-Exit	0	0.0	25	3.0	1.0

Preemption Active Out	On	Preempt Act Dwell	No
Other - Priority Preempt	Off	Non-Priority Pmt	Off
Inhibit Extension Time	0.0	Ped Priority Return	Off
Veh Priority Return	Off	Queue Delay	Off
Conditional Delay	Off		

Phase	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Veh Pri Return %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Preempt Preempt Filtering
Enable Preempt Filtering & TSP/SCP (MM) 4-2

Input	Solid	Pulsing
1	PREEMPTION 1	...BYPASSED...
2	PREEMPTION 2	...BYPASSED...
3	PREEMPTION 3	PREEMPTION 7
4	PREEMPTION 4	PREEMPTION 8
5	PREEMPTION 5	PREEMPTION 9
6	PREEMPTION 6	PREEMPTION 10
7	...BYPASSED...	...BYPASSED...
8	...BYPASSED...	...BYPASSED...
9	...BYPASSED...	...BYPASSED...
10	...BYPASSED...	...BYPASSED...

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Preempt TSP/SCP Plan and Split

TSP / SCP Plan (MM) 4-3

TSP/SCP Plan	Enable Option	Signal Type	Det Lock	Delay Time	Max Presence	PMT Enables Reservice	No Delay in TSP	Action SF Inhibit	Reservice Cycles	Bus Heading
1	No	Solid	No	0	0	No	False	0	0	NB
2	No	Solid	No	0	0	No	False	0	0	SB
3	No	Solid	No	0	0	No	False	0	0	EB
4	No	Solid	No	0	0	No	False	0	0	WB
5	No	Solid	No	0	0	No	False	0	0	.
6	No	Solid	No	0	0	No	False	0	0	.

Mode: TSP
Free Default Pattern: 120
Headway Allowance: 0

TSP/SCP Plan	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
5	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
6	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

TSP / SCP Split Pattern (MM) 4-4

TSP/SCP Split Pattern	Max Type	Phase															
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
4	Max Reduction	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255

City of Burlington

ECONOLITE

MOVING TRAFFIC FORWARD

Dundas St @ Millcroft Park Dr / Cornerstone Dr - TS 791 - Econolite Type - ASC/3

Time Base Clock/Calendar
Clock/Calendar Data (MM) 5-1

Manual Action Plan:	0
SYNC Reference Time:	00:00
SYNC Reference:	Reference Time
Day Light Savings:	No
Time Reset Input Set Time:	0:00:00
Standard Time From GMT:	0

City of Burlington

ECONOLITE

MOVING TRAFFIC FORWARD

Dundas St @ Millcroft Park Dr / Cornerstone Dr - TS 791 - Econolite Type - ASC/3

Time Base Action Plan
Action Plan (MM) 5-2

AM peak

Action Plan - 1

Pattern	1	Override Sys	No
Timing Plan	1	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

only phase 2 and 6 have ped recall

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall		X				X										
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 2

Pattern	2	Override Sys	No
Timing Plan	1	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall		X				X										
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

PM peak

Action Plan - 3

Pattern	3	Override Sys	No
Timing Plan	1	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Only Phase 2 and 6 have ped recall

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall		X				X										
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 7

Pattern	7	Override Sys	No
Timing Plan	1	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall		X				X										
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																

Spec Func (1-8)								
Aux Func (1-3)								

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 8

Pattern	8	Override Sys	No
Timing Plan	1	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall		X				X										
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																

Spec Func (1-8)								
Aux Func (1-3)								

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 9

Pattern	9	Override Sys	No
Timing Plan	1	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall		X				X										
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 10

Pattern	Free	Override Sys	No
Timing Plan	1	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall		X				X										
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

City of Burlington

ECONOLITE

MOVING TRAFFIC FORWARD

Dundas St @ Millcroft Park Dr / Cornerstone Dr - TS 791 - Econolite Type - ASC/3

Time Base Day Plan/Schedule
Day Plan (MM) 5-3

Day Plan #1

Event	Action Plan	Start Time
1	1	06:00
2	2	09:00
3	3	15:00
4	2	19:00
5	10	21:30

AM peak

PM peak

Day Plan #2

Event	Action Plan	Start Time
1	2	09:00
2	10	21:00

Day Plan #3

Event	Action Plan	Start Time
1	3	09:00
2	10	20:00

Schedule (MM) 5-4

Schedule Number - 1

Day Plan No.: 1

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	X	X	X	X	X	X	X	X	X	X	X	X

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
		X	X	X	X	X	

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	13	14	15	16	17	18	19	20	21	22
	X	X	X	X	X	X	X	X	X	X	X
	23	24	25	26	27	28	29	30	31		
	X	X	X	X	X	X	X	X	X		

Schedule Number - 2

Day Plan No.: 2

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	X	X	X	X	X	X	X	X	X	X	X	X

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
							X

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	13	14	15	16	17	18	19	20	21	22
	X	X	X	X	X	X	X	X	X	X	X
	23	24	25	26	27	28	29	30	31		
	X	X	X	X	X	X	X	X	X		

Schedule Number - 3

Day Plan No.: 3

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	X	X	X	X	X	X	X	X	X	X	X	X

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
	X						

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	13	14	15	16	17	18	19	20	21	22
	X	X	X	X	X	X	X	X	X	X	X
	23	24	25	26	27	28	29	30	31		
	X	X	X	X	X	X	X	X	X		

City of Burlington

ECONOLITE

MOVING TRAFFIC FORWARD

Dundas St @ Millcroft Park Dr / Cornerstone Dr - TS 791 - Econolite Type - ASC/3

Time Base Exceptions
Exception Day Program (MM) 5-5

Excep Day	Float/Fixed	Mon/Mon	DOW/DOM	WOM/Year	Day Plan
1	FIXED	1	1	0	3
2	FLOAT	2	2	3	3
3	FIXED	4	19	0	3
4	FLOAT	5	2	3	3
5	FIXED	7	1	0	3
6	FLOAT	8	2	1	3
7	FLOAT	9	2	1	3
8	FLOAT	10	2	2	3
9	FIXED	12	25	0	3

City of Burlington

ECONOLITE

MOVING TRAFFIC FORWARD

Dundas St @ Millcroft Park Dr / Cornerstone Dr - TS 791 - Econolite Type - ASC/3

Detectors

Detectors - Pg 1

Veh Det Phase Assignment (MM) 6-1

Vehicle Detector Plan Number - 1

Veh Detector	Assigned Phase	Called Phase	Type
1	1		S
2	2		S
3	8		S
4	4		S
5	5		S
6	6		S
7	4		S
8	8		S

Vehicle Detector Plan Number - 2

Veh Detector	Assigned Phase	Called Phase	Type
1	1		S
2	2		S
3	3		S
4	4		S
5	5		S
6	6		S
7	7		S
8	8		S
9	9		N
10	10		N
11	11		N
12	12		N
13	13		S
14	14		S
15	15		S
16	16		S

Vehicle Detector Plan Number - 3

Veh Detector	Assigned Phase	Called Phase	Type
1	1		S
2	2		S
3	3		S
4	4		S
5	5		S
6	6		S
7	7		S
8	8		S
9	9		N
10	10		N
11	11		N
12	12		N
13	13		S
14	14		S
15	15		S
16	16		S

Vehicle Detector Plan Number - 4

Veh Detector	Assigned Phase	Called Phase	Type
1	1		S

2	2		S
3	3		S
4	4		S
5	5		S
6	6		S
7	7		S
8	8		S
9	9		N
10	10		N
11	11		N
12	12		N
13	13		S
14	14		S
15	15		S
16	16		S

Vehicle Detector Setup (MM) 6-2

Veh Detector	Type	TS2 Detector	Description
1	S-STANDARD	No	
2	S-STANDARD	No	
3	S-STANDARD	No	
4	S-STANDARD	No	
5	S-STANDARD	No	
6	S-STANDARD	No	
7	S-STANDARD	No	
8	S-STANDARD	No	
9	N-NTCIP	No	
10	N-NTCIP	No	
11	N-NTCIP	No	
12	N-NTCIP	No	
13	S-STANDARD	No	
14	S-STANDARD	No	
15	S-STANDARD	No	
16	S-STANDARD	No	
17	S-STANDARD	Yes	
18	S-STANDARD	Yes	
19	S-STANDARD	Yes	
20	S-STANDARD	Yes	
21	S-STANDARD	Yes	
22	S-STANDARD	Yes	
23	S-STANDARD	Yes	
24	S-STANDARD	Yes	
25	S-STANDARD	Yes	
26	S-STANDARD	Yes	
27	S-STANDARD	Yes	
28	S-STANDARD	Yes	
29	S-STANDARD	Yes	
30	S-STANDARD	Yes	
31	S-STANDARD	Yes	
32	S-STANDARD	Yes	
33	S-STANDARD	Yes	
34	S-STANDARD	Yes	
35	S-STANDARD	Yes	
36	S-STANDARD	Yes	
37	S-STANDARD	Yes	
38	S-STANDARD	Yes	
39	S-STANDARD	Yes	
40	S-STANDARD	Yes	
41	S-STANDARD	Yes	
42	S-STANDARD	Yes	
43	S-STANDARD	Yes	
44	S-STANDARD	Yes	
45	S-STANDARD	Yes	
46	S-STANDARD	Yes	
47	S-STANDARD	Yes	

48	S-STANDARD	Yes	
49	S-STANDARD	Yes	
50	S-STANDARD	Yes	
51	S-STANDARD	Yes	
52	S-STANDARD	Yes	
53	S-STANDARD	Yes	
54	S-STANDARD	Yes	
55	S-STANDARD	Yes	
56	S-STANDARD	Yes	
57	S-STANDARD	Yes	
58	S-STANDARD	Yes	
59	S-STANDARD	Yes	
60	S-STANDARD	Yes	
61	S-STANDARD	Yes	
62	S-STANDARD	Yes	
63	S-STANDARD	Yes	
64	S-STANDARD	Yes	

Vehicle Detector Plan Number - 1

Veh Detector	Phase	ECPI Log	Call Option	Delay Time	Ext Option	Extend Time / Passage Time	Queue Lim. / Discon. Time	Use Added Initial	Cross Switch Ph	Lock In	NTCIP Vol.	NTCIP Occ.	Pmt Queue Delay
1	1	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
2	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
3	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
4	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
5	5	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
6	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
7	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
8	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
9	0	No	No	0.0	None	0.0	0	No	0	None	Yes	Yes	No
10	0	No	No	0.0	None	0.0	0	No	0	None	Yes	Yes	No
11	0	No	No	0.0	None	0.0	0	No	0	None	Yes	Yes	No
12	0	No	No	0.0	None	0.0	0	No	0	None	Yes	Yes	No
13	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
14	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
15	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
16	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
17	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
18	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
19	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
20	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
21	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
22	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
23	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
24	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
25	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
26	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
27	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
28	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
29	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
30	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
31	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
32	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
33	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
34	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
35	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
36	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
37	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
38	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
39	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
40	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
41	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

42	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
43	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
44	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
45	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
46	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
47	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
48	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
49	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
50	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
51	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
52	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
53	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
54	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
55	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
56	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
57	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
58	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
59	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
60	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
61	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
62	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
63	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
64	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

Vehicle Detector Plan Number - 2

Veh Detector	Phase	ECPI Log	Call Option	Delay Time	Ext Option	Extend Time / Passage Time	Queue Lim. / Discon. Time	Use Added Initial	Cross Switch Ph	Lock In	NTCIP Vol.	NTCIP Occ.	Pmt Queue Delay
1	1	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
2	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
3	3	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
4	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
5	5	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
6	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
7	7	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
8	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
9	9	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
10	10	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
11	11	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
12	12	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
13	13	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
14	14	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
15	15	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
16	16	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
17	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
18	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
19	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
20	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
21	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
22	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
23	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
24	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
25	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
26	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
27	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
28	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
29	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
30	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
31	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
32	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
33	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
34	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
35	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
36	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

37	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
38	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
39	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
40	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
41	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
42	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
43	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
44	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
45	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
46	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
47	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
48	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
49	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
50	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
51	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
52	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
53	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
54	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
55	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
56	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
57	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
58	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
59	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
60	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
61	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
62	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
63	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
64	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

Vehicle Detector Plan Number - 3

Veh Detector	Phase	ECPI Log	Call Option	Delay Time	Ext Option	Extend Time / Passage Time	Queue Lim. / Discon. Time	Use Added Initial	Cross Switch Ph	Lock In	NTCIP Vol.	NTCIP Occ.	Pmt Queue Delay
1	1	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
2	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
3	3	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
4	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
5	5	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
6	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
7	7	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
8	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
9	9	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
10	10	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
11	11	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
12	12	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
13	13	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
14	14	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
15	15	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
16	16	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
17	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
18	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
19	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
20	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
21	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
22	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
23	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
24	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
25	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
26	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
27	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
28	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
29	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
30	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
31	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

32	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
33	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
34	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
35	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
36	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
37	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
38	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
39	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
40	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
41	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
42	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
43	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
44	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
45	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
46	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
47	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
48	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
49	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
50	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
51	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
52	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
53	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
54	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
55	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
56	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
57	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
58	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
59	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
60	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
61	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
62	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
63	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
64	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

Vehicle Detector Plan Number - 4

Veh Detector	Phase	ECPI Log	Call Option	Delay Time	Ext Option	Extend Time / Passage Time	Queue Lim. / Discon. Time	Use Added Initial	Cross Switch Ph	Lock In	NTCIP Vol.	NTCIP Occ.	Pmt Queue Delay
1	1	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
2	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
3	3	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
4	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
5	5	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
6	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
7	7	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
8	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
9	9	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
10	10	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
11	11	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
12	12	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
13	13	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
14	14	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
15	15	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
16	16	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
17	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
18	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
19	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
20	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
21	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
22	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
23	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
24	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
25	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
26	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

27	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
28	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
29	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
30	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
31	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
32	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
33	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
34	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
35	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
36	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
37	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
38	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
39	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
40	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
41	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
42	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
43	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
44	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
45	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
46	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
47	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
48	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
49	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
50	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
51	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
52	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
53	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
54	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
55	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
56	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
57	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
58	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
59	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
60	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
61	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
62	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
63	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
64	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

Ped Detector Phase Assignment (MM) 6-3

Mode: NTCIP

Called Phase	Detector
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

City of Burlington

ECONOLITE

MOVING TRAFFIC FORWARD

Dundas St @ Millcroft Park Dr / Cornerstone Dr - TS 791 - Econolite Type - ASC/3

Detectors

Detectors - Pg 2

Log - Speed Detector Setup (MM) 6-4

NTCIP Log Period: 60 ECPI Log Period: 0 Length Unit: Inches

Speed Detector	Local Detector	One/Two Detector	Vehicle Length	Trap length	Enable Log
1	0	1	0	0	No
2	0	1	0	0	No
3	0	1	0	0	No
4	0	1	0	0	No
5	0	1	0	0	No
6	0	1	0	0	No
7	0	1	0	0	No
8	0	1	0	0	No
9	0	1	0	0	No
10	0	1	0	0	No
11	0	1	0	0	No
12	0	1	0	0	No
13	0	1	0	0	No
14	0	1	0	0	No
15	0	1	0	0	No
16	0	1	0	0	No

Vehicle Detector Diagnostics (MM) 6-5

Veh Diagnostic Plan Number - 1

Det	Counts	Act	Pres	Multiplier	Failed Time	Failed Call Delay

Veh Diagnostic Plan Number - 2

Det	Counts	Act	Pres	Multiplier	Failed Time	Failed Call Delay

Veh Diagnostic Plan Number - 3

Det	Counts	Act	Pres	Multiplier	Failed Time	Failed Call Delay

Veh Diagnostic Plan Number - 4

Det	Counts	Act	Pres	Multiplier	Failed Time	Failed Call Delay

Pedestrian Detector Diagnostics (MM) 6-6

Ped Diagnostic Plan Number - 1

Det	Counts	Act	Pres	Multiplier
4	0	0	10	1
8	0	0	10	1

Ped Diagnostic Plan Number - 2

Det	Counts	Act	Pres	Multiplier

Ped Diagnostic Plan Number - 3

Det	Counts	Act	Pres	Multiplier

Ped Diagnostic Plan Number - 4

Det	Counts	Act	Pres	Multiplier

City of Burlington

ECONOLITE

MOVING TRAFFIC FORWARD

Appleby Ln @ Taywood Dr - TS 296 - Econolite Type - ASC/3

Configuration Controller Sequence

Phase Ring Sequence and Assignment (MM) 1-1-1

Hardware Alternate Sequence Enable: No

Phase Ring Sequence.....(Note: Sequences identical to the prior one are not printed)

	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
	B		B		B		B		B							
Sequence 1																
Ring 1	1	2	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 2																
Ring 1	2	1	3	4	10	9	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 3																
Ring 1	1	2	4	3	9	10	14	13	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 4																
Ring 1	2	1	4	3	10	9	14	13	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 5																
Ring 1	1	2	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	12	11	15	16	.	.	.	.	.	.	.	.
Sequence 6																
Ring 1	2	1	3	4	10	9	13	14	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	12	11	15	16	.	.	.	.	.	.	.	.
Sequence 7																
Ring 1	1	2	4	3	9	10	14	13	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	12	11	15	16	.	.	.	.	.	.	.	.
Sequence 8																
Ring 1	2	1	4	3	10	9	14	13	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	12	11	15	16	.	.	.	.	.	.	.	.
Sequence 9																
Ring 1	1	2	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	11	12	16	15	.	.	.	.	.	.	.	.
Sequence 10																
Ring 1	2	1	3	4	10	9	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	11	12	16	15	.	.	.	.	.	.	.	.
Sequence 11																
Ring 1	1	2	4	3	9	10	14	13	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	11	12	16	15	.	.	.	.	.	.	.	.
Sequence 12																
Ring 1	2	1	4	3	10	9	14	13	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	11	12	16	15	.	.	.	.	.	.	.	.
Sequence 13																
Ring 1	1	2	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	6	5	8	7	12	11	16	15	.	.	.	.	.	.	.	.
Sequence 14																
Ring 1	2	1	3	4	10	9	13	14	.	.	.	.	.	.	.	.
Ring 2	6	5	8	7	12	11	16	15	.	.	.	.	.	.	.	.
Sequence 15																
Ring 1	1	2	4	3	9	10	14	13	.	.	.	.	.	.	.	.
Ring 2	6	5	8	7	12	11	16	15	.	.	.	.	.	.	.	.
Sequence 16																
Ring 1	2	1	4	3	10	9	14	13	.	.	.	.	.	.	.	.
Ring 2	6	5	8	7	12	11	16	15	.	.	.	.	.	.	.	.

Phases In Use/Exclusive Ped (MM) 1-2

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phases In Use	X	X	X	X	X	X		X								
Exclusive Ped																

Phase Compatibility (MM) 1-1-2

Phase	
n/a	Barrier Mode

Phase and Overlap Descriptions

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	SBLT	NB	WBLT	EB	NBLT	SB		WB								
Overlap	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**
Description																

Administration (MM) 1-7-1

Enable Controller/Cabinet Interlock CRC	No
CRC (16 bit)	1DB4
Enable Automatic Backup to Datakey	No

Backup Prevent (MM) 1-1-3

	Phases	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Timing	**1**		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Phases	**2**	X		.	.	.	.	.	.	.	.	.	.	.	.	.	.
	3	.	.		.	.	.	.	.	.	.	.	.	.	.	.	.
	4	.	.	X		.	.	.	.	.	.	.	.	.	.	.	.
	5	.	.	.	.		.	.	.	.	.	.	.	.	.	.	.
	6	.	.	.	.	X		.	.	.	.	.	.	.	.	.	.
	7	.	.	.	.	.	.		.	.	.	.	.	.	.	.	.
	8	.	.	.	.	.	.	X		.	.	.	.	.	.	.	.
	9	.	.	.	.	.	.	.	.		.	.	.	.	.	.	.
	10	.	.	.	.	.	.	.	.	.		.	.	.	.	.	.
	11	.	.	.	.	.	.	.	.	.	.		.	.	.	.	.
	12	.	.	.	.	.	.	.	.	.	.	.		.	.	.	.
	13	.	.	.	.	.	.	.	.	.	.	.	.		.	.	.
	14	.	.	.	.	.	.	.	.	.	.	.	.	.		.	.
	15	.	.	.	.	.	.	.	.	.	.	.	.	.	.		.
	16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	

Simultaneous Gap (MM) 1-1-4

	Phases	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	1		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	2	.		.	.	.	.	.	.	.	.	.	.	.	.	.	.
	3	.	.		.	.	.	.	.	.	.	.	.	.	.	.	.
	4	.	.	.		.	.	.	.	.	.	.	.	.	.	.	.
	5	.	.	.	.		.	.	.	.	.	.	.	.	.	.	.
Phase	**6**	.	.	.	.	.		.	.	.	.	.	.	.	.	.	.
Must	**7**	.	.	.	.	.	.		.	.	.	.	.	.	.	.	.
Gap	**8**	.	.	.	.	.	.	.		.	.	.	.	.	.	.	.
With	**9**	.	.	.	.	.	.	.	.		.	.	.	.	.	.	.
Phase	**10**	.	.	.	.	.	.	.	.	.		.	.	.	.	.	.
	11	.	.	.	.	.	.	.	.	.	.		.	.	.	.	.
	12	.	.	.	.	.	.	.	.	.	.	.		.	.	.	.
	13	.	.	.	.	.	.	.	.	.	.	.	.		.	.	.
	14	.	.	.	.	.	.	.	.	.	.	.	.	.		.	.
	15	.	.	.	.	.	.	.	.	.	.	.	.	.	.		.
	16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
	Disable	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Load Switch Assignments (MM) 1-3

	Phase / Overlap	Type	Dimming				Power Up	Auto		Flash Together
			Red	Yellow	Green	Dark		Red	Yellow	
1	1	V				-	Auto	X		
2	2	V				-	Auto	X		X
3	3	V				-	Auto	X		
4	4	V				-	Auto	X		X
5	5	V				+	Auto	X		
6	6	V				+	Auto	X		X
7	7	V				+	Auto	X		
8	8	V				+	Auto	X		X
9	2	P				-	Auto			
10	4	P				-	Auto			
11	6	P				+	Auto			
12	8	P				+	Auto			
13	1	O				-	Auto	X		
14	2	O				+	Auto	X		X
15	3	O				-	Auto	X		
16	4	O				+	Auto	X		X

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Appleby Ln @ Taywood Dr - TS 296 - Econolite Type - ASC/3

Configuration Port 1 (SDLC)

Port 1 SDLC (MM) 1-4-1

BIU	1	2	3	4	5	6	7	8
Term & Facility	X	X						
Detector Rack	X	X						

Enable TS2/MMU Type Cabinet: No
Enable MMU Extended Status: Yes
Enable SDLC Stop Time: Yes
Enable 3 Critical RFE's Lockup: No

MMU Program (MM) 1-4-2

Channel Can Serve With Channel	
Channel 1	**Channel 2**
1	5
1	6
1	11
2	5
2	6
2	9
2	11
3	7
3	8
3	12
4	7
4	8
4	10
4	12
5	9
6	9
6	11
7	10
8	10
8	12
9	11
10	12

Color Check Enable (MM) 1-4-3

Enable Color Check: No

MMU/LS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Green																
Yellow																
Red																

Secondary Stations/Tests (MM) 1-4-4

ID	1	2	3	4	5	6	7	8	MMU
Term & Facility									

ID	1	2	3	4	5	6	7	8	Diag
Detector Rack									

Enable SDLC Diagnostic Test: No

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Appleby Ln @ Taywood Dr - TS 296 - Econolite Type - ASC/3

Configuration Communications 1 (SDLC)

Ethernet Port Configuration (MM) 1-5-1

DHCP Enable:	No
Controller IP:	172.22.139.2
Subnet Mask:	255.255.0.0
Default Gateway IP:	172.22.0.255
Server IP:	192.168.210.120

NTCIP (MM) 1-5-5

NTCIP Backup Time (Sec):	0
NTCIP UDP Port:	501
Ethernet Priority:	1
Port 2 Priority (Port C50S for 2070):	4
Port 3A Priority (Port C21S for 2070):	2
Port 3B Priority (Port C22S for 2070):	3

Port Configuration (MM) 1-5-2 to 1-5-4

Port	2 (C50S)	3A (C21S)	3B (C22S)
Protocol	NTCIP	NTCIP	NTCIP
Enable	No	No	No
Data Rate (BPS)	19.2K	19.2K	19.2K
Data, Parity, Stop	8 N 1	8 N 1	8 N 1
Address	0	0	0
Telemetry Response Delay	0.0	0.0	0.0
Duplex - Half or Full	Full	Full	Full
Flow Control	Yes	Yes	Yes
Group Address	0	0	0
Single Flag Enable	Yes	Yes	Yes
RTS to CTS Delay	n/a	n/a	0.0
RTS Turn Off Delay	n/a	n/a	0.0
Dropout Time	10	10	10
Early RTS	n/a	n/a	No
Telemetry Mode	n/a	n/a	FSK
ATCS Railroad	0	n/a	n/a
ATCS Railroad Line	0	n/a	n/a
ATCS Group	0	n/a	n/a
Wayside Device	0	n/a	n/a
ATC Device	0	n/a	n/a
Wayside Subnode	0	n/a	n/a
ATC Subnode	0	n/a	n/a

ECPIP (MM) 1-5-6

Controller Address:	0
Expanded System Detector Address:	0

System Detector Assignment

System Detector	Local Detector

Wireless Configuration (MM) 1-5-7

Wireless Channel Number:	1
Wireless Access Code:	327423274

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Appleby Ln @ Taywood Dr - TS 296 - Econolite Type - ASC/3

Configuration Logging / Display

Event Logging (MM) 1-6-1

Critical RFE's (MMU/TF)	Yes	3 Critical Errors Within 24 Hours	Yes
MMU Flash Faults	Yes	Local Flash Fault	Yes
Non-Critical RFE's (Det/Test)	Yes	Detector Errors	Yes
Coordination Errors	Yes	Controller Download	Yes
Preemption Events	Yes	TSP Events	Yes
Power On/Off	Yes	Low Battery	Yes
Access	Yes	Data Change	Yes
Online / Offline	Yes		

Alarm Event	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Enable Logging	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Display Options (MM) 1-7-2

Key Click Enable:	No
Backlight Enable:	Yes
LED Mode:	Auto
Display Mode:	Basic
Screen Format:	Advanced
Trans Mode Pop-Up Disable:	No

Sign On (MM) 8-5

Sign On Message Line 1: Solutions that Move the World
Sign On Message Line 2:

Software Modules (MM) 8-7

Application Version: 32.66.10
OS (Boot) Version: 06.07.00

City of Burlington

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Appleby Ln @ Taywood Dr - TS 296 - Econolite Type - ASC/3

Logic Processor Page 1

Logic Statement Control (MM) 1-8-1

Logic #	Statement Control
1	E
2	E

City of Burlington

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Appleby Ln @ Taywood Dr - TS 296 - Econolite Type - ASC/3

Logic Processor Page 2

Logic Statements (MM) 1-8-2

Logic #: 1

If:

	Peer	T/F	Assignment	#		State
IF	--	F	VEH GREEN ON PH	3	IS	On

Then:

Assignment	#	State
CTR CALL PHASE	4	On

Logic #: 2

If:

	Peer	T/F	Assignment	#		State
IF	--	F	VEH GREEN ON PH	7	IS	On

Then:

Assignment	#	State
CTR CALL PHASE	8	On

City of Burlington

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MOVING TRAFFIC FORWARD

Min initial

Appleby Ln @ Taywood Dr - TS 296 - Econolite Type - ASC/3

Controller Timing Plan (MM) 2-1

Plan 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction	SBLT	NB	WBLT	EB	NBLT	SB		WB								
Min Green	7	8	7	8	7	8	7	8	5	5	5	5	5	5	5	5
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	7	0	7	0	7	0	7	0	10	0	10	0	10	0	10
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	18	0	23	0	18	0	23	0	16	0	16	0	16	0	16
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	15	35	15	30	15	35	15	30	35	35	35	35	35	35	35	35
Max2	15	35	15	30	15	35	15	30	40	40	40	40	40	40	40	40
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	3.0	3.7	3.0	3.0	3.0	3.7	0.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	1.0	2.8	1.0	4.3	1.0	2.8	0.0	4.3	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Walk

Flash don't walk

All red

Plan 2

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction	SBLT	NB	WBLT	EB	NBLT	SB		WB								
Min Green	7	8	7	8	7	8	7	8	5	5	5	5	5	5	5	5
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	7	0	7	0	7	0	7	0	10	0	10	0	10	0	10
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	18	0	23	0	18	0	23	0	16	0	16	0	16	0	16
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	15	35	15	30	15	35	15	30	35	35	35	35	35	35	35	35
Max2	15	35	15	30	15	35	15	30	40	40	40	40	40	40	40	40
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	3.0	3.7	3.0	3.0	3.0	3.7	0.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	1.0	2.8	1.0	4.3	1.0	2.8	0.0	4.3	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Plan 3

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction	SBLT	NB	WBLT	EB	NBLT	SB		WB								
Min Green	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	10	0	10	0	10	0	10	0	10	0	10	0	10	0	10
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	16	0	16	0	16	0	16	0	16	0	16	0	16	0	16
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
Max2	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Plan 4

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction	SBLT	NB	WBLT	EB	NBLT	SB		WB								
Min Green	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	10	0	10	0	10	0	10	0	10	0	10	0	10	0	10
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	16	0	16	0	16	0	16	0	16	0	16	0	16	0	16
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
Max2	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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MOVING TRAFFIC FORWARD

Appleby Ln @ Taywood Dr - TS 296 - Econolite Type - ASC/3

Controller Overlaps

Vehicle Overlaps (MM) 2-2

Overlap	Type	Lag Green	Yellow	Red	Adv. Green

Phases

Overlap	Phase	Included	Protect	Ped Protect	Not Overlap	Modifier	Lag X Phases	Lag 2 Phases	Flash Green

PPLT FYA

Overlap	Protected Phase (Left Turn)	Permissive Phase (Opposing Thru)	Flashing Arrow Output	Flashing Arrow Output CH	Delay Start of FYA	Delay Start of Clearance	Action Plan SF Bit Disable	Ped Protected Enable

Guaranteed Minimum Time Data (MM) 2-4

Phase	Min Green	Walk	Ped Clear	Yellow	Red Clear	Overlap Green
A01	5	0	5	3.0	0.0	5
B02	5	0	5	3.0	0.0	5
C03	5	0	5	3.0	0.0	5
D04	5	0	5	3.0	0.0	5
E05	5	0	5	3.0	0.0	5
F06	5	0	5	3.0	0.0	5
G07	5	0	5	3.0	0.0	5
H08	5	0	5	3.0	0.0	5
I09	5	0	7	3.0	0.0	5
J10	5	0	7	3.0	0.0	5
K11	5	0	7	3.0	0.0	5
L12	5	0	7	3.0	0.0	5
M13	5	0	7	3.0	0.0	5
N14	5	0	7	3.0	0.0	5
O15	5	0	7	3.0	0.0	5
P16	5	0	7	3.0	0.0	5

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Controller Pedestrian Overlaps
Vehicle / Pedestrian Overlaps (MM) 2-3

Included	Pedestrian Overlaps

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Controller Start / Flash Data (MM) 2-5

Start Up

Phase	Phase Setting
1	.
2	R
3	.
4	.
5	.
6	R
7	.
8	.
9	.
10	.
11	.
12	.
13	.
14	.
15	.
16	.

Overlap
A
B
C
D

Flash Thru Mon: No
Flash Time: 0
All Red: 6
Power Start Seq: 1
MUTCD Enabled: No
Y->G: n/a

Automatic Flash

Entry
2
6

Exit
2
6

Overlap Exit
A
B
C
D

Flash Thru Mon: No
Exit Flash: W
Minimum Flash: 8
Mimimum Recall: No
Cycle Through Phase: No

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Controller Options

Controller Options (MM) 2-6-1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Flashing Grn Ph	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Guar Passage																
Non-Act I		X				X										
Non-Act II																
Dual Entry		X		X		X		X								
Cond Service																
Cond Reservice																
Ped Re-Service																
Rest In Walk		X				X										
Flashing Walk																
Ped Clr-Yel																
Ped Clr-Red																
IGRN + Veh Ext																

Ped Clear Protect: Off Unit Red Revert: 2.0 MUTCD 3 Seconds Don't Walk: No

Pre-Timed Mode (MM) 2-7

Enable Pre-Timed Mode: No Free Input Disables Pre-Timed: No

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Pre-Timed																

Phase Recall Options (MM) 2-8

Plan # 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Lock Detector																
Vehicle Recall																
Ped Recall		X				X										
Max Recall		X				X										
Soft Recall																
No Rest																
AI Calc																

2 and 6 are Max Recall, 4 and 8 is non-recall

Plan # 2

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Lock Detector																
Vehicle Recall																
Ped Recall		X				X										
Max Recall		X				X										
Soft Recall																
No Rest																
AI Calc																

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Coordination Options

Options (MM) 3-1

Manual Pattern	Auto	ECPI Coord	Yes
System Source	SYS	System Format	PTN
Splits In	Seconds	Offsets In	Seconds
Transition	Smooth	Max Select	MAXINH
Dwell / Add Time	0		
Delay Coord Wk-LZ	No	Force Off	Float
Offset Reference	Lead	Use Ped Time	No
Ped Recall	No	Ped Reservice	No
Local Zero Override	No	FO Added Ini Green	No
Re-sync Count	0	Multisync	No

Auto Perm Minimum Green (Seconds) (MM) 3-4

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Minimum Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Split Demand (MM) 3-5

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

Demand	1	2
Detector	0	0
Call Time (Sec)	0	0
Cycle Count	0	0

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Appleby Ln @ Taywood Dr - TS 296 - Econolite Type - ASC/3

Coordination Pattern Data
Coordinator Pattern Data (MM) 3-2

Action Plan 1: AM Peak

Coordinator Pattern # 1

Split Pattern	1	TS2 (Pat-Off)	0-1	Splits In	Seconds
Cycle	120	Std (COS)	9	Offsets In	Seconds
Offset Value	40s	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	1		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	SBLT	NB	WBLT	EB	NBLT	SB		WB								
Splits (Split Pat 1)	0	80	0	40	12	68	0	40	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	120s	120s	0s	0s

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall		X				X										
Recall to Max. Time																
Omit Phase	X		X						X	X	X	X	X	X	X	X
Special Funciton Outputs																

Coordinator Pattern # 2

Split Pattern	2	TS2 (Pat-Off)	0-2	Splits In	Seconds
Cycle	110	Std (COS)	17	Offsets In	Seconds
Offset Value	74s	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	1		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	SBLT	NB	WBLT	EB	NBLT	SB		WB								
Splits (Split Pat 2)	12	48	12	38	12	48	0	50	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	110s	110s	0s	0s

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall		X				X										
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X
Special Funciton Outputs																

Action Plan 3: PM peak

Coordinator Pattern # 3

Split Pattern	3	TS2 (Pat-Off)	0-3	Splits In	Seconds
Cycle	140	Std (COS)	25	Offsets In	Seconds
Offset Value	64s	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	1		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	SBLT	NB	WBLT	EB	NBLT	SB		WB								
Splits (Split Pat 3)	12	90	0	38	12	90	0	38	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	140s	140s	0s	0s

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall		X				X										
Recall to Max. Time																
Omit Phase			X						X	X	X	X	X	X	X	X
Special Funciton Outputs																

Coordinator Pattern # 11

Split Pattern	11	TS2 (Pat-Off)	3-2	Splits In	Seconds
Cycle	120	Std (COS)	137	Offsets In	Seconds
Offset Value	40s	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	1		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	SBLT	NB	WBLT	EB	NBLT	SB		WB								
Splits (Split Pat 11)	0	80	0	40	12	68	0	40	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	120s	120s	0s	0s

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall		X				X										
Recall to Max. Time																
Omit Phase	X		X						X	X	X	X	X	X	X	X
Special Funciton Outputs																

Coordinator Pattern # 13

Split Pattern	13	TS2 (Pat-Off)	4-1	Splits In	Seconds
Cycle	140	Std (COS)	153	Offsets In	Seconds
Offset Value	64s	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	1		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	SBLT	NB	WBLT	EB	NBLT	SB		WB								
Splits (Split Pat 13)	12	90	0	38	12	90	0	38	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	140s	140s	0s	0s

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall		X				X										
Recall to Max. Time																
Omit Phase			X						X	X	X	X	X	X	X	X
Special Funciton Outputs																

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Coordination Split Pattern
Split Pattern Data (MM) 3-3

Split Pattern # 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	SBLT	NB	WBLT	EB	NBLT	SB		WB								
Split (seconds)	0	80	0	40	12	68	0	40	0	0	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall		X				X										
Recall to Max. Time																
Omit Phase	X		X						X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	120s	120s	0s	0s

Split Pattern # 2

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	SBLT	NB	WBLT	EB	NBLT	SB		WB								
Split (seconds)	12	48	12	38	12	48	0	50	0	0	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall		X				X										
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	110s	110s	0s	0s

Split Pattern # 3

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	SBLT	NB	WBLT	EB	NBLT	SB		WB								
Split (seconds)	12	90	0	38	12	90	0	38	0	0	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall		X				X										
Recall to Max. Time																
Omit Phase			X						X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	140s	140s	0s	0s

Split Pattern # 11

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	SBLT	NB	WBLT	EB	NBLT	SB		WB								
Split (seconds)	0	80	0	40	12	68	0	40	0	0	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall		X				X										
Recall to Max. Time																
Omit Phase	X		X						X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	120s	120s	0s	0s

Split Pattern # 13

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	SBLT	NB	WBLT	EB	NBLT	SB		WB								
Split (seconds)	12	90	0	38	12	90	0	38	0	0	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall		X				X										
Recall to Max. Time																
Omit Phase			X						X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	140s	140s	0s	0s

City of Burlington

ECONOLITE

MOVING TRAFFIC FORWARD

Appleby Ln @ Taywood Dr - TS 296 - Econolite Type - ASC/3

Preempt Plan

Preempt Plan (MM) 4-1

Preempt Plan 3

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Trk Clr Veh	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Trk Clr Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Enable Trailing																
Dwell Veh	.	X	.	.	.	X	.	.	.	.	.	.	.	.	.	.
Dwell Ped																
Dwell Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cycling Veh	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cycling Ped																
Cycling Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Exit Phases		X				X										
Exit Calls																
Special Function																

Enable	Yes	Preempt Override	Yes	Interlock Enable	No
Det Lock	Yes	Delay	0	Inhibit	0
Override Flash	Yes	Duration	5	CLR > GRN	No
Term Ovlp Asap	No	PC Through Yel	No	Terminate Phase	No
Ped Dark	No	Track Clear Rsrv	No	Dwell Flash	Off
Linked Pmt	0	FL Exit Color	Red	Exit Options	Off
Exit Timing Plan	0	Reservice	0	Fault Type	Hard

Ring	1	2	3	4
Free During Pmt	No	No	No	No

Timing	Walk	Ped Clr	Min Grn	Yellow	Red
Entrance	0	11	5	4.0	2.0
	Min Grn	Ext Grn	Max Grn	Yellow	Red
Track Clear	0	0	0	4.0	2.0
	Min Dwell	Pmt Ext	Max Time	Yellow	Red
Dwell / Cycle-Exit	8	3.0	45	4.0	2.0

Preemption Active Out	On	Preempt Act Dwell	No
Other - Priority Preempt	Off	Non-Priority Pmt	Off
Inhibit Extension Time	0.0	Ped Priority Return	Off
Veh Priority Return	Off	Queue Delay	Off
Conditional Delay	Off		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Veh Pri Return %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Preempt Plan 4

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Trk Clr Veh	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Trk Clr Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Enable Trailing																
Dwell Veh	.	.	.	X	.	.	.	X	.	.	.	.	.	.	.	.
Dwell Ped																
Dwell Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cycling Veh	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cycling Ped																

Cycling Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Exit Phases				X				X								
Exit Calls																
Special Function																

Enable	Yes	Preempt Override	Yes	Interlock Enable	No
Det Lock	Yes	Delay	0	Inhibit	0
Override Flash	Yes	Duration	5	CLR > GRN	No
Term Ovlp Asap	No	PC Through Yel	No	Terminate Phase	No
Ped Dark	No	Track Clear Rsrv	No	Dwell Flash	Off
Linked Pmt	0	FL Exit Color	Grn	Exit Options	Off
Exit Timing Plan	0	Reservice	0	Fault Type	Hard

Ring	**1**	**2**	**3**	**4**
Free During Pmt	No	No	No	No

Timing	**Walk**	**Ped Clr**	**Min Grn**	**Yellow**	**Red**
Entrance	0	14	5	3.0	3.0
	Min Grn	**Ext Grn**	**Max Grn**	**Yellow**	**Red**
Track Clear	0	0	0	4.0	1.0
	Min Dwell	**Pmt Ext**	**Max Time**	**Yellow**	**Red**
Dwell / Cycle-Exit	8	3.0	45	4.0	3.0

Preemption Active Out	On	Preempt Act Dwell	No
Other - Priority Preempt	Off	Non-Priority Pmt	Off
Inhibit Extension Time	0.0	Ped Priority Return	Off
Veh Priority Return	Off	Queue Delay	Off
Conditional Delay	Off		

Phase	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Veh Pri Return %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

City of Burlington

ECONOLITE

MOVING TRAFFIC FORWARD

Appleby Ln @ Taywood Dr - TS 296 - Econolite Type - ASC/3

Preempt Preempt Filtering
Enable Preempt Filtering & TSP/SCP (MM) 4-2

Input	Solid	Pulsing
1	PREEMPTION 1	...BYPASSED...
2	PREEMPTION 2	...BYPASSED...
3	PREEMPTION 3	PREEMPTION 7
4	PREEMPTION 4	PREEMPTION 8
5	PREEMPTION 5	PREEMPTION 9
6	PREEMPTION 6	PREEMPTION 10
7	...BYPASSED...	...BYPASSED...
8	...BYPASSED...	...BYPASSED...
9	...BYPASSED...	...BYPASSED...
10	...BYPASSED...	...BYPASSED...

City of Burlington

ECONOLITE

MOVING TRAFFIC FORWARD

Appleby Ln @ Taywood Dr - TS 296 - Econolite Type - ASC/3

Preempt TSP/SCP Plan and Split

TSP / SCP Plan (MM) 4-3

TSP/SCP Plan	Enable Option	Signal Type	Det Lock	Delay Time	Max Presence	PMT Enables Reservice	No Delay in TSP	Action SF Inhibit	Reservice Cycles	Bus Heading
1	No	Solid	No	0	0	No	False	0	0	NB
2	No	Solid	No	0	0	No	False	0	0	SB
3	No	Solid	No	0	0	No	False	0	0	EB
4	No	Solid	No	0	0	No	False	0	0	WB
5	No	Solid	No	0	0	No	False	0	0	.
6	No	Solid	No	0	0	No	False	0	0	.

Mode: TSP
Free Default Pattern: 120
Headway Allowance: 0

TSP/SCP Plan	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
5	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
6	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

TSP / SCP Split Pattern (MM) 4-4

TSP/SCP Split Pattern	Max Type	Phase															
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
4	Max Reduction	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255

City of Burlington

ECONOLITE

MOVING TRAFFIC FORWARD

Appleby Ln @ Taywood Dr - TS 296 - Econolite Type - ASC/3

Time Base Clock/Calendar
Clock/Calendar Data (MM) 5-1

Manual Action Plan:	0
SYNC Reference Time:	00:00
SYNC Reference:	Reference Time
Day Light Savings:	No
Time Reset Input Set Time:	0:00:00
Standard Time From GMT:	0

City of Burlington

ECONOLITE

MOVING TRAFFIC FORWARD

Appleby Ln @ Taywood Dr - TS 296 - Econolite Type - ASC/3

Time Base Action Plan
Action Plan (MM) 5-2

Action Plan - 1

Pattern	1	Override Sys	No
Timing Plan	1	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall		X				X										
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 2

Pattern	2	Override Sys	No
Timing Plan	1	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall		X				X										
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 3

Pattern	3	Override Sys	No
Timing Plan	1	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall		X				X										
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 10

Pattern	Free	Override Sys	No
Timing Plan	1	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall		X				X										
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																

Spec Func (1-8)								
Aux Func (1-3)								

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 11

Pattern	11	Override Sys	No
Timing Plan	1	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall		X				X										
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																

Spec Func (1-8)								
Aux Func (1-3)								

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 13

Pattern	13	Override Sys	No
Timing Plan	1	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall		X				X										
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																

Spec Func (1-8)								
Aux Func (1-3)								

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

City of Burlington

ECONOLITE

MOVING TRAFFIC FORWARD

Appleby Ln @ Taywood Dr - TS 296 - Econolite Type - ASC/3

Time Base Day Plan/Schedule
Day Plan (MM) 5-3

Day Plan #1

Event	Action Plan	Start Time
1	1	06:00
2	2	09:00
3	3	15:00
4	2	19:00
5	10	22:00

Day Plan #2

Event	Action Plan	Start Time
1	2	06:00
2	10	21:30

Day Plan #3

Event	Action Plan	Start Time
1	2	06:00
2	10	21:30

Schedule (MM) 5-4

Schedule Number - 1

Day Plan No.: 1

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	X	X	X	X	X	X	X	X	X	X	X	X

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
		X	X	X	X	X	

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	13	14	15	16	17	18	19	20	21	22
	X	X	X	X	X	X	X	X	X	X	X
	23	24	25	26	27	28	29	30	31		
	X	X	X	X	X	X	X	X	X		

Schedule Number - 2

Day Plan No.: 2

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	X	X	X	X	X	X	X	X	X	X	X	X

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
							X

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	13	14	15	16	17	18	19	20	21	22
	X	X	X	X	X	X	X	X	X	X	X
	23	24	25	26	27	28	29	30	31		
	X	X	X	X	X	X	X	X	X		

Schedule Number - 3

Day Plan No.: 3

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	X	X	X	X	X	X	X	X	X	X	X	X

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
	X						

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	13	14	15	16	17	18	19	20	21	22
	X	X	X	X	X	X	X	X	X	X	X
	23	24	25	26	27	28	29	30	31		
	X	X	X	X	X	X	X	X	X		

City of Burlington

ECONOLITE

MOVING TRAFFIC FORWARD

Appleby Ln @ Taywood Dr - TS 296 - Econolite Type - ASC/3

Time Base Exceptions
Exception Day Program (MM) 5-5

Excep Day	Float/Fixed	Mon/Mon	DOW/DOM	WOM/Year	Day Plan
1	FIXED	1	1	0	3
2	FLOAT	2	2	3	3
3	FIXED	4	19	0	3
4	FLOAT	5	2	3	3
5	FIXED	7	1	0	3
6	FLOAT	8	2	1	3
7	FLOAT	9	2	1	3
8	FLOAT	10	2	2	3
9	FIXED	12	25	0	3

City of Burlington

ECONOLITE

MOVING TRAFFIC FORWARD

Appleby Ln @ Taywood Dr - TS 296 - Econolite Type - ASC/3

Detectors

Detectors - Pg 1

Veh Det Phase Assignment (MM) 6-1

Vehicle Detector Plan Number - 1

Veh Detector	Assigned Phase	Called Phase	Type
1	1		S
2	1		S
3	3		S
4	4		S
5	5		S
6	5		S
7	7		S
8	8		S
9	9		S
10	10		S
11	11		S
12	12		S
13	13		S
14	14		S
15	15		S
16	16		S
19	3	8	S
20	4	4	S
24	8	8	S

Vehicle Detector Plan Number - 2

Veh Detector	Assigned Phase	Called Phase	Type
1	1		S
2	2		S
3	3		S
4	4		S
5	5		S
6	6		S
7	7		S
8	8		S
9	9		S
10	10		S
11	11		S
12	12		S
13	13		S
14	14		S
15	15		S
16	16		S

Vehicle Detector Plan Number - 3

Veh Detector	Assigned Phase	Called Phase	Type
1	1		S
2	2		S
3	3		S
4	4		S
5	5		S
6	6		S
7	7		S
8	8		S
9	9		S

10	10		S
11	11		S
12	12		S
13	13		S
14	14		S
15	15		S
16	16		S

Vehicle Detector Plan Number - 4

Veh Detector	Assigned Phase	Called Phase	Type
1	1		S
2	2		S
3	3		S
4	4		S
5	5		S
6	6		S
7	7		S
8	8		S
9	9		S
10	10		S
11	11		S
12	12		S
13	13		S
14	14		S
15	15		S
16	16		S

Vehicle Detector Setup (MM) 6-2

Veh Detector	Type	TS2 Detector	Description
1	S-STANDARD	No	
2	S-STANDARD	No	
3	S-STANDARD	No	
4	S-STANDARD	No	
5	S-STANDARD	No	
6	S-STANDARD	No	
7	S-STANDARD	No	
8	S-STANDARD	No	
9	S-STANDARD	No	
10	S-STANDARD	No	
11	S-STANDARD	No	
12	S-STANDARD	No	
13	S-STANDARD	No	
14	S-STANDARD	No	
15	S-STANDARD	No	
16	S-STANDARD	No	
17	S-STANDARD	Yes	
18	S-STANDARD	Yes	
19	S-STANDARD	Yes	
20	S-STANDARD	Yes	
21	S-STANDARD	Yes	
22	S-STANDARD	Yes	
23	S-STANDARD	Yes	
24	S-STANDARD	Yes	
25	S-STANDARD	Yes	
26	S-STANDARD	Yes	
27	S-STANDARD	Yes	
28	S-STANDARD	Yes	
29	S-STANDARD	Yes	
30	S-STANDARD	Yes	
31	S-STANDARD	Yes	
32	S-STANDARD	Yes	
33	S-STANDARD	Yes	
34	S-STANDARD	Yes	
35	S-STANDARD	Yes	
36	S-STANDARD	Yes	

37	S-STANDARD	Yes	
38	S-STANDARD	Yes	
39	S-STANDARD	Yes	
40	S-STANDARD	Yes	
41	S-STANDARD	Yes	
42	S-STANDARD	Yes	
43	S-STANDARD	Yes	
44	S-STANDARD	Yes	
45	S-STANDARD	Yes	
46	S-STANDARD	Yes	
47	S-STANDARD	Yes	
48	S-STANDARD	Yes	
49	S-STANDARD	Yes	
50	S-STANDARD	Yes	
51	S-STANDARD	Yes	
52	S-STANDARD	Yes	
53	S-STANDARD	Yes	
54	S-STANDARD	Yes	
55	S-STANDARD	Yes	
56	S-STANDARD	Yes	
57	S-STANDARD	Yes	
58	S-STANDARD	Yes	
59	S-STANDARD	Yes	
60	S-STANDARD	Yes	
61	S-STANDARD	Yes	
62	S-STANDARD	Yes	
63	S-STANDARD	Yes	
64	S-STANDARD	Yes	

Vehicle Detector Plan Number - 1

Veh Detector	Phase	ECPI Log	Call Option	Delay Time	Ext Option	Extend Time / Passage Time	Queue Lim. / Discon. Time	Use Added Initial	Cross Switch Ph	Lock In	NTCIP Vol.	NTCIP Occ.	Pmt Queue Delay
1	1	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
2	1	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
3	3	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
4	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
5	5	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
6	5	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
7	7	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
8	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
9	9	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
10	10	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
11	11	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
12	12	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
13	13	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
14	14	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
15	15	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
16	16	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
17	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
18	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
19	3	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
20	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
21	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
22	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
23	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
24	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
25	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
26	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
27	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
28	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
29	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
30	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

31	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
32	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
33	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
34	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
35	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
36	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
37	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
38	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
39	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
40	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
41	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
42	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
43	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
44	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
45	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
46	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
47	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
48	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
49	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
50	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
51	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
52	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
53	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
54	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
55	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
56	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
57	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
58	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
59	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
60	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
61	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
62	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
63	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
64	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

Vehicle Detector Plan Number - 2

Veh Detector	Phase	ECPI Log	Call Option	Delay Time	Ext Option	Extend Time / Passage Time	Queue Lim. / Discon. Time	Use Added Initial	Cross Switch Ph	Lock In	NTCIP Vol.	NTCIP Occ.	Pmt Queue Delay
1	1	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
2	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
3	3	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
4	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
5	5	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
6	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
7	7	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
8	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
9	9	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
10	10	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
11	11	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
12	12	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
13	13	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
14	14	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
15	15	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
16	16	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
17	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
18	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
19	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
20	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
21	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
22	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
23	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
24	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
25	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

26	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
27	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
28	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
29	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
30	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
31	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
32	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
33	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
34	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
35	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
36	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
37	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
38	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
39	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
40	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
41	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
42	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
43	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
44	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
45	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
46	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
47	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
48	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
49	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
50	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
51	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
52	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
53	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
54	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
55	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
56	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
57	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
58	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
59	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
60	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
61	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
62	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
63	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
64	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

Vehicle Detector Plan Number - 3

Veh Detector	Phase	ECPI Log	Call Option	Delay Time	Ext Option	Extend Time / Passage Time	Queue Lim. / Discon. Time	Use Added Initial	Cross Switch Ph	Lock In	NTCIP Vol.	NTCIP Occ.	Pmt Queue Delay
1	1	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
2	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
3	3	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
4	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
5	5	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
6	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
7	7	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
8	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
9	9	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
10	10	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
11	11	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
12	12	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
13	13	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
14	14	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
15	15	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
16	16	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
17	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
18	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
19	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
20	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

21	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
22	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
23	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
24	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
25	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
26	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
27	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
28	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
29	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
30	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
31	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
32	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
33	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
34	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
35	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
36	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
37	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
38	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
39	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
40	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
41	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
42	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
43	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
44	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
45	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
46	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
47	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
48	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
49	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
50	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
51	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
52	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
53	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
54	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
55	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
56	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
57	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
58	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
59	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
60	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
61	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
62	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
63	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
64	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

Vehicle Detector Plan Number - 4

Veh Detector	Phase	ECPI Log	Call Option	Delay Time	Ext Option	Extend Time / Passage Time	Queue Lim. / Discon. Time	Use Added Initial	Cross Switch Ph	Lock In	NTCIP Vol.	NTCIP Occ.	Pmt Queue Delay
1	1	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
2	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
3	3	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
4	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
5	5	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
6	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
7	7	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
8	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
9	9	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
10	10	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
11	11	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
12	12	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
13	13	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
14	14	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
15	15	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

16	16	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
17	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
18	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
19	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
20	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
21	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
22	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
23	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
24	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
25	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
26	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
27	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
28	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
29	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
30	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
31	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
32	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
33	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
34	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
35	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
36	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
37	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
38	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
39	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
40	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
41	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
42	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
43	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
44	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
45	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
46	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
47	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
48	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
49	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
50	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
51	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
52	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
53	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
54	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
55	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
56	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
57	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
58	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
59	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
60	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
61	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
62	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
63	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
64	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

Ped Detector Phase Assignment (MM) 6-3

Mode: NTCIP

Called Phase	Detector
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11

Called Phase	Detector
12	12
13	13
14	14
15	15
16	16

City of Burlington

ECONOLITE

MOVING TRAFFIC FORWARD

Appleby Ln @ Taywood Dr - TS 296 - Econolite Type - ASC/3

Detectors

Detectors - Pg 2

Log - Speed Detector Setup (MM) 6-4

NTCIP Log Period: 60 ECPI Log Period: 0 Length Unit: Inches

Speed Detector	Local Detector	One/Two Detector	Vehicle Length	Trap length	Enable Log
1	0	1	0	0	No
2	0	1	0	0	No
3	0	1	0	0	No
4	0	1	0	0	No
5	0	1	0	0	No
6	0	1	0	0	No
7	0	1	0	0	No
8	0	1	0	0	No
9	0	1	0	0	No
10	0	1	0	0	No
11	0	1	0	0	No
12	0	1	0	0	No
13	0	1	0	0	No
14	0	1	0	0	No
15	0	1	0	0	No
16	0	1	0	0	No

Vehicle Detector Diagnostics (MM) 6-5

Veh Diagnostic Plan Number - 1

Det	Counts	Act	Pres	Multiplier	Failed Time	Failed Call Delay

Veh Diagnostic Plan Number - 2

Det	Counts	Act	Pres	Multiplier	Failed Time	Failed Call Delay

Veh Diagnostic Plan Number - 3

Det	Counts	Act	Pres	Multiplier	Failed Time	Failed Call Delay

Veh Diagnostic Plan Number - 4

Det	Counts	Act	Pres	Multiplier	Failed Time	Failed Call Delay

Pedestrian Detector Diagnostics (MM) 6-6

Ped Diagnostic Plan Number - 1

Det	Counts	Act	Pres	Multiplier

Ped Diagnostic Plan Number - 2

Det	Counts	Act	Pres	Multiplier

Ped Diagnostic Plan Number - 3

Det	Counts	Act	Pres	Multiplier

Ped Diagnostic Plan Number - 4

Det	Counts	Act	Pres	Multiplier

APPENDIX B

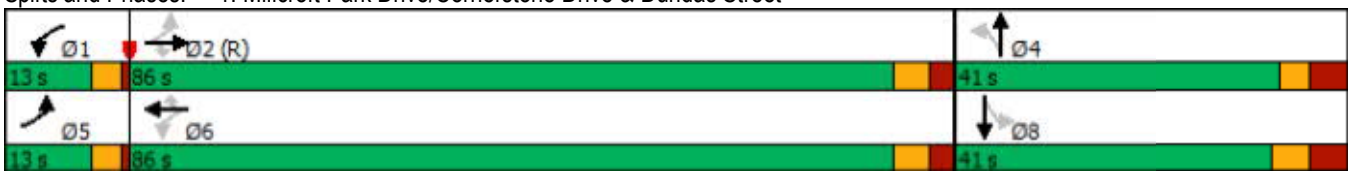
Intersection Capacity Analysis Results – Existing Conditions and Synchro Calibrations

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	89	1771	67	31	917	47	85	25	101	32
Future Volume (vph)	89	1771	67	31	917	47	85	25	101	32
Lane Group Flow (vph)	95	1884	71	33	976	50	90	111	107	168
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	NA
Protected Phases	5	2		1	6			4		8
Permitted Phases	2		2	6		6	4		8	
Detector Phase	5	2	2	1	6	6	4	4	8	8
Switch Phase										
Minimum Initial (s)	7.0	8.0	8.0	7.0	8.0	8.0	8.0	8.0	8.0	8.0
Minimum Split (s)	11.5	34.5	34.5	11.5	34.5	34.5	38.2	38.2	39.2	39.2
Total Split (s)	13.0	86.0	86.0	13.0	86.0	86.0	41.0	41.0	41.0	41.0
Total Split (%)	9.3%	61.4%	61.4%	9.3%	61.4%	61.4%	29.3%	29.3%	29.3%	29.3%
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.0	4.0	4.0
All-Red Time (s)	1.0	2.8	2.8	1.0	2.8	2.8	4.2	4.2	4.2	4.2
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-3.0	-1.0	-3.0	-1.0
Total Lost Time (s)	3.0	5.5	5.5	3.0	5.5	5.5	4.2	6.2	5.2	7.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Max	C-Max	None	Max	Max	None	None	None	None
v/c Ratio	0.24	0.75	0.07	0.19	0.43	0.05	0.67	0.37	0.64	0.53
Control Delay	5.3	15.7	2.0	6.4	10.9	1.0	78.8	19.4	72.4	19.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.3	15.7	2.0	6.4	10.9	1.0	78.8	19.4	72.4	19.7
Queue Length 50th (m)	5.1	175.9	0.0	1.7	59.6	0.0	25.1	7.0	29.8	8.9
Queue Length 95th (m)	11.8	249.7	5.6	5.2	91.4	2.7	42.9	24.1	48.3	30.5
Internal Link Dist (m)		269.9			382.1			429.4		109.3
Turn Bay Length (m)	234.0		153.0	237.0		151.0	39.0		20.0	
Base Capacity (vph)	405	2524	1056	200	2259	1022	229	469	292	472
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.75	0.07	0.17	0.43	0.05	0.39	0.24	0.37	0.36

Intersection Summary

Cycle Length: 140
Actuated Cycle Length: 140
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle: 120
Control Type: Actuated-Coordinated

Splits and Phases: 1: Millcroft Park Drive/Cornerstone Drive & Dundas Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	89	1771	67	31	917	47	85	25	79	101	32	126
Future Volume (vph)	89	1771	67	31	917	47	85	25	79	101	32	126
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	2.6	3.8	3.3	3.0	3.6	3.4	3.5	3.5	3.5	3.4	3.4	3.4
Total Lost time (s)	3.0	5.5	5.5	3.0	5.5	5.5	4.2	6.2		5.2	7.2	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	1.00	0.92	1.00	1.00	0.95	1.00	0.98		1.00	0.95	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	0.96	1.00		0.99	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.89		1.00	0.88	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1556	3460	1421	1620	3262	1444	1696	1637		1732	1537	
Flt Permitted	0.25	1.00	1.00	0.07	1.00	1.00	0.49	1.00		0.63	1.00	
Satd. Flow (perm)	410	3460	1421	119	3262	1444	875	1637		1145	1537	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	95	1884	71	33	976	50	90	27	84	107	34	134
RTOR Reduction (vph)	0	0	20	0	0	15	0	72	0	0	116	0
Lane Group Flow (vph)	95	1884	51	33	976	35	90	39	0	107	52	0
Confl. Peds. (#/hr)	11		24	24		11	41		8	8		41
Heavy Vehicles (%)	3%	6%	0%	4%	10%	3%	1%	0%	0%	1%	0%	1%
Bus Blockages (#/hr)	0	3	3	0	3	3	0	0	0	0	0	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			4			8	
Permitted Phases	2		2	6		6	4			8		
Actuated Green, G (s)	107.4	99.6	99.6	100.2	96.0	96.0	18.5	18.5		17.5	17.5	
Effective Green, g (s)	108.8	100.6	100.6	102.2	97.0	97.0	21.5	19.5		20.5	18.5	
Actuated g/C Ratio	0.78	0.72	0.72	0.73	0.69	0.69	0.15	0.14		0.15	0.13	
Clearance Time (s)	4.0	6.5	6.5	4.0	6.5	6.5	7.2	7.2		8.2	8.2	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	390	2486	1021	142	2260	1000	134	228		167	203	
v/s Ratio Prot	c0.02	c0.54		0.01	0.30			0.02			0.03	
v/s Ratio Perm	0.17		0.04	0.16		0.02	c0.10			0.09		
v/c Ratio	0.24	0.76	0.05	0.23	0.43	0.03	0.67	0.17		0.64	0.25	
Uniform Delay, d1	4.7	12.2	5.8	11.8	9.4	6.8	55.9	53.1		56.3	54.6	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.3	2.2	0.1	0.8	0.6	0.1	12.5	0.4		8.1	0.7	
Delay (s)	5.0	14.4	5.8	12.6	10.0	6.8	68.4	53.5		64.4	55.2	
Level of Service	A	B	A	B	B	A	E	D		E	E	
Approach Delay (s)		13.7			10.0			60.1			58.8	
Approach LOS		B			A			E			E	

Intersection Summary			
HCM 2000 Control Delay	18.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	15.7
Intersection Capacity Utilization	101.2%	ICU Level of Service	G
Analysis Period (min)	15		

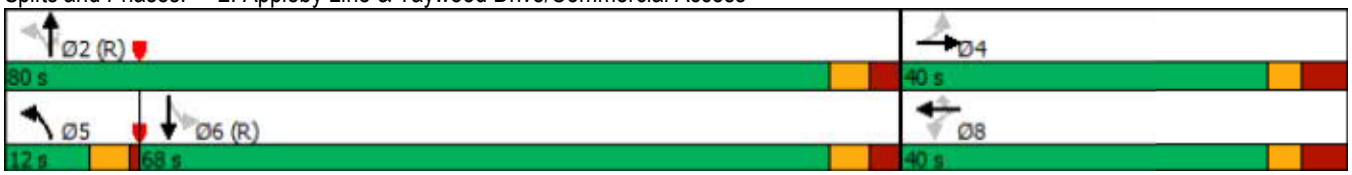
c Critical Lane Group

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	99	3	4	4	3	60	976	18	5	1468
Future Volume (vph)	99	3	4	4	3	60	976	18	5	1468
Lane Group Flow (vph)	102	140	4	4	3	62	1006	19	5	1554
Turn Type	Perm	NA	Perm	NA	Perm	pm+pt	NA	Perm	Perm	NA
Protected Phases		4		8		5	2			6
Permitted Phases	4		8		8	2		2	6	
Detector Phase	4	4	8	8	8	5	2	2	6	6
Switch Phase										
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	5.0	8.0	8.0	8.0	8.0
Minimum Split (s)	37.3	37.3	37.3	37.3	37.3	9.5	31.5	31.5	31.5	31.5
Total Split (s)	40.0	40.0	40.0	40.0	40.0	12.0	80.0	80.0	68.0	68.0
Total Split (%)	33.3%	33.3%	33.3%	33.3%	33.3%	10.0%	66.7%	66.7%	56.7%	56.7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.5	3.7	3.7	3.7	3.7
All-Red Time (s)	4.3	4.3	4.3	4.3	4.3	1.0	2.8	2.8	2.8	2.8
Lost Time Adjust (s)	-3.0	-1.0	-3.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.3	6.3	4.3	6.3	6.3	3.5	5.5	5.5	5.5	5.5
Lead/Lag						Lead			Lag	Lag
Lead-Lag Optimize?						Yes			Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max
v/c Ratio	0.51	0.44	0.03	0.02	0.01	0.26	0.40	0.02	0.01	0.45
Control Delay	55.7	12.3	41.5	42.8	0.0	5.9	5.4	0.5	8.0	9.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.7	12.3	41.5	42.8	0.0	5.9	5.4	0.5	8.0	9.4
Queue Length 50th (m)	23.7	0.7	0.9	0.9	0.0	2.7	35.9	0.0	0.4	58.9
Queue Length 95th (m)	40.1	18.5	4.1	4.2	0.0	7.2	57.7	0.8	2.1	84.9
Internal Link Dist (m)		626.8		29.7			250.9			297.7
Turn Bay Length (m)	40.0		12.0		12.0	100.0		83.0	96.0	
Base Capacity (vph)	415	538	294	497	478	253	2484	1143	377	3425
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.26	0.01	0.01	0.01	0.25	0.40	0.02	0.01	0.45

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 2: Appleby Line & Taywood Drive/Commercial Access





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	99	3	133	4	4	3	60	976	18	5	1468	40
Future Volume (vph)	99	3	133	4	4	3	60	976	18	5	1468	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.6	3.6	2.9	3.0	3.2	2.7	3.3	3.5	3.6	3.6	3.6
Total Lost time (s)	4.3	6.3		4.3	6.3	6.3	3.5	5.5	5.5	5.5	5.5	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.91	
Frpb, ped/bikes	1.00	0.98		1.00	1.00	0.98	1.00	1.00	0.97	1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.85		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1759	1568		1658	1773	1517	1518	3202	1462	1801	4893	
Flt Permitted	0.76	1.00		0.57	1.00	1.00	0.13	1.00	1.00	0.28	1.00	
Satd. Flow (perm)	1398	1568		992	1773	1517	202	3202	1462	540	4893	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	102	3	137	4	4	3	62	1006	19	5	1513	41
RTOR Reduction (vph)	0	120	0	0	0	3	0	0	4	0	2	0
Lane Group Flow (vph)	102	20	0	4	4	0	62	1006	15	5	1552	0
Confl. Peds. (#/hr)	4		4	4		4	6		4	4		6
Heavy Vehicles (%)	1%	33%	1%	0%	0%	0%	7%	9%	6%	0%	5%	13%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	2	2
Turn Type	Perm	NA		Perm	NA	Perm	pm+pt	NA	Perm	Perm	NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8		8	2		2	6		
Actuated Green, G (s)	14.1	14.1		14.1	14.1	14.1	92.1	92.1	92.1	82.1	82.1	
Effective Green, g (s)	17.1	15.1		17.1	15.1	15.1	93.1	93.1	93.1	83.1	83.1	
Actuated g/C Ratio	0.14	0.13		0.14	0.13	0.13	0.78	0.78	0.78	0.69	0.69	
Clearance Time (s)	7.3	7.3		7.3	7.3	7.3	4.5	6.5	6.5	6.5	6.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	199	197		141	223	190	228	2484	1134	373	3388	
v/s Ratio Prot		0.01			0.00		0.01	c0.31			c0.32	
v/s Ratio Perm	c0.07			0.00		0.00	0.20		0.01	0.01		
v/c Ratio	0.51	0.10		0.03	0.02	0.00	0.27	0.40	0.01	0.01	0.46	
Uniform Delay, d1	47.6	46.5		44.3	46.0	45.9	4.4	4.4	3.0	5.7	8.3	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	2.2	0.2		0.1	0.0	0.0	0.6	0.5	0.0	0.1	0.4	
Delay (s)	49.8	46.7		44.4	46.0	45.9	5.1	4.9	3.1	5.8	8.8	
Level of Service	D	D		D	D	D	A	A	A	A	A	
Approach Delay (s)		48.0			45.4			4.9			8.7	
Approach LOS		D			D			A			A	

Intersection Summary			
HCM 2000 Control Delay	10.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	15.3
Intersection Capacity Utilization	61.8%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Stop			Stop
Traffic Volume (vph)	49	85	108	30	82	83
Future Volume (vph)	49	85	108	30	82	83
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	55	96	121	34	92	93

Direction, Lane #	NB 1	SB 1
Volume Total (vph)	155	185
Volume Left (vph)	0	92
Volume Right (vph)	34	0
Hadj (s)	-0.10	0.10
Departure Headway (s)	4.0	4.1
Degree Utilization, x	0.17	0.21
Capacity (veh/h)	889	861
Control Delay (s)	7.8	8.3
Approach Delay (s)	7.8	8.3
Approach LOS	A	A

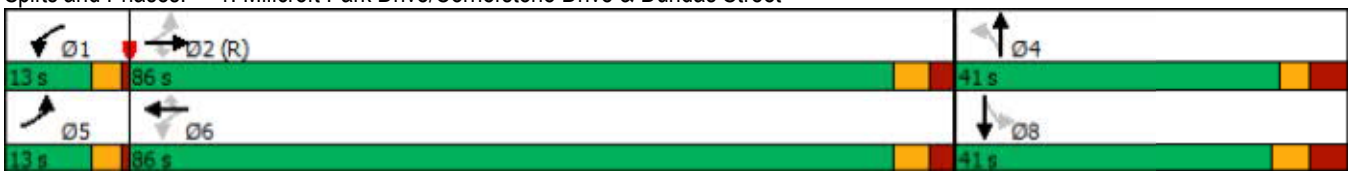
Intersection Summary			
Delay	Err		
Level of Service	F		
Intersection Capacity Utilization	Err%	ICU Level of Service	H
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	46	1041	66	84	2019	87	43	23	59	13
Future Volume (vph)	46	1041	66	84	2019	87	43	23	59	13
Lane Group Flow (vph)	47	1073	68	87	2081	90	44	90	61	64
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	NA
Protected Phases	5	2		1	6			4		8
Permitted Phases	2		2	6		6	4		8	
Detector Phase	5	2	2	1	6	6	4	4	8	8
Switch Phase										
Minimum Initial (s)	7.0	8.0	8.0	7.0	8.0	8.0	8.0	8.0	8.0	8.0
Minimum Split (s)	11.5	34.5	34.5	11.5	34.5	34.5	38.2	38.2	39.2	39.2
Total Split (s)	13.0	86.0	86.0	13.0	86.0	86.0	41.0	41.0	41.0	41.0
Total Split (%)	9.3%	61.4%	61.4%	9.3%	61.4%	61.4%	29.3%	29.3%	29.3%	29.3%
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.0	4.0	4.0
All-Red Time (s)	1.0	2.8	2.8	1.0	2.8	2.8	4.2	4.2	4.2	4.2
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-3.0	-1.0	-3.0	-1.0
Total Lost Time (s)	3.0	5.5	5.5	3.0	5.5	5.5	4.2	6.2	5.2	7.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Max	C-Max	None	Max	Max	None	None	None	None
v/c Ratio	0.30	0.41	0.06	0.22	0.80	0.08	0.30	0.40	0.45	0.33
Control Delay	10.5	8.1	1.4	3.8	15.4	1.4	60.7	24.9	68.1	24.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.5	8.1	1.4	3.8	15.4	1.4	60.7	24.9	68.1	24.0
Queue Length 50th (m)	1.9	55.4	0.0	3.5	185.8	0.0	12.0	6.5	17.0	3.5
Queue Length 95th (m)	8.1	80.9	4.4	8.3	266.3	5.4	23.9	23.2	31.3	17.9
Internal Link Dist (m)		269.9			382.1			429.4		109.3
Turn Bay Length (m)	234.0		153.0	237.0		151.0	39.0		20.0	
Base Capacity (vph)	177	2614	1108	422	2615	1139	326	450	314	414
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.41	0.06	0.21	0.80	0.08	0.13	0.20	0.19	0.15

Intersection Summary

Cycle Length: 140
Actuated Cycle Length: 140
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle: 140
Control Type: Actuated-Coordinated

Splits and Phases: 1: Millcroft Park Drive/Cornerstone Drive & Dundas Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	46	1041	66	84	2019	87	43	23	64	59	13	49
Future Volume (vph)	46	1041	66	84	2019	87	43	23	64	59	13	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	2.6	3.8	3.3	3.0	3.6	3.4	3.5	3.5	3.5	3.4	3.4	3.4
Total Lost time (s)	3.0	5.5	5.5	3.0	5.5	5.5	4.2	6.2		5.2	7.2	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	1.00	0.96	1.00	1.00	0.97	1.00	0.99		1.00	0.97	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	0.97	1.00		0.99	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.89		1.00	0.88	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1604	3568	1487	1651	3491	1490	1651	1612		1718	1555	
Flt Permitted	0.05	1.00	1.00	0.23	1.00	1.00	0.72	1.00		0.68	1.00	
Satd. Flow (perm)	85	3568	1487	405	3491	1490	1243	1612		1230	1555	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	47	1073	68	87	2081	90	44	24	66	61	13	51
RTOR Reduction (vph)	0	0	18	0	0	23	0	59	0	0	46	0
Lane Group Flow (vph)	47	1073	50	87	2081	67	44	31	0	61	18	0
Confl. Peds. (#/hr)	4		8	8		4	23		6	6		23
Heavy Vehicles (%)	0%	3%	0%	2%	3%	2%	5%	0%	3%	2%	0%	2%
Bus Blockages (#/hr)	0	2	2	0	2	2	0	0	0	0	0	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			4			8	
Permitted Phases	2		2	6		6	4			8		
Actuated Green, G (s)	107.4	101.6	101.6	110.4	103.1	103.1	13.4	13.4		12.4	12.4	
Effective Green, g (s)	109.4	102.6	102.6	112.4	104.1	104.1	16.4	14.4		15.4	13.4	
Actuated g/C Ratio	0.78	0.73	0.73	0.80	0.74	0.74	0.12	0.10		0.11	0.10	
Clearance Time (s)	4.0	6.5	6.5	4.0	6.5	6.5	7.2	7.2		8.2	8.2	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	140	2614	1089	399	2595	1107	145	165		135	148	
v/s Ratio Prot	c0.02	0.30		c0.01	c0.60			0.02			0.01	
v/s Ratio Perm	0.25		0.03	0.16		0.04	0.04			c0.05		
v/c Ratio	0.34	0.41	0.05	0.22	0.80	0.06	0.30	0.19		0.45	0.12	
Uniform Delay, d1	15.4	7.1	5.2	3.6	11.4	4.8	56.6	57.4		58.3	57.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.4	0.5	0.1	0.3	2.7	0.1	1.2	0.5		2.4	0.4	
Delay (s)	16.9	7.6	5.2	3.9	14.1	4.9	57.8	58.0		60.7	58.3	
Level of Service	B	A	A	A	B	A	E	E		E	E	
Approach Delay (s)		7.9			13.4			57.9			59.5	
Approach LOS		A			B			E			E	

Intersection Summary			
HCM 2000 Control Delay	14.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	15.7
Intersection Capacity Utilization	94.0%	ICU Level of Service	F
Analysis Period (min)	15		

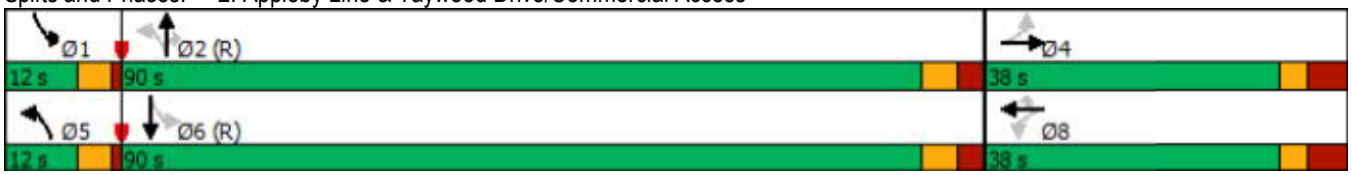
c Critical Lane Group

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	79	17	70	31	54	161	1534	102	73	1395
Future Volume (vph)	79	17	70	31	54	161	1534	102	73	1395
Lane Group Flow (vph)	85	116	75	33	58	173	1649	110	78	1663
Turn Type	Perm	NA	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases		4		8		5	2		1	6
Permitted Phases	4		8		8	2		2	6	
Detector Phase	4	4	8	8	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	5.0	8.0	8.0	5.0	8.0
Minimum Split (s)	37.3	37.3	37.3	37.3	37.3	9.5	31.5	31.5	9.5	31.5
Total Split (s)	38.0	38.0	38.0	38.0	38.0	12.0	90.0	90.0	12.0	90.0
Total Split (%)	27.1%	27.1%	27.1%	27.1%	27.1%	8.6%	64.3%	64.3%	8.6%	64.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.5	3.7	3.7	3.5	3.7
All-Red Time (s)	4.3	4.3	4.3	4.3	4.3	1.0	2.8	2.8	1.0	2.8
Lost Time Adjust (s)	-3.0	-1.0	-3.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.3	6.3	4.3	6.3	6.3	3.5	5.5	5.5	3.5	5.5
Lead/Lag						Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
v/c Ratio	0.51	0.44	0.59	0.17	0.26	0.62	0.67	0.10	0.31	0.49
Control Delay	67.0	19.5	74.7	55.8	13.9	19.6	13.2	2.2	7.0	11.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.0	19.5	74.7	55.8	13.9	19.6	13.2	2.2	7.0	11.8
Queue Length 50th (m)	23.5	4.8	20.9	8.9	0.0	8.3	121.7	1.2	3.5	74.7
Queue Length 95th (m)	40.0	23.0	36.9	18.9	12.3	35.2	186.7	8.2	8.6	113.1
Internal Link Dist (m)		626.8		29.7			250.9			297.7
Turn Bay Length (m)	40.0		12.0		12.0	100.0		83.0	96.0	
Base Capacity (vph)	318	434	247	401	391	280	2447	1147	259	3370
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.27	0.30	0.08	0.15	0.62	0.67	0.10	0.30	0.49

Intersection Summary

Cycle Length: 140
Actuated Cycle Length: 140
Offset: 105.5 (75%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated

Splits and Phases: 2: Appleby Line & Taywood Drive/Commercial Access





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	79	17	91	70	31	54	161	1534	102	73	1395	152
Future Volume (vph)	79	17	91	70	31	54	161	1534	102	73	1395	152
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.6	3.6	2.9	3.0	3.2	2.7	3.3	3.5	3.6	3.6	3.6
Total Lost time (s)	4.3	6.3		4.3	6.3	6.3	3.5	5.5	5.5	3.5	5.5	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.91	
Frpb, ped/bikes	1.00	0.99		1.00	1.00	0.98	1.00	1.00	0.97	1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.87		1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1709	1584		1644	1773	1518	1593	3388	1552	1805	4906	
Flt Permitted	0.74	1.00		0.59	1.00	1.00	0.11	1.00	1.00	0.11	1.00	
Satd. Flow (perm)	1324	1584		1029	1773	1518	181	3388	1552	208	4906	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	85	18	98	75	33	58	173	1649	110	78	1500	163
RTOR Reduction (vph)	0	87	0	0	0	52	0	0	26	0	8	0
Lane Group Flow (vph)	85	29	0	75	33	6	173	1649	84	78	1655	0
Confl. Peds. (#/hr)	3		2	2		3	3		3	3		3
Heavy Vehicles (%)	4%	6%	3%	1%	0%	0%	2%	3%	0%	0%	4%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	2	2
Turn Type	Perm	NA		Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8	2		2	6		
Actuated Green, G (s)	14.6	14.6		14.6	14.6	14.6	111.6	100.1	100.1	101.9	94.9	
Effective Green, g (s)	17.6	15.6		17.6	15.6	15.6	112.6	101.1	101.1	103.9	95.9	
Actuated g/C Ratio	0.13	0.11		0.13	0.11	0.11	0.80	0.72	0.72	0.74	0.69	
Clearance Time (s)	7.3	7.3		7.3	7.3	7.3	4.5	6.5	6.5	4.5	6.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	166	176		129	197	169	278	2446	1120	245	3360	
v/s Ratio Prot		0.02			0.02		c0.06	c0.49		0.02	0.34	
v/s Ratio Perm	0.06			c0.07		0.00	0.44		0.05	0.22		
v/c Ratio	0.51	0.16		0.58	0.17	0.04	0.62	0.67	0.07	0.32	0.49	
Uniform Delay, d1	57.2	56.3		57.7	56.3	55.5	9.2	10.5	5.7	8.1	10.5	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	2.7	0.4		6.5	0.4	0.1	4.3	1.5	0.1	0.8	0.5	
Delay (s)	59.8	56.7		64.2	56.7	55.6	13.5	12.0	5.8	8.8	11.0	
Level of Service	E	E		E	E	E	B	B	A	A	B	
Approach Delay (s)		58.1			59.7			11.8			10.9	
Approach LOS		E			E			B			B	

Intersection Summary			
HCM 2000 Control Delay	15.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	15.3
Intersection Capacity Utilization	71.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Stop			Stop
Traffic Volume (vph)	40	110	91	25	81	70
Future Volume (vph)	40	110	91	25	81	70
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	43	117	97	27	86	74

Direction, Lane #	NB 1	SB 1
Volume Total (vph)	124	160
Volume Left (vph)	0	86
Volume Right (vph)	27	0
Hadj (s)	-0.10	0.12
Departure Headway (s)	3.9	4.1
Degree Utilization, x	0.14	0.18
Capacity (veh/h)	895	864
Control Delay (s)	7.6	8.1
Approach Delay (s)	7.6	8.1
Approach LOS	A	A

Intersection Summary			
Delay	Err		
Level of Service	F		
Intersection Capacity Utilization	Err%	ICU Level of Service	H
Analysis Period (min)	15		

Existing AM/PM: lost time adjust is set to (-1), except for the below movements:

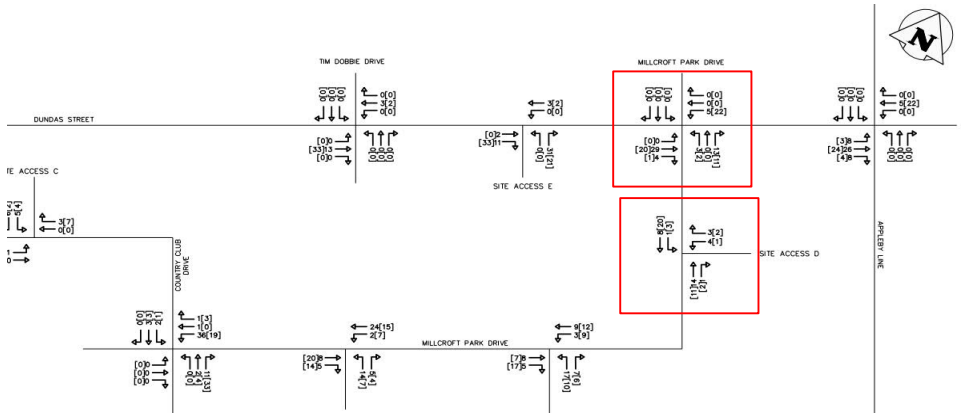
- Dundas St/Millcroft Park Drive intersection (AM/PM):
  - Lost time adjust is set to (-3) for Northbound left and southbound left movements
- Appleby Line/Taywood Drive intersection (AM/PM):
  - Lost time adjust is set to (-3) for eastbound left and westbound left movements

APPENDIX C

Background Developments

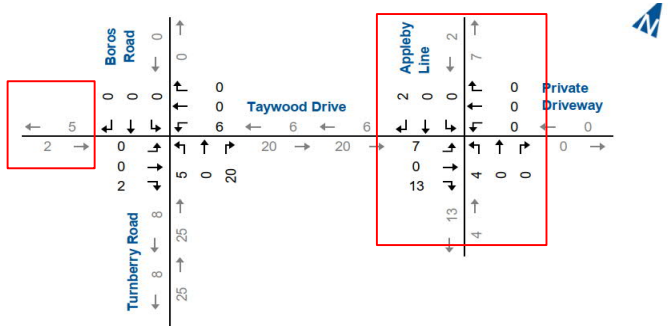
1 Millcroft Greens
2 2273 Turnberry Road (townhouses)
3 4721 Palladium Way
4 4853 Palladium Way
5 4853 Thomas Alton Boulevard
6 4880 Valera Road

1 Millcroft Greens



2 2273 Turnberry Road (townhouses)

AM peak hour



PM peak hour

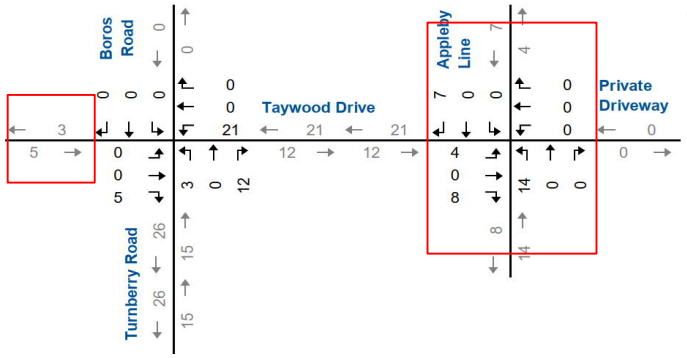
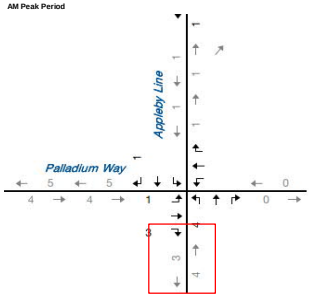


TABLE 3.2: ESTIMATED TRIP DISTRIBUTION

Origin/Destination	Percentage
North via Appleby Line	25%
South via Appleby Line	50%
South via Turnberry Road	5%
West via Taywood Drive	20%
Total	**100%**

3 4721 Palladium Way

AM Peak Period



PM Peak Period

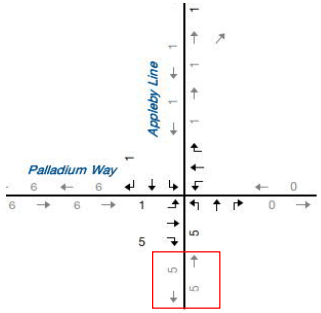
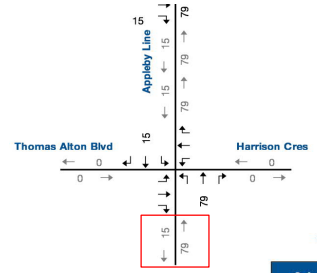


TABLE 3.6: ESTIMATED TRIP DISTRIBUTION

Origin/Destination	Percentage	
	In	Out
North via Appleby Line	12%	14%
South via Appleby Line	55%	65%
South via Walkers Line	30%	21%
North via Walkers Line	3%	0%
Total	**100%**	**100%**

4 4853 Palladium Way

AM Peak Period



PM Peak Period

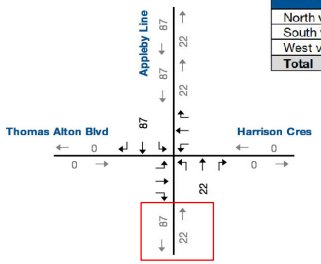
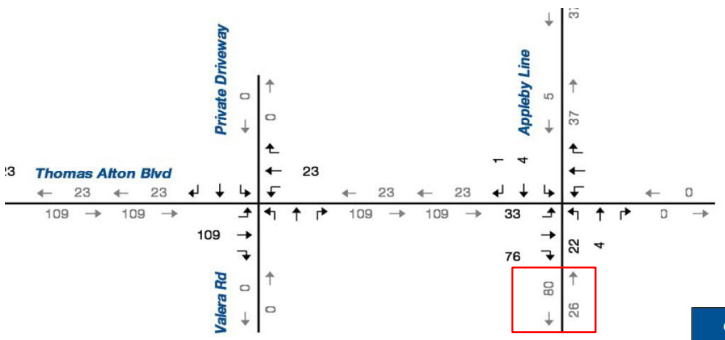


TABLE 3.2: ESTIMATED TRIP DISTRIBUTION

Origin/Destination	AM Peak Hour		PM Peak Hour	
	In	Out	In	Out
North via Appleby Line	34%	46%	41%	34%
South via Appleby Line	56%	46%	53%	55%
West via Palladium Way	10%	8%	6%	11%
Total	**100%**	**100%**	**100%**	**100%**

5 4853 Thomas Alton Boulevard

AM Peak Period



PM Peak Period

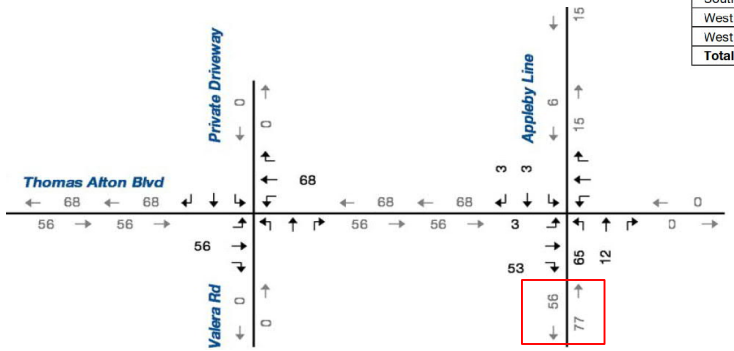


TABLE 3.2: ESTIMATED TRIP DISTRIBUTION

Origin/Destination/Route	AM Peak Hour		PM Peak Hour	
	Inbound	Outbound	Inbound	Outbound
North via Appleby Line	25%	34%	33%	26%
South via Appleby Line	49%	41%	44%	50%
West via Thomas Alton Boulevard	18%	5%	8%	16%
West via Palladium Way	9%	20%	14%	9%
Total	**100%**	**100%**	**100%**	**100%**

6 4880 Valera Road

Introduction

The development proposal consists of 70 townhouse units, 344 high-rise condominium units and approximately 1,500 square feet of ground floor commercial retail to be located within the two-storey podium of Buildings A and B. The development is anticipated to generate a total of 127 net new vehicular trips during the AM peak hour and 169 net new vehicular trips during the PM peak hour (adjusted to reflect transit and active transportation reductions in vehicular trips).

Introduction Response

Commercial GFA has since been increased to approximately 2,100 square feet. All other unit counts are correct and up-to-date. The additional GFA will not result in a significant increase to peak hour trip generation or alter the findings and conclusion of the Transportation Impact and Parking Study. Commercial space is intended to serve the site and/or the immediate surrounding community.

	Code	No	AM IN	AM OUT	PM IN	PM OUT
Multi-family housing	210	70	25% 18	75% 53	63% 44	37% 26
High-rise	222	344	24% 83	76% 169	61% 135	39% 134
Retail		sqf 2100	62% 1	38% 1	48% 1	52% 1
		Total	102	223	180	161
		North via Apple Line	35		74	
		South via Apple Line		102		89

Copied from 4853 Palladium Way
It is located next to 4880 Valera Road

TABLE 3.2: ESTIMATED TRIP DISTRIBUTION

Origin/Destination	AM Peak Hour		PM Peak Hour	
	In	Out	In	Out
North via Appleby Line	34%	46%	41%	34%
South via Appleby Line	56%	46%	53%	55%
West via Palladium Way	10%	8%	6%	11%
Total	**100%**	**100%**	**100%**	**100%**

APPENDIX D

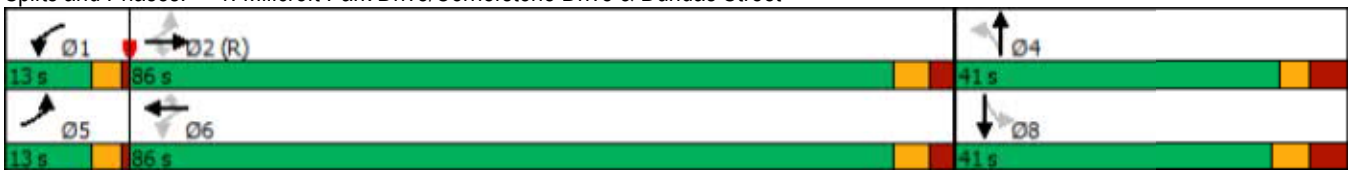
Intersection Capacity Results – Future Background Conditions

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	89	1984	71	36	1012	47	88	28	101	35
Future Volume (vph)	89	1984	71	36	1012	47	88	28	101	35
Lane Group Flow (vph)	95	2111	76	38	1077	50	94	128	107	171
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	NA
Protected Phases	5	2		1	6			4		8
Permitted Phases	2		2	6		6	4		8	
Detector Phase	5	2	2	1	6	6	4	4	8	8
Switch Phase										
Minimum Initial (s)	7.0	8.0	8.0	7.0	8.0	8.0	8.0	8.0	8.0	8.0
Minimum Split (s)	11.5	34.5	34.5	11.5	34.5	34.5	38.2	38.2	39.2	39.2
Total Split (s)	13.0	86.0	86.0	13.0	86.0	86.0	41.0	41.0	41.0	41.0
Total Split (%)	9.3%	61.4%	61.4%	9.3%	61.4%	61.4%	29.3%	29.3%	29.3%	29.3%
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.0	4.0	4.0
All-Red Time (s)	1.0	2.8	2.8	1.0	2.8	2.8	4.2	4.2	4.2	4.2
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-3.0	-1.0	-3.0	-1.0
Total Lost Time (s)	3.0	5.5	5.5	3.0	5.5	5.5	4.2	6.2	5.2	7.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Max	C-Max	None	Max	Max	None	None	None	None
v/c Ratio	0.27	0.86	0.07	0.26	0.48	0.05	0.68	0.40	0.67	0.54
Control Delay	5.9	22.0	2.1	12.2	11.9	1.1	78.8	18.7	75.4	23.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.9	22.0	2.1	12.2	11.9	1.1	78.8	18.7	75.4	23.2
Queue Length 50th (m)	5.3	234.2	0.0	2.1	70.2	0.0	26.2	7.8	29.8	12.7
Queue Length 95th (m)	12.2	#366.4	6.1	8.5	107.7	2.8	44.6	25.9	48.6	34.6
Internal Link Dist (m)		269.9			382.1			429.4		109.3
Turn Bay Length (m)	234.0		153.0	237.0		151.0	39.0		20.0	
Base Capacity (vph)	368	2451	1029	166	2243	1015	229	479	270	465
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.86	0.07	0.23	0.48	0.05	0.41	0.27	0.40	0.37

Intersection Summary

Cycle Length: 140
Actuated Cycle Length: 140
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle: 140
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Millcroft Park Drive/Cornerstone Drive & Dundas Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	89	1984	71	36	1012	47	88	28	92	101	35	126
Future Volume (vph)	89	1984	71	36	1012	47	88	28	92	101	35	126
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	2.6	3.8	3.3	3.0	3.6	3.4	3.5	3.5	3.5	3.4	3.4	3.4
Total Lost time (s)	3.0	5.5	5.5	3.0	5.5	5.5	4.2	6.2		5.2	7.2	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	1.00	0.92	1.00	1.00	0.95	1.00	0.98		1.00	0.95	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	0.96	1.00		0.99	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.89		1.00	0.88	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1557	3460	1421	1620	3262	1444	1697	1634		1732	1542	
Flt Permitted	0.22	1.00	1.00	0.04	1.00	1.00	0.49	1.00		0.58	1.00	
Satd. Flow (perm)	361	3460	1421	71	3262	1444	873	1634		1058	1542	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	95	2111	76	38	1077	50	94	30	98	107	37	134
RTOR Reduction (vph)	0	0	23	0	0	16	0	84	0	0	106	0
Lane Group Flow (vph)	95	2111	53	38	1077	34	94	44	0	107	65	0
Confl. Peds. (#/hr)	11		24	24		11	41		8	8		41
Heavy Vehicles (%)	3%	6%	0%	4%	10%	3%	1%	0%	0%	1%	0%	1%
Bus Blockages (#/hr)	0	3	3	0	3	3	0	0	0	0	0	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			4			8	
Permitted Phases	2		2	6		6	4			8		
Actuated Green, G (s)	105.3	97.4	97.4	100.9	95.2	95.2	19.2	19.2		18.2	18.2	
Effective Green, g (s)	107.3	98.4	98.4	102.9	96.2	96.2	22.2	20.2		21.2	19.2	
Actuated g/C Ratio	0.77	0.70	0.70	0.74	0.69	0.69	0.16	0.14		0.15	0.14	
Clearance Time (s)	4.0	6.5	6.5	4.0	6.5	6.5	7.2	7.2		8.2	8.2	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	352	2431	998	126	2241	992	138	235		160	211	
v/s Ratio Prot	c0.02	c0.61		c0.01	0.33			0.03			0.04	
v/s Ratio Perm	0.19		0.04	0.21		0.02	c0.11			0.10		
v/c Ratio	0.27	0.87	0.05	0.30	0.48	0.03	0.68	0.19		0.67	0.31	
Uniform Delay, d1	5.4	15.9	6.4	20.9	10.2	7.0	55.6	52.7		56.1	54.4	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.4	4.5	0.1	1.4	0.7	0.1	13.0	0.4		10.1	0.8	
Delay (s)	5.8	20.4	6.5	22.2	11.0	7.1	68.5	53.1		66.2	55.2	
Level of Service	A	C	A	C	B	A	E	D		E	E	
Approach Delay (s)		19.3			11.2			59.6			59.5	
Approach LOS		B			B			E			E	

Intersection Summary			
HCM 2000 Control Delay	22.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	15.7
Intersection Capacity Utilization	107.1%	ICU Level of Service	G
Analysis Period (min)	15		

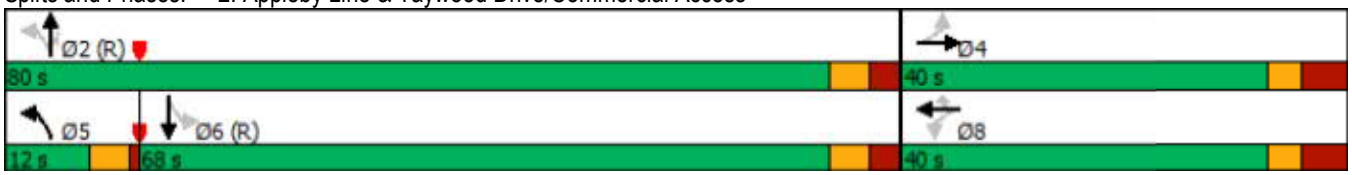
c Critical Lane Group

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	106	3	8	4	6	64	1236	19	6	1829
Future Volume (vph)	106	3	8	4	6	64	1236	19	6	1829
Lane Group Flow (vph)	109	154	8	4	6	66	1274	20	6	1929
Turn Type	Perm	NA	Perm	NA	Perm	pm+pt	NA	Perm	Perm	NA
Protected Phases		4		8		5	2			6
Permitted Phases	4		8		8	2		2	6	
Detector Phase	4	4	8	8	8	5	2	2	6	6
Switch Phase										
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	5.0	8.0	8.0	8.0	8.0
Minimum Split (s)	37.3	37.3	37.3	37.3	37.3	9.5	31.5	31.5	31.5	31.5
Total Split (s)	40.0	40.0	40.0	40.0	40.0	12.0	80.0	80.0	68.0	68.0
Total Split (%)	33.3%	33.3%	33.3%	33.3%	33.3%	10.0%	66.7%	66.7%	56.7%	56.7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.5	3.7	3.7	3.7	3.7
All-Red Time (s)	4.3	4.3	4.3	4.3	4.3	1.0	2.8	2.8	2.8	2.8
Lost Time Adjust (s)	-3.0	-1.0	-3.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.3	6.3	4.3	6.3	6.3	3.5	5.5	5.5	5.5	5.5
Lead/Lag						Lead			Lag	Lag
Lead-Lag Optimize?						Yes			Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max
v/c Ratio	0.53	0.49	0.06	0.02	0.02	0.35	0.52	0.02	0.02	0.57
Control Delay	55.7	17.5	41.9	42.0	0.2	9.1	6.6	0.5	9.0	11.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.7	17.5	41.9	42.0	0.2	9.1	6.6	0.5	9.0	11.5
Queue Length 50th (m)	25.3	6.5	1.7	0.9	0.0	3.0	53.2	0.0	0.5	84.2
Queue Length 95th (m)	42.1	25.6	6.2	4.1	0.0	8.8	84.7	0.9	2.5	124.9
Internal Link Dist (m)		626.8		29.7			250.9			297.7
Turn Bay Length (m)	40.0		12.0		12.0	100.0		83.0	96.0	
Base Capacity (vph)	415	530	275	497	478	198	2467	1135	284	3387
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.29	0.03	0.01	0.01	0.33	0.52	0.02	0.02	0.57

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 2: Appleby Line & Taywood Drive/Commercial Access





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	106	3	146	8	4	6	64	1236	19	6	1829	42
Future Volume (vph)	106	3	146	8	4	6	64	1236	19	6	1829	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.6	3.6	2.9	3.0	3.2	2.7	3.3	3.5	3.6	3.6	3.6
Total Lost time (s)	4.3	6.3		4.3	6.3	6.3	3.5	5.5	5.5	5.5	5.5	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.91	
Frpb, ped/bikes	1.00	0.98		1.00	1.00	0.98	1.00	1.00	0.97	1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.85		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1759	1569		1659	1773	1517	1518	3202	1462	1802	4898	
Flt Permitted	0.76	1.00		0.53	1.00	1.00	0.08	1.00	1.00	0.22	1.00	
Satd. Flow (perm)	1398	1569		926	1773	1517	121	3202	1462	411	4898	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	109	3	151	8	4	6	66	1274	20	6	1886	43
RTOR Reduction (vph)	0	109	0	0	0	5	0	0	5	0	1	0
Lane Group Flow (vph)	109	45	0	8	4	1	66	1274	15	6	1928	0
Confl. Peds. (#/hr)	4		4	4		4	6		4	4		6
Heavy Vehicles (%)	1%	33%	1%	0%	0%	0%	7%	9%	6%	0%	5%	13%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	2	2
Turn Type	Perm	NA		Perm	NA	Perm	pm+pt	NA	Perm	Perm	NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8		8	2		2	6		
Actuated Green, G (s)	14.7	14.7		14.7	14.7	14.7	91.5	91.5	91.5	81.1	81.1	
Effective Green, g (s)	17.7	15.7		17.7	15.7	15.7	92.5	92.5	92.5	82.1	82.1	
Actuated g/C Ratio	0.15	0.13		0.15	0.13	0.13	0.77	0.77	0.77	0.68	0.68	
Clearance Time (s)	7.3	7.3		7.3	7.3	7.3	4.5	6.5	6.5	6.5	6.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	206	205		136	231	198	173	2468	1126	281	3351	
v/s Ratio Prot		0.03			0.00		0.02	c0.40			c0.39	
v/s Ratio Perm	c0.08			0.01		0.00	0.27		0.01	0.01		
v/c Ratio	0.53	0.22		0.06	0.02	0.00	0.38	0.52	0.01	0.02	0.58	
Uniform Delay, d1	47.3	46.7		44.0	45.4	45.4	6.8	5.2	3.2	6.1	9.9	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	2.4	0.5		0.2	0.0	0.0	1.4	0.8	0.0	0.1	0.7	
Delay (s)	49.7	47.2		44.2	45.5	45.4	8.2	6.0	3.2	6.2	10.6	
Level of Service	D	D		D	D	D	A	A	A	A	B	
Approach Delay (s)		48.3			44.9			6.1			10.6	
Approach LOS		D			D			A			B	

Intersection Summary			
HCM 2000 Control Delay	11.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	15.3
Intersection Capacity Utilization	69.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Stop			Stop
Traffic Volume (vph)	49	90	118	30	84	58
Future Volume (vph)	49	90	118	30	84	58
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	55	101	133	34	94	65

Direction, Lane #	NB 1	SB 1
Volume Total (vph)	167	159
Volume Left (vph)	0	94
Volume Right (vph)	34	0
Hadj (s)	-0.09	0.12
Departure Headway (s)	4.0	4.2
Degree Utilization, x	0.18	0.18
Capacity (veh/h)	894	854
Control Delay (s)	7.8	8.1
Approach Delay (s)	7.8	8.1
Approach LOS	A	A

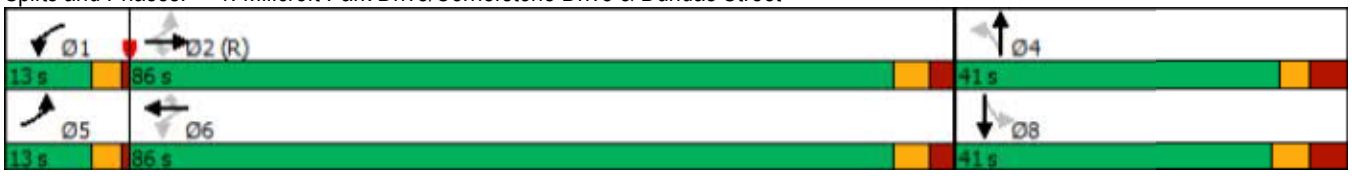
Intersection Summary			
Delay	Err		
Level of Service	F		
Intersection Capacity Utilization	Err%	ICU Level of Service	H
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	46	1169	67	106	2229	87	45	25	59	14
Future Volume (vph)	46	1169	67	106	2229	87	45	25	59	14
Lane Group Flow (vph)	47	1205	69	109	2298	90	46	103	61	65
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	NA
Protected Phases	5	2		1	6			4		8
Permitted Phases	2		2	6		6	4		8	
Detector Phase	5	2	2	1	6	6	4	4	8	8
Switch Phase										
Minimum Initial (s)	7.0	8.0	8.0	7.0	8.0	8.0	8.0	8.0	8.0	8.0
Minimum Split (s)	11.5	34.5	34.5	11.5	34.5	34.5	38.2	38.2	39.2	39.2
Total Split (s)	13.0	86.0	86.0	13.0	86.0	86.0	41.0	41.0	41.0	41.0
Total Split (%)	9.3%	61.4%	61.4%	9.3%	61.4%	61.4%	29.3%	29.3%	29.3%	29.3%
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.0	4.0	4.0
All-Red Time (s)	1.0	2.8	2.8	1.0	2.8	2.8	4.2	4.2	4.2	4.2
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-3.0	-1.0	-3.0	-1.0
Total Lost Time (s)	3.0	5.5	5.5	3.0	5.5	5.5	4.2	6.2	5.2	7.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Max	C-Max	None	Max	Max	None	None	None	None
v/c Ratio	0.33	0.46	0.06	0.31	0.88	0.08	0.32	0.44	0.48	0.33
Control Delay	17.0	8.8	1.5	4.8	19.8	1.4	60.9	24.3	70.5	24.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.0	8.8	1.5	4.8	19.8	1.4	60.9	24.3	70.5	24.2
Queue Length 50th (m)	1.9	66.0	0.0	4.5	243.1	0.0	12.5	7.0	17.0	3.8
Queue Length 95th (m)	12.5	97.8	4.7	10.1	#367.1	5.4	25.0	24.9	31.5	18.2
Internal Link Dist (m)		269.9			382.1			429.4		109.3
Turn Bay Length (m)	234.0		153.0	237.0		151.0	39.0		20.0	
Base Capacity (vph)	163	2604	1104	373	2611	1137	326	457	289	415
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.46	0.06	0.29	0.88	0.08	0.14	0.23	0.21	0.16

Intersection Summary

Cycle Length: 140
Actuated Cycle Length: 140
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Millcroft Park Drive/Cornerstone Drive & Dundas Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	46	1169	67	106	2229	87	45	25	75	59	14	49
Future Volume (vph)	46	1169	67	106	2229	87	45	25	75	59	14	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	2.6	3.8	3.3	3.0	3.6	3.4	3.5	3.5	3.5	3.4	3.4	3.4
Total Lost time (s)	3.0	5.5	5.5	3.0	5.5	5.5	4.2	6.2		5.2	7.2	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	1.00	0.96	1.00	1.00	0.97	1.00	0.99		1.00	0.97	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	0.97	1.00		0.99	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.89		1.00	0.88	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1604	3568	1487	1651	3491	1490	1652	1607		1718	1560	
Flt Permitted	0.04	1.00	1.00	0.20	1.00	1.00	0.71	1.00		0.63	1.00	
Satd. Flow (perm)	66	3568	1487	340	3491	1490	1242	1607		1135	1560	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	47	1205	69	109	2298	90	46	26	77	61	14	51
RTOR Reduction (vph)	0	0	19	0	0	23	0	69	0	0	46	0
Lane Group Flow (vph)	47	1205	50	109	2298	67	46	34	0	61	19	0
Confl. Peds. (#/hr)	4		8	8		4	23		6	6		23
Heavy Vehicles (%)	0%	3%	0%	2%	3%	2%	5%	0%	3%	2%	0%	2%
Bus Blockages (#/hr)	0	2	2	0	2	2	0	0	0	0	0	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			4			8	
Permitted Phases	2		2	6		6	4			8		
Actuated Green, G (s)	107.0	101.2	101.2	110.6	103.0	103.0	13.5	13.5		12.5	12.5	
Effective Green, g (s)	109.0	102.2	102.2	112.6	104.0	104.0	16.5	14.5		15.5	13.5	
Actuated g/C Ratio	0.78	0.73	0.73	0.80	0.74	0.74	0.12	0.10		0.11	0.10	
Clearance Time (s)	4.0	6.5	6.5	4.0	6.5	6.5	7.2	7.2		8.2	8.2	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	126	2604	1085	353	2593	1106	146	166		125	150	
v/s Ratio Prot	c0.02	0.34		c0.02	c0.66			0.02			0.01	
v/s Ratio Perm	0.27		0.03	0.23		0.04	0.04			c0.05		
v/c Ratio	0.37	0.46	0.05	0.31	0.89	0.06	0.32	0.20		0.49	0.13	
Uniform Delay, d1	24.5	7.7	5.3	4.3	13.5	4.8	56.6	57.5		58.5	57.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.9	0.6	0.1	0.5	4.9	0.1	1.2	0.6		3.0	0.4	
Delay (s)	26.4	8.3	5.4	4.8	18.5	5.0	57.8	58.1		61.5	58.2	
Level of Service	C	A	A	A	B	A	E	E		E	E	
Approach Delay (s)		8.8			17.4			58.0			59.8	
Approach LOS		A			B			E			E	

Intersection Summary			
HCM 2000 Control Delay	17.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	15.7
Intersection Capacity Utilization	99.8%	ICU Level of Service	F
Analysis Period (min)	15		

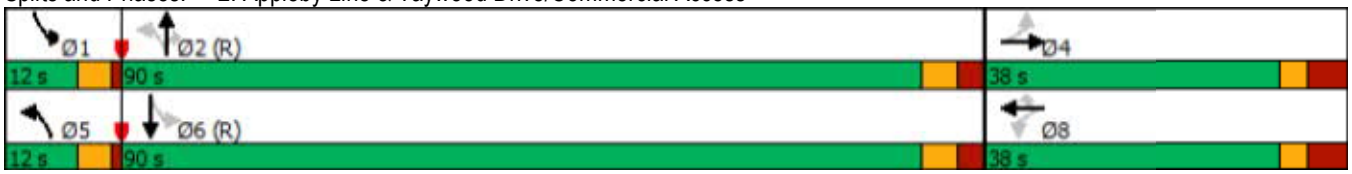
c Critical Lane Group

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	83	19	71	34	56	175	1883	104	76	1797
Future Volume (vph)	83	19	71	34	56	175	1883	104	76	1797
Lane Group Flow (vph)	89	126	76	37	60	188	2025	112	82	2103
Turn Type	Perm	NA	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases		4		8		5	2		1	6
Permitted Phases	4		8		8	2		2	6	
Detector Phase	4	4	8	8	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	5.0	8.0	8.0	5.0	8.0
Minimum Split (s)	37.3	37.3	37.3	37.3	37.3	9.5	31.5	31.5	9.5	31.5
Total Split (s)	38.0	38.0	38.0	38.0	38.0	12.0	90.0	90.0	12.0	90.0
Total Split (%)	27.1%	27.1%	27.1%	27.1%	27.1%	8.6%	64.3%	64.3%	8.6%	64.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.5	3.7	3.7	3.5	3.7
All-Red Time (s)	4.3	4.3	4.3	4.3	4.3	1.0	2.8	2.8	1.0	2.8
Lost Time Adjust (s)	-3.0	-1.0	-3.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.3	6.3	4.3	6.3	6.3	3.5	5.5	5.5	3.5	5.5
Lead/Lag						Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
v/c Ratio	0.52	0.46	0.61	0.18	0.26	0.59	0.84	0.10	0.45	0.70
Control Delay	66.9	20.4	76.4	55.6	14.2	41.6	20.2	3.2	23.5	20.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.9	20.4	76.4	55.6	14.2	41.6	20.2	3.2	23.5	20.3
Queue Length 50th (m)	24.6	6.4	21.3	9.9	0.0	34.2	198.5	2.6	3.8	145.4
Queue Length 95th (m)	41.3	25.5	37.6	20.4	13.0	#74.7	#321.4	11.0	19.8	163.6
Internal Link Dist (m)		626.8		29.7			250.9			297.7
Turn Bay Length (m)	40.0		12.0		12.0	100.0		83.0	96.0	
Base Capacity (vph)	317	437	234	401	391	320	2408	1126	189	2991
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.29	0.32	0.09	0.15	0.59	0.84	0.10	0.43	0.70

Intersection Summary

Cycle Length: 140
Actuated Cycle Length: 140
Offset: 105.5 (75%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Appleby Line & Taywood Drive/Commercial Access





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	83	19	99	71	34	56	175	1883	104	76	1797	159
Future Volume (vph)	83	19	99	71	34	56	175	1883	104	76	1797	159
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.6	3.6	2.9	3.0	3.2	2.7	3.3	3.5	3.6	3.6	3.6
Total Lost time (s)	4.3	6.3		4.3	6.3	6.3	3.5	5.5	5.5	3.5	5.5	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.91	
Frpb, ped/bikes	1.00	0.99		1.00	1.00	0.98	1.00	1.00	0.97	1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.87		1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1709	1585		1644	1773	1518	1593	3388	1552	1805	4918	
Flt Permitted	0.73	1.00		0.56	1.00	1.00	0.05	1.00	1.00	0.06	1.00	
Satd. Flow (perm)	1319	1585		975	1773	1518	79	3388	1552	105	4918	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	89	20	106	76	37	60	188	2025	112	82	1932	171
RTOR Reduction (vph)	0	90	0	0	0	53	0	0	23	0	7	0
Lane Group Flow (vph)	89	36	0	76	37	7	188	2025	89	82	2096	0
Confl. Peds. (#/hr)	3		2	2		3	3		3	3		3
Heavy Vehicles (%)	4%	6%	3%	1%	0%	0%	2%	3%	0%	0%	4%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	2	2
Turn Type	Perm	NA		Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8	2		2	6		
Actuated Green, G (s)	15.1	15.1		15.1	15.1	15.1	111.1	98.5	98.5	92.0	83.9	
Effective Green, g (s)	18.1	16.1		18.1	16.1	16.1	112.1	99.5	99.5	94.0	84.9	
Actuated g/C Ratio	0.13	0.12		0.13	0.12	0.12	0.80	0.71	0.71	0.67	0.61	
Clearance Time (s)	7.3	7.3		7.3	7.3	7.3	4.5	6.5	6.5	4.5	6.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	170	182		126	203	174	319	2407	1103	181	2982	
v/s Ratio Prot		0.02			0.02		c0.10	c0.60		0.03	0.43	
v/s Ratio Perm	0.07			c0.08		0.00	0.37		0.06	0.28		
v/c Ratio	0.52	0.20		0.60	0.18	0.04	0.59	0.84	0.08	0.45	0.70	
Uniform Delay, d1	56.9	56.1		57.6	56.0	55.1	37.4	14.6	6.2	17.2	18.9	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	2.9	0.5		7.9	0.4	0.1	2.8	3.8	0.1	1.8	1.4	
Delay (s)	59.8	56.6		65.5	56.4	55.2	40.2	18.3	6.4	19.0	20.3	
Level of Service	E	E		E	E	E	D	B	A	B	C	
Approach Delay (s)		57.9			60.0			19.5			20.3	
Approach LOS		E			E			B			C	

Intersection Summary			
HCM 2000 Control Delay	23.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	15.3
Intersection Capacity Utilization	81.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Stop			Stop
Traffic Volume (vph)	40	113	32	25	86	101
Future Volume (vph)	40	113	32	25	86	101
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	43	120	34	27	91	107

Direction, Lane #	NB 1	SB 1
Volume Total (vph)	61	198
Volume Left (vph)	0	91
Volume Right (vph)	27	0
Hadj (s)	-0.25	0.10
Departure Headway (s)	3.8	4.1
Degree Utilization, x	0.07	0.22
Capacity (veh/h)	918	882
Control Delay (s)	7.1	8.2
Approach Delay (s)	7.1	8.2
Approach LOS	A	A

Intersection Summary			
Delay	Err		
Level of Service	F		
Intersection Capacity Utilization	Err%	ICU Level of Service	H
Analysis Period (min)	15		

APPENDIX E

TTS Data

AM-Inbound- residential

Mon Aug 16 2021 12:04:32 GMT-0400 (Eastern Daylight Time) - Run Time: 2984ms

Cross Tabulation Query Form - Trip - 2016 v1.1

Row: 2006 GTA zone of destination - gta06_dest
Column: Primary travel mode of trip - mode_prime

Filters:
2006 GTA zone of destination - gta06_dest In 4079 4080 4188 4189
and

Trip purpose of destination - purp_dest In H
and
Age of person - age In 18-99
and
Start time of trip - start_time In 600-900

Trip 2016
Table:

	Auto driver	Auto passenger	Walk	
4079	480	0	28	
4080	403	17	0	
4189	148	0	76	
	1031	17	104	1152
	89%	1%	9%	100%

AM-Outbound-residential

Mon Aug 16 2021 12:18:33 GMT-0400 (Eastern Daylight Time) - Run Time: 3048ms

Cross Tabulation Query Form - Trip - 2016 v1.1

Row: 2006 GTA zone of origin - gta06_orig
Column: Primary travel mode of trip - mode_prime

Filters:
2006 GTA zone of origin - gta06_orig In 4079 4080 4188 4189
and
Trip purpose of origin - purp_orig In H
and
Age of person - age In 18-99
and
Start time of trip - start_time In 600-900

Trip 2016
Table:

	Transit excluding GO rail	Cycle	Auto driver	GO rail only	Joint GO rail and local transit	Auto passenger	Walk	
4079	183	0	4687	237	126	254	68	
4080	0	38	3019	197	10	184	39	
4188	0	0	26	0	0	26	0	
4189	258	0	3541	47	98	343	145	
	441	38	11273	481	234	807	252	13526
	3%	0%	83%	4%	2%	6%	2%	100%

Residential Modal Split

	AM-IN	AM-Out	PM-IN	PM-Out
Person Trips	100%	100%	100%	100%
Driver	89%	87%	85%	87%
Transit	0%	5%	6%	0%
Passenger	1%	6%	7%	10%
Cycle/Motorcycle	0%	0%	0%	0%
Walk/Others	9%	2%	2%	3%

PM-Inbound- residential

Mon Aug 16 2021 12:08:48 GMT-0400 (Eastern Daylight Time) - Run Time: 3137ms

Cross Tabulation Query Form - Trip - 2016 v1.1

Row: 2006 GTA zone of destination - gta06_dest
Column: Primary travel mode of trip - mode_prime

Filters:
2006 GTA zone of destination - gta06_dest In 4079 4080 4188 4189
and
Trip purpose of destination - purp_dest In H
and
Age of person - age In 18-99
and
Start time of trip - start_time In 1600-1800

Trip 2016
Table:

	Transit excluding GO rail	Cycle	Auto driver	GO rail only	Joint GO rail and local transit	Auto passenger	Taxi passenger	Walk	
4079	108	0	3281	308	126	237	0	67	
4080	0	13	2125	150	10	188	0	39	
4189	170	0	2669	20	160	314	17	69	
	278	13	8075	478	296	739	17	175	10071
	3%	0%	80%	5%	3%	7%	0%	2%	100%

PM-Outbound- residential

Mon Aug 16 2021 12:20:38 GMT-0400 (Eastern Daylight Time) - Run Time: 2902ms

Cross Tabulation Query Form - Trip - 2016 v1.1

Row: 2006 GTA zone of origin - gta06_orig
Column: Primary travel mode of trip - mode_prime

Filters:
2006 GTA zone of origin - gta06_orig In 4079 4080 4188 4189
and
Trip purpose of origin - purp_orig In H
and
Age of person - age In 18-99
and
Start time of trip - start_time In 1600-1800

Trip 2016
Table:

	Auto driver	GO rail only	Auto passenger	Walk	
4079	866	21	48	44	
4080	546	0	84	0	
4189	545	0	104	28	
	1957	21	236	72	2286
	86%	1%	10%	3%	100%

Directional Distribution Output (Eight Directions)																	
Time Periods	Internal								External								Total
	NW	N	NE	E	SE	S	SW	W	NW	N	NE	E	SE	S	SW	W	
AM (IN)	0%	0%	0%	0%	0%	53%	0%	17%	0%	0%	0%	15%	0%	10%	0%	6%	100%
AM (OUT)	0%	0%	0%	0%	0%	22%	0%	8%	0%	4%	0%	54%	0%	3%	0%	10%	100%
PM (IN)	0%	0%	0%	0%	0%	14%	0%	3%	0%	0%	0%	83%	0%	0%	0%	0%	100%
PM (OUT)	0%	3%	0%	0%	0%	53%	0%	18%	0%	4%	0%	11%	0%	2%	0%	9%	100%

Directional Distribution Output (Four Directions)									
Time Periods	Internal				External				Total
	N	E	S	W	N	E	S	W	
AM (IN)	0%	0%	53%	17%	0%	15%	10%	6%	100%
AM (OUT)	0%	0%	22%	8%	4%	54%	3%	10%	100%
PM (IN)	0%	0%	14%	3%	0%	83%	0%	0%	100%
PM (OUT)	3%	0%	53%	18%	4%	11%	2%	9%	100%

APPENDIX F

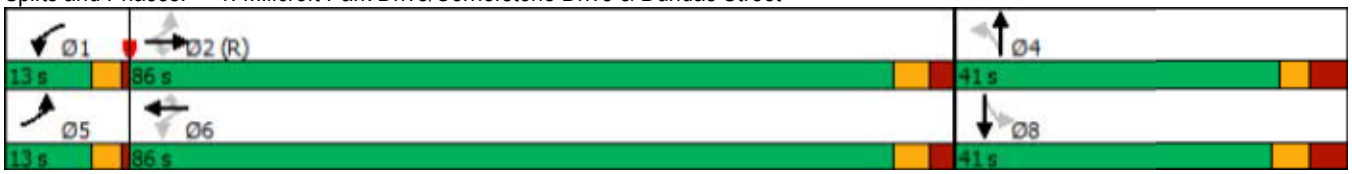
Intersection Capacity Results – Future Total Conditions

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	89	1984	71	39	1012	47	89	28	101	35
Future Volume (vph)	89	1984	71	39	1012	47	89	28	101	35
Lane Group Flow (vph)	95	2111	76	41	1077	50	95	129	107	171
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	NA
Protected Phases	5	2		1	6			4		8
Permitted Phases	2		2	6		6	4		8	
Detector Phase	5	2	2	1	6	6	4	4	8	8
Switch Phase										
Minimum Initial (s)	7.0	8.0	8.0	7.0	8.0	8.0	8.0	8.0	8.0	8.0
Minimum Split (s)	11.5	34.5	34.5	11.5	34.5	34.5	38.2	38.2	39.2	39.2
Total Split (s)	13.0	86.0	86.0	13.0	86.0	86.0	41.0	41.0	41.0	41.0
Total Split (%)	9.3%	61.4%	61.4%	9.3%	61.4%	61.4%	29.3%	29.3%	29.3%	29.3%
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.0	4.0	4.0
All-Red Time (s)	1.0	2.8	2.8	1.0	2.8	2.8	4.2	4.2	4.2	4.2
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-3.0	-1.0	-3.0	-1.0
Total Lost Time (s)	3.0	5.5	5.5	3.0	5.5	5.5	4.2	6.2	5.2	7.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Max	C-Max	None	Max	Max	None	None	None	None
v/c Ratio	0.27	0.86	0.07	0.28	0.48	0.05	0.69	0.40	0.67	0.54
Control Delay	5.9	22.2	2.1	13.7	11.9	1.1	79.2	18.6	75.5	23.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.9	22.2	2.1	13.7	11.9	1.1	79.2	18.6	75.5	23.2
Queue Length 50th (m)	5.3	234.2	0.0	2.2	70.2	0.0	26.5	7.7	29.9	12.7
Queue Length 95th (m)	12.3	#368.4	6.2	9.9	107.8	2.8	44.5	26.2	48.6	34.6
Internal Link Dist (m)		269.9			382.1			429.4		109.3
Turn Bay Length (m)	234.0		153.0	237.0		151.0	39.0		20.0	
Base Capacity (vph)	368	2448	1027	166	2242	1014	229	480	269	465
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.86	0.07	0.25	0.48	0.05	0.41	0.27	0.40	0.37

Intersection Summary

Cycle Length: 140
Actuated Cycle Length: 140
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle: 140
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Millcroft Park Drive/Cornerstone Drive & Dundas Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	89	1984	71	39	1012	47	89	28	93	101	35	126
Future Volume (vph)	89	1984	71	39	1012	47	89	28	93	101	35	126
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	2.6	3.8	3.3	3.0	3.6	3.4	3.5	3.5	3.5	3.4	3.4	3.4
Total Lost time (s)	3.0	5.5	5.5	3.0	5.5	5.5	4.2	6.2		5.2	7.2	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	1.00	0.92	1.00	1.00	0.95	1.00	0.98		1.00	0.95	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	0.96	1.00		0.99	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.88		1.00	0.88	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1557	3460	1421	1620	3262	1444	1697	1634		1732	1542	
Flt Permitted	0.22	1.00	1.00	0.04	1.00	1.00	0.49	1.00		0.58	1.00	
Satd. Flow (perm)	361	3460	1421	71	3262	1444	873	1634		1053	1542	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	95	2111	76	41	1077	50	95	30	99	107	37	134
RTOR Reduction (vph)	0	0	23	0	0	16	0	85	0	0	106	0
Lane Group Flow (vph)	95	2111	53	41	1077	34	95	44	0	107	65	0
Confl. Peds. (#/hr)	11		24	24		11	41		8	8		41
Heavy Vehicles (%)	3%	6%	0%	4%	10%	3%	1%	0%	0%	1%	0%	1%
Bus Blockages (#/hr)	0	3	3	0	3	3	0	0	0	0	0	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			4			8	
Permitted Phases	2		2	6		6	4			8		
Actuated Green, G (s)	105.2	97.3	97.3	101.0	95.2	95.2	19.2	19.2		18.2	18.2	
Effective Green, g (s)	107.2	98.3	98.3	103.0	96.2	96.2	22.2	20.2		21.2	19.2	
Actuated g/C Ratio	0.77	0.70	0.70	0.74	0.69	0.69	0.16	0.14		0.15	0.14	
Clearance Time (s)	4.0	6.5	6.5	4.0	6.5	6.5	7.2	7.2		8.2	8.2	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	352	2429	997	127	2241	992	138	235		159	211	
v/s Ratio Prot	c0.02	c0.61		c0.02	0.33			0.03			0.04	
v/s Ratio Perm	0.19		0.04	0.22		0.02	c0.11			0.10		
v/c Ratio	0.27	0.87	0.05	0.32	0.48	0.03	0.69	0.19		0.67	0.31	
Uniform Delay, d1	5.4	15.9	6.5	21.3	10.2	7.0	55.6	52.7		56.1	54.4	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.4	4.6	0.1	1.5	0.7	0.1	13.4	0.4		10.7	0.8	
Delay (s)	5.8	20.5	6.6	22.8	11.0	7.1	69.0	53.1		66.8	55.2	
Level of Service	A	C	A	C	B	A	E	D		E	E	
Approach Delay (s)		19.4			11.2			59.8			59.7	
Approach LOS		B			B			E			E	

Intersection Summary			
HCM 2000 Control Delay	22.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	15.7
Intersection Capacity Utilization	107.1%	ICU Level of Service	G
Analysis Period (min)	15		

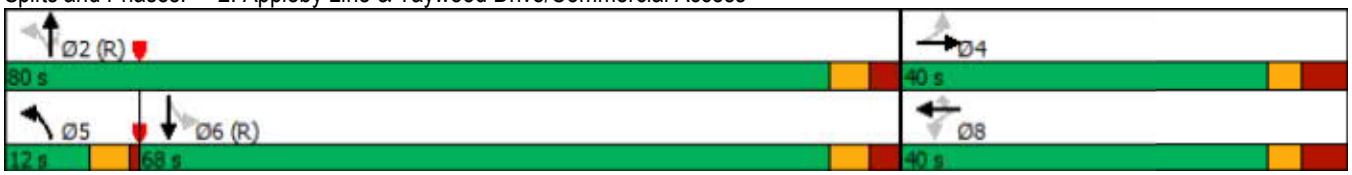
c Critical Lane Group

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	106	3	8	4	6	65	1236	19	6	1829
Future Volume (vph)	106	3	8	4	6	65	1236	19	6	1829
Lane Group Flow (vph)	109	169	8	4	6	67	1274	20	6	1930
Turn Type	Perm	NA	Perm	NA	Perm	pm+pt	NA	Perm	Perm	NA
Protected Phases		4		8		5	2			6
Permitted Phases	4		8		8	2		2	6	
Detector Phase	4	4	8	8	8	5	2	2	6	6
Switch Phase										
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	5.0	8.0	8.0	8.0	8.0
Minimum Split (s)	37.3	37.3	37.3	37.3	37.3	9.5	31.5	31.5	31.5	31.5
Total Split (s)	40.0	40.0	40.0	40.0	40.0	12.0	80.0	80.0	68.0	68.0
Total Split (%)	33.3%	33.3%	33.3%	33.3%	33.3%	10.0%	66.7%	66.7%	56.7%	56.7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.5	3.7	3.7	3.7	3.7
All-Red Time (s)	4.3	4.3	4.3	4.3	4.3	1.0	2.8	2.8	2.8	2.8
Lost Time Adjust (s)	-3.0	-1.0	-3.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.3	6.3	4.3	6.3	6.3	3.5	5.5	5.5	5.5	5.5
Lead/Lag						Lead			Lag	Lag
Lead-Lag Optimize?						Yes			Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max
v/c Ratio	0.53	0.54	0.06	0.02	0.02	0.36	0.52	0.02	0.02	0.57
Control Delay	55.7	20.8	42.1	42.0	0.2	9.3	6.6	0.5	9.0	11.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.7	20.8	42.1	42.0	0.2	9.3	6.6	0.5	9.0	11.5
Queue Length 50th (m)	25.3	9.9	1.7	0.9	0.0	3.0	53.2	0.0	0.5	84.3
Queue Length 95th (m)	42.1	30.3	6.2	4.1	0.0	9.3	84.7	0.9	2.5	124.9
Internal Link Dist (m)		626.8		29.7			250.9			297.7
Turn Bay Length (m)	40.0		12.0		12.0	100.0		83.0	96.0	
Base Capacity (vph)	415	530	251	497	478	198	2467	1135	284	3387
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.32	0.03	0.01	0.01	0.34	0.52	0.02	0.02	0.57

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 2: Appleby Line & Taywood Drive/Commercial Access

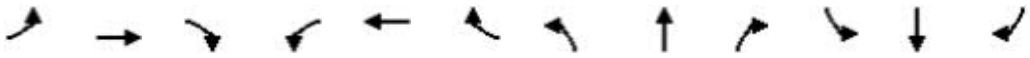




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	106	3	161	8	4	6	65	1236	19	6	1829	43
Future Volume (vph)	106	3	161	8	4	6	65	1236	19	6	1829	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.6	3.6	2.9	3.0	3.2	2.7	3.3	3.5	3.6	3.6	3.6
Total Lost time (s)	4.3	6.3		4.3	6.3	6.3	3.5	5.5	5.5	5.5	5.5	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.91	
Frpb, ped/bikes	1.00	0.98		1.00	1.00	0.98	1.00	1.00	0.97	1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.85		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1759	1569		1659	1773	1517	1518	3202	1462	1802	4898	
Flt Permitted	0.76	1.00		0.48	1.00	1.00	0.08	1.00	1.00	0.22	1.00	
Satd. Flow (perm)	1398	1569		846	1773	1517	120	3202	1462	411	4898	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	109	3	166	8	4	6	67	1274	20	6	1886	44
RTOR Reduction (vph)	0	109	0	0	0	5	0	0	5	0	1	0
Lane Group Flow (vph)	109	60	0	8	4	1	67	1274	15	6	1929	0
Confl. Peds. (#/hr)	4		4	4		4	6		4	4		6
Heavy Vehicles (%)	1%	33%	1%	0%	0%	0%	7%	9%	6%	0%	5%	13%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	2	2
Turn Type	Perm	NA		Perm	NA	Perm	pm+pt	NA	Perm	Perm	NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8		8	2		2	6		
Actuated Green, G (s)	14.7	14.7		14.7	14.7	14.7	91.5	91.5	91.5	81.1	81.1	
Effective Green, g (s)	17.7	15.7		17.7	15.7	15.7	92.5	92.5	92.5	82.1	82.1	
Actuated g/C Ratio	0.15	0.13		0.15	0.13	0.13	0.77	0.77	0.77	0.68	0.68	
Clearance Time (s)	7.3	7.3		7.3	7.3	7.3	4.5	6.5	6.5	6.5	6.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	206	205		124	231	198	172	2468	1126	281	3351	
v/s Ratio Prot		0.04			0.00		0.02	c0.40			c0.39	
v/s Ratio Perm	c0.08			0.01		0.00	0.28		0.01	0.01		
v/c Ratio	0.53	0.29		0.06	0.02	0.00	0.39	0.52	0.01	0.02	0.58	
Uniform Delay, d1	47.3	47.1		44.0	45.4	45.4	6.9	5.2	3.2	6.1	9.9	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	2.4	0.8		0.2	0.0	0.0	1.5	0.8	0.0	0.1	0.7	
Delay (s)	49.7	47.9		44.2	45.5	45.4	8.3	6.0	3.2	6.2	10.6	
Level of Service	D	D		D	D	D	A	A	A	A	B	
Approach Delay (s)		48.7			44.9			6.1			10.6	
Approach LOS		D			D			A			B	

Intersection Summary			
HCM 2000 Control Delay	12.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	15.3
Intersection Capacity Utilization	69.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	2	15	0	49	2	90	0	118	30	84	58	3
Future Volume (vph)	2	15	0	49	2	90	0	118	30	84	58	3
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	2	17	0	55	2	101	0	133	34	94	65	3

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	19	158	167	162
Volume Left (vph)	2	55	0	94
Volume Right (vph)	0	101	34	3
Hadj (s)	0.02	-0.29	-0.09	0.10
Departure Headway (s)	4.9	4.4	4.4	4.6
Degree Utilization, x	0.03	0.19	0.20	0.21
Capacity (veh/h)	668	759	776	740
Control Delay (s)	8.0	8.5	8.5	8.8
Approach Delay (s)	8.0	8.5	8.5	8.8
Approach LOS	A	A	A	A

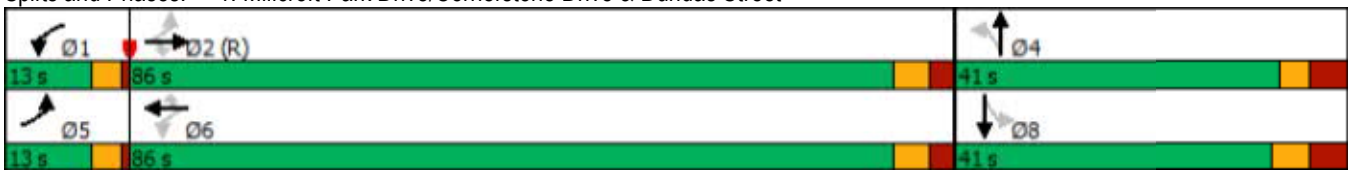
Intersection Summary			
Delay	8.6		
Level of Service	A		
Intersection Capacity Utilization	43.6%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	46	1169	67	108	2229	87	47	25	59	14
Future Volume (vph)	46	1169	67	108	2229	87	47	25	59	14
Lane Group Flow (vph)	47	1205	69	111	2298	90	48	104	61	65
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	NA
Protected Phases	5	2		1	6			4		8
Permitted Phases	2		2	6		6	4		8	
Detector Phase	5	2	2	1	6	6	4	4	8	8
Switch Phase										
Minimum Initial (s)	7.0	8.0	8.0	7.0	8.0	8.0	8.0	8.0	8.0	8.0
Minimum Split (s)	11.5	34.5	34.5	11.5	34.5	34.5	38.2	38.2	39.2	39.2
Total Split (s)	13.0	86.0	86.0	13.0	86.0	86.0	41.0	41.0	41.0	41.0
Total Split (%)	9.3%	61.4%	61.4%	9.3%	61.4%	61.4%	29.3%	29.3%	29.3%	29.3%
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.0	4.0	4.0
All-Red Time (s)	1.0	2.8	2.8	1.0	2.8	2.8	4.2	4.2	4.2	4.2
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-3.0	-1.0	-3.0	-1.0
Total Lost Time (s)	3.0	5.5	5.5	3.0	5.5	5.5	4.2	6.2	5.2	7.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Max	C-Max	None	Max	Max	None	None	None	None
v/c Ratio	0.33	0.46	0.06	0.31	0.88	0.08	0.33	0.44	0.49	0.33
Control Delay	17.1	8.8	1.5	4.8	19.8	1.4	61.3	24.1	70.7	24.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.1	8.8	1.5	4.8	19.8	1.4	61.3	24.1	70.7	24.1
Queue Length 50th (m)	1.9	66.3	0.0	4.6	243.8	0.0	13.1	7.0	17.0	3.8
Queue Length 95th (m)	12.5	97.8	4.7	10.4	#367.1	5.4	25.6	24.9	31.5	18.2
Internal Link Dist (m)		269.9			382.1			429.4		109.3
Turn Bay Length (m)	234.0		153.0	237.0		151.0	39.0		20.0	
Base Capacity (vph)	163	2603	1104	373	2611	1137	326	457	288	415
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.46	0.06	0.30	0.88	0.08	0.15	0.23	0.21	0.16

Intersection Summary

Cycle Length: 140
Actuated Cycle Length: 140
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Millcroft Park Drive/Cornerstone Drive & Dundas Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	46	1169	67	108	2229	87	47	25	76	59	14	49
Future Volume (vph)	46	1169	67	108	2229	87	47	25	76	59	14	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	2.6	3.8	3.3	3.0	3.6	3.4	3.5	3.5	3.5	3.4	3.4	3.4
Total Lost time (s)	3.0	5.5	5.5	3.0	5.5	5.5	4.2	6.2		5.2	7.2	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	1.00	0.96	1.00	1.00	0.97	1.00	0.99		1.00	0.97	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	0.97	1.00		0.99	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.89		1.00	0.88	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1604	3568	1487	1651	3491	1490	1652	1606		1718	1560	
Flt Permitted	0.04	1.00	1.00	0.20	1.00	1.00	0.71	1.00		0.62	1.00	
Satd. Flow (perm)	66	3568	1487	340	3491	1490	1242	1606		1129	1560	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	47	1205	69	111	2298	90	48	26	78	61	14	51
RTOR Reduction (vph)	0	0	19	0	0	23	0	70	0	0	46	0
Lane Group Flow (vph)	47	1205	50	111	2298	67	48	34	0	61	19	0
Confl. Peds. (#/hr)	4		8	8		4	23		6	6		23
Heavy Vehicles (%)	0%	3%	0%	2%	3%	2%	5%	0%	3%	2%	0%	2%
Bus Blockages (#/hr)	0	2	2	0	2	2	0	0	0	0	0	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			4			8	
Permitted Phases	2		2	6		6	4			8		
Actuated Green, G (s)	106.9	101.1	101.1	110.5	102.9	102.9	13.6	13.6		12.6	12.6	
Effective Green, g (s)	108.9	102.1	102.1	112.5	103.9	103.9	16.6	14.6		15.6	13.6	
Actuated g/C Ratio	0.78	0.73	0.73	0.80	0.74	0.74	0.12	0.10		0.11	0.10	
Clearance Time (s)	4.0	6.5	6.5	4.0	6.5	6.5	7.2	7.2		8.2	8.2	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	126	2602	1084	353	2590	1105	147	167		125	151	
v/s Ratio Prot	c0.02	0.34		c0.02	c0.66			0.02			0.01	
v/s Ratio Perm	0.27		0.03	0.23		0.04	0.04			c0.05		
v/c Ratio	0.37	0.46	0.05	0.31	0.89	0.06	0.33	0.20		0.49	0.13	
Uniform Delay, d1	24.6	7.7	5.3	4.3	13.6	4.9	56.6	57.4		58.4	57.8	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.9	0.6	0.1	0.5	5.0	0.1	1.3	0.6		3.0	0.4	
Delay (s)	26.5	8.3	5.4	4.8	18.6	5.0	57.9	58.0		61.4	58.1	
Level of Service	C	A	A	A	B	A	E	E		E	E	
Approach Delay (s)		8.8			17.5			58.0			59.7	
Approach LOS		A			B			E			E	

Intersection Summary			
HCM 2000 Control Delay	17.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	15.7
Intersection Capacity Utilization	99.8%	ICU Level of Service	F
Analysis Period (min)	15		

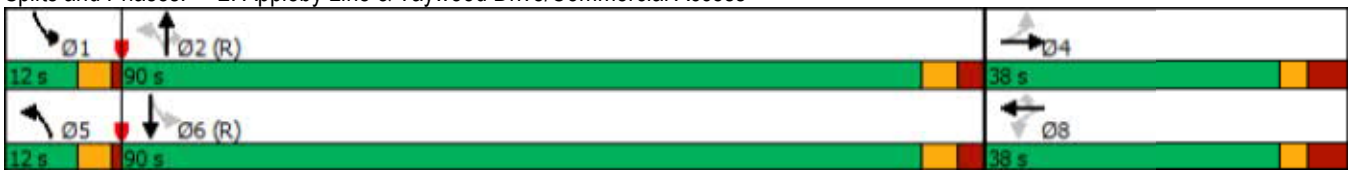
c Critical Lane Group

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	83	19	71	34	56	192	1883	104	76	1797
Future Volume (vph)	83	19	71	34	56	192	1883	104	76	1797
Lane Group Flow (vph)	89	136	76	37	60	206	2025	112	82	2104
Turn Type	Perm	NA	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases		4		8		5	2		1	6
Permitted Phases	4		8		8	2		2	6	
Detector Phase	4	4	8	8	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	5.0	8.0	8.0	5.0	8.0
Minimum Split (s)	37.3	37.3	37.3	37.3	37.3	9.5	31.5	31.5	9.5	31.5
Total Split (s)	38.0	38.0	38.0	38.0	38.0	12.0	90.0	90.0	12.0	90.0
Total Split (%)	27.1%	27.1%	27.1%	27.1%	27.1%	8.6%	64.3%	64.3%	8.6%	64.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.5	3.7	3.7	3.5	3.7
All-Red Time (s)	4.3	4.3	4.3	4.3	4.3	1.0	2.8	2.8	1.0	2.8
Lost Time Adjust (s)	-3.0	-1.0	-3.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.3	6.3	4.3	6.3	6.3	3.5	5.5	5.5	3.5	5.5
Lead/Lag						Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
v/c Ratio	0.51	0.50	0.63	0.18	0.26	0.64	0.84	0.10	0.46	0.71
Control Delay	66.0	23.0	79.2	55.2	14.0	45.4	20.5	3.3	23.8	20.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.0	23.0	79.2	55.2	14.0	45.4	20.5	3.3	23.8	20.6
Queue Length 50th (m)	24.6	9.1	21.3	9.9	0.0	39.8	200.2	2.6	3.8	146.8
Queue Length 95th (m)	41.1	29.0	37.8	20.3	13.0	#89.4	#330.1	11.1	20.0	163.9
Internal Link Dist (m)		626.8		29.7			250.9			297.7
Turn Bay Length (m)	40.0		12.0		12.0	100.0		83.0	96.0	
Base Capacity (vph)	317	437	221	401	391	321	2402	1123	189	2976
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.31	0.34	0.09	0.15	0.64	0.84	0.10	0.43	0.71

Intersection Summary

Cycle Length: 140
Actuated Cycle Length: 140
Offset: 105.5 (75%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Appleby Line & Taywood Drive/Commercial Access

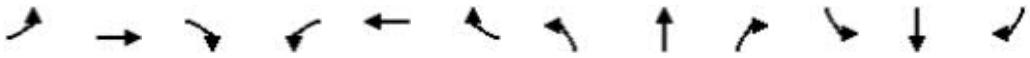




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	83	19	108	71	34	56	192	1883	104	76	1797	160
Future Volume (vph)	83	19	108	71	34	56	192	1883	104	76	1797	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.6	3.6	2.9	3.0	3.2	2.7	3.3	3.5	3.6	3.6	3.6
Total Lost time (s)	4.3	6.3		4.3	6.3	6.3	3.5	5.5	5.5	3.5	5.5	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.91	
Frpb, ped/bikes	1.00	0.99		1.00	1.00	0.98	1.00	1.00	0.97	1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.87		1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1709	1582		1645	1773	1518	1593	3388	1552	1805	4917	
Flt Permitted	0.73	1.00		0.53	1.00	1.00	0.05	1.00	1.00	0.05	1.00	
Satd. Flow (perm)	1319	1582		920	1773	1518	78	3388	1552	103	4917	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	89	20	116	76	37	60	206	2025	112	82	1932	172
RTOR Reduction (vph)	0	90	0	0	0	53	0	0	23	0	8	0
Lane Group Flow (vph)	89	46	0	76	37	7	206	2025	89	82	2096	0
Confl. Peds. (#/hr)	3		2	2		3	3		3	3		3
Heavy Vehicles (%)	4%	6%	3%	1%	0%	0%	2%	3%	0%	0%	4%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	2	2
Turn Type	Perm	NA		Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8	2		2	6		
Actuated Green, G (s)	15.4	15.4		15.4	15.4	15.4	110.8	98.2	98.2	91.6	83.5	
Effective Green, g (s)	18.4	16.4		18.4	16.4	16.4	111.8	99.2	99.2	93.6	84.5	
Actuated g/C Ratio	0.13	0.12		0.13	0.12	0.12	0.80	0.71	0.71	0.67	0.60	
Clearance Time (s)	7.3	7.3		7.3	7.3	7.3	4.5	6.5	6.5	4.5	6.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	173	185		120	207	177	319	2400	1099	179	2967	
v/s Ratio Prot		0.03			0.02		c0.11	c0.60		0.03	0.43	
v/s Ratio Perm	0.07			c0.08		0.00	0.40		0.06	0.27		
v/c Ratio	0.51	0.25		0.63	0.18	0.04	0.65	0.84	0.08	0.46	0.71	
Uniform Delay, d1	56.6	56.2		57.6	55.7	54.8	39.4	14.8	6.3	17.5	19.2	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	2.6	0.7		10.4	0.4	0.1	4.4	3.8	0.1	1.9	1.4	
Delay (s)	59.2	56.9		68.0	56.1	54.9	43.8	18.6	6.5	19.4	20.6	
Level of Service	E	E		E	E	D	D	B	A	B	C	
Approach Delay (s)		57.8			60.9			20.3			20.6	
Approach LOS		E			E			C			C	

Intersection Summary			
HCM 2000 Control Delay	23.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	15.3
Intersection Capacity Utilization	88.6%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



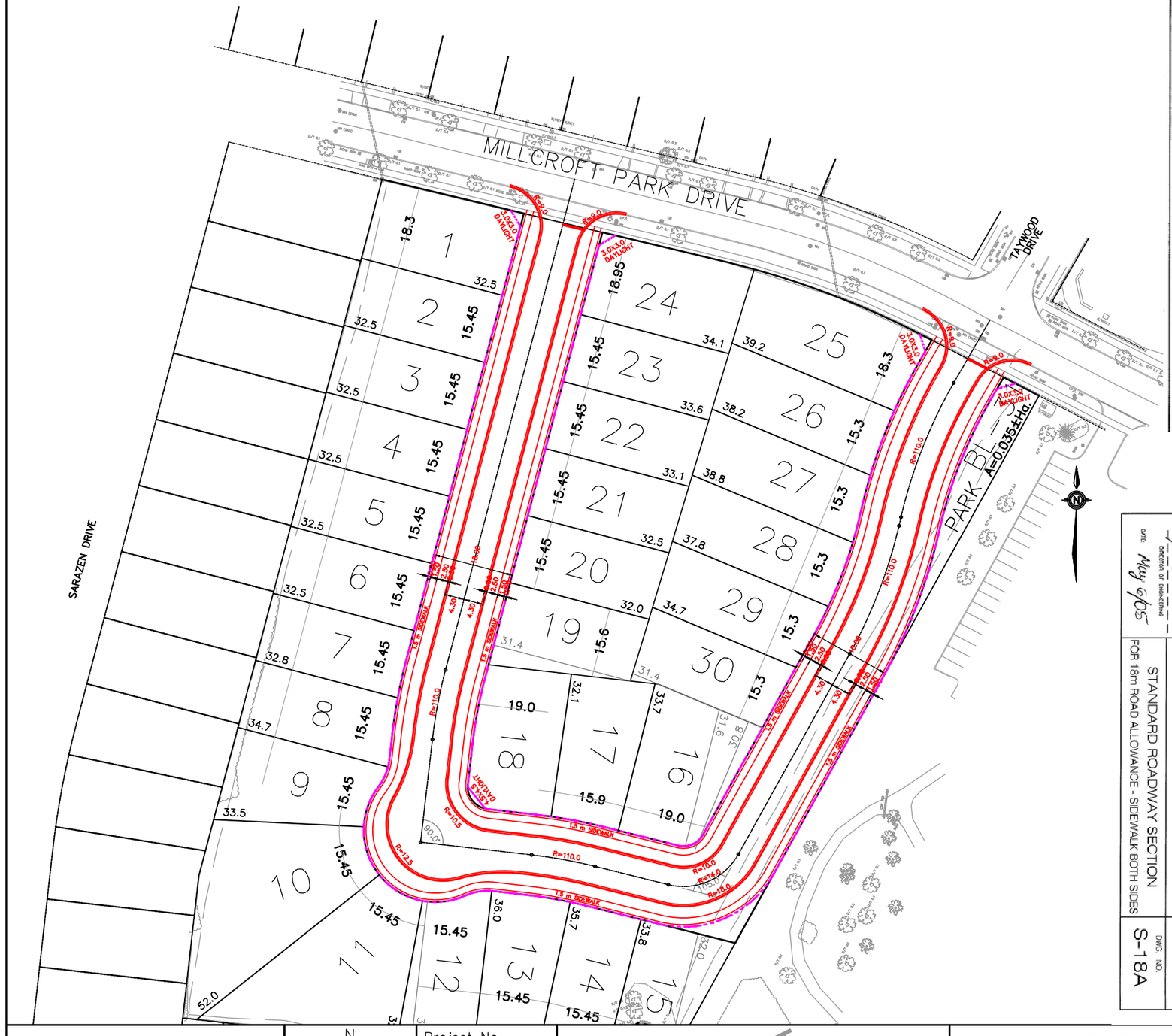
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	3	9	0	40	18	113	0	32	25	86	101	2
Future Volume (vph)	3	9	0	40	18	113	0	32	25	86	101	2
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	3	10	0	43	19	120	0	34	27	91	107	2

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	13	182	61	200
Volume Left (vph)	3	43	0	91
Volume Right (vph)	0	120	27	2
Hadj (s)	0.05	-0.33	-0.25	0.09
Departure Headway (s)	4.8	4.2	4.3	4.5
Degree Utilization, x	0.02	0.21	0.07	0.25
Capacity (veh/h)	693	804	781	760
Control Delay (s)	7.9	8.3	7.7	9.0
Approach Delay (s)	7.9	8.3	7.7	9.0
Approach LOS	A	A	A	A

Intersection Summary				
Delay	8.5			
Level of Service	A			
Intersection Capacity Utilization	37.7%	ICU Level of Service	A	
Analysis Period (min)	15			

APPENDIX G

Functional Design Review



DATE: JUNE/98 | REV. 2

CITY OF BURLINGTON
GEOMETRIC DESIGN GUIDELINES FOR ROADWAYS

GUIDELINES FOR INTERSECTION CURB RADII

STREET TYPES	RESIDENTIAL (m)		INDUSTRIAL (m)
	INBOUND	OUTBOUND	
a) Local to Local	6	6	10
Local to Collector	8	6	10
Local to Arterial	11	8	12
b) Collector to Collector	8	8	12
Collector to Arterial	*	*	*

(* See s-108 and S-109 for Specific Radii at Arterial Intersections)

NOTE:

1) Bus Routes require a minimum R.T. radius of 11m and the street must be designed to collector standards.

2) Intersection angles shall be between 75-105 degrees and have been assumed in generating these guidelines.

c) Arterial to Arterial intersections require special consideration for traffic signal placement and pedestrian islands etc.

* These guidelines present desirable standards particularly for new design. It is recognized that in certain special circumstances such as in the case of existing limited right-of-ways, these guidelines may not be attainable.

APPROVED
DIRECTOR OF ENGINEERING
DATE May 6/05

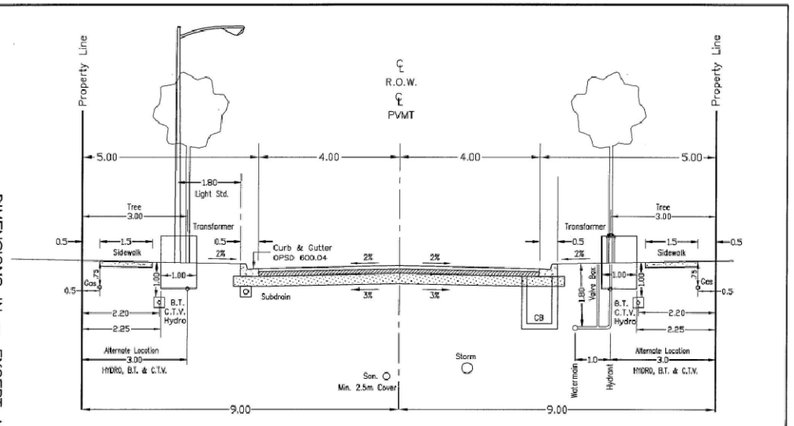
CITY OF BURLINGTON
ENGINEERING DEPARTMENT

STANDARD ROADWAY SECTION
FOR 18m ROAD ALLOWANCE - SIDEWALK BOTH SIDES

METRIC
SCALE: N.T.S.

DWG. NO. S-18A

DIMENSIONS IN m EXCEPT AS NOTED.



NOTES

1. Roadbase to be Min.: 40mm min. HL3 Top Asphalt
60mm HL8 Base Asphalt
150mm Granular A
200mm Granular B Type II
2. Min. 100mm Topsoil and No.1 Nursery Sod to be used for Boulevards
3. Min. Cover over Storm Sewer: Up to 450mm Dia. Pipe = 1.25m
Above 450mm Dia. Pipe = 1.00m
4. For Utility Pedestal Locations see Std. S-117 & S-117A.

Alternate Locations
CTV - .3m off Property line, .6m deep
B.T. - 1.3m off Property line, .70m deep

DATE: APRIL 2005 | REV. 3

PLOT DATE: October 7, 2021
DRAWN BY: E.M.

LEA Consulting Ltd.
Consulting Engineers and Planners
www.LEA.ca

N

Project No. 22099

Date OCT. 07, 2021

DRAFT
FOR DISCUSSION

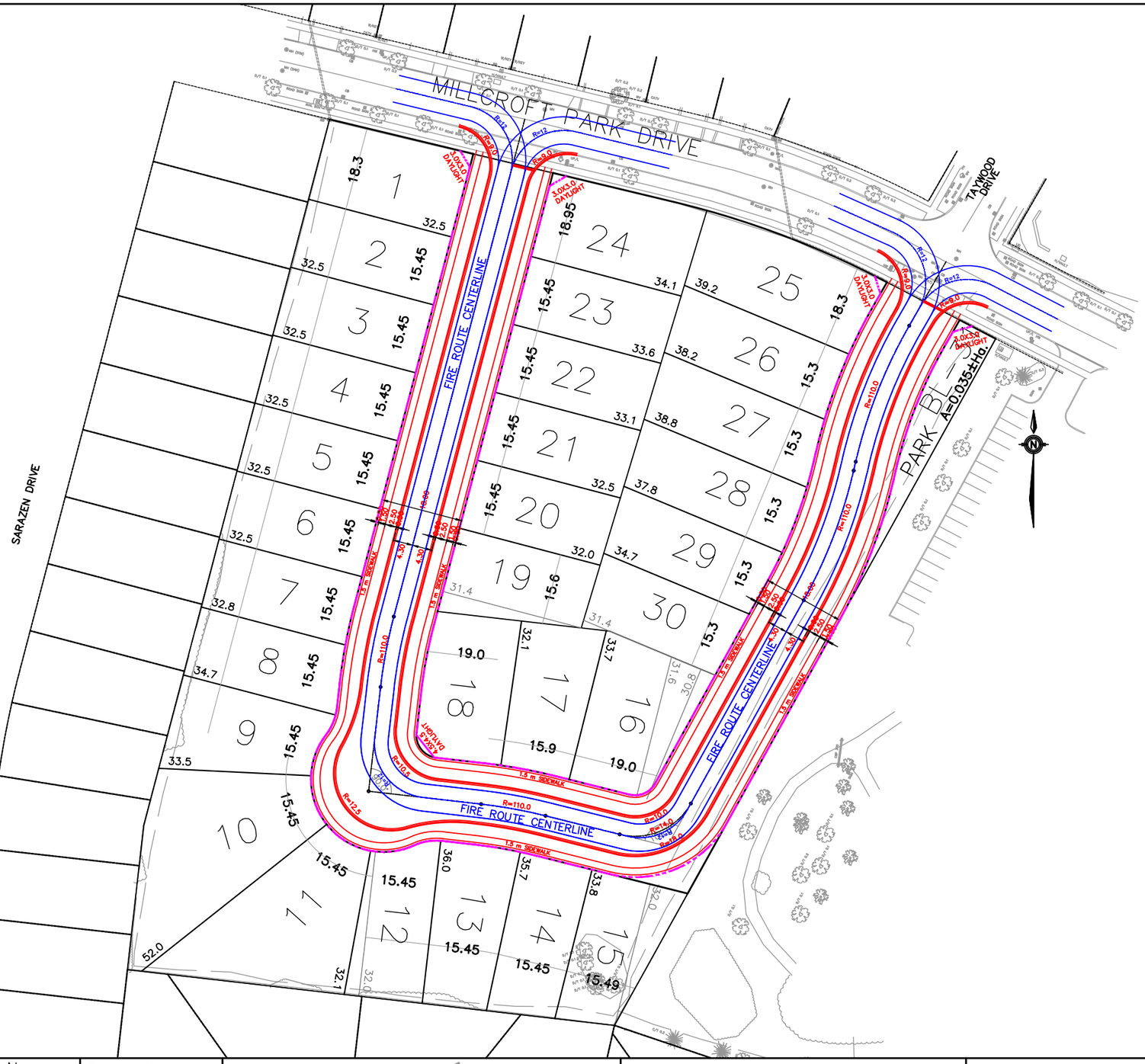
4375 MILLCROFT DRIVE
BURLINGTON ONTARIO

10 0 10 20 30m
1:1000

FUNCTIONAL DESIGN REVIEW
CURB LAYOUT

Drawing No. 001

DRAWING NAME: F:\22099\Drafting\22099WF01.dwg



PLOT DATE: October 7, 2021

DRAWN BY: E.M.

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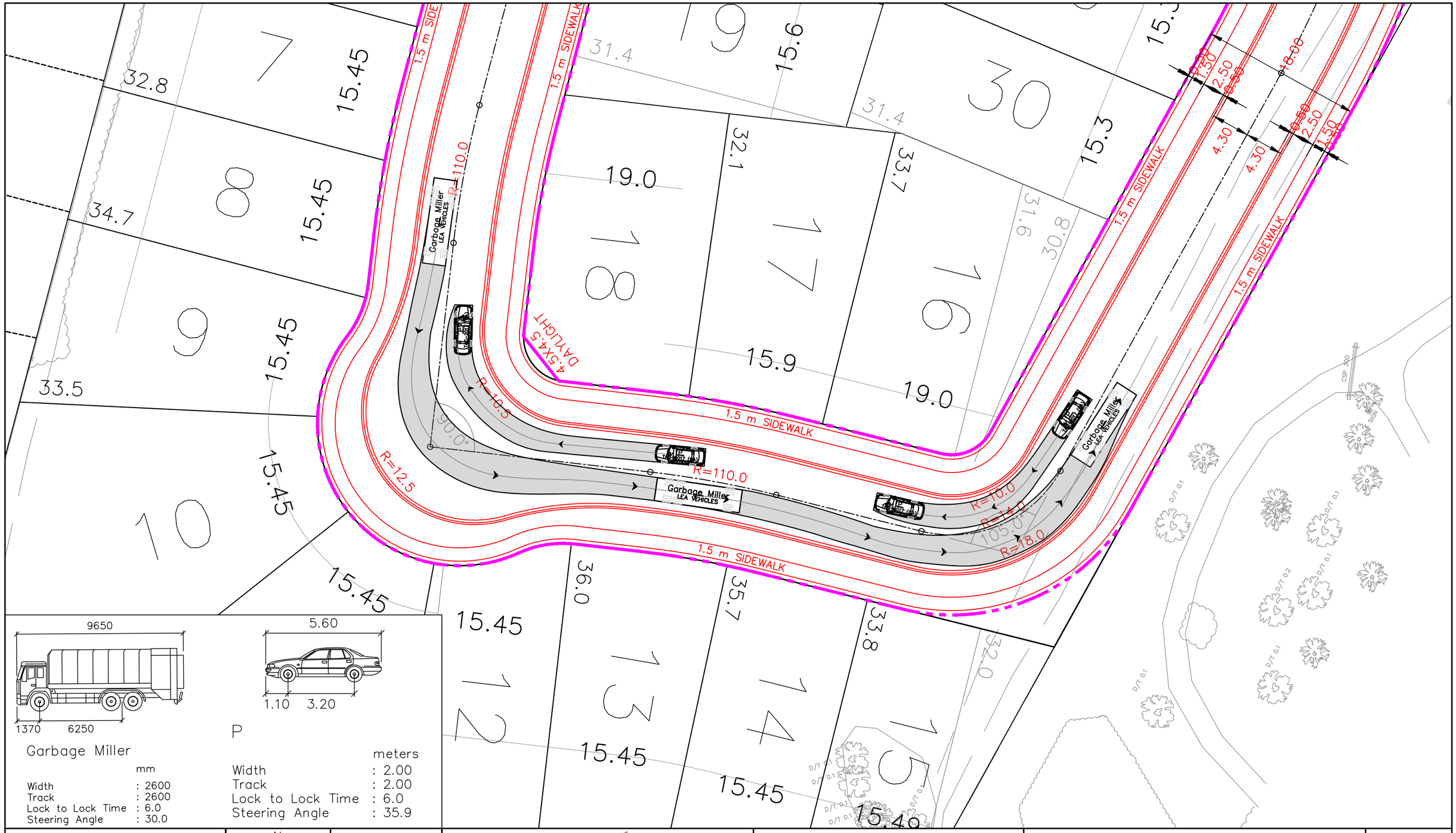
4375 MILLCROFT DRIVE
BURLINGTON ONTARIO

10 0 10 20 30m
1:1000

FIRE ROUTE REVIEW

Drawing No. 002

DRAWING NAME: F:\22099\Drafting\22099WF01.dwg



Garbage Miller

	mm
Width	: 2600
Track	: 2600
Lock to Lock Time	: 6.0
Steering Angle	: 30.0

P

	meters
Width	: 2.00
Track	: 2.00
Lock to Lock Time	: 6.0
Steering Angle	: 35.9

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4375 MILLCROFT DRIVE
BURLINGTON ONTARIO

4 0 4 8 12m
1: 400

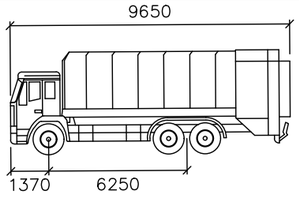
90 CRESCENT AND ELBOW DESIGN REVIEW PTAC AND GARBAGE MILLER TRUCK PATHS

Drawing No. 003

DRAWING NAME: F:\22099\Drafting\22099WF01.dwg



9650



Garbage Miller

	mm
Width	: 2600
Track	: 2600
Lock to Lock Time	: 6.0
Steering Angle	: 30.0

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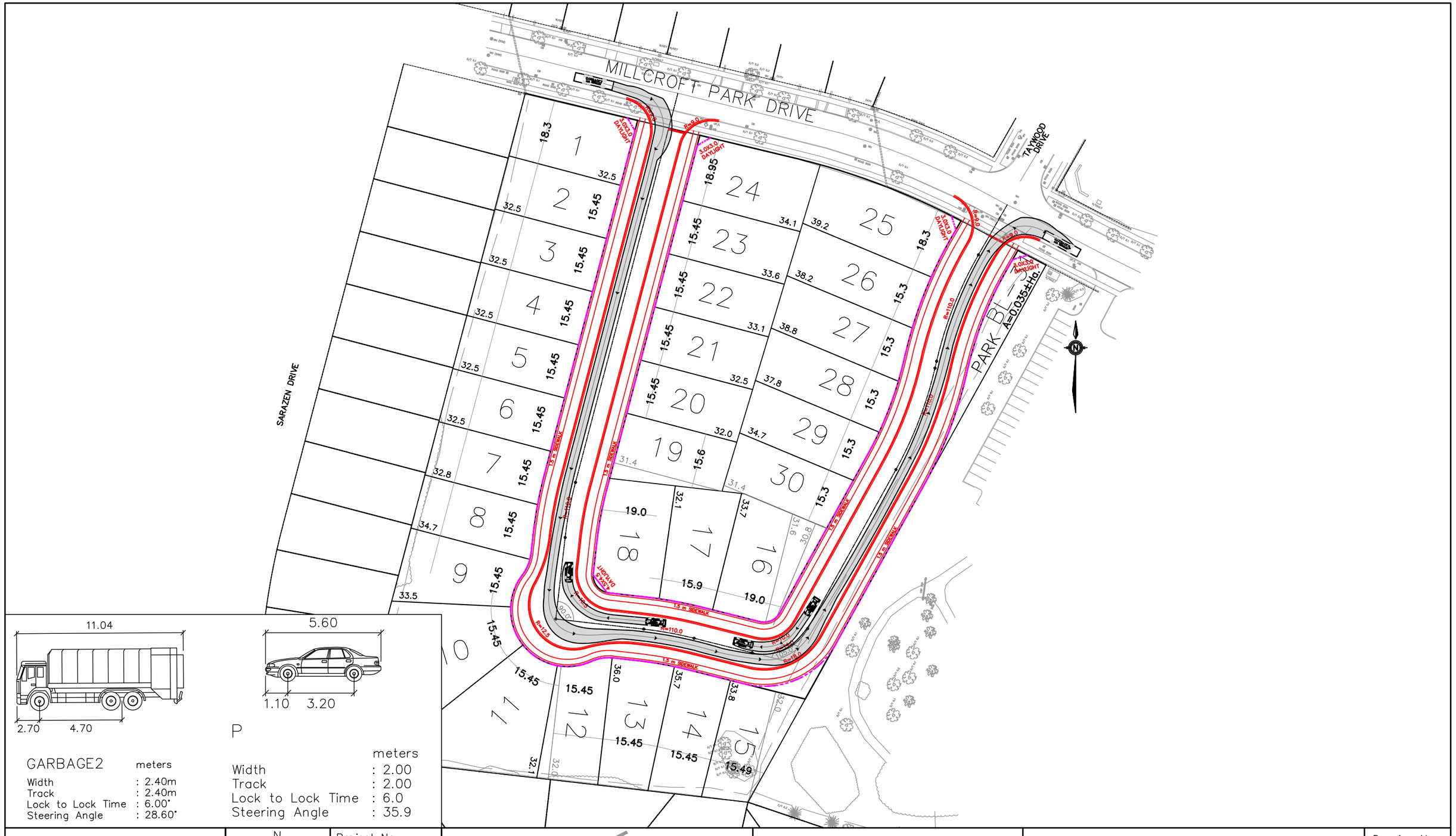
4375 MILLCROFT DRIVE
BURLINGTON ONTARIO

10 0 10 20 30m
1:1000

GARBAGE MILLER TRUCK FULL PATH

Drawing No. 004

DRAWING NAME: F:\22099\Drafting\22099WF01.dwg



PLOT DATE: October 7, 2021

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Date OCT. 07, 2021

DRAFT
FOR DISCUSSION

4375 MILLCROFT DRIVE
BURLINGTON ONTARIO

10 0 10 20 30m
1:1000

LARGE GARBAGE TRUCK FULL PATH

Drawing No. 005

DRAWING NAME: F:\22099\Drafting\22099WF01.dwg

